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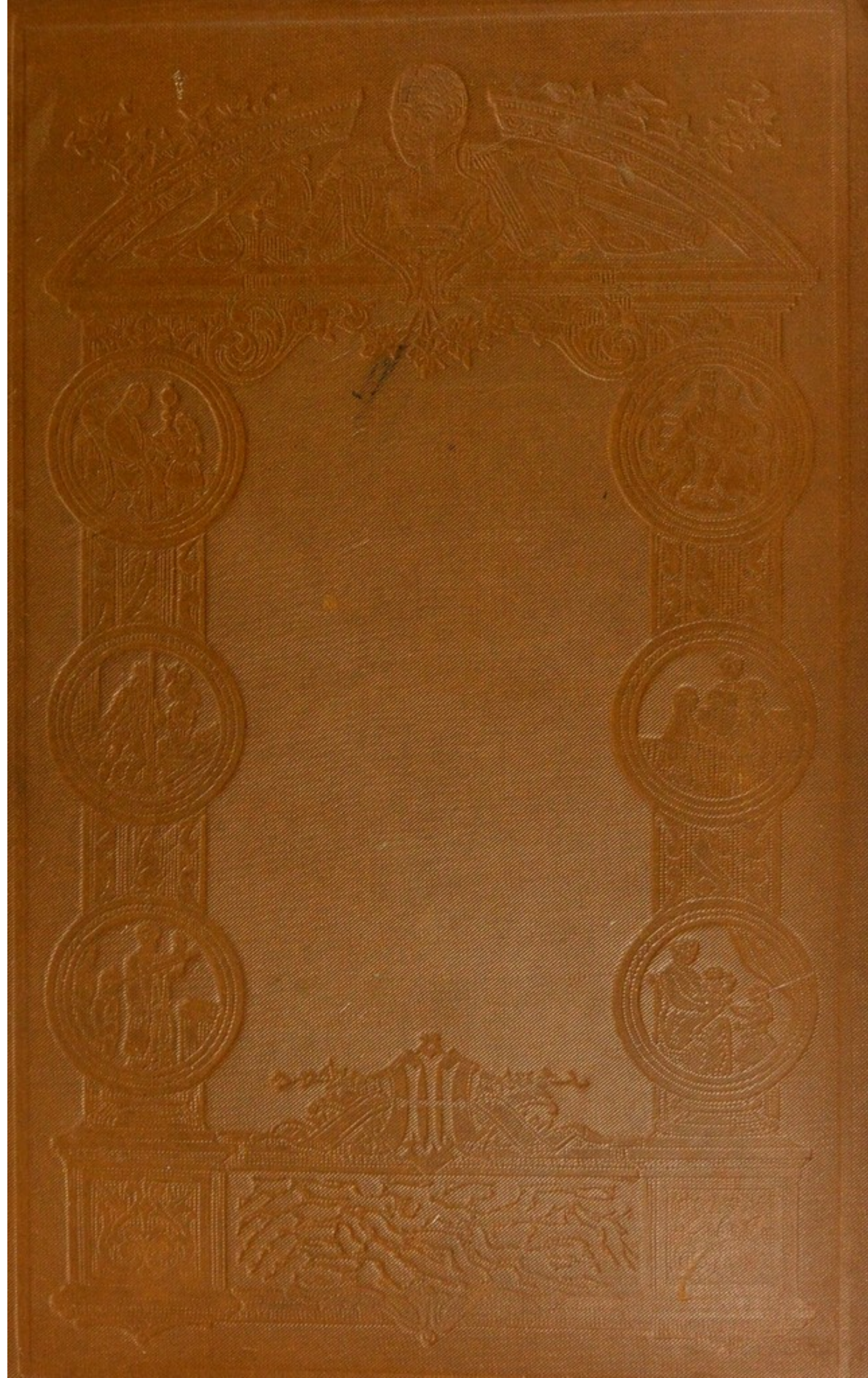
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EXTRACT

Vol. II.

THE HISTORY OF THE
CITY OF BOSTON
FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
IN TWO VOLUMES
BY NATHANIEL BENTLEY
OF THE BOSTON BAR
PUBLISHED BY
J. B. BENTLEY
AT THE CORNER OF NASSAU AND NINTH STREETS
IN THE CITY OF BOSTON
1857

PREFACE.

MEN have long been treated as children. They have been taught that ignorance and credulity are virtues, and that fear is wisdom—that they may glorify God by flattery rather than by moral excellency. Arbitrary regulations of all sorts have been imposed upon them, and blind and unconditional obedience to these required. Words too often satisfy them; and the less they understand the more do they generally deem it incumbent on them to admire. Sensual gratifications have proved sufficient inducements for them willingly to follow the good pleasure of their masters. Even religion, in one or other form, has been an engine to crush the human mind. This was at all times more or less the deplorable condition of mankind. Those who, even in our day, make the exception are comparatively few in number.

The following pages are written with a view to ascertain whether or not the human kind be susceptible of better treatment, and whether or not the arbitrary legislation of man, that has hitherto been, and must always be, but temporary and of a limited application, might not advantageously give place to a code of IMMUTABLE LAWS, which, established by the Creator, and not adapted to a single family, to a particular nation, to an age, but to all mankind, and to all times, are calculated to endure as long as the species remains.

It is of the highest importance to demonstrate the existence of such laws, although it may happen that governments and nations themselves will oppose their adoption. But this opposition will not annihilate the reality of the NATURAL CODE, and the communities will certainly feel disposed to receive it, will even demand it in proportion as they become enlightened. They will also be worthy of it in proportion as they become virtuous.

I shall consider my subject under the form of question and answer, the better to fix the attention of my reader. My sole intention is to contribute to the amelioration of man—that is to say, to combat his ignorance and his immorality, and to point out the means of making him better and happier, by insisting particularly on the necessity of his fulfilling the laws of his Creator.

Some may be of opinion that I might here have avoided the introduction of any question upon religion and morality. I, however, think it incumbent on a philosopher to examine all that enters into the nature of man, and to “hold fast that which is good.” Now man being positively endowed with moral and religious feelings, as well as with vegetative functions and intellectual faculties, it was my business to speak of the former as well as of the latter. Nay, true religion is central truth, and all knowledge, in my opinion, should be gathered round it.

I lament the continual war which philosophers, moralists, and divines have hitherto waged. They have only mutually disparaged their inquiries, and retarded the knowledge and happiness of man. Would they consent to lay aside vanity, pride, and self-interest, they would perceive, and might display, the harmony that exists between the will of God and His gift of intelligence.

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PHILOSOPHICAL CATECHISM.

GENERALITIES.

What is the meaning of the word Philosopher?—It signifies Lover of Wisdom.

And what is understood by Wisdom?—Wisdom consists in the knowledge and in the application of Truth.

Who, then, is truly a Philosopher?—He who not only loves but who applies truth universally. The second part is as essential to the character of a philosopher as is the practice of morality to that of a Christian.

What is the aim of Philosophy?—To know objects and phenomena, and to show the possibility of making practical application of the knowledge acquired.

Then there must be many kinds of Philosophers?—As many as there are species of knowledge or subjects that can occupy the attention. One may be a philosopher, and study entire Nature, or a particular district of her domain, as animals, plants, minerals, man generally, or his physical, moral, and intellectual parts in particular.

What is understood by a Law?—The word law (among the Romans *lex*) has the same root as the verb signifying to read, because enactments for the conduct of the community were promulgated of old by being read in public. For a long period, however, the word law has been used to designate a commandment—to do, or to abstain from, some specific act—in general combined with a clause expressive of some penalty attached to its infringement, and more rarely of some reward to its observance. The word law is also employed to designate the inherent qualities of the objects, and the determinate manner in which the human faculties and the qualities of organised and inanimate bodies act—that is to say, beings can only act after their peculiar natures, or according to the qualities and powers with which they are endowed. It is a law, that a stone thrown into the air falls again till it reaches the ground; that the stomach digests; that the eye is the instrument of vision, the ear of hearing, &c. Further, the title law is applied to the regularity with which bodies and animated beings act upon each other and produce certain phenomena. It is a law that caloric united with water changes into vapour; that fire consumes combustible bodies; that poisons destroy life; and so on, through the whole circle of natural phenomena.

How may laws be divided?—They may be classed under two heads—the Natural and the Artificial. The first are imposed by the Creator, the second by individual governors.

What is the signification of the word Nature?—Nature is a word to which three distinct meanings are attached. (1) It designates the universe—the heavens, the earth, all that meets sense. (2) It expresses essence, that which characterises or constitutes a class of beings, or individuality. In this sense we say, every being acts according to its nature. Man in his nature is not an angel. We cannot change the nature of things. We cannot, for example, gather figs of thistles, nor grapes of thorns. (3) It is used to signify the First Cause personified, and may then be considered as synonymous with God, or Creator.

What are the characteristics of natural laws, or of laws established by the Creator?—Natural laws are inherent in beings, often evident, always demonstrable, universal, invariable, and harmonious.

How is the first character of natural laws, their inherence, explained?—The laws of nature exist by creation, and enter as a part into the constitution of beings. The bile is secreted by the liver according to a natural law, and cannot be produced by the stomach for a similar reason. The stomach digests some substances by a natural law, and by the same cause does not digest others. Light exists in conformity with certain laws, and we cannot see that as great which is little, nor that as little which is great. The inherence of natural laws is therefore apparent.

How is the second characteristic of natural laws, their regularity, to be apprehended?—The regularity of phenomena is so generally evident as scarcely to require demonstration. Every one knows that without support his body falls; that his hand brought too near the fire is burned; that there is no vision without light, and so on. Occasionally, however, the natural laws are less apparent. Still they may always be discovered by observation. The mechanician searches for, and finds, the laws of his art; the musician those of music; the colourist those of colour; the landscape-painter those of perspective, &c. A great number of natural laws are at present unknown, but they will be detected as soon as truth is placed above every other consideration—as soon as the free employment of the understanding is allowed, and men have learned to combine all the characters of a natural law.

How does the universality of natural laws appear?—They are the same in every country. Chemistry has no other laws in France than it has in England, or in any other part of the world. Carbonic acid gas kills men in the north and the south, in the east and in the west; combinations of colour unharmonious in any one country will not please the eye viewed by the sun of any other; the same laws pervade the music of every nation, of the English, French, Italians, Germans, &c.

How are the natural laws invariable?—They have been the same in all ages. The principle of the lever, at the present time, is precisely the same as it was when the Pharaohs and Ptolemies lived; the rules of geometry and arithmetic have suffered no change since they were applied by Euclid and Archimedes; the beautiful forms of the Grecian marbles are still beautiful; goodness since the beginning has not ceased to be beneficent, and so on. Our knowledge may be more or less extensive, more or less exact, but the laws themselves never vary.

How are the natural laws harmonious?—The Creator has contrived all things as parts of a grand whole, and combined all His enactments in perfect harmoniousness. Natural laws are consequently mutually aidant. It is ignorance alone that prompts us occasionally to fancy discrepancies among them. The laws of vegetation act in accordance with those of animalisation. The fruits and substance of plants yield food to innumerable tribes of animals, and the excretions and the dead bodies of animals in return afford aliment to the infinite variety of vegetables that adorn the earth. The principle that nothing is useless is true physically as it is morally. Hence it follows that philosophy is to seek for, determine, and expose the harmony of the natural code.

Are all inanimate and all living beings subject to natural laws?—All beings whatsoever have a determinate nature; all phenomena appear in conformity with fixed and invariable laws. Any opinion to the contrary is fraught with danger to mankind.

But do we not degrade the being—man, for instance, whose nature we pronounce to be determinate?—Most certainly we do not. The nature of the Supreme Being himself is determinate. He, for instance, cannot desire evil, for His nature is perfection. Now we can more readily conceive beings He made and endowed according to His pleasure possessed of a determinate nature. Without this, indeed, there would be no regularity in their functions.

As the natural laws are nowhere to be found reduced to writing, how can we be certain of having discovered them?—Observation and induction will lead securely to their knowledge. We shall recognise them certainly when they possess all the distinguishing characters.

Are the natural laws conformable to reason?—They must necessarily be so.

They produce certain never-varying effects. Whatever is undertaken in conformity with their decrees prospers, and penalty is always in proportion to their infringement.

Must not natural laws also be divine?—As they exist, they are evidently the effects of the will of the Creator, or God.

Is there any cause to apprehend, from the doctrine of the natural laws, the introduction of the evils as attended on the systems of government called Theocracies?—The self-elected and presumed interpreters of a revelation have always had much better opportunities of acting arbitrarily, and of enforcing belief, than can fall to the lot of the proposers of natural laws. The priesthood has generally taught dogmatically, and interdicted the use of reason. Natural law, on the contrary, is submitted to the free scrutiny of all, and is appreciated in great part by means of reason. Every one, so inclining, may, under the guidance of observation, be convinced of the reality of its several propositions. There is nothing but good to be anticipated from the study of the natural law.

Have not the made and artificial laws of men the distinguishing features of those which are natural?—Enacted by beings who may err themselves, or who, from various motives, may wish to deceive and lead others into error, they are often founded on caprice, and on partial considerations; they are frequently modified by local and individual circumstances; they vary in every nation, and have changed with the different epochs in the history of each. Such a law would not have been instituted had not such a man lived or such an event happened. The act which the arbitrary law of one country approves is often condemned by the made code of another. It has even happened that laws simultaneously imposed have been mutually subversive. They are frequently repugnant to good sense, and they have also been unjust, for they have conferred immunities and privileges on individuals, have attached rewards and punishments by no means commensurate to the extent of virtuous conduct, or the magnitude of criminal actions, and have ranked as virtues and as vices actions altogether insignificant or purely indifferent.

Can society neglect positive laws—that is to say, rules of conduct which, clearly announced, are binding on all its members?—No. There are few who may be left to themselves, to their good pleasure, to their inclinations and their judgments. The majority of mankind requires positive laws for its direction, and frequent admonition as to what is to be done and what left alone.

Wherefore is this?—Because of the generally deficient strength of the sentiments which dictate the *Moral Law* and the true rules of conduct in the world.

Admitting the necessity of a positive code, then, is there any essential difference between natural and positive laws?—There ought to be none. The natural laws should be promulgated as positive and obligatory on all. Unfortunately this is not done. The positive laws of society are even too frequently the very opposite of those which the Creator dictates.

How may the artificial laws be subdivided?—Into arbitrary or absolute, and into conventional. The former are the result of the good pleasure of the ruler, the others are fixed upon by the agreement of several legislators.

What titles are given to the transgression of any law whatever?—As regards religion, *Sin*; and as concerns civil enactments, *Crime*. These are the most comprehensive terms in use.

Do transgressions of the law, or sins and crimes, admit of degrees of gravity?—That they do is a point admitted by all legislators, civil as well as religious.

What title is given to the consequence of the infringement of a law?—Evil.

Are there many and various kinds of evil?—Evil is first physical, or it is moral; then it is individual, or general; lastly it is temporal, or eternal.

Are not these different kinds of evil linked together and inseparable?—Physical and moral engender each other mutually. Individuals and society are connected and in relation; and according to the Christian religion our fate through eternity depends on the present life.

Does it ever happen that man suffers innocently—that is to say, for the transgression of a law in ignorance of its existence?—It occurs frequently, and in

reference to the whole of the three kinds of natural laws. The punishments, too, are always as severe as if merited by wilful neglect. Belladonna kills him who knows not as well as him who knows its poisonous quality, the man of genius and the fool, the pious and the impious. All suffer alike who infringe, as all without exception prosper who obey, the natural laws.

Is the study of man a study of great importance?—What of so much? Man is at the head of the terrestrial creation. He alone examines the causes of natural phenomena, and imitates many of them. He alone elevates his thoughts to the conception of a first cause, and is susceptible of moral and religious ideas.

What is the great object of the philosophy of man?—To determine accurately the fundamental powers of the human mind, and to ascertain the conditions under which these are exhibited; to indicate the causes of the functions variously modified in individuals; and to show the necessity of man's, as well as of every other created being's, submission to the laws which the Creator imposes to enjoy happiness and to secure success in his undertakings.

Is the agency of the natural law suspended because of man's living in society?—By no means. Man was destined to live in society, and obedience to one natural ordination cannot render another ineffective. The Creator has laid down certain laws for man's social state, adherence to which is indispensable to his happiness, under whatever circumstances he may chance to be placed.

Is mankind happy?—To whatever side we turn our eyes, the unfortunate, and miserable, and discontented meet our view. There are very few indeed who are happy.

Wherein consists the happiness of man?—In the satisfaction of his faculties.

Does the happiness of men differ, or is that which gratifies one calculated to be agreeable to all?—Happiness differs universally according to individual constitution. There are as many distinct species of happiness and pleasure as there are fundamental faculties; and men being unlike in mental endowment, the cause of happiness in one case is frequently a source of disgust in a second, and is unnoticed as either in a third.

We cannot, therefore, find any measure of the happiness of others in taking ourselves as standards?—Certainly we cannot, because the faculties are not equally nor alike active in all men.

In what does the misery of man consist?—In the non-satisfaction of his faculties.

Then the causes of the misery of man are different, are they not?—They vary according to the faculty or faculties which are active, and which are not satisfied.

What is the principal cause of the unhappiness of man?—Ignorance and transgression of the natural law.

It appears, therefore, that to know and practise the natural law is extremely important?—As evil consists in its transgression, and good in its accomplishment, and as its infringement is the principal cause of man's unhappiness, the natural law ought to be made a principal study with every individual; it should be learned by heart, and its precepts never lost sight of in the business of life.

How may the natural laws of man be subdivided?—Into three kinds, after the threefold nature of its functions viz., Vegetative, Intellectual, and Moral.

Do these three kinds of laws exert a mutual influence?—They do, and it is of much importance not to confound the fundamental faculties in which they inhere with the products of the mutual influence of those faculties, nor the existence of three kinds of laws with their reciprocal relations.

SECTION I.

ON THE VEGETATIVE LAWS OF MAN.

What natural laws of man are vegetative?—Those which concern the preservation of his body are so entitled.

How may these laws be divided?—Into two orders, having for their objects

respectively—(1) The preservation of the individual. (2) The preservation of the species.

What are the most important of the natural laws that relate to the preservation of individuals?—(1) A good innate constitution. (2) The laws of dietetics, which include temperature, light, air, food, cleanliness, exercise, and repose.

Is not a perfect attention to the laws of dietetics indispensable to health?—Yes. A certain quantity of caloric is necessary to life, but it injures the bodily health in too great abundance or too great scarcity. Cold engenders many complaints, not only among the poor, but also among the rich. The impossibility of guarding against sudden changes of temperature, and the imprudence with which all expose themselves to these, are causes of innumerable diseases. The quality of the air man breathes also influences his bodily state. Carbonic acid gas suppresses the vital functions. Hydrogen retards, and oxygen accelerates them. Marsh miasmata produce diseases, &c. Air free from all putrid or other exhalations is necessary to enable man to exercise his various attributes with energy.

How may the dietetic laws that relate to alimentation be considered?—Either as the quantity or quality of alimentary matter is concerned.

Does the quantity of man's food deserve attention?—It should be accommodated to age, temperament, climate, and season, and should vary with the prevailing weather, and the state of health of the individual. Whatever is easily digested is wholesome, whatever is not is pernicious. Many enactments of ancient legislators show their sense of the propriety of regulating the quality of aliment. Religious lawgivers seem also to have had the same end in view when they pronounced certain kinds of food to be clean, and certain others to be unclean. Pork in the warm countries of the East is unwholesome, and the Jews and the Mohammedans are forbidden by a religious commandment to eat it.

Does the general law in regard to the salubrity of aliments vary in different countries?—In every climate the general law is the same; such food is universally to be used as may be digested with ease. But aliment varies in kind in every different country; and as food, by another natural law, must always harmonise with the particular circumstances of existence, with age, temperament, climate, &c., such things cannot be proper in lands where the excessive heat and light of the sun stimulate the vital functions greatly as are wholesome and even necessary in regions where fogs and frost and darkness cramp the energies of man.

There is nothing, then, clean or unclean in itself?—Nothing. Every thing, however, may deserve either title in its employment in general or in particular cases.

Are the dietetic rules of the Jews of Palestine, and of the Egyptians, adapted to the nations of the north?—By no means. To prescribe the same course of diet to the inhabitants of every country of the globe would not be less absurd than to command the same material, and the same form, for the garments of the Esquimaux, European, and native of Senegal.

How is the natural law, having reference to quantity of food entitled?—Sobriety, or temperance.

Is this law of much importance?—It exerts a powerful influence upon the well-being of individuals. The sober man digests easily, his body is properly nourished, and he is ever in a condition to attend to his affairs.

What crimes are committed against sobriety?—Gluttony and drunkenness.

What evils attend on the first of these?—A long train of ills waits upon gluttony. It injures the health, and weakens the digestive powers, or it brings on obesity, unfits the body for its duties, obscures the powers of the mind, and occasions every species of inconvenience.

What evils accompany the second crime against sobriety?—The consequences which attend drunkenness are nearly similar, but greater in degree. Drunkenness undermines the health, enfeebles digestion, and reduces its unhappy votary to the level of the brutes. It deprives him of the distinctions of humanity which his Creator had given for his guidance, rendering him

equally unfit for business and unworthy of trust; and making him quarrelsome and unreasonable it fills his home with misery and disorder.

What is the natural law which forbids the abuse of solid or liquid aliment?—It is the law of abstinence.

Does this law absolutely forbid all food whatever for a season, or certain kinds of food, as wine, entirely?—It does no more than interdict those things that are noxious, and the abuse of those which are proper. But this simple and salutary interpretation has been abandoned. Sound views and excellent laws have been misunderstood, and changed into superstitious observances—the original aim of their institution has indeed been very generally lost sight of altogether. To subdue their animal appetites the inhabitants of Roman Catholic countries are commanded to eat no flesh on certain days of the week, but they may still drink wine, live upon fish, with rich and stimulating sauces, on eggs, lobsters, and various shell-fish. Now, sensualism is, in fact, more excited by such aliments than by the flesh of animals plainly dressed. The Mohammedans are forbidden to drink wine, but they still may intoxicate themselves by the unrestrained use of coffee, opium, and tobacco. During the Ramadan they are commanded to touch neither solid nor liquid food from sunrise to sunset, by a restriction which, however, allows them to revel in debauchery from sunset to sunrise, &c.

Are certain days indicated by the natural law as proper to be observed as fasts?—Sobriety and the law of abstinence are never to be interrupted in their agency, never to be departed from. No specific day, or number of days, are pointed out by the natural law as especial fasts. We must ever eat and drink that we may live, not live that we may eat and drink. The laws of hunger and thirst exist; and he who obeys not their calls, in due season and at fitting time, is as much guilty of a breach of the Divine will as he who abuses them by brutal indulgence.

Does it not follow from this that the laws of sobriety and abstinence or fasting are to be enforced, not to please the Creator, but purely to advantage man?—The first interpretation is the effect of ignorance, and is repugnant to good sense. These natural laws have no other end but the happiness of individuals, and of the kind at large, and as they exert a powerful influence over the health, the habitual dispositions, and the momentary affections of the mind, they ought to be taught and made universally known. Man, it is evident, feels his bodily as well as his mental state to vary during a fast and after a hearty meal. A cup of strong coffee, or a glass of generous wine, gives more or less activity both to the body and to the mind. Aliment is the principal cause of the organic constitution, on which depends the degree of energy possessed by the fundamental faculties of the body and mind. Without a body and a brain there is no exhibition of vegetative or mental phenomena in this world—without food there can be neither body nor brain. Hence the importance of the natural laws of alimentation.

Was the importance of the law of sobriety known to the ancients?—The rules of dietetics among them constituted a great part of moral science and of the revealed commandments. This proves sufficiently the attention they bestowed on them, and the degree of importance they attached to their observance.

Are not the laws of bodily exercise also to be carefully observed?—Bodily exercise is useful at every period of life; it is, however, more especially so during youth and the years of corporeal development.

Has attention to the law of cleanliness any influence on individuals? Cleanliness, as it tends to keep up free cutaneous transpiration—a process absolutely necessary to perfect health—demands sedulous cultivation. Those who are very cleanly in their persons and in their houses are more healthy than those who are slovenly and live amid filth.

What bad consequences result from a neglect of the natural law of cleanliness?—These are very numerous. Cutaneous diseases, malignant fevers, and contagious influences generally are engendered, and various insects—those disgusting appendages of filth and poverty—are encouraged to multiply.

Did the ancients give any heed to the laws of cleanliness?—By ranking attention to cleanliness among the religious virtues, and its neglect among the sins, and by instituting ablutions and purifications, ancient lawgivers had demonstrated their knowledge of the good and evil effects attendant on the observance or neglect of its law.

How are the laws that especially interest the preservation of the species named?—The laws of hereditary descent, for parents exercise a mighty influence over the physical condition of their offspring. General constitution, bodily qualities, individual peculiarities, &c., are transmitted from sires to sons.

What are the conditions required to accomplish the laws of hereditary descent?—Every person ought to have attained complete growth, and mature solidity of fibre, and also to be in possession of confirmed good health, before putting himself into the way of having a family. Those who marry too young ruin their health and procreate miserable dwarfish and weakly children whose lives are useless to the commonwealth and burthensome to themselves. Those, again, who have passed the meridian of life, or have suffered from debilitating causes before marriage, have also an infirm and degenerate family.

What, then, should induce abnegation of marriage?—No one who has the seeds of hereditary disease, such as scrofula, consumption, gout, stone, &c., lurking in his constitution, ought to marry.

Do not individuals sprung from the same stock commit a grave error when they intermarry?—Marriages between near relations are very frequently sterile, or the progeny is bastardised, unpromising, and oftentimes idiotic. For this reason it was that several ancient legislators interdicted such unions. Like misfortunes, although in a less degree, afflict the families that intermarry for a long period of time. The offspring speedily feels a deteriorating influence, its physical and moral powers are enfeebled by degrees, and the race is ultimately extinguished.

What is the most important moment for the body of living beings?—It is the moment of receiving existence. The form, dimensions, and texture of the body and its parts, the energy of the vegetative functions, and the whole fate of the future being, in regard to health, disease, &c., depend on this instant.

Marriages ought therefore to be better assorted than they are at present, were it merely to benefit the physical part of man's nature?—Greater attention in this particular would spare much sorrow to families. A dwarfish and sickly offspring is in itself a dreadful misfortune, and very often poisons all the pleasures of existence to parents.

Submission to the laws of hereditary descent appears to be of the first importance, does it not?—General as well as individual happiness is implicated in their observance. Attention to their dictates will influence the improvement of the species far more than any measure besides that can be taken, and will consequently do more to advantage general happiness than any other enactment whatsoever. The laws of hereditary descent exist: those who submit will be happy and blessed in their offspring, those who neglect them, though they themselves escape, will have prepared abundant cause of misery to their children and to posterity.

How comes it that so little attention has hitherto been paid to the laws of hereditary descent in contracting marriage?—Ignorance may in part be blamed, and the dominion of inferior inclinations, particularly of acquisitiveness, love of approbation, and self-esteem, may very fairly be charged with the rest of the transgressions committed against them.

Ought not the laws of hereditary descent to be taught, then?—They ought, as soon as young people can understand how they themselves came into the world. Knowledge of these laws could not fail to produce the most beneficial effects, for even personal views would unite with nobler and higher considerations to make youth avoid acts and connections that might bring misery to dwell with them for the remainder of their lives. But even admitting the impossibility of finding means that would succeed completely in opening men's eyes—acknowledging the probable continuance of the reign of disorder—we are

nevertheless to use every effort in promulgating knowledge, which, acted upon, would render mankind better and more happy. The laws of hereditary descent occupy a place in the foremost rank of importance, and ought never to be lost sight of by the well-wishers of humanity.

What points does the law, in its most comprehensive signification, that governs the physical part of man's nature, comprise?—The doing whatever may contribute to the developement and preservation of the body, the avoiding all that may militate against this, the putting the corporeal state into harmony with the exhibition of the intellectual and moral laws, or, in the religious language of the ancients, in making the body a temple and an instrument of intellect and morality.

Is practice of the vegetative laws necessary?—The existence of these laws and the necessity of submitting to them are synonymous. Without this, man can never prosper or be happy; without this, the accomplishment of the moral and intellectual laws is impossible. The importance, nay, the necessity, of conforming strictly to all they ordain, follows irresistably as a corollary.

SECTION II.

OF THE INTELLECTUAL LAWS OF MAN.

What is the essence of Intelligence, or Understanding?—It is, to know. The intellect alone acquires knowledge, of whatever kind it be.

In what does intelligence consist—or what is intelligence?—Intelligence is a word which, at one time, designates a personified principle which knows; at another, no more than an attribute of a principle—the faculty of knowing; sometimes also the name is used to signify the functions collectively which have place with consciousness.

In what are philosophers agreed in their discussions upon intelligence, and in what do they differ?—All agree as to the effects of intellect, for all assign to it every species of knowledge. To know is its nature; but differences occur, as to what it is that knows, as to the objects known, the conditions necessary to knowledge, and the various degrees of certainty of our knowledge.

What opinion is most generally entertained as to that which knows?—The greatest number of philosophers speak of, and admit, an incorporeal something inhabiting man's body which knows. Others, however, consider knowledge as a function or product of certain organic structures.

How are these two classes of philosophers entitled?—The partisans of the first opinion are called Spiritualists; those of the second, Materialists.

What was the literal meaning of the word among the Greeks and Romans which corresponds to spirit or soul among the moderns?—Air, or breath.

And by what name is the doctrine of the incorporeal something of man's constitution designated?—It is termed Psychology, from the Greek *psyche* (soul), and *logos* (discourse or doctrine).

What are the ideas most generally entertained concerning this incorporeal part of man?—That it inhabits our mortal body, by the medium or assistance of which its operations are variously manifested, and from which it is separated at death, to change its habitation.

By what name have some modern French philosophers entitled the *vis*, or power which knows, and the result of its activity, or knowledge?—They have called the power which knows, *sensibility*, without paying further attention to its nature, its actual state, or its destiny; and to the product of sensibility—that is, knowledge—they have given the general title, sensation.

Can we, by reasoning, arrive at conclusions on the nature of that which knows, on its manner of acting, or on its final destination?—These are purely subjects of religious belief; and history shows that opinions the most contradictory and unlikely have been promulgated and received in regard to them.

What conclusion is to be drawn from this fact?—That every individual is to have full permission to believe that which to him seems good and proper, provided neither individual nor general happiness be compromised.

Assuming that man knows, what points are especially to be attended to in examining his knowledge?—It is necessary, above all things to determine accurately that which he can and that which he cannot know ; to specify the various sorts of knowledge, and indicate the condition under which each may be acquired ; to establish the natural laws, or the regularity with which every thing happens ; and thus to found, on a sure basis, the happiness of individuals and of the human kind.

What can man know?—Strict reason demonstrates that he only knows his individual identity and the modified conditions of his *self*. Plain sense says that man knows (1) his existence, many parts which constitute his frame, many internal functions, called feelings and intellect, or affective and intellectual faculties ; (2) that he knows a great number of external objects, as existences ; (3) that he knows their physical qualities, their mutual relations, and their relations with himself and with others ; (4) that he knows regularity, or the laws of all the knowledge he possesses.

How may the external objects of human knowledge be divided?—Into *Matters* and *Spirits*, or *Souls*.

What, according to the ancients, are the characteristics of matter, and of spirit or soul?—Matter was characterised by its inertia, and certain qualities styled physical, such as form, size, weight, and impenetrability. Spirit, on the other hand, was distinguished by its formlessness, and its power of conferring activity on matter.

Have opinions on these points been constant?—No. Mankind has not at all times recognised the same number either of elementary matters or spirits. Simple substances were long confined to four, but modern chemistry, in its progress, has augmented the quantity prodigiously.

Under what forms does matter occur in the world?—It exists in the solid, liquid, and aeriform or imponderable state.

Are not researches upon matter in some of these conditions more especially difficult?—Researches upon imponderable bodies are particularly so, for matter in this state is intimately connected with the personified principles which act in the human body, and here observation and induction, the sole guides to certainty abandon the investigator.

What difference is there between matter generally and an organised body?—Matter may (1) be simple : an organised body is always compounded. (2) Matter has not been engendered, and has no generative power : organised bodies are products of previously existing individuals, their like. (3) Matter of different kinds, however mingled, chemically or mechanically, can never exhibit vital functions after the manner of an organised body.

What are the points of resemblance between matter generally and organised bodies, according to the ancients?—(1) Inertia, and (2) each being actuated by immaterial causes or spirits.

To what has the organising power of the body been ascribed by the old philosophers, and with what degree of accuracy?—To the soul or spirit. But this conclusion is not probably correct. A beautiful body follows not necessarily as a consequence of a superior soul, and many very plain persons attach our good opinion, and gain our confidence, by their amiable tempers and general good qualities.

What is it impossible for man to know?—It is certain that he can know nothing in itself, neither the essence of his own nature nor that of external objects. The self of the conscious man is nothing more to him than an object of observation. Further, man cannot know either the beginning or the end or final destination of aught that is. He can only observe what is, the conditions under which it is, and the regularity with which the phenomena happen. His knowledge is merely phenomenal.

In what way can man know or acquire knowledge?—Only by observing and inducing, for reflection will no more reveal to man his own nature than it will give him information of external objects, with their physical qualities and their relations. The study of man by the *a priori* method of reflection has retarded

the knowledge of his nature extremely. Every one who entered on the subject, assuming himself the type of the whole species, confounded his own peculiarities with the essential or general constitution of humanity, as if one blind from birth would do well in imagining all mankind similarly circumstanced. Hence arose as many systems of mental philosophy as there were thinkers.

What can man know of his own nature?—(1) His body, its constituent parts, its functions, the laws of its preservation, and the laws of propagation; (2) his own affective and intellectual operations, and those of his fellow-men; (3) the conditions necessary to the manifestations of these, and the regularity or laws according to which they appear or are produced.

Man, then, it appears, is destined to know?—The law of nature proclaims that he is. Intelligence is as essential a part of man as his body. Without it neither individuals nor the species could be preserved or continued.

Intelligence being an inherent part of human nature, why do some oppose its cultivation?—All who do so are to be regarded with a very suspicious eye. They are such as would lead man blindfolded, and obedient to their arbitrary will and pleasure, for selfish and sinister ends. It is unquestionably much easier to render the ignorant and uncultivated subservient to unworthy purposes than the instructing and reasoning man. Knowledge, too, and the habit of reflection, detect errors which pride and selfishness would willingly keep concealed. The abuse or misapplication of intellect have also been confounded with intellect itself. Now, intellect only supplies the means of executing: it gives not the motive or aim of the action. As religion is not the less respectable because of the crimes committed in its name, neither is intellect because of its abuses.

Is it not reasonable, then, to cultivate the understanding?—The cultivation of the intellect, provided justice and truth be made the objects of research, is not only reasonable but a prime duty.

What is the second natural law of intelligence?—It is this: The different manifestations of man are inexplicable, on the supposition of one simple cause. In other words, man, in his nature, possesses determinate, specific, and distinct causes of his different modes of feeling and thinking.

How do they who admit the entity self explain man's different kinds of knowledge?—By supposing this agent self endowed with a number of primary faculties. They also recognise various conditions as necessary to the exhibition of natural phenomena.

What is the usual division of the primary faculties of the agent, self?—Understanding and will—a division which has been recognised from remote antiquity, and differently entitled, head and heart, spirit and flesh, intellect and moral faculties, modes of thinking, and modes of feeling.

What is the meaning of the word will?—Various meanings are attached to the word. Philosophers commonly understand by it all desires collectively, and all degrees in any particular desire, from simple inclinations up to passion. Hence they speak of weak and of strong wills; and further, of good and of bad wills. Will, again, sometimes denotes the desire which predominates. Feeling one inclination, if another arise and overcome the former, the second is called will. There is still another kind of will, which may be called enlightened, because it implies a desire approved of by intelligence.

Is will, as designating desires, not confined to the faculties which experience sentiments?—No. That every faculty, being active, desires, is a perfectly general proposition, and therefore includes such faculties as procure knowledge also.

Seeing that the philosophical nomenclature is so faulty, and that those faculties that know, desire, or manifest will, would it not be well to give a distinguishing title to all the powers that merely excite feelings without acquiring any knowledge?—Certainly it would. And as the faculties which do not know produce especially what are called affections, affective faculties will accurately express their distinguishing nature.

What knows, or takes cognisance of, the affective powers?—The intellect. To know is the peculiar and proper character of the faculties which enter into its constitution.

How is the intellect or the understanding divided?—It is commonly supposed to be possessed of certain attributes entitled faculties, such as attention, perception, memory, imagination, and judgment. Occasionally the understanding has been said to know, according to certain forms or categories. Kant, for instance, observes that the spirit or intellect must represent all it knows in space and time.

How is attention defined?—Philosophers have considered attention to be the primary faculty which acts in the acquisition of every sort of knowledge.

Can attention be truly esteemed a primary faculty of the mind?—If it be, it behoves philosophers to show the causes of its various degrees and different kinds of activity. One may manifest a peculiar sort of attention strongly, another weakly, and be altogether incapable of exhibiting a third. Now all these facts are incompatible with the philosophic idea of attention being a primary faculty.

What is attention, then?—Attention is the effect of the entity self, aroused by the active state of the affective and intellectual faculties. Its strength is proportioned to the degree of energy of the acting powers—that is, of the powers which attend.

Can we, on this showing, explain why, without attention, no one can succeed in any art or science?—Readily. Attention is synonymous with activity, and certainly success is impossible without activity or the respective faculties.

How is perception defined?—Perception, or consciousness, according to philosophers, is that faculty which takes cognisance of impressions, whether external or internal. Each of these two orders of impressions includes many species which may be perceived separately. We may hear and not see, see and not hear; we may perceive, or be conscious of, the forms of objects and not of their dimensions and colours; perceive the harmony of colours and not of tones; be conscious of attachment and not of fear; of pride and not of benevolence; and so on. Knowledge of any impression whatever is perception. There are consequently as many kinds of perception as of faculties which furnish impressions.

What general title may be given to organic conditions which procure impressions?—The general term, sense. Internal as well as external senses might be spoken of with propriety, and perception, a common quality, would appear stripped of all pretensions to rank as a primary faculty of mind.

What is memory?—Memory is, by many philosophers, regarded as a fundamental power, but it is in truth nothing more than the repetition of intellectual faculties of previously received impressions. The species of memory therefore are as numerous as the faculties which know. The different kinds of memory, and the various degrees of activity exhibited by each, are inexplicable by the hypothesis of a simple cause; as inexplicable indeed as are the different species of knowledge on such a supposition.

How comes it that attention strengthens memory?—Attention and memory are like effects of an active state of the faculties which know. Energetic actions of these, accompanied by clear perceptions, leave strong impressions, which are afterwards reproduced with more ease than such as have been so weak and transient as to be but little noted. Moreover, the faculty which takes cognisance of the phenomenal world exercises an influence over the powers which know, and by exciting better enables them to repeat their functions, and thus strengthens memory.

What is the mental phenomenon entitled reminiscence?—It is the consciousness of the repetition of any sensation or previously acquired knowledge.

Is reminiscence a primary faculty?—No, it is but an effect of a repetition of its functions by that faculty which takes cognisance of the phenomenal world eventually.

What is understood by imagination?—Imagination is a word which is variously interpreted. Sometimes it is used to designate a faculty that makes

a man act spontaneously, and causes him to invent in any way. A mechanician invents ingenious machines, a musician composes musical pieces, a mathematician discovers new problems—all is done by imagination. Sometimes the word denotes an exalted and peculiar manner of feeling, and in this sense imagination is a sentiment or distinct affective faculty, capable of being combined with all the other faculties.

Is there any primary faculty of imagination taken as synonymous with the capacity of invention?—None. It is only a consequence of the intellectual combined with the affective faculties, each in a high state of activity.

Is there any primary faculty of association?—Many philosophers speak of such a fundamental power, but it is mere effect of several distinct and varied causes. In other words, the actions of the primary faculties are associated. Each being active excites and acts along with one or two, or more, of the others.

How is association among the intellectual faculties styled?—Association of ideas.

The mode of action called association, however, is not confined to the intellectual faculties?—It may be observed among the affective also, and between the affective and intellectual powers reciprocally. The mutual influence of the faculties is quite general. Any one whatsoever in a state of activity may excite any one or any number of others.

How is judgment defined by philosophers?—It is considered as a primary faculty, which compares perceived impressions, finds them harmonious or discordant, and approves or disapproves of them. But judgment is in fact a qualitative mode of action of the intellectual faculties. Species of knowledge act on the sentient being in conformity with certain laws, which however admit of modifications to a certain extent. Now the faculties that know their appropriate impressions respectively, are affected in a manner which they approve or disapprove, and in this way may be said to judge. Judgment, consequently, is the only announcement of the mode of being affected by impressions received and known. There are consequently as many kinds of judgment as species of knowledge or faculties which know. There is judgment in forms, another in colours, a third in tones, and so on; and judgment individually depends on the special powers which appreciate forms, colours, tones, &c.

Can judgment be correctly spoken of as good or bad?—The faculties are subject to certain laws, and their actions are either perfect or imperfect. Good judgment is the attendant of the first, bad judgment of the second state. He who listens to music perceives the harmony of the tones or he does not, and is thus possessed or is not possessed of a musical judgment. He who has the faculties which are necessary to appreciate tones in their greatest state of perfection has the best judgment in music; and he who has them the least complete has the worst judgment in this particular. It is the same in regard to every other kind of knowledge.

Are the laws according to which different species of knowledge have place, arbitrary?—By no means. They present all the characters of natural laws. They inhere in human nature, are essentially the same in all places and at all times, and harmonise with the whole of the vegetative and moral laws of man. Be it observed, however, that it is the essence alone of the faculties which is pervaded by this universal regularity. Modifications of the powers occur constantly and in great variety. Some actions, results of their activity, may be considered as good and excellent at one time and bad and reprehensible at another. Certain kinds of knowledge, certain ideas, may prevail at particular periods. Even errors may gain accredence and be in vogue; but truth and essential excellence will not therefore be annihilated—sooner or later, by one or another, they will be felt, and be made supreme.

Are there not certain judgments which are universally accounted good or bad?—Yes. All civilised men would say of him, who should feed on loathsome articles which could not nourish his body, that he had a bad taste. In the same way, he who admits ideas which are mutually contradictory will be by

all accounted to have a bad judgment. On the other hand, the effects of certain intellectual operations will always meet approval. The music of Handel and Mozart, the colouring of Titian, the sculpture of the old Greeks, and the Christian system of morals, will secure approbation, so long as the feeling for the melody and harmony of sounds, capacity to perceive colour, power to appreciate fine forms, and admiration of virtue, belong to, and form constituents in, the nature of man.

Is reason a fundamental power of the mind?—No, this term indicates the functions of comparison and causality, severally or in combination.

What is the aim of reason?—Reason is given to direct the functions of all the other special powers of the mind, and to bring them into harmony. Without being guided by reason every faculty is liable to error.

Since reason is essential in preventing the errors of the other faculties, is it free from erring?—Reason acts according to determinate principles, but it does not furnish the objects on which it operates; hence it will err each time when the premises or objects of its activity are not truly furnished.

Since many mistakes have thus been made in regard to the powers of the mind, how can we, by reasoning, arrive at a knowledge of its special faculties? A faculty will, by reason, be recognised as special (1) when it exists in one species of animal and not in another; (2) when its manifestations are not in proportion to those of the other faculties, neither in the different sexes nor in the same individual; (3) when its manifestations may be singly healthy or singly diseased; (4) when its manifestations do not appear nor disappear simultaneously with those of the other powers; (5) when it can alone, or singly, repose; (6) when it is transmitted in a distinct manner from parents to children. The same mode of proof applies to the special affective as well as to the special intellectual faculties. Observation and induction must lead to the knowledge of both.

How is the existence of any special faculty whatever to be proved by observation?—By the recognition of a relation between special manifestation and particular organic apparatus.

What are the affective faculties of man?

- | | |
|-------------------------------------|---|
| + Desire of Life. | 10. Sense of Constructing. |
| + Desire of Meat and Drink | 11. Sense of Cautiousness. |
| 1. Sense of Destroying. | 12. Sense of Approbation and Notoriety. |
| 2. Sense of Amativeness. | 13. Sense of Self-Esteem. |
| 3. Sense of Parental Love, or | 14. Sense of Benevolence. |
| Love of Offspring. | 15. Sense of Reverence. |
| 4. Sense of Attachment. | 16. Sense of Firmness and Perseverance. |
| 5. Sense of Habitation. | 17. Sense of Conscientiousness. |
| 6. Sense of Courage. | 18. Sense of Hope. |
| 7. Sense of Secrecy. | 19. Sense of Marvellousness. |
| 8. Sense of Acquiring or Collecting | 20. Sense of Mirth and Humour. |
| 9. Sense of the Ideal and Perfect. | 21. Sense of Imitation. |

What are the intellectual faculties of man?—(1) Five external senses which convey to him peculiar impressions, of the external world. (2) A faculty which personifies these impressions, and presents them as separate from the organs of external sense. This faculty seems to procure him notions of individual existence. (3) Particular faculties which know the physical qualities of objects, as configuration, size, weight, and colour. (4) A particular faculty which knows what passes in objects and their qualities—that is, which cognises the phenomenal world. The same faculty seems also to turn into knowledge all sensations felt in the body, as pain, fatigue, the necessity of different evacuations, cold, heat, and lastly, the activity of all the affective powers. (5) Particular faculties which conceive notions of the localities of objects; of time or duration, whether of objects, or of phenomena and their succession; of melody; of number, whether of objects, qualities, phenomena, or tones; of order, whether in objects, in physical qualities in phenomena, in localities, in

succession, or in number. (6) A particular faculty which cognises analogy or difference, similitude or dissimilitude, and identity, and establishes harmony; and another which appreciates the causes of objects and of phenomena. (7) A particular faculty which knows and presides over the signs of artificial language.

What is understood by the passions and by the affections?—These words denote modes of action of the primary faculties. Passion expresses the highest degree of their activity. Affection the more general mode of their being affected.

Then neither the affections nor the passions are primary powers of the mind? The preceding reply authorises a negative.

How may the affections be subdivided?—(1) Into modes of quality and modes of quantity; in other words the primary faculties may procure modified sensations, and they may be more or less active. (2) Affections are *general*, *common*, or *special*—that is, certain modes of being affected belong to the whole of the primary powers, to several, to one only, and to each individually. Thus, pleasure and pain are general affections. Memory belongs to the intellectual faculties in common, and compassion is a special affection of the faculty of benevolence. (3) Affections are *simple* or *compound*—that is to say, they result from the individual activity of one faculty, or from the simultaneous activity of several. For instance, fear is a simple affection of the faculty of circumspection: shame a compound affection of the faculties of Justice and love of approbation. (4) Affections are *agreeable* or *disagreeable*. (5) Affections are *common* to man and animals, or they are *proper* and *peculiar* to man, as well as the faculties themselves which are their causes.

When the passions are spoken of why does mankind generally think of sensual pleasures and inferior sentiments, as love of notoriety, pride, and self-interestedness?—Because the affective powers in general, and those in particular, in which these inclinations inhere, are commonly very energetic among men, and because their activity is extremely dangerous to the peace and well-being of society.

Concluding from what has gone before, how are the functions designated as primary faculties in the schools of philosophy, too, regarded?—Only as *effects*, or as modes of action in regard to quantity and quality of the mind's fundamental powers.

And what is to be thought of the philosophic nomenclature?—That it is extremely defective. Every expression has several significations, and none designates a cause or primary faculty, but merely an effect or action.

What conclusion is to be drawn from this position?—That the ideas of the schools are inexact. Ideas and the signs that express them are intimately related. Ideas precede, and as they are precise, signs follow correspondingly numerous and exact.

The philosophical nomenclature requires a reform then?—It stands in great need of it, as well as philosophical principles themselves.

In remodelling and determining the nomenclature of the philosophy of man what course would be proper to pursue?—It would be necessary to assume signs to express (1) Primary faculties. (2) Qualitative modes of action of the faculties. (3) Degrees of activity, or quantitative modes of the faculties. (4) Modes of several faculties simultaneously active. (5) Different actions resulting whether from primary faculties simply active, from their modes, or their mutual influence. To illustrate this procedure take benevolence. This sign denotes a primary faculty of the mind. Compassion designates a qualitative mode of the power; great, much, little, weak, quantitative modes of the sense; equity its simultaneous activity with justice, the inferior sentiments being subordinate; Christian charity its union with the whole of the primary powers besides, in a perfect state of harmony.

What generic name may be aptly used to express every function of the affective and intellectual faculties?—Sensation will designate any degree of activity or other mode of every faculty. Every perceived impression is a species of sensation.

How do sensations become conceptions or ideas?—This happens by intellect representing to itself sensation. One may perceive the sensation of hunger

internally, and without saying, "I am hungry." Knowledge of the existence of sensations constitutes conceptions or ideas.

What signification is attached to the word *Idea*?—This term has been the subject of much discussion. Etymologically considered it signifies *image*, or *figure*; but in this acceptation there are not many ideas—odours, tastes, colours, all are excluded. Besides, by the dominant philosophy of the present day, and in opposition to Aristotle, impressions and not images are maintained to be perceived by the soul. Several philosophers have also extended the meaning of the word *idea*, and made it to signify knowledge of all external impressions. But when the etymological signification is once abandoned there can be no reason for not calling knowledge, both of external and internal impressions, *idea*. One might then have an idea of hunger, of fear, and of anger, as well as of colour, sound, figure, or dimensions.

What is the third natural law of intelligence?—It is as follows: the knowledge of man's mental nature may become as exact and positive as that of his physical constitution.

What are the principal points to be noted touching man's mental nature?—They are (1) The primary faculties that enter into its position. (2) The origin of these. (3) The fixed laws of their functions. (4) The causes of modifications of their functions. (5) The moral and religious laws.

What is the true method of proving the existence of the primary faculties which constitute man's mental part?—It is still observation and induction. Philosophers have long disputed upon the special faculties of the human mind. From time to time a greater or smaller number has been admitted, but all that has yet been written or said has not been applicable beyond the limited sphere of individual conviction. When by observation the relations which subsist between the cerebral apparatus and the special powers of the mind shall have been demonstrated, the philosophy of man will have become a positive and invariable science.

Physiology is therefore useful and aidant in the philosophy of man?—Physiology and philosophy of mind are two sciences inseparable. They are mutually accompletive.

What are the characteristics of exact knowledge?—Exact knowledge is characterised in the same way as the natural laws. That which is, has been, and will be, demonstrable for ever. It is of the highest importance to be convinced that truth and exact knowledge of every kind are, and must be, in harmony.

What is the origin of the primary faculties of man?—They are innate in his constitution.

Has this truth been long known?—From the remotest antiquity. The ancients even went so far as to maintain that ideas were innate.

What, then, is actually innate in man?—The essence of the primary powers, various capacities of activity, and peculiar modifications of function, according to sex or individuals.

Have the faculties been, by all the schools, considered as innate?—No. Many philosophers have maintained that man comes into the world a *tabula rasa*, a smooth and fair surface, and that all his capacities and actions are effects of external circumstances.

What are the chief extraneous circumstances which have been believed to be the causes of man's actions?—Want, society, opportunity, climate, food, and above all education.

What is the extent of the influence of extraneous circumstances?—They are often necessary to permit the exhibition of natural disposition, but they can by no possibility produce any faculty. Sometimes too they develope innate capacity, and exercise the faculties. Further, education may give a determinate bent to the innate powers, and make them elicit specific actions. A Mussulman and a Christian are both devout from the same innate feeling, but the former may think it his duty to make at least once in his life a pilgrimage to Mecca, and the latter to sing hymns in praise of God.

How has the innateness of their simple dispositions, or of their effects or actions, been explained?—Their cause has been sought, sometimes in the presence of immaterial agents, named spirits or souls, sometimes in organisation, either generally or in that of the abdominal and thoracic viscera, of the external senses, and of the brain especially.

How does determinate knowledge originate?—From the innate primary capacities which know, and the impressions which are known.

Do all possess the innate primary faculties in equal degrees of activity?—No. Experience proves that their energy varies extremely in different individuals.

What is the cause of this diversity of endowment?—It inheres partly in man, and partly belongs to extraneous circumstances.

What is meant by a universal genius?—He who could appreciate and acquire thoroughly every species and variety of knowledge would be a universal genius. Genius does not signify a special power of mind, but the highest degree of activity of any intellectual faculty. Now although we may conceive a being possessed of all the powers in their best and most energetic state, it is not probable that any such has ever visited, or is ever likely to visit, the world.

Is it possible or probable that mankind may, in some future age, agree in their manners of feeling and thinking?—As men are constituted at the present time, it must be admitted that they cannot agree, even upon the essentials of their mental functions, or of the judgments they pronounce. Harmony and unanimity, however, as essentials are concerned, will be possible, nay, will prevail, whenever the natural laws are recognised as the rules of conduct, and their commands are enforced and obeyed. But mankind can never accord on the modifications of their affective and intellectual faculties.

When we perceive that the corporeal and intellectual parts of man are governed by invariable laws, can we suppose that his moral part, the most noble of all, is abandoned to chance—abstracted from the influence of all natural law?—To think so is a grievous error—an error that has been the source of many of the evils that afflict humanity. Man's moral nature is regulated by determinate laws. So vast is the importance and so great and salutary the influence of this proposition that it should become an article of universal belief among mankind.

SECTION III.

OF THE MORAL LAWS.

Is man naturally a moral being—that is, a being who, by his own nature views his actions in relation to duty and justice?—Yes. There is in his constitution an inherent sentiment, entitled moral conscience, which produces such an effect.

Are the moral precepts of all men alike?—No; for the act which is considered just in one country is often looked on as unjust in another.

What is the cause of this diversity of decision?—The sentiments of conscientiousness does not determine that which is just or unjust—it only feels the necessity of being just. The majority of mankind take for granted whatever they are told is right, and assume as just the precepts to which they have been accustomed from infancy. Among the few who think, intellect determines justice; but the conclusions are still influenced by the general mental frame.

How may conscience be divided?—Into absolute and individual. The first is conscience as it ought to be for all men; the second, as its name implies, is the conscience of individuals.

In what does the absolute conscience of man consist?—In the sentiment of conscientiousness, combined with the whole of the faculties peculiar to man, those common to the human kind and animals being held in subjection.

In what does individual conscience consist?—It results from the sentiment of conscientiousness combined with the other faculties of individuals. He therefore who possesses the superior sentiments in great activity will esteem those notions and actions as unjust which another whose inferior feelings are strong,

and superior weak, would look upon as just. Intellect, it thus appears, is corrupted or swayed by the affective powers, and admits as just whatever these recognise as agreeable.

Can we trust to the individual consciences of mankind?—No; it is impossible. Many feel very slightly the desire and necessity of being just, and seldom or never think of examining their actions with relation to moral rectitude. Besides, people are frequently misled in their moral judgments by the influence of other feelings; and many things which the standard of absolute conscience pronounces unjust pass for just when estimated by individual manners of judging.

Ought not the moral laws therefore to be studied, determined, and proposed as obligatory?—Certainly. Conscience should be positive.

Is there any difference between positive and absolute conscience?—There ought to be none. In the world, however, positive conscience, or the law, has most commonly been the product of the individual consciences of legislators.

Has the natural moral law, or absolute conscience, any distinguishing characters?—It has all those of the natural laws generally.*

Have men any right to make moral laws?—They have none, any more than to fabricate laws to regulate their vegetative and intellectual functions. They cannot change the law of propagation, nor of alimentation, nor of any other functional operation; they can form no conception of an object without dimensions and figure; they cannot conceive an effect without a cause; neither can they love pain, nor approve internally of that they perceive to be bad or immoral.

Who made the moral laws of man?—The same Great Cause that traced the laws of man's physical and intellectual parts also instituted laws for the regulation of his moral nature—God, the Author of the universe.

How does the Creator make known or reveal His laws?—To inform man of His enactments God has endowed him with understanding, to observe and to learn those that implicate his physical and intellectual natures, and has implanted in his interior sentiments which make him feel the moral laws.

Is there not another source whence knowledge of moral laws is derived?—Yes, revelation—that is, knowledge communicated by God to man in a supernatural manner.

What are the advantages of revelation?—It is chiefly advantageous as it regulates man's uncertain notions of his Creator, and of his duties universally.

Can man, in his study of his vegetative and intellectual natures, acquire a greater quantity of knowledge than God has revealed to him?—There can be no doubt of it.

Can the revelation of moral laws change or annihilate the laws of the vegetative and intellectual functions?—To say it can would be absurd, as putting God in contradiction with Himself, for the God who reveals the moral duties and the God who creates the physical and intellectual functions are one and the same.

Are the advocates of the natural laws Atheists?—On the contrary, they entertain the most noble, the most pure, ideas of God; they never suppose Him in contradiction with Himself; they regard Him as the Impartial Parent of the universe, who treats all His children with equal kindness, who applies His laws without variation, and without any distinction of persons.

Are the advocates of the natural laws changeable and arbitrary in their judgments?—No. They recognise but one law for all men—for the teacher and the taught, the governor and the governed. They have one determinate and invariable standard for their rule of conduct.

Are the disciples of the natural laws hostile to the Christian code of morality? No. There they find traces of wisdom truly divine. The better they know its precepts the more do they admire. Indeed they cannot do otherwise than approve, for they see that true Christian morality is the morality of nature, announced in a positive manner; they therefore hope it will speedily be repurified from the pagan, profitless, and superstitious observances with which its excellence has been contaminated, and its lustre obscured.

What is the summary of the natural laws of morality?—The faculties proper

* See page 19.

to man constitute his moral nature. Whatever, therefore, is in conformity to the whole of these is morally good, whatever is in opposition to them is morally bad.

What are the principal faculties which are peculiar to man?—Reverence, marvellousness, ideality, causality, and in a certain degree benevolence, justice, and hope.

Man's powers being innate do they act irresistibly?—God in giving powers does not inflict the necessity of their acting.

How far are the actions of man to be called necessary, and how far are they free?—They are necessary as far as there is no effect without cause and as they depend on motives. They are free as far as they are under the control of other powers, and whenever a choice among the motives takes place.

Is the liberty of man unlimited?—No, it is subject to conditions.

Which are the necessary conditions of freedom?—(1) Intellect, to make a choice among motives. (2) A plurality of motives. (3) The influence of intellect on voluntary motion.

How does liberty acquire the character of morality?—By the victory of the powers proper to man over his brute nature.

Is it a difficult or an easy task to practice natural morality?—It is one of extreme difficulty. Man is universally inclined to break the natural laws. "There is no perfectly just man."

Is there a natural cause of moral evil?—Many religious systems recognise a primitive seduction effected by an evil spirit, often represented under the form of a serpent; but the cause which continues to prompt man to infringe the moral law is in himself.

Are there then any bad faculties in man?—No faculty of human nature can be bad of itself. The Author of the whole is all perfection. The faculties are neither good nor bad. It is their employment only to which these titles can be applied.

Is it reasonable to decry human nature?—It is absurd to decry human nature, and at the same time to exalt religion, which is a part of the human constitution, and to teach that man is made in the likeness of God.

Has the Creator willed the moral evil of man?—Such an opinion is incompatible with the notion of a supremely benevolent and all-wise God.

Is man then destined for happiness?—To suppose an infinitely good Creator delighting in the misery of his creatures is repugnant to good sense, and to propriety of feeling. Man, says Moses, was happy until the moment of his disobedience.

What are the synonymes of happiness and misery?—They are the words pleasure and pain.

Is pleasure good or evil?—It is frequently neither the one nor the other, and it may occasionally be both, though, in itself, pleasure can never be evil, seeing that it accompanies the activity of every fundamental power, and that man possesses certain faculties solely destined for his amusement—music, for instance, painting, sculpture, and the feeling that inspires mirth and laughter.

Can pleasure be the end or aim of man's existence?—No; because some acts evidently bad are accompanied with pleasure. The wicked man is pleased in his iniquity. We are therefore commanded by morality to renounce pleasure as often as the faculties we possess in common with animals are in opposition to those peculiar to our humanity, or whenever these are not in harmony with each other.

What is the grand cause of the moral misery of man?—It consists in the great activity of the inferior or animal faculties. These, when combatted by the moral nature, suffer pain from the restraint. Moreover, the desires they originate are insatiable: the more they are indulged, the more they crave indulgence.

Is it probable that the struggle which accompanies good conduct is a natural arrangement?—Yes; for without the necessity of combatting the inferior propensities and sentiments there could be no such thing as virtue. This implies

a victory which is not to be won without an adversary, and courage to make resistance.

Since the Creator ordained that man should struggle, has He also decreed his fall?—Reason and morality proclaim the contrary.

What must be done to render mankind happy?—They must be made morally good, to the end that they may love moral actions. In other words, the activity of the faculties peculiar to man must be increased, and the energy of those held in common with animals diminished.

By what title are good actions distinguished, and what is he called who practices them?—Good actions are entitled virtues; and he who practices the virtues is styled virtuous.

Whence were these words derived, and what was their original meaning?—They came from the Latin, and signified, primarily, force of strength. This, indeed, may be physical, or it may be moral; but among the Romans, as among other warlike nations, bodily strength, combined with courage, was considered a most valuable quality. And since moral actions require an internal struggle to render human nature, properly so called, triumphant, the title virtue was also applied here.

Is there any difference between the natural laws and the natural virtues?—When the words law and virtue are used synonymously the laws and virtues of nature are identical. But if law be employed to signify the regularity with which forces act and phenomena appear, and virtue to denote the just employment of the faculties, a distinction between the two becomes necessary.

How may virtuous actions be divided?—According as the Divine laws, or the laws imposed by men, are concerned.

How may the civil laws—laws imposed by men—be subdivided?—(1) According to the nature of the legislative power, as despotic, arbitrary, or conventional laws. (2) According to the situations or circumstances for which they are contrived, as the civil code of laws, the penal code, commercial code, &c.

How may Divine laws—laws instituted by God—be subdivided?—Into natural and revealed. These two orders, however, must of necessity harmonise. To suppose that they differ would be to suppose God in contradiction with Himself.

What, then, is the touchstone by which the excellence of a law styled revealed, or any interpretation of it, may be tried?—Laws styled revealed, and interpretations of them, are perfect in proportion as they harmonise with the laws of the Creator, or possess the characteristics of a natural law.

What are the objects in relation to which virtues and vices are distinguished?—(1) The Creator, (2) the beings of creation, (3) the agent or being who acts, (4) his family, (5) his nation, (6) mankind at large.

How are the laws denominated when considered in regard to their Divine origin?—They are called religious.

How are laws entitled when the necessity of man's submitting to and practising them is the view taken?—They are then named moral.

May the religious and moral laws be separately considered?—Religious and moral laws are intimately connected, yet not so intimately as to preclude the possibility or the propriety of considering each class under a separate head.

SECTION IV.

OF MORALITY.

In what does a moral doctrine consist?—It is a doctrine of rights and of duties, and of those things which are, and of those things which are not, to be done.

What is to be understood by moral philosophy?—The term *moral* is sometimes used in opposition to *physical*, also styled *natural*; and moral philosophy means the doctrine of the mind; but the same term also signifies the higher powers of man in opposition to his brute nature, and in that sense moral philosophy is the same as ethics, the doctrine of rights and of duties, or of the

moral precepts which admit of proof by reasoning, and which bear the character of conviction.

As to rights—has man any right over God?—He has none.

What duties has man towards his Maker?—To obey His will in all things.

What rights has man over the beings of creation generally?—Man's superior endowment in faculties elevates him far above all else that lives, and he has a natural title to profit by his situation. Such a law is universal. It extends throughout the whole chain of created things.

Can we then with propriety say that all was made solely for man?—It is ill-directed pride alone that has prompted the conception of the utterance of such an assertion. Every creature advantages itself at the expense of others; and if man turn the whole to his profit he can only follow the course of nature. This, however, is far from showing that all was made solely for him. Geology indeed proves that many beings inhabited the earth before the human kind was called into existence.

Has man rights only over those creatures which, with himself, enjoy existence?—No. He has duties also towards them. Neither the physical nor the purely animal nature knows anything of duty; but to these man unites a third, which causes him to view his actions in relation to morality. An essential faculty of the moral man is benevolence, and this forbids him to torment sentient beings for his pleasure. All cruelty to animals is therefore interdicted by natural morality.

Is there a natural law that allows man to kill animals for the sake of their flesh as food?—Many tribes of the lower animals only live by shedding blood. Now the brute portion of his nature leads man to destroy, just as it does the inferior creatures. Man's anatomical structure proves also that he is fitted to live upon flesh, and further, he thrives on such food. Still, his benevolence ought to restrain him from the commission of every act of cruelty, either against the lower animals or his fellow-men.

What virtues may be entitled individual?—Every action whose end is development and preservation of the body, the understanding, and the moral character of the individual.

Wherein consists the difference between individual virtues and those virtues which regard families, nations, and the whole human kind?—It lies in the employment that is made of the corporeal, affective, and intellectual powers, to further the happiness of ourselves, of our families, or of mankind in general.

Which of these virtues is the most excellent and ennobling?—That which interests the whole human kind is eminently superior to all the rest. True it is, indeed, that this is generally lost sight of altogether. In the appreciation of the virtues, the scale of their worth is commonly reversed. Most men think first of themselves, then of their families, then of their country, and seldom expend a thought upon humanity at large. There are even few who recognise the happiness of the species as the aim of man's existence, and the subordination of all else to this. Yet Nature shows most evidently that she does all for the species: she universally sacrifices individuals to its preservation. Moreover, desire of self-preservation inheres in all animals, love of family and of country in a smaller number, but love of the entire species is a distinguishing character of man in his best estate.

Is it to be expected that man will speedily practice the virtue of universal love?—No. Hitherto the happiness of countries has been sacrificed to that of families and individuals; but general philanthropy is commonly decried and scouted as an aberration of the understanding; and this, too, in despite of the express command of Christianity.

The basis of natural morality being determined, and the sources of good and evil being ascertained to be eternal,* what method may be advantageously pursued in examining virtuous and vicious actions?—These may be considered according to primary faculties, as it is their employment that is good or bad.

What virtues belong to the sexual propensity?—Chastity, and the gratification of the appetite, guided by the laws of hereditary descent.

* See pages 17 and 18.

Are continence and chastity useful to individuals?—Moderation in sexual indulgence promotes bodily strength, and favours health. Hence the *Athletæ* of antiquity were enjoined continence during their preparations for exhibiting feats of strength and agility.

Is the continence enforced in monastic institutions to be regarded as an absolute virtue?—To entitle it to such consideration it must be proved advantageous to individuals, to communities, and to the species at large.

What evil effects attend on celibacy?—The unwedded are apt to become selfish, and to neglect the social and domestic virtues. Celibacy, therefore, may sometimes be a vice.

Why did Jesus Christ, our model of justice upon earth, advise His disciples against marriage?—Probably that they might have all leisure and liberty to teach and spread abroad the knowledge of the new doctrine.

Is there any merit in abnegating marriage through love of the public good? Celibacy on such grounds is an act of the greatest virtue.

Can celibacy under any circumstances be an error?—Yes. When denial disturbs the general functions of the body; when it destroys appetite, causes sleeplessness, and induces unhealthy action of any sort; or when it occasions hypocrisy and mendacity, for instance, in those who make a religious virtue of it, and act in opposition to their professions.

What are the vices of the sexual propensity?—Libertinage, seduction, adultery, and incest.

What are the consequences of libertinage?—Bodily infirmity, mental weakness, the contraction of bad habits, and of disease. the ruin of fortune, and a thousand ills beside.

Why should chastity be a greater virtue, and incontinence a greater vice, among females than males?—Because the latter superinduces the same diseases in both sexes, and the bodies of women being less robust than those of men they suffer more from their effects. Women, too, are exposed to all the inconveniences that precede, accompany, and follow child-bearing; and becoming mothers illegally, if, as is more than probable, they be abandoned by their seducers, they find themselves shunned by society, and burthened with a family without adequate means of support, victims of self-reproach, sunk into wretchedness, and disgusted with life, they can only look forward to the grave as the goal at which their miseries may terminate.

Is polygamy agreeable or contrary to the law of natural morality?—Polygamy has only obtained among men through excessive activity of the sensual propensity in individuals, and the right of the strongest. There are certainly not more females than males born, and the law which says "Love thy neighbour as thyself" forbids appropriation, if it can be effected only by robbing others of the share of enjoyment destined for them by nature. Polygamy is therefore in opposition to the natural law of morality.

What should be required in the parties who would contract marriage?—They ought to possess the conditions required by the laws of hereditary descent.*

What individuals should abstain from marrying?—All who have the seeds of a serious hereditary malady in their constitution; all who are weak in the body or in mind; and all who have the distinguishing attributes of humanity in small proportions. Such abstinence would be of far more importance to mankind than the celibacy practised by the teachers of religion and morality in some countries.

Is it not improper to insist so strongly on the laws of hereditary descent, seeing that they limit a natural desire implanted by the Creator?—By no means. Not only the laws of hereditary descent but the sexual appetite are of Divine origin; and it is much rather a crime to be ignorant of the laws of hereditary descent, or, knowing them, to neglect their practice, than recklessly to indulge the sexual propensity.

Is incest a crime against natural morality?—It appears to be so; for those families of which the near relations intermarry degenerate.

* See page 7.

Is adultery also an infringement of the natural laws?—Yes; because it causes disorder, destroys conjugal confidence, and ruins domestic order and tranquillity.

Is marriage or union for life an institution of nature?—Yes. Even animals, especially many birds, are united for the term of their lives, and man is so likewise, in obedience to a law, which inheres in the faculty of attachment, and this is common to himself and the lower animals.

Is divorce permitted by natural morality?—Yes. The couples which have no family, or which can provide for the children they may have, in as far as justice requires, do well to separate rather than to continue to live in perpetual warfare. The consequences which follow ill-assorted unions are much more serious to the parties, to their children, and to society at large, than such as attend on divorce. Were the sexes what they ought to be there would indeed be no occasion to permit divorce. The conjugal union would then, without any restraint, terminate with life. In the meantime, however, divorce should be obtainable, seeing that the social institutions ought to be the sources of happiness and not of misery; and whatever lessens happiness and causes misery is evil, and contrary to nature.

What are the virtues of love of offspring?—The care which parents take in aiding the bodily and mental development of their children, in cultivating their talents, and superinducing habits useful to themselves and to their fellow-men—in a word, the efforts given to bring them up in the knowledge and practice of truth and justice.

Is such parental virtue common?—It is unfortunately very rare. Children are generally produced without a thought given to hereditary descent, and reared merely to please, or serve as pastimes to their parents, who more commonly attend to what may flatter their own capricious tastes than to what may be substantially useful to their children and the commonwealth. Children are frequently spoilt through indulgent weakness (when their waywardness and unruliness are insufferable), or they are forced to a mean and slavish submissiveness of deportment equally displeasing and pernicious. To give a good direction to philoprogenitiveness requires a complete knowledge of human nature generally, and of the qualities necessary to guide the individuals—the particular subjects of attention.

What are the fundamental duties of parents to their children?—To procure them a good organic constitution, to exercise those faculties with which they are endowed, to choose them a suitable profession, to instruct them in the laws of their Creator, to show them the necessity of submitting to these, and to set the example of obedience.

Is it the duty of parents to leave riches to their children?—Natural morality forbids the accumulation of riches; and surely parents cannot be obliged to do aught which may pave the way to the immorality and degeneracy of their children.

Have parents a natural right to obedience from their children?—So long as children remain dependent on their parents they are bound to obey them, but this obligation ceases with the state of dependence. What are the duties of children towards their parents. Children, so long as they are dependent, must respect their parents as superiors and benefactors, and repay the attachment and tender cares they have received, with interest, during the term of their lives. The child when born is indebted to parental love for the very continuance of its life, and old age has frequent occasion for the aids of filial piety and affection.

What are the duties of a husband?—He ought to have a trade or profession, to procure food and clothing for himself and family, which he has to watch over and protect, and also to have a portion of his time at the command of the public service.

What are the duties of a wife?—To take care of the interior of the house, and to arrange all matters connected with domestic economy; to instruct the boys in the rudiments of reading, and to educate the girls entirely.

What are the principal virtues of attachment?—Society, friendship, and paternal love.

Is society, or the social state, an institution of nature?—Man is nowhere found solitary. He is at the least one of a family. Families unite and form tribes, and these compose nations.

Can society, of itself, be said to produce virtues or vices?—Society is the consequence of an innate primary faculty, and social virtues and social vices, as they are called, result from its combination with other fundamental powers. The institutions destined to direct mankind in their actions are and will continue to be the principal causes of their virtues and of their vices, so long as internal motives, sufficient to induce the practice of morality, independently of all enactments, shall not be experienced.

Is patrial love commanded by natural morality?—Natural morality recognises no one species of exclusive love as a supreme law. Love of native land is admitted, but still as subordinate to universal love. Patriality is an attribute of the animal nature, general love of proper humanity alone.

Wherein lies the difference between conjugal love, family love, fraternal love, and patrial love?—Each kind depends on the faculty of attachment combined with other and different powers. Attachment with the sexual propensity begets conjugal love, with love of offspring family love, the love of a fraternity is based upon an attachment with success in particular views or plans, and the love of native country on an attachment extended to the land of our birth, to its manners and mode of living, to the men speaking the same language, governed by the same laws as ourselves, &c.

What is the direction of attachment which is conformable to natural morality, and, consequently, positively virtuous?—That which is bestowed on those who submit to the laws of the Creator.

And what direction of attachment is vicious?—That which is not given agreeable to natural morality.

Are there any positive codes that exact attachment in conformity with natural morality?—Yes. The Indian system of morals and the code of Jesus command us to know as brothers and as sisters those only who do the will of God.

Is resistance of attack, or self-defence, permitted by natural morality?—Courage is a primary faculty of human nature, and its proper employment a virtue. Such a power, in the order of things, was indispensable to individual preservation and well-being. It is a frequent means in procuring aliment, it enables us to overcome obstacles, and is even useful in maintaining peace.

Is personal courage assisted by muscular strength?—So much so that several philosophers have conceived it a result of this. Courage, however, is the appanage of no particular degree of muscularity or bodily power.

Is courage in itself either virtue or vice?—Ancient philosophers ranked it as one of the four cardinal virtues, but in itself courage is neither virtue nor vice. One or other of these titles it gains according to its just or unjust employment.

When is courage a virtue?—When it is displayed in conformity with natural morality.

And when is courage a vice?—When it aids the animal nature against that which is peculiarly human.

What are the chief vices of courage?—War of aggression, quarrelsomeness, love of fighting and of witnessing combats between animals or men, dispute, contention, &c.

What employment of courage deserves to be praised and rewarded?—Such as favours natural morality is alone commendable, is alone worthy of reward.

What is the right which man possesses through his propensity to destroy?—It is that of killing animals for the sake of their flesh. Violent death is one of Nature's enactments, and man has that in his constitution which originates the law.

Has man a title to torment animals in any way whatever?—No. His moral part forbids all cruel amusements, and all indulgence at the expense of suffering to any living and sentient being.

Has man a right to slay his fellow-men?—Only when he cannot otherwise

defend his life, or if this be the sole means of preventing malefactors from committing murder.

Is capital punishment admissable in society?—Society may agree to inflict death to get rid of evil-doers; but it is unjust and cruel to resort to such an extreme measure until every other means has been tried and found ineffectual to protect the community against criminals. Yet it is understood that this, as well as all other penalties, is to be applied universally, and without distinction of persons.

Does not man's peculiar part revolt at the idea, and natural morality command the abolition, of capital punishment?—Man's ennobling and peculiar nature does only good. It never returns evil for evil, or takes revenge. It consequently commands the abolition of capital punishment. It is the animal nature combined with the simple sense of justice which has established the law of retaliation—the *lex talionis*. Man's proper nature may, however, lawfully employ the animal faculties to enforce and to assist natural morality, and capital punishment must be inflicted if with its abolition the number of crimes should increase.

Is the practice of duelling permitted by the law of natural morality?—Duelling is opposed to every one of its precepts. He who sheds blood in a duel is guilty of murder. The custom originated in the right of the strongest, and its continuance is one of the remains of barbarism.

Is war between nations agreeable to natural morality?—He who, under any circumstances, attacks and puts another to death, commits a murder in the eye of God. All wars of conquest are utterly at variance with the moral law. Defensive war alone is lawful. Every nation, like every individual, has the undoubted right of repelling any other that would attempt to enslave it. It has even a right to destroy its enemies, if there be no other means of preserving its liberties and independent existence.

What are the good effects of the faculty of constructiveness?—This faculty is the source of the mechanical arts. Its employment is virtuous when it adds to the means of subsistence, and favours the general welfare—for instance, when it procures a good dwelling-house, convenient articles of furniture, or clothing which does not impede the motions of the body, and which protects it from the inclemencies of the seasons, or the sudden variations of atmospherical temperature.

In what manner does the faculty of constructiveness work evil?—The mechanical arts are injurious to mankind by introducing luxury. Ordinary enjoyments then suffice no longer and the desires are guided by caprice. To meet the many and expensive demands thus incurred, large sums of money are thus required, and to procure these every means is adopted without scruple. Morals thus become corrupted, and a highway is opened to all the miseries which attend degenerating men and declining empires. It was with justice that the ancient moralists founded the social virtues upon simplicity of manners, restriction of wants, and contentment with little.

In what does a just employment or virtuous direction of the faculty of acquisitiveness consist?—In procuring the necessities of life, or as the Christian code has styled it, "our daily bread."

Is property permitted by natural morality?—Yes: for as all who live must subsist, all must have a right to that, at least, which is necessary to support life.

Is it agreeable or contrary to natural morality to amass great wealth?—No one can accumulate riches without doing injury to his neighbour, and violence to the natural moral law, which says, "Love thy neighbour as thyself." The moral law gives "their daily bread" to all who employ the talents they possess, but it gives no more.

Does natural morality permit animals to be kept for the purpose merely of pleasure and extravagance?—No. Inasmuch as man is more worthy than beasts, it is against natural law to give to horses and dogs the daily bread of men, or the provender which would feed cattle, whose flesh is both useful and necessary as aliment to the human kind.

Which are the most useful classes in mankind?—They are such as by their industry produce or augment the value of things—agriculturists and artisans.

And what classes are the most useless?—Such as do nothing but consume.

Does natural morality set limits to the gratification of the love of gain?—Certainly it does. The love of gain is the most formidable of all enemies to the law of neighbourly love. Men brought up under the influence of the spirit of trade generally endeavour by every means in their power to evade the commands of natural morality.

Does the natural moral law grant exclusive advantages to individuals under the form of privileges or monopolies?—No. On the contrary, it commands every one to employ the talents entrusted to his care, for the advancement of the common good, the universal weal of man.

What are the privileges accounted the least blameable among good men?—Such as are granted for inventions and useful discoveries.

Is it conformable to the law of natural morality to secure the eldest males of families in large possessions, to the exclusion of the other children?—It is against every one of its precepts.

Is hereditary wealth favourable or prejudicial to the culture of morality?—To amass great wealth is immoral. It is immoral to leave great riches to children. Man is naturally disposed to be idle, and commonly yields to the inclinations, if not compelled to exertion. But idleness is a fertile source of immorality. It ruins the health, enervates the mind, and makes life a curse. Moses says well—“Man was born to earn his bread by the sweat of his brow.”

How do the rich usually apologise for their great possessions?—They introduce God as the disposer of all things. They boast of being His favourites, and say Providence gave them all they have. Nevertheless they might be answered by a reference to the Christian code, where they will find themselves admonished to give their riches to the poor, in order more easily to enter the kingdom of heaven. There, too, they will learn that the indulgence in superfluities and hoarding of treasures, while thousands of their fellow-men are living around them in indigence, is utterly at variance with the express injunction to treat our neighbour as ourselves. “The love of money,” says the apostle Paul to Timothy, “is the root of all evil.” This presumptuous error may be further exposed by recurring to the history of rich families. These have always degenerated in corporeal and mental qualities. Their properties, if not secured by arbitrary laws, pass away into other hands; and, in fine, no living evidence of their ever having existed remains—their very name is consigned to oblivion.

Are we required by natural morality to labour and support the idler?—Whilst it commands aid to the unfortunate and to the infirm, who are unable by their own exertions to procure the means of existence, natural morality enjoins the rejection of the sluggard and drone as unworthy. The apostle Paul in his second letter to the Thessalonians, iii., 10, said: “When we were with you, this we commanded you, that if any man would not work, neither should he eat.”

When we see that arts and sciences especially flourish when every one strives for his individual advantage, is it not likely, that, as this could not continue under the dominion of natural morality, all would droop beneath its reign?—It were indeed no very agreeable reflection for the industrious and talented to think that they were labouring for the indolent and incapable. Meantime, however, they should also remember that they have no natural title, on the strength of a patent or charter of privilege, to deprive others of the opportunity to earn a livelihood, and much less, on account of their superior endowments, to make others labour for their peculiar advantage.

But has not he who contrives or procures work for others a natural right to gain more than they?—The civil law says yes, but the Christian and natural codes recognise no such privilege. As we live in the world at present, the laws should apportion to each person who labours his share of the profit, according to his talent, industry, and care. This would be necessary, so long as selfishness predominates to its present extent. Legislators should favour the working

classes as much as possible, and use every means of rendering the reign of natural morality practical.

Is it possible to do away with all sense of individual property?—To attempt such a thing with men as they are now constituted would be to annihilate even the hope of general happiness. It would cause crimes and calamities of every description. The certainty of this exists in the evidently immoral disposition of by far the greatest portion of mankind, and in the general prevalence of cupidity, and in the distribution of talents. To accomplish the beneficial abolition of private property, every individual ought to feel pleasure in acting according to the commands of the natural and Christian moral doctrines. Until then property must be respected. The early Christians attempted the measure of abolition. All things were in common among them; but experience proved that mankind were not then in a condition to adopt such a system; and they are still at an infinite distance from the perfection which might render it practicable. When will men be able to obey the law of universal love.

May natural morality, to a certain extent, be united with the existence of individual possessions?—Yes; by fixing the maximum of property, and the conditions under which this may lawfully be acquired. The general welfare is always to be taken as the foundation in such considerations. Manufacturers should be obliged to lay out part of their gains in bettering the condition, and adding to the comforts, of their labourers. Above all, they ought to be prevented from injuring the health and morals of those in their employment.

Does natural morality set bounds to national as well as to individual gains? Nations which enrich themselves to the detriment of others act contrary to the laws of morality. The natural and Christian doctrines place universal above patril love. That people which prevents the participation of its neighbours in the advantages it enjoys, though it may arrogate the title, is no Christian nation.

Are sumptuary laws just or necessary?—Did manufacturers, and the inhabitants of every country, love their neighbours as themselves, sumptuary laws would be useless. No one, then, would wish to enrich himself in particular the products of every land would be freely exchanged, and manufactures carried on and perfected wherever it could be done most advantageously. In brief, the universal good would be the sole consideration, and the efforts of all directed to the accomplishment of this great end.

Are prohibitory laws in general sufficient to establish natural morality?—No. They may, in some measure, prevent the evils which result from the over activity of the inferior inclinations, but to better the lot of man it would be necessary to diminish his animality, and to increase the energy of his peculiar humanity.

What are the vices of the desire to acquire?—Usury, fraud, gambling, and theft in general.

Has the word theft the same meaning in the civil as in the natural code?—Natural morality declares many actions to be thefts which are permitted by civil laws. Every one, according to the first, deserves the name of thief who does not love his neighbour as himself. He, for instance, who amasses wealth by means of the industry of others. In the eye of civil laws, however, he only is a thief who takes, by force or fraud, aught that, agreeably to the law, belongs to another.

Is theft, in the sense of the civil law, forbidden by Christianity?—Yes. The Christian doctrine forbids evil of every kind.

Does it go farther?—Much. It not only forbids evil, it in addition commands universal love, and in this it harmonises with natural morality. "They who came before me," said Jesus, "were thieves." He desired us to be satisfied with our daily bread.

What are the virtues, and what are the vices, of the propensity to conceal (secretiveness)?—The faculty is virtuous when employed in the cause of general welfare, and vicious when it gives rise to lying, hypocrisy, cunning, intrigue, and duplicity.

What are the virtues of cautiousness?—Prudence, doubt, and just timidity.

And its vices?—Irresolution, puerile terror, melancholy, and despair.

Is prudence necessary in teaching truth?—The light that is shed ought certainly to be apportioned to the capacity of bearing it in those who are the subjects of instruction. Jesus mentioned that He had yet many things to say which His disciples could not bear. "There is nothing covered that shall not be revealed, and hid that shall not be known." (Matt. x., 26.) He taught them in parables concerning the kingdom of heaven, but added: "What I tell you in darkness that speak ye in light: and what ye hear in the ear that preach ye upon the housetops." (Matt. x., 27.)

What are the virtues and vices of self-esteem?—True dignity and nobleness of character depend in part on self-esteem, and the faculty is virtuously employed in the production of such an effect. But self-sufficiency, pride, haughtiness, and disdainful or contemptuous bearing, are consequences of its over activity and ill direction. Coarseness of manners, too, under certain circumstances, and impertinence are increased by self-esteem.

What is the signification of the word humility?—It is synonymous with the inaction of self-esteem. Humility, to be a virtue, must result from the struggle between self-esteem and the moral sentiments, and the victory of the latter. Humility is also occasionally used to signify activity in the sentiment of respectfulness (reverence).

Is self-esteem a necessary quality?—Yes; it favours general independence. Submissiveness on the part of one encourages pride and the love of dominion in another. Self-esteem should adjust the balance between the ideas of our own and of others' importance. Its virtuous functions emanate from its combination with the faculties proper to man.

What virtues and what vices belong to the faculty of love of approbation?—This sentiment contributes essentially to the union of mankind. Politeness of deportment, and delicacy in language, deference in society, obligingness of manner, and good breeding generally, are among its agreeable manifestations. But petit-maitreism, vanity, ostentation, ambition, love of titles, and of all kinds of mundane distinctions, are consequences of its ill-directed activity.

Is it easy or difficult to guide self-esteem and love of approbation in the path indicated by natural morality?—It is extremely difficult. "To fly the age we live in," says Confucius,* "to suffer without repining, to pass unknown and unnoticed among men, is a task to be accomplished only by a saint." The great energy of these two sentiments, strengthened as they are by the love of gain, and the inferior inclination generally, occasions innumerable evils in the world, and excite doubts of the possibility of natural morality ever being established as the rule of conduct. The Christian law declares itself, in terms which cannot be more positive or more severe, against abuses of self-esteem and love of approbation; nevertheless, they who style themselves believers, and the faithful *par excellence*, even the preachers of the doctrine of Jesus, have continued, and still continue, as well as pagans, to be delighted with the gratifications these faculties afford, and to attribute to the Supreme Being tastes and weaknesses similar to their own.

What are the virtues of benevolence?—Meekness, the spirit of peace, clemency, toleration, liberality, forgivingness of temper, hospitality, equity, and neighbourly love.

Is Christian charity a single faculty?—No; it embraces the whole of the moral law, and the regulation of every action that concerns our fellow-men.

Is alms-giving a virtue?—It is a virtue or it is a vice according as the general happiness is thereby affected. If it encourage idleness, society suffers, and it is evidently blameable. When the truly deserving are its objects, and it is directed to purposes generally useful, it is conformable to natural morality, and is praiseworthy. Indiscriminate charity is never to be recommended.

Can benevolence be any way injurious to mankind?—Immensely. If not directed by reason, combined with the sentiment of justice, it may encourage

* "Invariable Mill." Chap. xi.

slothfulness and poverty, and all the vices that attend on these. It may also dispose to prodigality and squandering.

Is respectfulness a natural virtue?—Yes. Nature has implanted a primary sentiment, its cause, in the constitution of man.

What objects especially deserve the respect of man?—The Supreme Cause, parents, those who teach the laws of the Creator, those who watch over their accomplishments, and, in general, all that is benevolent, just, and true.

May respect ever be ill-directed?—It is but too frequently bestowed, altogether unworthily, upon superstitious notions and observances, and upon antiquated forms, usages, and precedents.

This sentiment then requires guidance in its application?—Certainly; and reason ought especially to rectify the errors it has committed in regard to religion.

All the sentiments, without exception, are blind, and require the aid of intelligence in their operation. Without it they can never act in harmony with the whole of the nature of man.

But does not belief suffice to direct the religious sentiments?—No; for religious belief has induced men to admit the most contradictory and many noxious propositions, under the idea that we ought to obey God rather than; moreover, that which belief leads one to style venerable and holy is often, by another, called absurd and impious.

The religious sentiments are given to man as sources of happiness, are they not?—That they are given to produce good is evident. They are the gift of a good God, but hitherto they have been cruelly abused.

What course would most directly tend to abolish the errors, and, for the future, to avoid the disorders, which have been committed in the name of religion?—It would be necessary to begin by permitting the free use of reason. This, too, would be the first step towards effecting the union of all religious people. As yet the blind lead the blind, but reason ought to enlighten and direct the religious as well as other primitive feelings.

Is belief natural to man?—Few examine and combine their ideas. The greater number admit what they like best, or what flatters their feelings and senses most. They who hope for much willingly believe promises made to them in the name of heaven. They who are inclined to admire and to seek after the marvellous readily give credit to aught that seems mysterious. And they who combine the sentiment of respectfulness with the two that produce these effects are fit agents for the execution of whatever they are told is necessary to the glory of God.

Is the believing and benevolent man everything that we expect of humanity? No. He may still be unfurnished with many very essential qualities, such as justice—the fountain-head of morality; **reason**—the sole guide of action; and perseverance—the indispensable assistant in the task of completion.

Does the sentiment of conscientiousness of itself suffice to prevent injustice? It does not. This sentiment, it is true, feels the desire of acting justly, but it is blind, and must be enlightened by reason before its actions can be recognised as just. It is reason, therefore, that declares everything done in conformity with the dictates of the faculties peculiar to man to be just, and everything contrary to their commands to be unjust.

Is natural morality the same as positive justice?—The natural and the Christian moral codes agree, but they both differ from the civil laws. These last only forbid the doings of things to others which we would not that they did to us, whilst natural and Christian morality, far more noble, command the doing to others the things which we would they did to us.

Can the sentiment of conscientiousness do harm?—Yes, by acting uncombined with reason and those powers generally which are peculiar to man.

What virtues and what vices belong to the faculty of firmness or perseverance?—Perseverance in whatever is true, just, and reasonable, is virtuous; but to persist in what is false, unjust, and unreasonable, is vicious.

Is man generally, as he is now constituted, capable of accomplishing the

precepts of natural morality?—No. Neither the governors nor the governed are generally susceptible of such superlative virtue. All that good men can do at present is to demonstrate the existence of the system of natural morality, to submit to it, and to spread abroad its knowledge; to examine into the obstacles which oppose its admission; and to propose the means necessary to prepare mankind for the happy epoch when they will be capable of enjoying the blessings it must diffuse by being made the rule of action.

Is the cultivation of the understanding to be regarded as a duty?—Intelligence is one of nature's gifts. It is therefore destined to act. Our existence, indeed, depends on it. Without understanding we should know neither external objects and their qualities nor the laws which govern the physical and moral world; neither could we have any moral liberty.

Is understanding recognised as necessary to free will?—Yes. According to all the systems of legislation, idiots, and children before a certain age, are not accountable for their actions, because they are unable to distinguish between good and evil.

Are the functions of the intellectual faculties virtuous or vicious?—They may be either. Intelligence is a means of doing both good and evil. To be virtuous it must second natural morality, which is the end of our being.

What is the vice or sin against intelligence?—It is ignorance, the cause of a great number of evils. Ignorance commits endless errors. It acts unconscious of causes and effects, and can never repair the disasters it occasions.

Is man's ignorance great?—It is exceedingly great. The most common and necessary things are totally unknown to the bulk of mankind.

Why is man's ignorance so great?—The cause lies in the generally small size of the organs of his intellectual faculties. This is also the reason why study is so commonly irksome and distasteful. Moreover, the civil, and especially the religious, governors of nations have frequently opposed every sort of obstacle to the cultivation of intellect and the diffusion of knowledge.

What difference is there between ignorance and presumptuous stupidity?—Ignorance is compatible with the presence of excellent natural capacities; presumptuous stupidity depends on deficiency of the intellectual powers, joined to self-esteem and pretensions to learning.

Is ignorance despicable?—Not in itself; and provided every opportunity of gaining information and exercising the mental powers be laid hold on.

Is it the same in regard to presumptuous stupidity?—No. This is despised by every sensible person, for it invariably leads men to neglect the means of instruction.

What is the difference between a learned and a wise man?—Every man who knows much is learned, but he only is wise who has acquired practical knowledge—that is, knowledge applicable in the affairs of life. The wise man also endeavours to account for what he observes, and to discover principles in conformity with which he may constantly act.

Is it necessary, for the sake of morality, to cultivate the understanding?—Although neither the religious nor the moral sentiments spring from understanding, they still require its guidance in their application, and its aid in enabling them to act harmoniously with all the other faculties of human nature.

What should be the aim of every description of study?—The establishment of truth and attainment of perfection. "Truth," says Confucius, "is the law of Heaven," and "perfection is the beginning and end of all things."

What is the basis on which the perfecting of mankind must proceed?—Knowledge of human nature, submission to the laws of the Creator, and conviction that nothing can be created, but only modified and reproduced according to determinate conditions.

How might the adoption of the natural laws, as the rule of conduct, be most speedily effected?—By governments exacting their practice, and joining the authority of example by obeying their commands.

Have men any right mutually to impose their wills as rules of moral conduct?—They most certainly have not. There is but one will that ought to be

done—the Will of God, and this, in morality, commands imperiously to man, “*Thou shalt love thy neighbour as thyself.*”

May the doctrine of morality become a science?—There can be no doubt it may by studying the laws of the Creator, and by comparing them with pure Christianity.

SECTION V.

OF RELIGION IN GENERAL.

Has every one a right to inquire into religious matters?—It seems absurd that a particular profession should enjoy the privilege to establish religious opinions incumbent on all the rest of the community, while it seems right that every reasonable mind should examine the most important, viz., the *religious* part of his constitution.

Has the phrenologist in particular a right to inquire into religion?—Undoubtedly. Phrenology embraces the whole of the innate dispositions. Now as there are innate religious feelings, the phrenologist is enabled to examine their essence and operations.

What are the limits of the phrenologist in the examination of religious conceptions?—He is confined to the result of the innate religious feelings of man.

What is the meaning of the word religion?—This name comes from the Latin, and signifies a binding together, connection, or union. We particularly understand by it a belief in supernatural beings, and in relations between them and ourselves; and further, the practice of rendering them worship, in whatsoever this is made to consist—in whatever manner it is bestowed.

Have men universally had religion of some description?—All nations whatsoever have conceived the existence of supernatural powers, have believed themselves in relation with these, and have adored them, although in very different manners.

How may religions be divided?—According to the number of supernatural beings revered, and according to the origin of religious ideas.

What religious systems are included in that division which regards the number of divinities?—(1) Polytheism, the system of belief in many gods. Such was the pagan religion styled Mythology. (2) Bitheism, the system of belief in two principles, the one of good, the other of evil, named Osiris and Typhon by the Egyptians; Brahma and Moisaour by the Indians; Ormuzd and Ahrimanes by the Persians; Jehovah and Satan by the Jews; God and the Devil by some modern nations, &c., (3) Monotheism, the system of belief in one Supreme Being, the primary cause of all that is, and all that comes to pass.

Can we conceive the origin of Polytheism?—Yes, by keeping in view the nature of the faculties possessed by man, and his great ignorance. By his innate dispositions man is inclined to venerate, to fear, to admire, and to raise his mind to supernatural conceptions. These feelings he at first employed upon natural objects—the sun, the moon, the stars—and afterwards upon the personified causes of natural phenomena, as of thunder, of the wind, of the four seasons, of vegetation, &c. In his ignorance, therefore, man followed the blind dictates of his feelings, and espoused such opinions as accorded with them.

Can we also conceive the system of two principles, the one of good the other of evil?—Yes; for good and evil, or pleasure and pain, exist. Nature universally presents opposites to the view, and every individual even feels these in his own interior, among his sentiments. Now man, who by one faculty seeks for the cause of every effect, and by another personifies every thing even to causes, could not admit one and the same cause for both good and evil.

Is Monotheism, or the system of one Supreme Being, more reasonable than Polytheism and the belief in two principles?—Belief in the unity of God is the only notion that agrees with the supreme law of reason. This belief, therefore spreads abroad among the nations in proportion as they become enlightened.

Which of the two, Monotheism or Polytheism, was most probably the first religious belief among savage nations?—Polytheism. To arrive at Monotheism

it is necessary to reason; but the feelings or affective faculties exist in greater activity than the powers of analysis and causation in civilised and still more so among savage nations. It is consequently probable that the religious sentiments acted before the intellectual faculties had received any cultivation, and in their blindness gave birth to the absurdities of paganism.

Is general consent given to the above reply?—No. Monotheism is commonly believed to have degenerated into Polytheism by reason of the symbols under which the Supreme Being and His attributes were adored. To God, it is said, were attributed the light and vivifying power of the sun, the abundance of a fertile country, &c. The presumed qualities of the Deity were presented under particular forms, or likened to natural objects, and ignorance, overlooking their emblematic sense, assumed the mere symbols as divinities.

How is the preceding reasoning supported?—Monotheism, it is asserted, reigned in the east of Asia, whilst in the western world—in Egypt, Greece, and Italy—the symbols of God having been taken for so many divinities, Polytheism was the religious belief.

What is overlooked in this explanation of Polytheism?—The primary dispositions of man, and their spontaneous activity. Our ignorance, too, of the early history of Eastern nations is forgotten. It is also extremely improbable that they alone should have commenced by Monotheism, all the other societies of Europe, of America, and the Isles, having followed a different course.

How have the Monotheists represented God?—Philosophers have conceived as a Supreme, Self-existing, and Self-sufficient Being, the Author and Preserver of the Universe.

What is the title of the doctrine which recognises the existence of a supreme, maintaining, and Great First Cause?—It is called Deism, as its supporters are styled Deists or Theists. Some philosophers, however, have considered God as a vivifying and moving principle, pervading all things. This they have called Soul of the World. According to them the souls of men are portions of, or emanations from, the great principle, which are never lost, but quitting one body at death go immediately to animate another.

What is the exact meaning of Atheism?—It signifies the doctrine which denies the existence of a God, Supreme Creator, and Upholder of the Universe.

How may Atheism be accounted for?—Atheists must necessarily be very rare. They can only exist in consequence of some deficiency in the conditions by means of which man generally conceives a Supreme Being; in the same way as one is blind from birth when the apparatus on which vision depends is imperfect.

What religious systems are included in the division according to the origin of religious ideas?—(1) Natural Religion and (2) Revealed Religion.

SECTION VI.

OF NATURAL RELIGION.

Does man, by his reason, recognise the existence of God?—Man involuntarily seeks for the Workman, or Cause of all that is. By reasoning he arrives at a First Cause, beyond which he can conceive nothing. This cause personified is God.

Can man, by his reason, comprehend the nature of God?—No. To know God it were necessary to be His equal at the least. An inferior being can never conceive the nature of one infinitely his superior. Indeed, man does not know the essence of any single natural object! How, then, can he imagine aught of that which is supernatural?

Is man naturally inclined to religious ideas?—There is nothing more certain. He has innate faculties, whose manifestations depend on certain parts of the brain, and which induce him to be religious.

Can religious ideas be indifferent in their nature?—True religion, being the will of God, cannot be indifferent; and God, being all perfection and bounty, cannot act from mere arbitrariness.

Is it probable that God, in giving a law to man, has given him also means to understand it?—Certainly, since without intellect neither the law nor its necessity can be conceived.

Does natural religion admit of reasoning?—Its regulation is subject to reason. Any proposition subversive of universal harmony among the faculties is at once to be rejected as erroneous.

Is not the reason of man governed by certain principles, agreeably to which it must admit or deny such and such attributes or qualities in God?—Human reason ought at least to suppose all the moral qualities in God which it enacts of a just and reasonable man.

Can God, agreeably to human reason, be in contradiction with Himself, improve by experience, do aught at one time and repent Him of having done so at a later period?—No. According to human reason God is perfection and intelligence itself. His will is eternal, and His laws are unchangeable.

Can God be partial?—Human reason says He is all equity and all justice. It declares every exclusionary idea entertained in connection with the Parent of the Universe as sacrilegious.

Can God be cruel?—Good sense shrinks from such a conception coupled with the name of the great Author of all. God cannot love evil, nor lend it His countenance and aid.

Can God be jealous, envious, and vindictive?—All such expressions are merely expedient, and adapted to a hard-hearted race of men. Belief in God combined with such ideas is an abomination in the eyes of a rational and moral being.

Why has God been so generally represented as a being to be feared?—Because fear is an excellent means of making man act at will.

Is it probable that the Divine laws made for man are adapted to his nature?—It is impossible to think that God, in creating man, and instituting laws for his government, did not adjust the one to the other.

God being unchangeable, must, therefore, religion not remain unchanged?—The design and end of religion must remain unchanged, but the means tending to that end must vary according to the different degrees of civilisation of nations and individuals who receive religious instruction.

What can be the end of true religion?—The glory of God and the good of man.

Can divine laws be less reasonable than civil laws?—This is impossible, because human wisdom, coming from God, cannot surpass that of the all-wise Creator and perfect law-giver.

Is every one capable of deciding about religious truth?—No more than every person is able to judge of arts and sciences. The great bulk of mankind is only fit to learn. Happy, therefore, the flock under the shepherd who attends to their welfare.

Are there some signs indicative of truth in religion?—Since true religion tends to the glory of God and the good of man, divine doctrines are harmonious, reasonable, and have a powerful influence to improve man's life and moral character, whilst all contradictions, absurdities, and doctrines that tend to promote vice, cannot come from above.

Is it reasonable to conceive God trying men and their obedience by commanding insignificant and unmeaning observances, useless both to Himself and to His creatures?—Such a thought is altogether unworthy of the true God. The idea of God's spreading toils for man is incompatible with His divine justice. A reasonable master commands no more than the necessary, the profitable, and the just to his servants; and if God be prescient, as reason proclaims, He cannot require to put mankind to the proof. It is time to cease from representing God as a mere human being; or if this be indeed impossible, let us suppose the Supreme Author of the universe at least endowed with such qualities as are exacted from tolerably perfect humanity—benevolence, justice, reason. The will of God implicates realities and things indispensable. Instead therefore of attributing to the Creator childish fantasies and modes of acting to

which worse names might with justice be applied, let us accomplish His natural laws, fulfil the duties that profit ourselves and all mankind, and thus, if by aught, we may render ourselves agreeable to the great Author of our being.

Is the belief which men have in God's attributes of great importance?—Of the greatest, since men like to imitate the example of their Maker.

Is outward worship conceivable in natural religion?—In recognising supernatural agents, or one Supreme Being, and their influence on his estate, man was naturally led to render them homage, and to demand their protection. Further, in endowing the objects of his worship with human qualities, often with human weaknesses, and even with human vices, man has treated them humanly. He has assigned them abodes, especially in elevated situations; he has erected altars to their service, and brought them propitiatory offerings of various kinds; he has sung them laudatory hymns, played on musical instruments, and burnt perfumes for their gratification, &c. Man has also anthropomorphised the divinity he adored.

Was it also natural for man to imagine agents intermediate between him and his Creator?—Yes. In representing God as endowed with human faculties men have deemed Him accessible to all their wants, as well as alive to all their pleasures and appetites. They consequently supposed that the Supreme Being, like an earthly potentate, held a court, and had a ministry or administration, to which He confided part of His affairs; that He had favourites to whom His ear was more open than to themselves; and so on, after the manner of things below.

In natural religion what is the worship which reason approves?—Reason says that God, being all perfection in Himself, can neither gain nor lose in beatitude by means of the terrestrial creation. Reason says further that God must be a spirit, not shut up in one place, but that the earth—the universe—is His tabernacle. Moreover, reason says that God created men for their own happiness, and that, having established the laws necessary to secure this end, they are the true bond of union between God and man. Knowledge of the natural laws, therefore, and unreserved submission to their dictates, compose the natural worship which man owes and must render to make himself agreeable to the Deity.

Is there any difference between natural religion and natural morality?—None whatever. All the relation which man, during the term of this life, has with God or his Creator, consists in respect and obedience to His laws.

SECTION VII.

OF REVEALED RELIGION.

Man is by his nature carried to religious ideas; but there is another source which invites to such conceptions, is there not?—Yes, it is revelation.

Is this source fertile in its results?—Yes; by far the greater number of religious systems have been received as revelations. The divinities of the ancients, and the Deity, by whatever title designated, of the moderns, are reputed to have manifested their will, whether directly or indirectly, to man. Judges in Israel, Druids among the Celts, Incas among the Peruvians—in a word, a priesthood have always been the interpreters of the celestial decrees. This body commonly received the instructions of heaven secretly, or in symbolic language; and appropriating to itself the right of interpreting them it has ever taught dogmatically, arrogated infallibility to its tribunal, and anathematised whoever dared to contradict, to question, or to doubt.

Is reason opposed to the belief in revelation?—No. Reason is obliged to admit a Creator, and cannot limit His almighty power.

Do all the systems of religion received as revealed, and which admit one only God, invariably represent Him in the same way?—No. Some of them attribute physical qualities to the Supreme Being. The Mohammedans, for instance, conceive Him to be round, immense, and cold; the Indian Gentiles imagine Him as an oval; others picture Him as an old man with a white beard and venerable

aspect, &c. Those systems of religion which accord most with reason speak of God as an incorporeal Being—a Spirit.

And do all the religions that recognise God as a Spirit conceive Him endowed with similar attributes?—Far from it. By one He is represented as partial, exclusive, jealous, vindictive, cruel, a God of armies and battles, delighting in the blood of victims and of enemies; by another He is pictured as full of goodness, beneficence, clemency, and mercy—a God of peace and of love, rejoicing in the felicity of all. Men commonly attribute to the Supreme Being their own manners of thinking and of feeling, their own animal and human nature. This is even apparent in the interpretations of the several grand systems of religion, *i.e.*, in the formation of sects. The controversies of theologians on God and His nature, on His communication with man, and on the mode in which He rules the universe, are very voluminous, and there are innumerable schools of religion, each of which assign grounds more or less plausible for its dissent from the others. In general, however, they are evidently entangled in a labyrinth of contradiction and inconsequence.

Are there not some general points of resemblance between all systems of religion?—There are. (1) In each the articles of belief are propounded as the commands of heaven. (2) The articles of faith are essentially the same, but variously modified according to the genius of each. They relate to a beginning, or creation of the world; to one or more regulating causes of occurring phenomena; to a primary state of perfection of man as created by a good principle; to his degradation or fall through disobedience; to a cause of his seduction; to his disgrace and punishment; to the possibility of his repurification and restoration to divine favour; and lastly, to his future state. (3) They who make known the articles of a revelation have uniformly attested their mission by the working of miracles. These are the testimonials of prophets. (4) The language used in all its figurative, or symbolical. (5) Almost all are intolerant and mutually exclusive, a circumstance which arises from the innate feelings of self-esteem and firmness in man, and from its being evident that as there is only one God only one religion can possibly be true.

Whence does this sameness arise?—It may be accounted for by the sameness of the innate powers, and by inferring a primitive revelation of the divine will, adapted to the innate faculties of man, which, being essentially the same, necessarily require and determine similar modes of satisfaction. All nations have music according to the same laws, and dances in accordance with their music. Pride is everywhere greedy of command, and vanity of display. The same invariable law applies to religious sentiments in combination with the other primary powers of the mind.

Are all the religious systems, which are considered as revealed, and believed at the same time, true?—This is impossible. As there is but one God there can be but one supreme will and one true religion.

Has the phrenologist a right, or is it incumbent upon him, to decide about the truth of any religious belief?—Neither the one nor the other. His knowledge is confined to the results of the innate dispositions, but the certainty of revelation depends on proofs of another nature beyond the reach of phrenology.

How are the religions, regarded by their disciples as revealed, commonly supported?—It is customary to repose on the veracity of the prophets who report the revelation, and they themselves are required to work miracles in order to attest their mission.

What is a miracle?—A miracle is a suspension or counteraction of the established laws of nature. It therefore implies the power of God—the ability to create, and to interrupt or suspend the current of things; to annihilate, to diminish, and to augment matter; to still the waves of the sea, to hush the winds, to cure distempers by words, and so on.

Can the title “absurd” ever be well applied in connection with miracles?—No; for whatever man pretends to effect in contradiction to the laws of creation is deception. Thus it is impossible to put the moon into the sleeve of a coat, as Mahomet boasted he had done.

Why have revelations always been made in symbolic and mysterious language?—The majority of mankind are fond of the marvellous; and in addressing them through its medium a hearing is surely and readily obtained. The most palpable absurdities, the grossest superstitions, are admitted by the ignorant, provided they be proposed as supernatural, and be deeply tinged with the marvellous. Enlightened men, too, who formed just and reasonable ideas of the Supreme Being, of His attributes, and of man's relations with Him, have generally been obliged to conform in public to the prevalent State system of religion, and they therefore invented a language of symbols, by means of which they maintained their private opinions, entrusting the initiated only with the key to its interpretation. Besides, the Oriental tongues abound in metaphors, comparisons, and figurative expressions, which translated literally into modern languages lose entirely their primary significations.

What is the conclusion to be drawn from the foregoing reply?—That we are not to rest satisfied with mere literal interpretations of religious language, but that we must search for its spirit. The apostle said long ago, "The letter kills, but the Spirit vivifies."

Can a truly divine revelation interdict the use of reason?—Reason is the noble gift by which the Creator has distinguished man from all other animated things. Now it would be a most unreasonable act to endow a being with any faculty and then to prohibit its use.

Can God contradict Himself?—This is impossible. His will being the perfection of virtue, and His sense of right and consistency being the strongest, God cannot therefore contradict in revelation what He teaches in His works; nor can He contradict in one part of Scripture what He teaches in another.

What inference may be drawn from the preceding answer?—Known truth, derived from observation and experience, must restrain and modify the Scriptural language, and every interpretation must be given up which contradicts any physical truth, particularly since the Scriptural language is singularly figurative, and nowhere affects the precision of science or the accuracy of definition.

Is belief the best means of proving the truth of a revealed system of religion?—It is certain that all religions whatsoever are propped up on belief. It is equally certain that belief depends on feelings rather than on intellect, and that men are very ready to believe when their tastes are flattered, and when they are met by promises that are agreeable to their desires. There are nearly as many Mohammedans as Christians in the world, and all good Mussulmans believe firmly that their Prophet put the moon into the sleeve of his coat. From this it is evident that simple belief cannot demonstrate the truth of any, however generally accredited, system of religion.

Besides belief, is there any other mode of demonstrating the truth of a revelation?—Yes. There are proofs founded on the nature of the revealed doctrine itself, and that are approved by reason. Thus the precepts that come from God must necessarily harmonise, they must be adapted to human nature, and they must produce salutary effects. It is impossible to suppose that God gives mankind laws whose tendency is injurious to them.

Can true religion exclude morality?—This seems impossible to those who have arrived at refined notions of an all-perfect Being, and who place their most acceptable worship in actions producing every one's own happiness in harmony with that of his neighbour. They find religion unprofitable, nay often hurtful, if it be confined to mere belief in the divine appointment of prophets, in mere miraculous actions of the Almighty, or in idle, useless, ridiculous, or even mischievous observances, whilst the exertions of the higher sentiments of man are passed over as indifferent.

Can they be received as true prophets who speak according to the circumstances of the times in which they appear?—No. The Spirit of God is eternally the same. Reason, therefore, unmasks Mahomet, who accommodated the revelations of the angel Gabriel to the nature of his designs, and even rescinded preceding communications entirely if his views required the measure.

Is it reasonable to doubt in religious matters? If so, why?—Yes, it is,

because many assent to what many deny ; and because there have been many prophesying cheats, and much prophetic deception, inflicted on the world, caution is especially necessary when the temporal interest of the deceivers is joined with the spiritual interest of the deceived.

May false prophets and their errors be more readily and certainly detected by the nature of the doctrine they teach, or by the belief they receive ?—The nature of the doctrine and the fruit it produces afford the surest test of its truth.

Why do the priesthood so commonly oppose the use of reason ?—The priesthood have exacted blind belief, because this, whilst it prevents discussion, renders their calling more imposing, and more easy. It further secures them from accusation, and cloaks their errors and selfish views.

What advantage is there in proposing laws to men as divine revelations ?—It disposes them powerfully to obedience.

What peculiar condition of mankind is the most favourable to belief in general ?—The state of ignorance, which is always credulous. They therefore who would lead the nations blindfolded have reason at least on their side in opposing the cultivation of the understanding.

Is it a matter of difficulty to discover and to understand truth ?—The question is rarely either of discrimination or of understanding. The mass of mankind admit what they like, and what they consider as favourable to their interests, whether temporal or eternal. When the time comes that mankind shall desire to understand and to practice what is reasonable and just truth will triumph over error.

Is belief necessary in anywise ?—Yes ; but if religious doctrines be imposed as obligatory the articles of belief should be reasonable and just, in order that he who is capable of reflecting may perceive them as true, and their practices tending to establish the general happiness.

Is a religious doctrine true because of its promising great rewards ?—To promise largely is an efficient means of insuring its adoption, but this does not in any way prove its truth. It ought to be reasonable and advantageous at the same time—that is to say, it should satisfy both the affective and the intellectual faculties of man.

Is instruction dangerous to morality ?—Experience proves most amply that it is not. The history of nations, of tribes, and of classes in the different societies of men, presents the greatest number of crimes, and of immoral actions generally, during the reign of ignorance, and of superstition its attendant. Crimes diminish, not only in frequency but in atrocity, in proportion as the mind receives cultivation, as arts and sciences are encouraged, and as good manners and gentle bearing are esteemed and rewarded. Men must positively be taught whatever is deemed of importance that they should know. The only question therefore is whether it be more advantageous to instruct them in superstition and error or in reasonable religion and salutary truths.

Have religious doctrines done harm to mankind ?—Much, both physically and morally—sometimes by their commands, but principally by their intolerance.

How can a religious system work physical evil ?—By its provisions as to the nourishment of the body and the propagation of the species, and by countenancing any species of persecution, such as the rack, dungeon, stake, &c.

What is the revealed religion which surpasses all others in every kind of perfection, and that stands the scrutiny of reason ?—It is pure Christianity.

SECTION VIII.

OF CHRISTIANITY.

Phrenology being true, can it be in opposition to pure Christianity ?—This is impossible, as no truth, either physical or moral, can be in opposition to any other. Christianity and Phrenology, when well understood, will give mutual assistance to each other.

Is the phrenologist entitled to speak of Christianity ? If so, how far ?—The

phrenologist has the right to examine whether Christianity is adapted to the innate dispositions of man, and he is delighted in seeing it in perfect harmony with human nature ; but he is confined to the examination of the Christian doctrine itself and its superiority without being able to decide about the nature of the Revealer. He can speak only from actual observations and inductions.

Does the Christian religion permit reasoning ?—Jesus Himself said, “Those who have ears let them ear.” He declared that light is not made to be hidden, but to enlighten ; and He reproached His own disciples for being without understanding. (Matt. xv.) Paul also says, “I speak as to wise men ; judge ye what I say.” (1 Cor. x., 15.) And again, “Prove all things ; hold fast that which is good.” (1 Thess. v., 21.) “Beloved,” says John, “believe not every spirit, but try the spirits whether they are of God.” (1 John iv., 1.)

Does not Christianity recur to reasoning in order to demonstrate the existence of God ?—It does. For “every house,” says Paul to the Hebrews (chap. iii., 4.), “has been builded by some man, but he that built all things is God.”

In what manner, according to Christianity, does God make Himself manifest ?—The invisible perfections of God, His eternal power, and His divinity, appear in the works of creation. (Rom. i., 20.)

What are the chief attributes of God, as defined by Christianity ?—God is a spirit. (John iv., 24.) He is love. (1 John iv., 16.) He is just and impartial, and regards not appearances nor persons. (Rom. ii., 11.) He rewards each according to his works (Rom. ii.), desires only good, and wills only the happiness of His creatures. (New Testament *passim*.)

How may the doctrines of Christianity be divided ?—Into two principal parts—the one marvellous, the other moral.

In what does the marvellous part of Christianity consist ?—It includes whatever is incomprehensible, whatever is beyond the limits of observation—such as the nature of God, the creation of the world by His will, His influence upon His creatures, His communications with men, the birth and miraculous actions of Jesus, the immortality of the soul, and the rewards and punishments in the life to come.

This part of Christianity requires belief ?—It depends entirely upon belief ; for the points of which it is composed cannot be submitted to present observation.

Have all Christian societies agreed upon the marvellous part of their doctrine ?—No. This part has produced continual dissensions among Christians ; and so long as any individual shall dare to think and to interpret himself these must continue. It is this part of Christianity, also, which has often been the cause, and always served as the pretext, of intolerance and persecution on account of opinions.

What is to be concluded from this ?—That every man should be allowed to follow the dictates of his own conscience, and to believe whatever he conceives is true, provided the public tranquillity be not disturbed, and the moral part of Christianity do not suffer.

Is this conclusion reasonable ?—It is in complete harmony with reason, and in conformity with the moral injunctions of Christianity, which command the preaching of the truth, but strictly prohibit all persecution. “Go ye,” said Jesus to His disciples, “into all the world, and preach the gospel to every creature. And whoever shall not receive you, nor hear your words, when ye depart out of that house or city, shake off the dust of your feet.” The induction is the more reasonable, too, inasmuch as the Christian doctrine assures us that every one, at the final judgment, will have to render an account of his talents and of his deeds.

In what does Christian morality consist ?—The whole of it is reducible to two grand commandments, viz., “Love God with your whole soul,” and “Love your neighbour as yourself.” (Matt. xxii., 37, 39.)

What is understood by the “love of God ?”—“This is love of God, that we keep His commandments.” (1 John v., 3.)

Can we, humanly speaking, “love God,” such as He is represented in the

Gospels?—Every rational and noble mind must love a God who has compassion on our weaknesses, and who makes the sun to shine, and the rain to descend, even on those who obey not His will—a God who gives the breaker of His laws time for repentance, who desires universal happiness, who gives the same law to the whole human kind indifferently, and who will mercifully judge each by his works, without respect of persons.

Is the observance of certain symbolic forms sufficient to constitute a Christian?—Far from it; though many, indeed, think it is. Forms are not the end of Christianity—they are mere means of engendering and nourishing a Christian spirit.

The Christian morality, in commanding love to God, implies in this entire submission to the will of the Creator, does it not?—Conviction of the extent and importance of this commandment is of prime necessity. That the will of the Father, God, is to be done on earth as it is done in heaven, is an injunction clearly set forth. The propriety of distinguishing between the laws of God and the enactments of men is thus proclaimed. Jesus also said that He could do nothing which He had not seen done by His Father; and He declared that only they who did the will of God were His brothers, sisters, or mother.

Does the will of God comprise the laws of creation—that is to say, the natural laws?—Undoubtedly, because God and the Creator are one. Man, indeed, can create nothing. Endowed with understanding to observe phenomena, and the conditions under which they occur, he can, however, imitate, in some degree, that which the Creator shows him—in other words, he can prepare the conditions necessary to elicit determinate effects; but he is still dependent on the laws of the Creator for the success of his undertakings. Jesus said, "My doctrine is not mine, but His that sent me." (John vii.)

Is there a difference between the belief in the natural laws and that of Christianity?—Those who merely believe in the fixed order of nature admit in the Creator a regard to *general* good rather than an affection to *individuals*. They find the natural laws operating with an inflexible tardiness, and never varying, to meet the wants of individuals, whilst Christianity represents God as a Father endowed with paternal tenderness towards His offspring, and pardoning the sinner. Further, the belief in the ordinary course of Providence does not clearly conceive the reality of a future existence, whilst Christianity promises and assures us of our immortality. Indeed, if man is to live again, he is not to live through any known laws of nature, but by a power higher than nature.

Having seen in an early part of this book that there are three kinds of natural laws, viz., vegetative, intellectual, and moral laws, which of these is the most important in the view of Christianity?—The knowledge and practice of the moral laws. Jesus says that His followers are to shine before men by the light of their good works. (Matt. v.) He placed morality so far above everything else that some have imagined His aim to have been the annihilation of the physical and intellectual laws of man.

What is the decision of good sense in this particular?—It recognises the moral laws as superior to the others; assigns them the direction of all our actions; introduces harmony among the functions that respectively constitute the moral, the intellectual, and the vegetative laws of man; and it declares that nothing which God has created is ever to be neglected, much less to be annihilated.

Is belief, or avowal of belief, in the mission of Jesus sufficient to constitute a Christian?—To be a Christian, it is not enough to recognise Jesus as the Son of God, the Redeemer of Man, and the interpreter of the will of His Heavenly Father, or even to be conversant with His commandments. It is indispensably necessary to act upon the precepts He taught. "He that hath my commandments, and keepeth them, he it is that loveth me." (John xiv.) "Not every one who sayeth unto me, Lord, Lord, shall enter into the kingdom of heaven, but he that doeth the will of my Father." (Matt. vii.) These are the Master's own words. Paul, too, says, "The kingdom of God is not in the word, but in power," i.e., deed. (1 Cor. iv.)

What is the law which, although included under the general title, *Love God*, Jesus recommended in a particular manner?—It is the law of neighbourly love: Thou shalt love thy neighbour as thyself—do unto others as ye would that they did unto you, and do not to others the things ye would not that they did to you.

Is the law of neighbourly love of very extensive application?—It is the universal rule of conduct in all the relations of man with his fellow-men. They who practice it will never offend nor injure any one. They will exert their utmost ability to rescind arbitrary and unjust enactments, to crush tyranny, and to abolish slavery of every description; they will not live at the expense of others; they will be meek, indulgent, benevolent, just, and faithful; they will never swerve from the path of peace, nor ever lose sight of general happiness as the end of their being.

And to be a Christian is it necessary to practice this law?—It is an indispensable condition to be so considered. To say otherwise would either be to deceive ourselves or to be guilty of hypocrisy. The law is clearly expressed. Jesus frequently admonished His disciples to distinguish themselves by their love of each other.

Is it easy or difficult to accomplish the law of neighbourly love?—Jesus announced the law as the will of His heavenly Parent, and He exacts its fulfilment, even though it require the aid of resolution. "Because," says he, "no man putting his hand to the plough and looking back is fit for the kingdom of God." (Luke ix.) And He adds, "When we have accomplished all that is commanded, we have done no more than our duty."

Is it equally difficult for all men to be Christians?—It is more easy for the poor than for the rich to love their neighbours as themselves. It was especially to the poor that Christ brought the good tidings. He has positively declared that it is extremely difficult for a rich man to enter the kingdom of God. (Matt. xix., 23.)

Can we, in the enjoyment of privileges, love our neighbour as ourselves?—Good sense replies in the negative.

Are Christians authorised by their doctrine to take or reclaim by force that which others enjoy in opposition to the law of neighbourly love?—By no means. They are forbidden to do evil to any one, or to use violence in any way. They form a class apart, and never serve as instruments in oppressive or exclusionary schemes. Among them there is neither master, nor servant, nor slaves. They know but two grades or ranks in their community—accomplished Christians and disciples; and the accomplished disciple attains the same footing as his teacher. (Luke vi.) They recognise each of their members as possessed of particular gifts, but these all employ agreeably to the law of neighbourly love. Each is only answerable for the talents entrusted to his care; and, taking advantage of them in this spirit, all have, as all only require, the same recompense. "Christians," says Paul to the Romans, "form a body and many members; they have different gifts, but each employs that he possesses in union and in charity."

Is the formation of a Christian society possible?—Not among men as they are at present constituted. The law of neighbourly love is sublime, and will remain true to eternity; but it is not as yet given to man to adhere to its injunctions. To do this, the knowledge and practice of the universal law of Christianity, Do the will of God, in all its details, is indispensable. Above all, the laws of hereditary descent must be enforced, in order to prepare mankind for the reception of the Christian doctrine in its purity. Without this course the Holy Spirit will never remain among mankind.

Christianity, in promising everlasting life beyond the grave, does not render temporal happiness incompatible with the prospect of such bliss, does it?—To say yes would be equivalent to saying that it is necessary to fall sick in order to live well. True, in the actual state of things the majority of mankind finds the task of adherence to the natural laws extremely painful; but this does not prove that the Creator has willed it so, or resolved its endurance for ever. Christianity, in directing the actions of the innate powers, cannot intend to abolish them;

and each power, when satisfied, procures pleasure, and some are given only for the sake of temporal happiness.

In what does the worship prescribed by Christianity principally consist?—It is reasonable and spiritual, not consisting in what is eaten and drunk, nor in distinctions made between days. (Rom. xiv.) It is a worship which regards the Sabbath as made for man, not man for the Sabbath, “for the Son of man is Lord also of the Sabbath” (Mark ii., 27)—a worship which teaches that God is not served by men’s hands, as if *He* had need of aught—*He* who gives life and sweet consciousness of being to all, and sheds joy and harmony over His creation. (Acts xvii.) The worship, in a word, which the true Christian pays to God consists in learning and practising His laws in general, and in observing His ordinance of neighbourly love in particular.

Do the religious and moral precepts of the New Testament surpass those of the Old in perfection and excellence?—Whoever will compare the qualities attributed to the Supreme Being, regard the spirit of the laws contained, and observe the means proposed for teaching these, in each, must inevitably recognise the infinite superiority of the doctrines of Christianity.

What is the principal duty of the teachers of religion and morality?—To know the universal law of Christianity; to study its particular laws; to spread abroad a knowledge of them, and to show their advantages to individuals, to existing communities, and to posterity; lastly, to attest their own belief, by practising its ordinances. They are to “feed the flock of God which is among them, taking the oversight thereof, not by constraint, but willingly, not for filthy lucre, but of a ready mind; neither as being lords over God’s heritage, but being examples to His flock.” (1 Peter v.)

What idea do true Christians entertain of prayer?—When they pray they retire to their closet, and when they have shut the door they pray, above all, that the will of their heavenly Father may be done on earth. (Matt. v.) They “use not vain repetitions as the heathen do, who think that they shall be heard for their much speaking.” They are assured that God knows all they require before they present their petition. (Matt. vi.) True Christians do not suppose that they can please the Almighty by any kind of ceremony, by the burning of incense, or otherwise. They admire the Creator in contemplating His works, in meditating on the laws which reign throughout the universe. The further they advance in knowledge the more do they overflow with reverence and gratitude. Examine all their actions, whether or not they be in conformity with morality. They strive to make amends when they have sinned, and they admit in principle that God listens to them in proportion only as they fulfil His laws, in little as well as in great things.

By what visible signs are true Christians, or the disciples of natural morality, distinguished from the rest of mankind?—By their works, by their submission to the laws of the Creator in general, and by their practice of the moral laws in particular. “Ye are my friends,” said Jesus, “if ye do whatever I command you. (John xvi.) It is in this that ye will be known to be my disciples, if ye have love one for another.”

SECTION IX.

OF CHURCH RELIGION.

What is the meaning of the word church?—(1) It designates a general society of individuals professing the same religious principles. (2) It also implies any special congregation making part of the general society. Churches are then named from the places at which they exist, as, for instance, the church of Corinth, the church of Antioch, of Ephesus, &c. (3) It is used to designate the government of religious matters. (4) It signifies the building in which the members of the society or congregation assemble, whether to improve in knowledge of their religious principles, to address prayers to God, to sing hymns to His praise, to return thanks for benefits conferred, generally or particularly, on the members, or to offer adoration in any way whatever.

How is the general Christian church entitled?—It is called catholic.

Are there more catholic churches than one?—Several have at least taken the title. They are distinguished from each other by adding the name of the country or town where they severally commenced or flourish. Thus there is a Roman catholic church, a Greek catholic church, an Anglican catholic church, and so on.

Can the special societies of the general or catholic churches follow principles differing respectively?—It is evident that congregations admitting different principles do not constitute parts of one catholic church.

Can several churches be catholic in one respect and divided in others?—Yes. All which believe in the mission of Jesus and in His miracles are members of one catholic church in as far as these points are concerned; but they may be divided into many churches in regard to the precepts admitted as Christian ordinances.

Does the society that changes its religious principles belong to the catholic church of which it was a part?—No. It forms a new church.

Ought there to be superiors in any church?—Yes. It is well to have persons especially appointed to teach and to watch over the accomplishment of the principles they admit respectively.

Is any man justified in commanding in the name of God?—The power of God is absolute, but if man arrogate such authority disorder is inevitable. The ministers of religion ought to be responsible to the community for every one of their religious interpretations in the same way as the ministers of civil governments are answerable for their measures.

Can any reliance be placed on the word of him whose actions are at variance with his precepts?—No. More especially if the tendency of his teaching be favourable to himself. Jesus said, "*If I do not the works of my Father, believe not me.*" (John x., 37.)

What is the common tendency of every established church?—The priesthood of every State religion try to keep religious notions stationary and to maintain the uniformity of discipline.

Is it possible to keep moral and religious notions stationary?—It may be done by theocratical governments for a shorter or a longer period; but it is impossible where civil and religious governments constitute two separate powers. The progress will be slow in proportion as both sorts of governors remain united; but views which are adapted, and even necessary, to ignorant generations, cannot satisfy enlightened minds, and must successively improve as well as arts, sciences, and civil legislation. The technical, obscure, and gloomy theology which has come down from times of ignorance, superstition, and slavery, must yield to a system which is practical, clear, and calculated to unfold the highest powers of our understanding and our moral sentiments.

Is Protestantism compatible with the uniformity of any religious doctrines?—No. Protestantism is founded on the right of reasoning; and wherever this is allowed the uniformity of doctrine cannot last, since the power of reasoning differs in degree in different persons.

Is it wise in the priesthood of established churches to remain stationary whilst the nations improve in civilisation?—If the sacerdotaly do not keep pace in arts and sciences with the community at large their influence must diminish by degrees, and finally cease altogether.

Since a variety of religious sects is unavoidable wherever the free use of reason is allowed, what should be their common tendency?—Each sect should endeavour to establish harmony in all branches of knowledge, physical, intellectual, religious, and moral.

Is it possible for any church to become universal and permanent?—Yes. That church will become universal and lasting whose religious principles shall be founded on a knowledge of the true nature of man, which shall establish harmony among all the primary faculties of the mind, and which shall elevate religion to the rank of a science. Every religious idea that contravenes reason can only endure for a time.

What, then, should form the groundwork, and what the aim, of that general religious reformation whose necessity for the well-being of man is so evident?—With reason, and belief in harmony, knowledge and morality must be its foundation, and universal happiness its aim. In other words, Christian morality ought to be taught in its purity, and become the essence of religious belief. The practice of the moral law should be a necessary obligation on every member of society. Whether induced by reason or by faith, by love or by fear, all should be found to conform to its precepts. No mystical conception, however, ought on any account to be arbitrarily imposed. Every one should be left free to reject or to adopt, according to conscience, any opinion which is not at variance with the true spirit of Christian and natural morality, and which is not inimical to the general peace and happiness.

PREFACE.

I OFFER no apology to my readers for the publication of the following book the subject of which is fully indicated by its title.

It has been written with a full conviction of the importance of the following facts, namely—that the human race is composed of two sexes every way adapted to each other, with natural qualifications and inclinations for matrimonial union, and the continuance of the species ; that there is no other way by which it can be perpetuated than through the agency of the sexes ; that the perfection of mind and body depend on established and fixed laws of reproduction ; that man has both the capacity to understand and the ability to obey these laws and principles ; that the happiness and misery, both of the parents and children, are necessarily affected by the obedience or disobedience of our social nature ; that in all nations, and throughout all generations, since the days of our first parents, men have gratified their sexual and social inclinations comparatively regardless of these circumstances, or the laws which should have regulated and directed them ; that health, happiness, and the perfection of all our social enjoyments depend, in a great degree, on our compliance with the true principles of reproduction ; that from all past systems of marriage and social arrangement, a degree of domestic happiness and perfection of organisation has not been secured to the human race equal to their privilege to possess and their capacity to enjoy ; that the inference is plain, either that we are ignorant of the laws of our social and reproductive systems, or that we wilfully violate them. It is self-evident, therefore, that knowledge should be diffused, and the moral nature of man brought to act in harmony with his social duty.

To produce these desirable results, and either directly or indirectly to aid in bringing about this great social reform, so much needed, the author, guided by the elements of our nature, has written this work, in the hope that some information might be communicated, and suggestions made, worthy the attention of every reader.

A portion of the work is devoted to a brief History of Marriage, and to a description of the various methods and customs which different nations and tribes, from the commencement of the world to the present time, have adopted to gratify their sexual and social feelings. By an examination into this history we shall perceive that marriage has generally been looked on in the light of passion regardless of love, offspring, and posterity, and that there has been very little improvement in man's social condition, he having been, for the most part, led on by the blind impulse of his nature.

The main body of the work is devoted to an exposition of man's social nature, as explained and developed by Phrenology and Physiology; to a description of the influence of the social feelings when combined with the other faculties of the mind; to the design of God and the objects accomplished through man's social nature; to the social duties and obligations of man; to the exposition of the knowledge necessary to aid us in selecting proper companions for life; to the philosophy of true love, on what it depends, how secured and retained; to the evils which result from pursuing a narrow, selfish policy in choosing companions; to a description of such individuals as are, and such as are not, fit to be married; to the true course that should be pursued to secure that balance of mind and perfection of body so much desired by all parents; closing with an explanation of the important difference which actually exists between the male and female, both mentally and physically, and a few suggestions in relation to those qualities which should not, and those which should, exist in husband and wife.

The subjects here treated of are of vital importance and full of interest to all classes of society.

READ, THINK, JUDGE—THEN ACT.

MARRIAGE:

A PHRENOLOGICAL AND PHYSIOLOGICAL EXPOSITION

OF ITS

CHARACTER AND DESIGN.

THE more we look into the works of our Maker, the more we see that design, fitness, and adaptation characterise them all. This will be found particularly so when we investigate them as applied to *the lords of creation*; for, just in proportion as his nature is understood is he found to possess those qualities, and only those, which capacitate him to fill the peculiar sphere for which he was designed.

The laws of *harmony and adaptation* fully illustrate this point, and exhibit the wisdom and designs of the Creator in a most extensive light.

Man being the subject of God's designs, the result of His causation, the instrument through which He makes known His wisdom and power, possesses both the ability and inclination to sustain all the agencies and duties devolving upon him; and in no case is this more strikingly exhibited than when it is applied to his social nature.

Existing, as we do, with this social nature, and with all the duties and responsibilities connected with this organisation, it devolves upon us to ascertain how we can most successfully accomplish our mission on earth. Those mediums or sciences, therefore, which throw light upon this all-important subject, should be looked on as so many life-boats, to take us from the wreck and convey us to a safe harbour and quiet repose.

Phrenology and Physiology are the only sciences which give us correct and safe information upon these interesting relations. They, like the pilot, will serve as a true guide on the sea of matrimonial life.

Physiology makes us acquainted with all the functions of the body, their healthy state of action, how to keep them healthy, and the cause of their derangement; also the laws of hereditary influence, the transmission of qualities from parents to children, and the necessity of obeying all the laws connected with our physical existence, in order to secure three important objects of our being, which are life, health, and happiness.

Phrenology makes us acquainted with the faculties of the mind and their manifestations, the combinations which produce harmony between parties united, and the means of adapting the exercise of each faculty in one individual to that of another, besides informing us in relation to the nature and adaptation of those faculties which are connected with our social and domestic relations.

It informs us that they should be exercised in harmony with the other faculties of the mind, in order to secure all the designs connected with their existence, and also that the evils of domestic life are almost invariably the result of a clashing of these social qualities.

The organs of the domestic feelings and propensities are located in that portion of the head which is occupied by the lower and posterior convolutions of the brain—mostly covered by the occipital bone. Their influence on character is greater than any other equal number of faculties; and they also embrace a larger portion of the brain. These faculties, properly or improperly directed, have as much, if not more, to do with the happiness or misery of mankind than any other; hence the importance of securing their proper influence and direction.

The legitimate influence of the social feelings on the other faculties of the mind is like a band around a sheaf of wheat, which serves to keep the bundle together until the wheat is secured. So the social nature of man confines, combines, and directs the whole energy of the mind, and all its various powers, into those channels and pursuits which are necessary in order to enable us to fill the sphere which our Creator intended.

When very strong and active, they are extremely liable to be perverted, particularly by young persons, in whom they are excitable, and who have had but little experience in the world. The most effectual way to direct these feelings in the proper channel, and prevent their becoming perverted, is to secure the equal exercise of the moral and intellectual faculties, allowing the social feelings to be freely exercised in virtuous society, innocent amusements, and in reading suitable books: thus creating a balance of power in favour of intelligence, morality, and virtue.

Some parents, who have children with strong social feelings, keep them entirely away from all society, as a preventive to the perversion of those feelings, hoping in this way to save their sons and daughters from disgrace and ruin, forgetting the old adage that "nature will out," let the restriction be what it may. It would be far better, and much more in accordance with nature, if those parents would secure good society, in which those children could exercise their affections harmlessly.

The first faculty in the social group to be considered in this treatise is AMATIVENESS, situated in the cerebellum, giving width and fulness between and behind the ears.

When Amativeness is very large, it requires great Caution, Conscientiousness, and Firmness to keep it within due bounds, or it would produce consequences the most fatal to both mind and body, as in the case of a female seventeen years of age, who was confined in Auburn gaol for loose, licentious conduct; and the author was informed by the gaoler that he never had a person under his care so obstinate and devoid of shame and modesty as this woman.

The function of this faculty is love between the sexes,* and is adapted to, and in harmony with, the condition of man and animals, as agents of reproduction. Its stimulating influences upon the other faculties are most powerful. It gives us all those feelings, impulses, and attractions which are experienced between the sexes as such, and is the magnetic cord which draws them together.

"It exerts a quiet, but effectual influence in the general intercourse between the sexes, giving rise in each to a sort of kindly interest in all that concerns the other. It softens all the proud, irascible, and anti-social principles of our nature in everything which regards that sex which is the object of it, increasing the activity and force of all the kindly and benevolent affections. This explains many facts which appear in the mutual regards of the sexes towards each other. Men are, generally speaking, more generous and kind, more benevolent and charitable, towards women, than they are to men, and *vice versa*." The characters of both sexes are improved by the society of the other, by way of

* For a more full and complete development of the functions of this organ see Amativeness, Fourth English Edition, price 2d.

making man modest, polite, and refined, and woman more energetic, ambitious, and talented. In healthy and well-formed persons, the larger the organ the more desirable is the company of the other sex. It is much influenced by the imagination, by increasing the charms and personal attractions where there are but few, thus giving false impressions of each other, and directing the intellect into a wrong channel.

But if the organ be small, the person is less susceptible to emotions of love; is cold-hearted and distant—disposed to avoid the company of the opposite sex, and manifests a want of refinement, tenderness, warmth, and delicacy of feeling which should exist between the sexes. The affections of such a person may be characterised by purity of feeling and platonic attachment, rather than by those impassioned emotions which spring from large Amativeness.

Amativeness in the head of the distinguished John Randolph was small. He had comparatively no love for woman—was insensible to her charms; her presence, and particularly her caresses, were decidedly repulsive to him. From what can be learned of him, it appears that this faculty was smaller, both physically and mentally, than in any other man on the records of history; and there are no traces of it in his physiognomical expression. This faculty is very much affected by the temperament, and under peculiar circumstances may be so much excited as, for the time being, to appear large, when it is, in fact, only moderate.

It should be equal in its influences between the parties united, in order to secure the greatest amount of happiness in domestic life, and the harmonious exercise of all the other faculties; for no small share of the difficulties which occur between husband and wife arise from the irregular and unequal influences of this faculty.

Scores of facts directly in point could be given, with names and places of residence, where serious difficulties exist in respectable families, arising from a want of sympathy and equal influence of Amativeness.

Many in whom this faculty is weak, and constitution feeble, lose their health and shorten their days in trying to conform to the stronger passions of their companions, and are convinced of this fact only when it is too late to stay the arrows of death, and to eradicate the seeds of dissolution.

Let the husband of her whose cheek is fading with disease, whose eye is growing dim, and the step palsied, stop and inquire if he is not the secret cause of her decline.

If this faculty is really small in the one and large in the other, then it would be the duty of the one in whom it is large to restrain and modify its influence, while the other should strive to cultivate it by encouraging what there is, and allowing the faculty to be called into action when the occasion requires. It can be increased by encouraging tender feelings towards the opposite sex, and looking upon them with complacency, and allowing those caresses which love and affection prompt between husband and wife. When the reason is convinced of the deficiency of this faculty, it will suggest the proper way for its increased action between the parties concerned. It is, however, more often too large than too small.

From my extensive observations and knowledge gained by fifteen years' travel in all parts of the country, and becoming acquainted with families from various parts of the world, I have at times almost arrived at the conclusion that one-half, if not more, of all the difficulties existing between husbands and wives, and premature deaths, are produced by a want of proper adaptation to each other in this organ.

In the state of New York, in the fall of the year 1840, a gentleman presented himself to me for a phrenological examination of his cranium. In the progress of the description it was remarked that his cerebellum was diseased, being at the time in a state of excessive inflammation. He requested that a particular analysis should be given, which was done. The organ of Self-esteem was also very prominent and active, and when connected with the unnatural condition of the cerebellum, it was stated that he was most likely jealous of his wife,

and very probably without cause or reason, the size and excitement of these particular faculties being sufficient to produce that state of feeling from their own immediate influence, without the assistance of circumstances.

He immediately observed that such was the fact—that he had suspected his wife for three or four years, and he thought that he had good and sufficient grounds for his jealousy.

The question was then asked if he did not often feel a pain in the back portion of his head. He answered, Yes, and that, at times, when this pain was at its height, his suspicions were the strongest, and his conduct the most violent. Had frequently insisted upon her being turned out of the church as unworthy of membership, and at such times had taken other strong measures against her; but his friends espoused the cause of his wife, and had persuaded him to travel, hoping that change of scene and new subjects for thought would wean his mind from these domestic misfortunes, and restore him to sanity upon this point. His consent was given to the arrangement, merely to pacify them; and he insisted strenuously that “confirmation strong as proofs of Holy Writ” remained for his belief, however bitter it was. The point was argued at length, and considerable endeavours made to influence his mind and cause him to take a proper view of the subject, and not without some effect, although he left persisting in the soundness of his judgment in this department of his feelings.

Sometime thereafter he obtained an examination from Mr. O. S. Fowler, who made a similar statement, and reasoned with him in the same manner, and upon the same point.

He commenced the study of himself thoroughly upon the principles of Phrenology. His disease gradually gave way to the force of reason; he readily made acknowledgments to his wife; they entered into explanations; and the result is that he is now established in a happy home.

The origin of his disease was this: His wife had small Amativeness—was therefore cold-hearted; he had the organ very large, and not having his ardour of feeling reciprocated, brought on the inflammation, producing the disastrous consequences above mentioned, though they are now happily pacified.

The whole history of man, sacred and profane, and in all gradations of society, bears strong and melancholy marks of its perversion; and in no possible way does human nature appear so low and disgusting, so brutal and devoid of reason, as when this faculty has the controlling influence—a faculty which, guided by reason and modified by the moral sentiments, is calculated to secure the highest degree of domestic enjoyment, and make social life exceedingly pleasant and desirable. But, strange as it may appear, human nature has become so depraved, the intellect and ambition of many influential men are so misdirected, that they consider their greatness and popularity increased in proportion to the perversion of this faculty; thus leading thousands astray. It is the province and natural influence of Phrenology to exert a great influence in correcting these false impressions, and in bringing about a very important reform in this matter, by enabling us to understand the proper use of each faculty, and how far it can be exercised without violating its functions, or its harmonious influence with other mental qualities. It is stronger in the male than in the female, and is in them more frequently perverted; and, if woman goes astray at all in this respect, it is too often that she has been led astray by perverted man and his seducing influences.*

All who have made any observations upon this subject have arrived at the same conclusion, viz., that the strength and activity of this faculty depend upon the size of the cerebellum and the activity of the brain. Gall remarks:

“I have had opportunities of observing several men and women who were the slaves of this propensity in a depraved condition. The large and arched nape of the neck is conspicuous, particularly in the women. Almost all the women abandoned to this propensity have at the same time a robust and

* For the causes of the perversion of this organ, see Amativeness, pp. 29, and Matrimony, pp. 36 to 38.

masculine constitution. The men, on the contrary, have an effeminate body ; their limbs are rounded, fat, mottled, and small, and their breasts very conspicuous. The ancient historians describe Nero as delivered up to the most intense voluptuousness, and say that 'his propensities were painted on his countenance ; that he had small eyes, sunk in fat, a *thick neck*, a large belly, and thin legs ; that his fair hair, and his delicate, rather than majestic face, caused him to be recognised at once as effeminate.' I have, however, met with some exceptions to this rule.

"We saw in a House of Correction in Holland, some men already advanced in life, who, with an organisation otherwise favourable, had been addicted to similar disorders. They acknowledged their incapacity to resist the impetuosity of their propensity, and had already several times relapsed into the same vice. They were convinced that their conduct had been blameable and unbecoming ; but they begged not to be set at liberty, because if they were set free they would relapse into crime. We made the individuals who accompanied us remark the excessive development of the cerebellum in these men."

For further striking illustrations and information on the demoralising and health-destroying influences of the sexual feelings when perverted, see "Gall and others on the Function of the Cerebellum," and "Fowler on Amativeness."

PHILOPROGENITIVENESS.

ITS LOCATION AND ANALYSIS.

PHILOPROGENITIVENESS is the next faculty exercised in the social relations. It is located immediately above the middle of the cerebellum, from which it is separated by a small membrane, called the *tentorium*, directly under the centre of the occipital bone. In mankind, the posterior lobes of both hemispheres are extended beyond the cerebellum, which is universally developed directly at the sides underneath the faculty of Philoprogenitiveness. It will give a roundness and prominence to the back portion of the head, in the region of this organ, in all those heads wherein it is fully developed. Thus, having explained its location in such a manner that all can decide upon it for themselves, in a general manner, we enter next upon a description of its function. The precise meaning of the term Philoprogenitiveness is the love of offspring. It is the true and only source of paternal love ; consequently this faculty, or its influence, is extremely necessary to the perfection of our *social state* and the proper preservation of our children. It gives instinctive love for a weak and helpless offspring, and is expressly adapted to the perfectly dependent condition of the infant and child.

One fact which shows that this faculty is entirely distinct from any other mental emotion, and is wholly spontaneous in its action, is, that this feeling is almost invariably increased in proportion as the object is weak and destitute, requiring the more care and solicitude.

How much must we admire this peculiar characteristic of the mind, when we examine the pure field for the exercise of this organ. Of how much necessity and real utility is it in promoting the performance of those thousand little trifles, and often annoying services, demanded by regard, not only for the comfort, but the *very life* of the new-born infant ; and not done coldly, as a matter of mere duty, but with gentleness and pleasure, caused by fond maternal love.

It is a positive fact that we find this faculty more active and excitable in mothers during the first months after delivery, when the situation of the infant is so completely dependent, demanding, in fact, unremitting attention, and at a time when its appearance, so far from inviting caresses or affection (aside from the influence of Philoprogenitiveness), prompts to feelings of disgust and dislike.

The *peculiar* province of this faculty is to hold the mind of the parent to the child, as long as her care is necessary for its happiness and maintenance, the training and directing of all its mental and physical powers, and giving proper stimulus for their growth and healthy action. This organ, we say, is a separate faculty of the mind, which is classed among the social feelings. No one can, with justice, pronounce its effects to be the result of reason; for we find it in some mothers so powerful, so controlling in its actions, as to cause the utter ruin of their loved ones, from indulging them in their wishes, and doing that which will only confer a momentary gratification, notwithstanding intellect and judgment alike condemn such treatment as pernicious and imprudent.

This faculty is well portrayed by one of our American poets, in his description of a woman travelling over the Green Mountains in a snowstorm. She had an infant with her, which was found alive and well in the morning, being carefully wrapped in the mother's clothing. While the snow was drifting round her, and her own nature was fast sinking, she vents the bursting feelings of her heart:—

“O God!” she cried, in accents wild,
 “If I must perish, save my child!”
 She stripped the mantle from her breast,
 And bared her bosom to the storm,
 And round the child she wrapped the vest,
 And smiled to think her child was warm.
 With one cold kiss, one tear she shed,
 And sank upon her snowy bed.

Even animals without intellect are passionately fond of their young, and take every necessary care of them, and manifest the strongest emotions of grief imaginable at their loss. It was in the monkey tribe that Dr. Gall first discovered the organ.

Neither can this trait of character be produced from any combination of the other faculties, nor from any one of them; for we see maternal fondness displayed in its strongest and most decisive bearings by those who act as though it were a virtue to violate, not only the ordinances of God, but the laws of men. We often find, as about the only redeeming trait of character in some of the lowest and most abandoned females, whose actions and lives display a most horrid want of moral sense, a devoted love of offspring that no suffering can daunt, no privation destroy. Such persons, though dead to all shame and disgrace, and guilty of many crimes, have oftentimes exhibited a devotion and lack of selfishness, by sacrificing themselves in order to screen their offspring, that cannot fail to command our respect. The inference is clear that, as it cannot proceed from intellect, nor arise from the moral sentiments, it must necessarily originate in a distinct faculty.

It is larger in females than in males; and their duties, together with their physical condition, call more largely for its exercise. All, and every one, admit this principle when considered practically, for no one thinks of hiring male servants to take charge of young children: females are always selected. It will be seen of how much consequence this feeling must be in order to perfect the social arrangement, and thus add to the enjoyment of domestic life. This faculty should, by all means, be educated so as to harmonise with all the other mental faculties; for, when predominantly large and active, without proper restriction, its natural tendency is to spoil children, from excess of kindness: they are not properly corrected and admonished, but their conduct approved—by silence at least—even though guilty of actions decidedly rash, if not morally wrong.

The following is a true portraiture of thousands of mothers, who, from want of a balance of the requisite faculties, are calculated to spoil the children committed to their care:—

Her Philoprogenitiveness and Benevolence are very large. Firmness, and Self-Esteem, and Amativeness are small. She has very limited government, if any at all, and spoils her children by indulgence; tells them to do one

thing, and then suffers them to break her commands, and do the opposite ; gives good advice, but sets poor examples ; and is so kind and fond of children, that she effectually spoils all she has the care of.

In families where the father has strong Conscience, Firmness, Self-Esteem, and full Destructiveness, and small Social Feelings, especially love of children, his motto will be, "Spare the rod, and you will spoil the child," and punishment will be enforced for the violation of duty or command ; but, let the mother be governed by an undue predominance of Benevolence and Philoprogenitiveness, with deficient Firmness, while one chastises for transgressions, the other pays a premium upon them by the presentation of candy or some other acceptable gift—a sort of soothing ointment, that effectually cures all the benefits that would have resulted from the necessary discipline. Thus by the too great severity of the father, and the too kind soothing influence of the mother, the child is spoiled.

The following is the brief history of a woman, the skull of whom is now in the Phrenological Cabinet, 131, Nassau-street. It exhibits an enormous organ of Philoprogenitiveness ; and, as a natural consequence, it was an injury to herself and to her child, from excessive fondness. She resided in Hanover, N.H. For a time she was quite pious, and a member of the church. At fifteen years of age she became a mother, and was abandoned. She would not, however, trust her child to the care of any second person, but travelled the country, gaining her livelihood in a variety of ways—by begging, stealing, and prostitution—always carrying her child with her. Numerous offers were made by charitable persons to educate and provide for the child ; but, no, she could not live deprived of her offspring, and so the child grew up perfectly ignorant. Owing to exposure and privation, the child sickened and died. The mother immediately became insane, and finally ended her days in a lunatic asylum.

When Philoprogenitiveness is very weak, it leads to equally disastrous results, as children are then considered a curse and a plague—sometimes shamefully treated, and infanticide committed. This faculty is large in the heads of those males who are much interested in all expedients which have for their object the welfare and improvement of children, and who take peculiar interest in their education. When it is weak in woman, she lacks almost the peculiarities of the sex—at least, one of the most important ones ; and, in consequence, would be hardly fitted to discharge the duties of married life, and entirely unfitted for those of a parent.

We will now give a few anecdotes, which will serve to exemplify some of its functions and their necessity as here described. While on a tour through the state of New York, I became acquainted with a female, who boarded in the same hotel that I did, and was the mother of two children. I found her almost destitute of the organ of Philoprogenitiveness. Now mark the result : The elder child was of sufficient age to be sent away, and be taken care of by others, so as to give but little trouble to the mother—it being about six years old. The other was an infant, and, in fact, was murdered by its own mother—not by violence, but, just as effectually, by negligence. She would go out to visit ; lock the child up so that others could not minister to its wants ; would not take the pains requisite to insure cleanliness ; and the child became ill. She would tie it in the cradle ; would not allow a physician's attendance, and in many ways subjected it to brutal treatment : thus finally causing its death. It was buried in the garden, and the woman actually manifested joy at being rid of the "plague."

I examined the head of a gentleman at Oswego, N.Y., in whom this faculty was small, and described him as being wholly indifferent to children, forming a marked defect in character, and concluded by expressing a hope that he was not a father, for he would be unable to sympathise with a family. "Well," said he, "I wish I was not also ; for, to tell the truth about it, *I hate the little brats* ; and, were it not for their mother, they would be shamefully neglected, for I cannot and will not be pestered with them."

Another case: Examining the head of a female in whom Philoprogenitiveness was but moderate, it was remarked that she cared not at all for children or pets—could not win their confidence, and would not be disposed to exert herself to do so; indeed, it was questioned whether she ever had taken care of a child even for a moment. She said, “You mistake—I did take charge of an infant *once*. Upon this occasion I was visiting a friend, who wished very much to attend service (it being Sunday), but could not on account of her child. I volunteered to attend to it, and it was left with me; but no sooner had they left the house than I gave it laudanum, and put it to sleep; and in that state it remained until their return home.” How many mothers, and how many servants, give children laudanum to quiet them, to stop their crying, &c.; thus seriously injuring their nervous systems, and oftentimes causing them to sink into a premature grave.

This faculty is manifested in a variety of ways, and upon many different objects, when not gratified as a parent. The little girl exercises it upon her doll; the maiden lady upon her pet dog, or upon flowers; the man lavishes his upon horses, &c.

Some years since I examined three of six maiden ladies in Broadway, and gave them all large Philoprogenitiveness. They said I was in error, for they had nothing to do with children, and were not fond of them; but, before I left, two or three lap-dogs came bounding into the room, and jumping upon their laps. “There,” said I, “are your children and the manifestation of your Philoprogenitiveness.”

They have since been married, have become parents, are *extravagantly* fond of their children, and their dogs are dispensed with. This anecdote proves that we often possess powers that we are not aware of ourselves, merely because circumstances have not been favourable for their development and exercise; and in this way Phrenology can be of great service to mankind, by pointing out our peculiar talents. It is quite generally admitted, at the present day, by practical Phrenologists, that there are two organs similar in function in this region of the head—that that portion of the brain located under the centre of the parietal bone, is devoted to the manifestations of paternal love and fondness for infantile human beings; while that portion located below the centre, next to the cerebellum, is devoted to love of pets and animals. The idea is quite probable, but not fully established.

From the foregoing illustrations of Philoprogenitiveness, it will be readily seen that great care should be taken in its culture and proper direction; and those who are interested in the welfare of the family should pay particular attention to the development of this faculty in those who are selected as “companions for life;” and those who wish to procure the services of good teachers will select those who have a large development of this organ.

ADHESIVENESS.

ANALYSIS AND LOCATION.

ANOTHER faculty in this group, and one highly important in its uses, which exerts an influence of the most extensive and necessary kind, in softening, meliorating, and uniting character, smoothing all asperities, is Adhesiveness.

It is located between Combativeness and Inhabitiveness on the side. The function of this faculty is friendship, attachment, and sociability—that generousness of feeling which draws families together, and unites them in permanent bonds of affection.

This faculty is the foundation-stone of society, of all social relations and associations, where selfishness is not the reigning ruling motive.

It gives delight in the sweets of social intercourse—“the feast of reason and the flow of soul.” It gives warmth of feeling and lively emotions—the energetic and cordial grasp; the hearty shake of the hand when friend meets

friend; the welcome smile, the radiant glow to the countenance; and is the chain which connects and embraces man in one common brotherhood.

Its influence is very extensive, especially when combined with other faculties (see Fowler's Practical Phrenology); when the moral and social faculties are equally excited, it gives rise to religious emotion.

It is manifested regardless of sex, animate or inanimate, human or mere brute; yet, where combined with other social feelings, its action is most powerful when directed to the opposite sex.

Those in whom this organ is large are not contented without friends to love, and with whom to share their affection—would never choose a wilderness life, or the hermit's cell; but are unhappy if their friends are absent from them. This innate principle of our nature is the secret charm of correspondence between friends. "Like likes like." So those who have large Adhesiveness seek the society of, and become attached to, others possessing the same quality.

Oh, there are looks and words that dart
An instant sunshine through the heart;
As if the soul that moment caught
Some treasure it through life had sought.

Said an Irish girl in our family, who was receiving the attentions of two Paddies as lovers, and was at a loss which one to take, "I somehow warm up to Jake more than to Mick." The reason was Jake had more Adhesiveness than Mick. Where two persons having it large become devotedly attached they remain so, through changes of fortune, health, and physical appearance, and to the loss of all physical beauty and attraction in many cases. In the village of P., a young gentleman appeared to be devotedly attached to a young and beautiful lady, whose parents were wealthy; but, as the young man was not blessed with this world's goods, his suit was rejected by them. In the course of events the young lady met with a serious accident. Standing by a lighted candle one evening, her hair caught fire, and in the fright of the moment she flung it over her face. When her mother found her she was insensible. Her face, neck, and hands were all disfigured by the scars; in reality, she was a most hideous sight. Her lover on hearing this tried again to see her, but she positively refused to see any friends for more than a year. When her countenance assumed a more natural appearance, finding that he was still anxious and willing to unite himself to her, her parents consented, and to this day he has remained true to her, although her beauty was gone, and she was disguised with her scars.

Another case: A young lady and gentleman were engaged to be married. A short time before the day appointed for the consummation of their love he fell from a building. His fine, erect, manly form was now crippled—he was hump-backed. He resigned his claim to the lady's hand; but she, like a true, devoted woman, would not permit this to be a barrier to their union. They have been united, and have lived happily together several years.

Individuals in whom it is small do not mingle in general society, or care much for particular friends and relations—prefer solitude, and are unsocial, cold-hearted, and never join any of the clubs, or social gatherings of the day. They may marry, but they have other motives than those of friendship. They are very little, if any, company for their companion, or the family, and are like a gentleman whose head I examined not long since. I told him I should be surprised to hear of his visiting with his wife more than once in a year; and, if he did it, then it would be more to please her than himself, or because he could not well avoid it. He replied, that it was as much as he could do to go for her as often as that after she had made her visit. Said he: "We have been married six years, and positively I have not spent three evenings out in the neighbourhood visiting with my wife during that time." This would answer very well supposing they were both little disposed to visit; but when two are united for life, one with Adhesiveness large and active, while the

other has it small and inactive, their predicament is as unfortunate as a married couple were whose head I examined in Massachusetts. Said I to Mr. C., "I hope you are not married." "I am," replied he, "and have six children." "Sorry," responded I. "Why?" he asked. "Because," I replied, "you are not of a social nature; as a companion your regards are too sexual, and not sufficiently platonic; and you are no company for your wife and children; for your mind is continually occupied in matters distinct from the social relations. Your organ of Adhesiveness is the smallest I have ever seen." Not long after this I visited an adjoining town, and, in the examination of the head of a woman there, I said to her, "You are very warmhearted, devoted in your attachments, very fond of society, particularly those of friends and relatives. I should suppose you capable of enjoying the married relations much." At this point she burst into tears, saying, "You are right in reference to my *capacity* to enjoy married life and the society of friends, but in my present condition I am most miserable; for I have been married twelve years, have six children, the whole care, and almost the whole support, of which devolve upon myself. My husband never visits with me, and he has positively forbidden my receiving the visits of any of my friends or relations; so that I am not at liberty to go out and see my friends, or to see them at my own house. And, what is worse than all that, is, that my husband is no company for me. He never sits down to converse with me, nor manifests a social, domestic disposition; is most of the time away from home, and when at home is cold-hearted, dictatorial to the children, censorious, and never appears pleased when I attempt to please or gratify him. I have often wished, as did Job, 'that the sun had never risen on my natal day.'" I inquired his name, and found it was the very Mr. C. who did business in B., the one who had the small Adhesiveness. This fact, for such it is, is only a living representation of many others that I might mention. I told a Mr. B., of Hartford, in whom Adhesiveness is small, that a few friends would be sufficient for him, and these must be in the domestic circle. He replied that he had "kept house" seventeen years, and in all that time never remembered to have entertained at his own table but one individual who was not a near relative of his.

I warn all, whether they believe in the doctrines of Phrenology or not, as they value happiness in married life, and a pleasant fireside, not to marry where there is a great difference in the size of the organ under consideration. But more of this subject in the latter part of the book.

The influence of Adhesiveness is more permanent and lasting than that of Amativeness; the latter being more periodical, and influenced much more by age, circumstances, health, habit, and constitution, than the former.

The Irish, as a nation, manifest it in their promptness to defend the cause and character of their friends. The Hindoo has less of it. The Scotch, as a nation, have it large, as is abundantly described in the writings of Burns.

The clans of Scotland are a strong proof of its existence, joined with Combativeness.

Stranger, this Roderick Dhu,
Is to me a kinsman dear, a clansman true,
And every word against him spoke
Demands from me avenging stroke.

This organ, as well as Philoprogenitiveness, is much stronger in the female than in the male. The friendship and attachment of a female have become proverbial; and it has been well remarked that whoever has the friendship of a female is sure of the success of an affair in which she serves him. Upon this account the history of woman has been called the *history of the affections*; and it was simply the predominance of this mental emotion over the animal passion in females that caused Byron to sing—

No friend like to a woman earth discovers,
So that you have not been, nor will be lovers.

Every one must have wondered at and admired the devotedness, heroism, and strength of character exhibited by gentle woman when governed by outraged affection. All must acknowledge the difference which exists in the social feelings of man as distinguished from those of woman.

Make her a slave ; steal from her rosy cheek,
By needless jealousies ; let the last star
Leave her a watcher by yon couch of pain ;
Wrong her by perpetual suspicion—all
That makes her cup a bitterness ; yet give
One evidence of love, and earth has not
An emblem of devotedness like hers.

The cause of this difference is written in their cerebral organisation—the one originating in *Amativeness*, the other in *Adhesiveness*. Herein is the secret, and so far do they differ as these faculties are distinct in their influences. It is the open exercise of this organ which gives to our social relations new life and a rich colouring, refinement, courtesy, gallantry, and all which sheds lustre upon human nature in a state of companionship ; and it is the acknowledged predominance of this feeling that gives to female society its elevating and ennobling characteristics. The continued happiness of married persons, of their families, and members of society generally as social beings, depends much, if not altogether, on the proper and legitimate exercise of these faculties.

UNION FOR LIFE.

UNION for Life is the name given to an organ first discovered by Dr. Vimont, a distinguished French physician, while making observations on Comparative Phrenology. It is surrounded by *Amativeness*, *Philoprogenitiveness*, *Adhesiveness*, and *Combativeness*. Its function is indicated by its name. It gives a desire to unite and concentrate the affections for life on some one individual, to share with that person all in life, and to be constantly in his or her society. Its combination with *Amativeness* seeks one of the opposite sex. It appears to be purely a domestic family quality, and acts only in combination with the social domestic faculties.

From my own observation, I am disposed to believe in the existence of the faculty, and could cite many cases to corroborate the supposition, and have given it a location in my bust, symbolical head, and chart.

It ties the knot of affection, and blends the interests of two congenial souls into one ; thus exerting a cementing influence ; and the longer two persons with this organ large live together, the more they assimilate in looks, expression, gait, and character. It constitutes the foundation of marriage, sustaining the superstructure until the objects are separated by death.

Dr. Vimont found the portion of the brain allotted to this faculty fully developed in man, and in all those animals disposed to pair, but deficient in those of an opposite character.

INHABITIVENESS.

THE last faculty to be analysed, and one very essential to the completeness of the social system, has been described by phrenologists under the name of INHABITIVENESS.

It is located directly over *Philoprogenitiveness*, and supported upon both sides by *Adhesiveness*. There will oftentimes be found a bony excrescence arising from the closing and general roughness of the sutures. Occasionally it is situated underneath this unevenness. Owing to this difficulty, there is more uncertainty in deciding upon this trait of character than upon many others. A very simple guide in ascertaining its position correctly is to trace

out the occipital and parietal sutures, at which termination it will be found. The establishment of this faculty, and the understanding of its function, have been attended with difficulty, and at the present time are not generally received by the phrenological world. Gall was disposed to ascribe its influence to Self-esteem, and states that in the examination of the brains of animals, he uniformly found that those classes which voluntarily soared aloft—eagles, falcons, &c., and such as are accustomed to be found on the higher peaks of mountains, far above the region where they are accustomed to live, such as the chamois—had the organ of Self-esteem largely developed. In short, that the feeling in man which prompts to moral height, the elevation to authority, &c., is but a higher gradation of the instinct of animals, “giving a predilection for physical heights and aptitudes.” Spurzheim went farther than this, and recognised a distinct faculty under this name; but, in so doing, he clashes with the opinion and observations of Combe, who describe the same faculty as being but an adjunct of another under some modifications, called Concentrativeness, or a “tendency to concentrate the mind within itself, and to direct its powers in a combined effort to one object.”

This caused a difference of opinion between these great phrenologists, which, not leading to a satisfactory result, was suspended by Combe's remarking, “I am convinced that he (Dr. Spurzheim) has not correctly apprehended the quality of mind which I designate as Concentrativeness. This must, no doubt, be my fault; but it affords good reason for not prolonging the controversy.” It has been long settled in the author's mind, and constant observation is demonstrating more clearly every day the correctness of the position, that we are endowed with two distinct faculties of the mind—*Inhabitiveness* and *Concentrativeness*; the one giving attachment to place, love of country, &c.; the other continuity of mind and connectedness of purpose. There is much analogy between the relative position of Concentrativeness and Inhabitiveness at the present time, and that of upper and lower Inhabitiveness formerly in both, so far as regards organic position, difficulty of settling definitely the operation of each, and the original blending into one of what in reality constituted two separate and distinct faculties. Spurzheim and Combe are both correct and incorrect: Combe being incorrect in denying the existence of the one established by Spurzheim; and Spurzheim equally erring in repudiating the faculty correctly maintained by Combe—the shield being composed of both gold and silver—the very truth of their individual opinions causing them to be slightly prejudiced. Concentrativeness acts independently of the feelings, partaking of the character of a governing organ; while Inhabitiveness is intimately connected with the domestic propensities, and its influence recognised only in that particular sphere. Their relative position in the brain is found to correspond admirably with this peculiarity of action: the one we are describing being surrounded entirely by the social group; the other, being brought into close contact with Self-esteem, forms part of the directing group situated in the crown of the head.

The necessity for a primitive faculty, from which must result attachment to country, home, and residence, will be at once admitted when reference is had to the great variety of clime, of soil, and of institutions, of which the earth is composed and filled. Every zone being intended for the habitation of man and animals, a propensity producing local love would be required in order to give contentment, and also to bind small numbers of human beings more strongly together.

A fixedness of habitation is absolutely demanded for all improvements in the arts and sciences, in social and political institutions. If this should be admitted, as upon reflection is must, how applicable would be the quaint old proverb, now used in reference to restless, wandering, changing individuals, when applied to nations, that “a rolling stone gathers no moss.” Compare the Bedouin of the desert with the Anglo-Saxon; the wandering and predatory habits of the former, with the desire to be settled, the love of country, of the old homestead, so conspicuous in the latter. The Arab race were originally

far more enlightened than the natives of Britain. At one time they were the intellectual teachers of the whole world. Their not retaining that position cannot be ascribed to lack of intellect *now*; but must be admitted to have been caused in the abstract from the deficiency of Inhabitiveness. This may appear highly radical, but it is no less true. For more positive proof, witness the rapid advance in civilisation made by the barbarous hordes of the Scythians, Goths, Visigoths, and Huns, immediately after *settling* in the south of Europe, and the consequent change of habits, as well in their thoughts and actions as in their manner of living. What can stimulate to exertion more than the knowledge that our achievements will be of service to those we love in the family, and their descendants, and will not be confined simply to ourselves? What can be more important to domestic life than the love of home? And in the formation of those ties which must eventually lead to a settled residence, particular regard should be paid to the faculty which produces pleasure in such settlement, as, without that, a reverse state of feeling will govern our decisions and influence our conduct.

A gentleman brought his little boy into my office, not long since, to obtain an examination of his head. I found he had small Concentrativeness, very small Inhabitiveness, joined with large Self-esteem and Firmness; hence, I remarked to his father that the lad probably ran away from home as soon as he could get out of doors, and that unless he changed materially, would always manifest a roving, wandering cast of mind. "Yes," replied the father, "he commenced when he was two years old, and has continued to do so ever since." Said the father, "I have whipped him till the blood ran, all to no purpose; and only last night I engaged an officer to lock him up in the watchhouse, where he remained all night, and came from there here to your office." There are others who are never contented away from their homes: they must sit at their own fireside circle, or they pine and are extremely unhappy, whether they are surrounded by friends or not.

The Irish are particularly attached to the land of their birth; and, although the tide of emigration is continually bringing them in swarms to our shores, yet there is no place half so dear to them as Erin's green *isle*.

SOCIAL FACULTIES AND THEIR COMBINATIONS.

THE foregoing are the qualities of mind exercised in our social and domestic relations. They dispose us to unite in marriage and rear up families; they lay the groundwork of society, and lead to the formation and union of families, neighbourhoods, cities, and more extensive associations; and unite mankind in those bonds of affection which are more dear to them than life itself.

In domestic life they should have a leading and controlling influence, yet in harmony with all the other faculties of the mind. This harmonious exercise of the different faculties is the true source of domestic enjoyment. When they all act in concert, happiness is the necessary result; and the more faculties we bring into this union the greater will be the amount of pleasure received; but, if one faculty is gratified at the expense of another, we secure to ourselves both pleasure and pain in the same act. Association is the bond of union everywhere, and more particularly so when applied to different faculties of the mind. Let Adhesiveness be gratified in harmony with the social feelings, by having all the family come to the table together and assist each other, thus creating general sympathy and gratitude, and the result would be much more favourable than if each one should help himself to the best advantage, without reference to each other's rights and wants. Let Combaticiveness and Destructiveness be exercised in defending family and friends, instead of their becoming

angry at each other, finding fault and presenting obstacles to hinder others while they advance. So let Approbativeness and Self-esteem be exercised to save and raise the honour and dignity of each individual member of the family, rather than to be jealous of the advancement of each other, and strive to act the part of dictator and leader. In the same way the intellectual faculties can be developed in harmony with the social feelings, by those who are best informed imparting their knowledge to the whole family while they are all enjoying the hearth from the same fire, and guided by the same light. Thus knowledge will become more equally diffused, and a far greater amount of happiness will be secured both by imparting and receiving instruction. In like manner the moral and social facilities can act in unison, by *all* coming round the family altar together, and reading a portion of the Word of God—in receiving instruction from the same source; all supplicating the Throne of Grace for common as well as individual wants; all uniting in the song of praise, and going to church together as a family, and gently checking each other for any imperfections or misdemeanours, and thus creating a general impression that the happiness and success of one are connected with that of the whole family, and that if one be disgraced all are. Upon the same principle, all the faculties may be gratified in harmony with self-control and self-denial on the part of one individual, and a forgiving disposition on the part of another.

OBJECTS ACCOMPLISHED BY MAN'S POSSESSING A SOCIAL NATURE.

Having shown that man is endowed, as a social being, with capacities, susceptibilities, and capabilities for the enjoyment of domestic life, and having delineated the constituent elements of his social nature, we will next consider some of the objects to be accomplished by his sociality.

First: The perfection of Character.—Character is the result of mental manifestation or development; and this development or manifestation depends, in a great degree, upon the social relations of life. For, as we come in contact with society, interchanging thought and feeling, we almost insensibly, as it were, stimulate each other to action; we assimilate to ourselves the qualities and characteristics of our associates; we bring out the hidden thoughts, the secret motives, and the latent powers.

If human beings were a set of hermits or anchorites, lived in caves, and dressed themselves in the skins of wild animals, they would still exhibit character, it is true, perhaps positive and distinct; but many of the faculties would remain dormant, for want of proper exercise. Instead of the sympathy, sociability, and friendly intercourse which grow out of the acknowledgment of that great principle of social life, viz., that the whole race of mankind form one brotherhood, we should see the baser elements of our nature increased by self-love and selfishness in every Protean form.

It was intended by our Creator, no doubt, that mind should operate on mind; that we should share each other's joys and sorrows, and help each other along in our journey through life.

Character is formed by the action of one mind upon another. We say that every child has distinctive elements of mind, natural characteristics which serve to identify him, and which would be eventually matured as he advanced in life, and distinguish him from the rest of his fellow-men, even if secluded from all other society; but, thrown together as people are in neighbourhoods and communities, each one exerts his individual influence, and helps to form the character of others.

The character of children may be said to rest in the hands of parents and teachers. Every word, act, and look of the parent is noticed by the child and impressed on its mind, never to be forgotten.

The mother, in particular, may exert a powerful influence upon the mind of the child by carefully restraining the stronger faculties, and giving them

proper directions ; and also in stimulating and bringing into action those which are more weak and backward. If the mother is mild and gentle in her treatment, she will call into action those faculties in the child which give rise to a similar state of feeling and deportment that it perceives in her ; and thus she may successfully stamp her own image upon her offspring. Hence the great importance of mothers being themselves well cultivated and improved in all their faculties.

But suppose the child is destructive and malicious in its disposition, the mother, by unwearying pains and judicious treatment, may entirely change its character. Frequent appeals to its reasoning faculties, its conscience and sympathies, will be among the surest means of elevating its mind above, and strengthening it against, the impulses of its too predominant animal nature. Every means should be employed to cultivate the moral faculties, and restrain the ruling propensities ; and this can be done most effectually in the child by good examples. The mother must be herself its living and daily source of improvement. It will copy her. Therefore, she must never appear to yield in the least to those faculties in herself which are already too active in her child ; but, on the contrary, strive to exhibit the higher and nobler characteristics in their most powerful and fascinating influences. By which means she will not only mould her offspring for moral and intellectual enjoyment, but insure for herself a source of true felicity within her own happy home.

Teachers exert a vast influence over the minds and characters of their scholars ; and this is a beneficial or dangerous one in proportion to the degree of interest and attachment with which they are regarded.

Children themselves influence each other—

One sickly sheep infects the flock.

So, often the timid and diffident in sin are encouraged, by associates more bold in vice, to commit depredations and offences they would not have ventured to do when alone. The malicious child has frequently brought rebellion and anarchy into a school where peace and quiet had reigned undisturbed.

Why is it that parents charge their sons and daughters, with affectionate solicitude, to flee evil company, if they do not fear contamination to be the result of pernicious intercourse ?

The more interested a person is in domestic life, the more faculties he brings into exercise ; hence, the more character he develops, and the more fully he fulfils the destiny of his creation.

The social medium is one through which all the various elements of the mind receive a full and proper stimulus, and are more sure to be developed than through any other.

Secondly : Increase of Happiness.—The greatest amount of happiness is the result of the proper and rational gratification of all the faculties of the mind.

The proper gratification of one faculty produces happiness, but is limited to the degrees of its exercise. Add to it another faculty, and that happiness is doubled ; and in proportion as the number of faculties in harmonious exercise are multiplied will the happiness of the individual be increased ; and in no condition in life are human beings so much in their element as in the social and family circle.

Therefore, we say that the happiness of man was one of the designs of God in creating him a social being. First, because a great number of faculties are gratified ; and, secondly, because they all receive a more healthy, combined, and concentrated influence. Domestic duties elevate the mind, and give the superior faculties their legitimate control.

Thirdly : Combination of Power.—Power is the result of mental concentration. The more mind there is concentrated upon a subject, the more power there is to act, and the more influence is exerted.

This is fully illustrated by a bundle of faggots ; one being easily broken ; but when bound together they resist all force and effort.

Fourthly: Continuation of the Human Race.—Nature is in a state of constant progression. Not a particle of matter is lost ; not an element that ever existed is annihilated. Birth and death, nutrition and dissolution, are the order of nature ; and, of course, are recognised by her fixed laws, and dependent on legitimate means.

Various are the causes and means of death and dissolution ; and, through a variety of elements, do we receive nutrition to encourage the vital spark. But by one principle, and only one, as applied to man, are the laws of life generated ; and that, too, by laws as permanent and fixed as any in the book of nature. As the principles of life and death are in the hands of man, so are those of generation ; and, in order to qualify human beings for this agency, we find them organised male and female, with the strongest sympathies and attractions towards each other of which the mind is susceptible ; and one important result, arising from this divine arrangement, is, that man necessarily becomes more interested in the welfare of his fellow-man, and places a higher value upon his happiness and character. This law of reproduction is at the foundation of human sympathy. Inasmuch, then, as the existence and destiny of man depend on this agency, it behoves us to lay aside false delicacy and a fastidious taste, to look at this subject in the light of responsibility, and to inform ourselves with reference to our duties and obligations in this respect, and act accordingly.

The sexuality and sociality of man being among the fundamental elements of his nature, he is laid under important obligations to himself and to his fellow-men, which he cannot neglect without violating the laws of his own being and those due to society. We infer, therefore, that it is the duty of every human being, who is well formed and otherwise qualified, to place himself in the relations of a companion and parent.

If the existence of any one or more powers places man under some obligations, then, certainly, the existence of those he possesses in respect to domestic felicity creates a degree of responsibility equal to the importance of the marriage state. Natural advantages and blessings necessarily follow the obedience of all natural laws. One advantage in obeying this social law of our nature is a consciousness of being in the way of duty. Another is, that domestic life furnishes a proper and healthy stimulus for the virtuous exercise of all our mental faculties, as well as the faculties of the body. Still, a third is, that married persons occupy that position in society by which they possess more real character, exert more salutary influence, have more stability of mind, are generally more virtuous, more healthy, wealthy, and are more respected than those who are not married.

A merchant, Mr. K., from A., came into the city of New York to purchase goods. He laid out all his money, thinking he had purchased all he wished ; but, on looking around the store, he saw some articles that he wanted very much, but had not the requisite means to obtain them. He ventured to tell his story, and asked if they would credit him. The merchant in the store stepped in front, looked him in the eye, clapped his hand upon his shoulder, and said, "Sir, are you a married man ?" "Yes," was the reply. "Well, then, I will trust you."

I do not say that this is always a safe guarantee to honesty and truthfulness ; but in this case, for the truth of which I can vouch, it proved so, and the result was favourable. Be this as it may, we are of opinion that the more married men we have in society the fewer crimes there will be. If we examine the frightful columns of our criminal calendars, we can there find a hundred youths executed to one father of a family. Marriage renders a man more virtuous and more wise, a better man, a more faithful citizen.

The father of a family is not willing to blush before his children, nor to do those things which will bring a stain and disgrace upon his posterity.

EXCUSES FOR NOT MARRYING.

ALTHOUGH most persons are ready to acknowledge that to *marry* is in accordance with the laws of nature and the fulfilment of one of God's purposes in our creation, yet, they themselves wish to be excused from participating in it; giving every shade and variety of reason by way of exculpation; and among some of the more plausible we place the following:—

Say some, *we cannot afford it*; our salary per year is only so much; we could not possibly meet the expenses of a family. We have not the wherewithal to buy furniture, pay rent, hire servants, and live in any kind of style. Neither can we support a wife. So that the alternative remains for us to marry a fortune, or not at all.

It is an incorrect idea, a mistaken notion, to suppose that it should cost more for two persons to live together than separately. The fact is, both can be warmed by the same fire, read by the same light, and can combine their energies and talents, so that not only better plans are formed, but they can so adapt their wants and necessities to each other that much needless expense is saved. If the wife makes herself *but* a "bill of expense" to her husband, then there is something wrong, either in her early education, or in her standard of duty and obligation. When woman is educated as she should be, and understands her proper sphere of duty, and has the right kind of love for her husband, she will be a helpmate to him—helping to form a committee of ways and means to assist him in various callings. She will gladly sacrifice for him she loves, and lessen his cares and anxieties by her economy and good management. But it is not so much the actual expenses of the family that place a barrier in the way of many young men as *their own* expensive habits. There are very many who spend from one-quarter to one-half their income to gratify needless and worse than useless habits, which not only waste their money, but debilitate their minds, impair their health, and generate disease, thus rendering themselves unable to earn more.

If young men and young women would curtail their artificial wants, and live more in accordance with the requisitions of nature, all could afford to marry and support families with more ease and less expense than they now can afford to live alone. I believe it to be an indisputable fact, that honest and industrious married persons actually lay up more money, and finally become more wealthy, than the unmarried.

The excuse of another is, that it is "too confining." Poor souls! They cannot go hither and yon, where they please and when they please, as in their blessed days of bachelorhood, but must consult the second person, their weaker vessel, and be content to go and stay with her. Some cherish the idea that happiness exists in the highest degree where there is the least restraint; thus many refuse to join or sanction any society or association, no matter how worthy the object, for fear of signing away their liberty; but I maintain that happiness arises from a *proper restraint*, rather than from an unrestrained gratification of the mind; and, if to be married does thus prevent excesses and encourage regular habits, then it is indeed a blessing to society that the divine institution exists among us; for some of the greatest evils in society arise from irregularities and excesses. When properly married, to be able to go home to an affectionate wife and well-regulated and governed family, is a source of the highest degree of pleasure; nor will the husband, if he loves his wife as he ought, desire to be absent from her society, or be able to enjoy himself as well anywhere as in the bosom of his family. Any other arrangement than this would unhinge business, derange society, and scatter the seeds of discord where harmony, concord, and love should dwell.

There seems to me no motive which justifies a husband, under ordinary circumstances, in neglecting his wife—neither the plea of business, nor even

for the sake of doing good. Some gravely assert that they have no time to attend to social matters, that their business engrosses their whole attention. If this really be the case, if a person has no time to obey the laws of his being, then he is not of much service in society; with all his business such a man has very limited and incorrect ideas of his existence, and fails to enjoy that for which nature has qualified him.

I cannot get anyone to love me is the sad excuse of not a few. Some in almost every community can be found of this class who have tried in earnest, but in vain, to gain the affections of a partner for life. Such a man deserves our pity and commiseration. He has a desire to love, but can find no one to sympathise with him, or to return his affection. His condition is most deplorable, and he must be an unhappy mortal. If an honest, true, and worthy man cannot secure a helpmate, then he must be lacking either in a correct estimate of his own powers, or he is ignorant of the ways of the world, or the nature and character of woman, and is certainly ignorant of the natural language of love, and the manner of calling the affections into action.

I cannot find anyone to suit me; besides, the good ones are all married off. Some men in selecting partners for life are like some women, when they "shop." The variety of goods they see destroys their first choice, so that finally they are suited neither with nor without anything, but desire all they see. There is such a thing as being too particular and fastidious, so as to reject the very one best qualified for us.

QUALIFICATIONS FOR MARRIED LIFE.

THE crowning object of married life is to perpetuate the race, and for this purpose we were created social and sexual beings; and parents are not only the agents, but also the models for their children.

Seed gives the stock or kind to be produced, while soil gives quality to everything that grows. This law has its foundation in the nature of things, and is as extensive as any law in nature, and as applicable to the human race as to plants, fruits, and animals.

The fact that we are agents of our race, and that our mental and physical constitution, and the influence of circumstances and education upon them, do furnish the elements in the organisation of our children, is established beyond a doubt. We cannot be too well acquainted with those qualifications and organisations capable of transmitting those qualities which we most desire in our children; and as perfect children are the most valued and beloved—as the laws of reproduction are unchangeable—as perfection is only in proportion to the obedience of these laws, we see the almost imperious necessity of our not only understanding, but complying with, these requirements of nature in order to secure our highest wishes.

It will be my next object to point out the organisation and qualifications necessary and important, as connected with good companions and parents.

If we were as honest and careful in choosing companions for life as we are in business transactions, we should not then run the risks we now do, and the majority of those who marry would be comparatively happy; because each would be better suited, much more satisfied, would know better what to expect of the object of their choice; because they would have a better understanding of each other. If we were to choose our companions, and marry phrenologically and physiologically, the present course in matrimonial matters would be looked upon as very imperfect, improper, and, in many instances, unnatural, if not immoral and dishonest. Married, as many are at the present day, and as they have been in years past, they are much more

liable to commit crime than though single, and their children grow up to curse them for their existence; when, if they had been properly married, they would have made the best of companions and parents. The evils consequent upon these unphilosophic and unscientific marriages, are, much of the social and domestic disarrangements, quarrels, separations, and divorces of such frequent occurrence in society; but, guided by judgment and science, there is but little room for disappointment and dissatisfaction. Among qualifications that might be mentioned, a few only will be noticed.

First: a well-developed Physical and Mental Organisation, including Maturity of both.—As companions and parents, these qualifications are indispensable. Nothing is done as it should be without them; as in after-life the first movements will be regretted, while they will necessarily be destined to a course of life which to them is a source of continual annoyance, if not dissatisfaction. The above qualifications are necessary, because a full, complete, and healthy action of all the functions of the body and mind, is necessary in order to discharge the duties which almost inevitably fall upon married persons. The natural duties of man are never in advance of his natural qualifications; and those who hurry, force, or try to outdo nature, do so much to their disadvantage. Nature's time and ways are the best; and those who are premature in their plans in the commencement of life, are very apt to find a premature decay of those powers they then call into action. It is almost an every-day occurrence that persons, particularly females, hurry into married life before they are fully developed, either mentally or physically—before they have either judgment, reason, or experience.

No precise rule can be given *when* every person ought to marry, only that none should think of so doing until they have arrived at maturity. Both the mental and physical powers of some are developed many years before those of others; yet, as a general thing, woman is as well qualified in development at twenty as man is at twenty-five; but that age is rather early for the majority. Woman, after marriage, as a general thing, enters at once upon the duties of a parent, and, as society now is, has very limited opportunities for mental culture; and as education is absolutely necessary in order to train and educate children properly, she should, before marriage, store her mind with useful information.

A young man who marries before he has come to years of discretion is like a mariner who pushes out to sea without a compass, or even a knowledge of it. He takes upon himself the cares and responsibilities of a family, without even thinking what they are, and much less making preparations beforehand to meet them.

But persons should not only be old enough for a full development of their mental and physical powers, with an education adequate to their maturity, and a full knowledge of, and preparation for, all the duties devolving upon them in these near relations, but they should bear in mind that in proportion as they are naturally deficient in any of the natural or physical elements, just in that proportion are they disqualified to discharge *all* the duties of married life. As society is, and as children are brought into the world and educated, we cannot expect many perfect souls or bodies. Yet, if perfection be needed, or desirable anywhere, it is in these relations. And from the fact that the majority of persons are more or less imperfect, they are not prepared to appreciate perfection, if they should find it; consequently they should endeavour to select those whose imperfections would be the least inconvenient to them.

If one parent be very deficient in any one thing, it is unfortunate; but if both parents are very deficient in the same quality, it is still worse, both on their own account and that of their offspring.

Secondly: a Social Organisation and a Domestic Disposition.—Of what use would it be for a person to marry or talk about social enjoyments, when he is destitute of those very qualifications on which that happiness depends? How can a man enjoy married life when he hates even the sight of a woman?

It requires a full development of the social feelings to enable a person to appreciate domestic duties, or to adapt himself to them. To marry when the affections are wanting, would be like a sick man, with a mortal disease, who engaged in business without capital or credit, and against a violent opposition; like putting the feet to a cold stove to warm them; like a bird which attempted to fly with clipped wings; or like a man who attempted to do that for which he had no capacity.

A good and warm-hearted man in New Hampshire married a woman who was not only cold-hearted but disqualified, particularly in the faculty of Amativeness, to appreciate the feelings of her husband, or adapt herself to them; consequently she failed to make her married life agreeable, and thus effectually destroyed her own happiness and also that of her husband. Many parents are so deficient in the organ of Philoprogenitiveness, that they consider their children as so many plagues and curses.

Thirdly: Self-government and Discipline.—The evils of green wood, a smoky house, a scolding wife, and crying children, are not half so bad when they are all joined together, as the absence of self-government and mental discipline; for, without them, we have all the above-mentioned evils, and, in fact, more; for in domestic arrangements there would be a want of everything that is convenient, appropriate, and desirable—an abundance of everything as it *should not be*, and nothing as it *should be*. Self-government is absolutely necessary to government in a family; and if as parents our own minds are not trained and disciplined, we cannot succeed in training and disciplining those of others. Without these qualifications a family is always on the extreme. You never know where to find them, or what to depend upon: "they are full of variability and shadows of turning;" easily carried away by every change and tide of doctrine; not having the power to regulate their own affairs or to steer their own course through life, they allow all their neighbours, who wish, to help them; one day listening to the voice of one, and the next, perhaps, assenting to something entirely the converse. Thus confusion is the order of the day: too late for the boat, too late for church, never quite ready or in season; easily tempted, easily influenced, like a man in Augusta, Ga., who came forward at the close of a temperance lecture, and there expressed a wish to re-sign the pledge for the sixth time, saying that he was *determined now* to keep the pledge good. Although he had previously broken it many times, yet he would by the help of God break it no more. In a week afterwards I found him intoxicated by drinking Thompsonian hot drops, with the bottle in his pocket, giving only the weak excuse that an old friend of his invited him to drink, and he could not say *no*.

Fourthly: Industry and Good Habits.—Without industry there is no continued success; where industry exists in a family it is sure to thrive, and not be dependent on others for support. Idleness produces many evils; it is the road to vice and bad habits. Industry is the mother of plenty, and makes man cheerful, happy, and blessed. Industry and good habits combined lead to health, wealth, honour, and plenty, and secure the confidence and respect of friends and associates, while idleness and bad habits destroy them all.

There are some habits which have a direct tendency to destroy connubial enjoyments; and, where they exist, marriage should positively be prevented.

Young ladies who have formed habits connected with the pernicious customs of the day are not the best persons for companions or parents. Their attention to extremes in dress, in fashion, their artificial airs, their studied hypocrisy, their idleness, irregular habits, false and imperfect ideas of beauty and perfection, their tight-lacing* and their wrong standard of character, all tend, directly or indirectly, to destroy the qualities which are indispensable pre-requisites for constituting good companions and parents. As an honest

* For the evils of Tight-Lacing see an essay on that subject in the first vol. of 'American Reprints.'

and scientific man, I would never encourage young men to seek the hands (for hearts they have none for aught but fashion) of such ladies for the purpose of marriage. I would as soon be the means of sending an honest young man among the enemies of his peace and happiness as to encourage his marriage to a fashionable coquette.

Young men, perhaps, are in greater danger of forming habits injurious to domestic peace and comfort than young women; and they should be more severely rebuked, because they become the head of the family, and are looked up to and regarded as examples of domestic life. Besides, the pernicious habits of young men are, if possible, more expensive, unhealthy, and demoralising in their influence, than are those of the other sex. Among the worst of these habits we will enumerate those of idleness, intemperance, smoking, chewing and snuffing tobacco, the taking of opium, licentiousness in every form, gambling, swearing, prodigality, and the keeping late hours at night. Rather than encourage such young men to marry, I would see the human race very much reduced in numbers, by compelling them to remain single for life. I would sooner see all honest young women withering away as "old maids" than wrong them so much as to encourage marriages between them and the young men who indulge in the above-named practices.

That such habits do have the most alarming and degrading influences on the minds and bodies of young men, and are directly calculated to poison and corrupt all the sources of connubial felicity, as well as entail upon themselves and their innocent offspring the most fearful calamities, diseases, and premature deaths, in numerous ways, needs no proof more clear than is afforded by the lives, characters, and confessions of thousands of those who have had the bitter experience of their blighting effects upon their own physical, mental, and intellectual endowments, and by the indescribable wretchedness they have brought into so many families and communities. Distressing as these revelations prove them to be, the evils do not commonly end with their own generation; but, by a law of hereditary descent, they generate the same evil propensities in their offspring, and thus perpetuate them from generation to generation; so that, from one degraded and miserable slave to vice, hundreds and thousands are ruined.

Said a young man to me: "You have three times prevented me from being married. I have seen that in every case your judgment was better than mine, and I shall not now marry without your consent." Said another: "By coming to you and procuring an examination of my head, I have lost my intended. She says she will not marry such a head as mine." The fact is that the examination led to the development of his real character, which was anything but an amiable or desirable one; so she forsook him as she would an enemy, and never will cease to remember with joy the fortunate day when she came to my office with him.

Said a young woman: "You have been the means of my not getting a husband; for the only chance I have had for these ten years was from a young man whom you advised not to marry me; and now I am doomed to live an old maid."

Many other facts of a similar nature might be mentioned; and in every instance within my recollection thus far, where my advice has been taken, the parties most concerned have been perfectly satisfied; and in every case where they have not followed it they have repented it bitterly, but, alas! when it was too late to untie the Gordian knot.

Fifthly: a Proper Education for Discharging all the Duties incident to Married Life.—That an education which will fit persons for domestic duties is as necessary as it is for any other department of life, is self-evident; yet such an education is by many almost entirely neglected, and by a vast majority too much so. Although the marriage state is one which is designed for wise and important purposes, and by the fulfilment of which man gratifies some of the strongest desires of the human mind, yet, as a general thing, we are *as*

poorly qualified for it by mental training and information as for any other condition in which we may be accidentally placed. We use double the means to obtain the object than to qualify ourselves for enjoying it when obtained.

When I speak of education as being adapted to the social department, I have special reference to a well-disciplined mind, to an experimental acquaintance with domestic labour, and a familiar knowledge of household matters and duties. They should be able to sympathise with those engaged in domestic affairs, by an individual experience in the same matters.

Every young lady, whether she be rich or poor, especially if she anticipates marriage, should be as familiar with the *necessary* duties of the family as she is with the keys of her piano, and much more than with the fashionable acquirements of the day; for none can fill the sphere of a companion and parent until they are intimate with household labours, are capable of arranging family matters, and supplying their own wants, particularly in the line of making garments, preparing food, &c. It will not do in this country to depend upon the slightest tenure of property; for it is an everyday occurrence that wealth takes wings and flies away. To be dependent upon the milliner, the cook, and domestic, is a slavery to which a truly independent mind would never be willing to submit. And yet, scarcely a day passes over our heads but many young women take this too often unhappy step, without understanding even the common rudiments of housekeeping. Young men, with their eyes blinded by beauty and wealth, or accomplishments which are generally laid aside and forgotten after marriage, frequently hurry on the wedding-day, but find that they have but a painted doll, a mere automaton in the great drama of life. Young men are also, through ignorance, often as poorly qualified to discharge their duties in the domestic department; and when thus disqualified, they are thereby incapable of adapting themselves so agreeably, or of appreciating the peculiar feelings of a wife in her various circumstances. They will, as husbands, expect as much at one time as another, and fail to make those allowances which the nature of the case requires—be less qualified, in fact, to adapt themselves to her in their various changes of circumstances. Where this is the case the wife pines away, grows pale and languid, and not unfrequently becomes discouraged and brokenhearted.

To manage a family well, and adapt oneself successfully to a companion, is as much an art as anything else, and requires as much preparation, skill, and judgment, and much more presence of mind, patience, and common sense, than any other conditions of life.

Parents do their children a great injustice by neglecting the instruction of their sons and daughters in these matters, which are so intimately connected with their future success and happiness in this life. The details of that education cannot be dwelt upon here.

We should marry with regard to posterity, as well as to our individual happiness. The fact that society is affected by hereditary influence, is established beyond a doubt. Every farmer in the country is prepared to admit the general principle as applied to animals; and everyone acquainted with history is obliged to admit the fact as applied to man. Children, then, are as they are made by others, and not as they make themselves; and if they are imperfect, they suffer the consequences through life. And as the laws of reproduction are unchangeable, and the mental and physical organisation the necessary results of law, and those in the hands of parents, it lays them and all who expect to be parents under strong moral obligation, duly to appreciate the result of their labours.

LOVE

WHAT IS IT?—HOW SECURED, HOW RETAINED, AND ITS
NATURAL LANGUAGE.

THE term LOVE is applied so universally, abstractedly, and generally, that it means almost anything that we may wish. It has every variety of signification, every shade of meaning, which anyone has a mind to attach to it. The term love, as it is generally used, is applied to all pleasurable emotions, whether physical or mental. It is a common thing to hear the terms, love of food, love of friends, love of dress, love of poetry, love of music, love of study, love of fun, love of justice, love of God, &c., &c.

The term "perfect love," as applied to a union of two in marriage, is something more than the above. It comprises more than all united loves. It is something that cannot be bought or sold, weighed or measured, seen or handled, lent or borrowed. Use only brightens and strengthens it; age gives it intensity and power of action; it never wearies nor faints; it never forsakes nor forgets; it never slights nor trifles; it never wears a false smile, nor assumes false colours. It is always warm, alive to sympathy, smiling, pliable, gentle, human, disinterested, and devoted. It is constant, uniform, and unchangeable. All admire and desire it, yet few possess it. It can be had without money, or labour; and yet thousands would sacrifice their fortunes to obtain it. Without it, mankind are miserable; with it, perfectly happy; without it, society is unstrung; with it, society is united like a band of brothers; without it, law is of no avail; without it, there are no pure family enjoyments; with it, the family circle is a paradise on earth; with it, man is contented; without it, he is like a feather on the wind. Those who are fully imbued with it are honest, virtuous, industrious, moral, refined, and elevated in feeling and conduct, and are happy and contented. Those who do not possess it are discontented, unhappy, irregular in their habits and feelings, and more or less inclined to wander and yield to immoral practices.

Married persons who love each other always live together agreeably. Those who do not, are at variance; frequently have disputations, abuse each other beyond endurance, and separate as enemies.

Love embraces many qualities and conditions. It is on a graduating scale: it commences with the physical; and, when perfected, ends with the spiritual. With many, love goes no higher than the physical qualities; but, with a few, the physical has less charms than the mental. Spiritual love is enjoyed where one MIND is united to another in a union of sentiment and affection which no external defects can dissolve. Physical love arises from the appreciation of physical qualities, and the enjoyment of a physical union. Perfect love is a union of these two (physical and mental), with spiritual love in the ascendancy, overruling and bringing into harmonious subjection all the propensities of our nature to the moral and intellectual faculties; or, in other words, it is the result of the union of two congenial spirits, in which all the faculties of the mind are gratified according to their legitimate natural functions and strength.

Much is said, at the present day, about spiritual love; also, of a first and only love; and of their superiority over all others. Some affirm to me that their love is purely spiritual—that they have no sympathy with the physical; but, in my opinion, such a mind is not well balanced; for, as long as we have a physical organisation, we need a mind adapted to it; and, as many of the social duties of life require physical love, it is only in harmony with our natures and duties to possess it, and allow it to have its due influence on the mind; yet held in subordination to the higher elements.

It is a mistaken idea that, because we have loved once and been

disappointed in that love, or the object of it removed from us, our souls, that were made for love, should remain desolate for ever, and, like Noah's dove, be without an object upon which to fix our affections. Perfect love, as manifested in the perfect union of the male and female mind, in the proper and natural display of the social and domestic feelings and duties, cannot exist except by the union of the physical and mental faculties. We may regard friends, independently of the sex, with purely spiritual feelings; but persons possessed with this feeling alone are not qualified for married life and parental duties; and they should not place themselves in those relations unless they can unite with individuals of the same cast of mind.

I grant that the love one companion bears to another is very different from the friendship existing among friends, even of the opposite sex; yet, when that companion is taken away by death, I do not see why the affections may not find a resting-place upon another of equal or even superior attractions, and the same feelings and functions of our nature. It is no doubt true that, in order that a perfect union may take place, there must be a natural and honest exhibition of the real native elements of mind, adapted each to the other in all the particulars requisite for perfect love. When this is done, they become united in their mental and physical qualities and desires, which are similar in each other, upon the strongest principles of connubial felicity. Too much candour and honesty in forming such a union, therefore, cannot be used toward each other.

Such love is secured and perpetuated first by having perfect confidence in each other; for, with that firmly established, imperfections may exist and the charm of wedlock not be broken.

Confidence is a sustaining element of all unions and alliances. Peace and war, trade, commerce, teaching, healing, and all kinds of business, both great and small, are successful in proportion as confidence exists between the parties; and it is more strictly true in a family union and copartnership than in anything else; for the partnership is more intimate than any other that can be formed—more binding and more durable. The moment one of the parties begins to lose confidence, that moment is the beginning of sorrow and misgiving. The seeds of dissension are sown, and, if allowed to be matured and brought to a crisis, trouble is the consequence.

Two persons who have not perfect confidence in each other ought not to marry, no matter how favourable other circumstances are; for, with all other things agreeable, if there be a want of confidence, the most essential ingredient is wanting. If no other excuse could be rendered by a young lady for refusing her hand in marriage, that of not having confidence in the gentleman who makes the offer would, and ought to be, a sufficient one. Sometimes we find an engaged couple have what is called a "love spat," and afterwards make up and marry. Such marriages cannot be the result of a perfect union; for, with a limited acquaintance, they failed in confidence, but, in order to marry, have put on ointment over the wound, and healed it just long enough to be pronounced husband and wife, only to break when there is no remedy or deliverance. Such marriages may be legal, but not valid according to the order of nature. The law may bind two individuals to live together as husband and wife; but it does not produce that spiritual union, that concord of feeling, which make it a pleasure to bear each other's sorrows and woes, and go hand joined in hand, and heart joined to heart, through the journey of life. Although I would not say that there should be no legality, no public sanction, no outward form or ceremony in marriage, yet I do mean to say that the legal tie forms, in many cases, scarcely any barrier to the floodgates of licentiousness and infidelity, and is no sure guarantee for constancy, purity, and faithfulness on the part of those who are held in bondage by it. Let us have the legal tie, but let us also have the marriage of the soul, the union of the affections. Animals that pair are not at variance with each other:

"Each pair and each pair build a nest."

There is scarcely an instance where they are unfaithful or untrue. The swallow chooses his particular mate, and with her rears his young, and protects her and them from all foreign foes; the eagle brings no stranger bird to his eyrie, but is true to his choice; and so of all other birds.

Another means of securing and perpetuating perfect love arises from a proper adaptation of one to the other. Not that each should possess every element and natural quality of the other; for, the one may have a mental deficiency, to be supplied by the other. The two positive or negative poles of the battery are not brought together in order to procure the desired effect; but the charges must be different; one must be positively and the other negatively charged with electricity. Two clouds may float together for days and weeks in the blue expanse above us, if they have an equal amount of electricity; but let one be positively filled with gaseous fluid, and the other negatively, and we shall see the result. They assimilate or unite one with the other in action, and bring about some result. So, in married life, the character of each may be modified by some quality or influence in the other. Where the general desires, feelings, pursuits, tastes, and enjoyments do not clash, there may be sympathy for each other and an instinctive desire to conform and adapt themselves to the peculiarities of each in the various relations in which they may be placed—in other words to be “help-meets” with a common bond of sympathy; although there are still many discrepancies in other things.

Another medium through which pure affection is secured and promoted arises from proper treatment and behaviour. Our first object should be to secure respect. This is done by proper appreciation and treatment. A companion should be regarded as an equal: both are entitled to the same respect, privileges, enjoyments, and liberties; which should be a predominant idea in domestic life. This done, and both are equally interested in all that concerns the family, and are equally united in all their plans and labours. Selfishness and exclusiveness in one excite similar feelings in the other. When this is the case the husband and wife have separate purses, their own individual enjoyments, separate interests, objects of pursuit and amusement, and their own company, however offensive to the other; because it has now become a matter of selfishness. The question has been frequently asked me, “Supposing a person should, after marriage, find himself united to a being who is not a congenial spirit, what shall he then do?” To this query, I would say, make the best of a bad bargain. There will generally be some redeeming trait in every character, however marred, degraded, or depraved. The thoughts should centre upon this trait, and the differences lost sight of.

Perfect love is secured by having and manifesting an elevated standard of love, and by modifying the more animal feelings by the reasoning and moral sentiments. Love, as is generally exhibited in courtship and after marriage, is too physical, animal, contracted, and selfish. The more intellectual and moral qualities are lost sight of, or obscured by the mere animal and physical qualities. Whatever feelings are predominant in the one most active will excite and bring out the same qualities in the other. Thus in many instances, to all appearances, the best and most refining qualities are permitted to lie dormant through life.

Many of my readers are, no doubt, familiar with the fact that persons who are married for the second, third, or fourth time, manifest different characteristics each time, upon this principle, that different persons call into action different mental qualities, and give little opportunity for the manifestation of other faculties. If the more active and influential of the two is moral and virtuous in feeling, and circumspect in conduct, the natural influence of that mind on the other will be to bring out the same qualities and to restrain opposite tendencies of mind; but let the more active one be less moral, virtuous, and refined, and the tendency of that influence is the reverse, and different qualities of mind are brought out in the other character; and so on

of all the various influences brought to bear on the mind. Again : let the more influential one have a due proportion of both spiritual and physical love, with a well-balanced mind, and the influence will be more salutary and extensive.

Perfect love and union are secured by understanding oneself mentally and physically, so as to be able to decide to the best advantage what kind of an organisation would be best adapted to our own. Without this knowledge our judgment is biassed, and our object seldom obtained. No young man is truly qualified to make a proper and judicious selection of a companion without this thorough acquaintance with himself ; and the same might be said of the other sex.

This knowledge at the present day, especially, is not very difficult to be obtained ; and every young man and woman who have common abilities and industry might have the means, if properly used, to purchase all the books on this subject, and have at command all the time necessary to read them, and make inquiries and observations requisite to perfect themselves in this department of knowledge and science.

Many men of my acquaintance, ignorant or regardless of the laws of physical and mental organisation, have selected companions not at all adapted to their condition, and made the discovery when it was too late, which might have been avoided had they understood their organisation before their choice was made, but who have now to suffer the inconvenience of their ignorance during their whole life, while the object of their choice, equally unfortunate, might have been perfectly adapted to some other one. This society is composed of wretched thousands, to be relieved from their unhappy bonds only by divorce or death.

It is as easy for us to become acquainted with the elements of our own natures as of any other subject or science, and the knowledge is of as much importance and benefit ; for, when we thoroughly understand ourselves, we are not only able to decide what is necessary in the organisation of another to be properly adapted to us, but we are able to decide as to the qualifications of persons as soon as we come in contact with them ; thus saving the trouble of finding out by sad experience what it is to be properly united.

But to know ourselves and others correctly, is not sufficient ; we need proper self-government and presence of mind to act according to that knowledge, and to be guided by it in the selection of companions.

In order to secure perfect love, and enjoy all its blessings, we should be guided by an elevated standard, one based upon the most important and desirable objects and qualifications of love.

But, on the contrary, those persons ignorant of the difference between the inferior and superior qualities will be as liable to be influenced by the inferior as by the superior—by the physical as by the mental—by the external trappings as by internal truth—by the enchantments of dress as by the real, living elements—by art as well as by nature.

A dimple in the cheek or chin, a certain colour of the hair or eye, a peculiarly-shaped hand, foot, or waist, an eccentric way of looking, laughing, walking, talking, singing, or playing, a certain profession, so much money, or such a rank in society, will be a sufficient attraction for them to jeopardise their happiness for life. Guided by the animal, they would as soon “fall in love” with a painted face, a finely-dressed head, a compressed chest, a false bust, a fine dress or form, as to prefer an amiable and affectionate disposition, a high standard of virtue and morality, correct principles, good intellectual powers, a well-trained and balanced mind, with the age, knowledge, and experience necessary to discharge the duties of a companion and parent. That, in either sex, which creates the greatest interest in the opposite party, is the thing which indicates the standard of the person thus interested.

The fault of young people in these matters arises from two sources. 1st :

Their love is too physical, animal, and selfish. 2nd : They take too contracted views of married life, of its duties and responsibilities. They are urged forward too much by blind impulse to a state from which too many would gladly return, if the thing were possible.

Two persons devotedly attached have no occasion to use artificial means and airs to entertain each other : they have no desire to gossip and tattle about their neighbours ; for an exchange of their own thoughts, opinions, and feelings will be a sufficiently faithful source of entertainment and enjoyment. They will have no occasion to exert themselves to love and value the welfare of each other, or of continually purchasing each other's affection, and endeavouring to retain them by costly or desirable presents. It will not be necessary for either one to make pretensions to greatness, wealth, or elevation ; for true love is based upon what really exists.

Two kindred spirits cannot help loving each other, if they will allow their minds to follow their natural inclination ; for, their minds, feelings, sympathies, and affections will as surely run together and mingle, as that two drops of water from the same fount will unite. Artificial, or pretended love, talks loudly, largely, and fast, and has many pretty smiles, and graceful movements.

Real love says but little, and that in a low, soft, and gentle tone of voice ; the Adhesiveness of one inclining to that of the other.

The object in visiting each other before marriage should be to compare notes, to become acquainted with each other's capacities, education, circumstances, inclinations, and desires ; for we are about to commence singing a song together, and if our instruments are not tuned alike, and our voices do not chord, it is better to know it before it is too late. When notes are compared, and found not to harmonise, then the parties can separate without injury to the affections of either ; but if, upon a candid comparison of each other's capacities, inclinations, desires, and circumstances, there exists harmony and union, then they can unite understandingly, and the feeling will be sure to follow so honest and safe a guide as the intellect. When once married under such influences, there can be nothing to interrupt the love through life.

Too long courtships are also objectionable. Many court so long that the whole end and design of marriage is entirely frustrated by them. It is highly necessary that parties should come together before particular habits are so firmly fixed in them as not to be removed. Few married couples find their desires and feelings one in every point ; and hence the necessity for each yielding a little, or compromising matters with each other.

In many instances long courtships are the result of an insurmountable bashfulness on the part of one or both of the parties. The man cannot raise sufficient moral courage to propose, and false delicacy says the woman must not ; but common sense, the interests of society, and the laws of our nature say it is the duty of the woman to propose when the man does not. Of course, we may safely leave it to the sagacity of our female friends to bring this about, without sacrificing their character or modesty.

When the courtship is too short, it does not allow of sufficient time for the acquaintance necessary to ascertain whether the parties are as much adapted to each other as the married life requires, especially without the aid of a practical knowledge of the science of Phrenology, or a correct description of their characters by one who possesses that knowledge, without which there will be a risk at all times, and great danger in many cases, of making mistakes.

Many matches are the result of hasty and impulsive resolutions to gratify pride, will, revenge, or a conquering disposition ; all of which are wrong, and calculated to injure materially, if not wholly to destroy, the noblest feelings of their nature.

Another point should be attended to more than it is, in order to secure and retain that perfect love so much desired in married life. Man is very much

the creature of habit and circumstances. Whatever impels the mind into action on its first appearance is very liable to acquire an increasing influence over it, and gradually gain a permanent control over it; and those peculiar traits of character which are manifest at our first introduction to a person, who afterwards becomes a friend, will make strong enough impression to influence us materially in our future intercourse, not only in our thoughts and looks, but in our actions and conversation. Said a friend to me on one occasion, "You do not see an exhibition of my real character, for we were introduced to each other under peculiar circumstances, which led to certain trains of thought and conversation, and I never see you but the very same train of thought, &c., rises in my mind." So it is with the first impressions made on the minds of those who afterwards become companions in matrimony. The first few interviews stamp impressions which may influence the minds for life.

We should, then, treat our intended from the first as we expect and intend to do during life. If a man commences an acquaintance by flattery, and obtains and secures the affections of his loved one in this way, he will find it necessary to use the same means continually to retain them.

Lastly, it is essentially necessary, in order that pure affection should be secured and continued, that husbands and wives should treat each other just as kindly and politely after as before marriage. I wish it were not necessary to urge this point, for it would seem that common sense, justice, and humanity demand it, and that pure affection would secure it; yet it is a lamentable fact that too many, if not a majority, of married persons are more polite, kind, and attentive before than after marriage, which is very often a fruitful source of contention and family bickering.

Let a sensitive wife be convinced that a husband is less mindful of her, and neglects to perform many kind deeds and attentions, which he was very prompt to do in days "lang syne," and she must necessarily become unhappy and discontented.

If a man strives to please and make happy his intended while she is a member of her father's fireside circle, surrounded by kind and tender parents, brothers and sisters, surely it is his duty to make double exertions to do so when she leaves all these sources of affection to unite her destiny with his. She goes with confiding, trusting spirit, to commit her all to her future husband, very often to find the gushing springs of her affection turned into bitter tears

No kindling heart gives echoes
To the passion of her strain.

And she is left to waste away neglected and alone. I might tell an "o'er true tale" in this connection; it must be confined to a brief statement of the fact. It relates to a lady who was wed to one with whom she had been led to cherish the most sanguine hopes of a future life of bliss and happiness. But, alas! what were her feelings when she too soon learned the heartrending truth that she had been duped by the husband of another wife. It was too heavy a calamity for her to bear. In a very short time her spirit was grieved away, and her body clasped in the cold embrace of death. The attending physician assigned as the cause general debility; but on a *post-mortem* examination her heart was found to be completely withered, in consequence of broken spirits and retarded circulation.

Such an intimate relationship as that of marriage life cannot exist happily without love; and it is equally necessary that love should be guided by enlightened reason. Although nature has been free in endowing all human beings with the same natural inclinations to form social relations, and as no one has a right to prevent the fulfilment of that law of our nature, we are all under obligations to society and posterity. All, therefore, who value these considerations should lend their influence, by precept and example, for their

support and encouragement as heartily as for the fulfilment of any other law of their country.

In the name, therefore, of science, of humanity, posterity, and of moral obligation, I say, no one has a right to marry unless he has the natural qualifications, mentally and physically, and has these functions properly guided by enlightened reason.

That persons will marry is as true as that they have the natural liberty and the inclination ; consequently, it is the duty of those who are better informed to enlighten the more ignorant on this subject, so that they can obey the law of their being, for their own highest happiness and for the interest of posterity.

A great majority of the evils existing in domestic life doubtless arise from ignorance of the laws that should regulate them ; and in consequence of this ignorance the human race is made wretched. Happiness in domestic life can be made a matter of certainty instead of accident, if we would but obey the laws of our nature. The old maxim, that "Love is blind," is too true—it certainly needs a guide ; which guide we have in intellect, situated in the forehead for the express purpose of taking the lead. This should have a prior influence in all the affairs of life—and the more important the transaction, the greater the need of its influence ; and in no place is it more necessary than in forming our domestic relations, enabling us, as it does, to understand the principles which are necessary to be taken into account in order to secure that happiness which man is capable of enjoying. But, instead of being guided by our judgment, and allowing our foreheads to take the lead, we have reversed the order of nature, and turned around and gone backward into married life, and allowed our feelings to take the lead, until the time has passed when reason would be of any avail.

Many show the contracted view they take of this subject by the kind of companions they select, and the motives that guide them in their choice. Many allow one motive, qualification, attraction, condition, or circumstance to bias them, regardless of all other circumstances. The desire of wealth, joined with indolence, often points to a *fortune*, instead of a companion ; thus showing that some prefer to gratify one of the lowest and most selfish feelings of our nature at the expense of all other considerations.

A young man in the upper counties of Georgia became most extravagantly attached to a maiden lady somewhat advanced in years, not at all interesting or attractive, save in the fact that she was very wealthy, and her property unencumbered—except by herself ; and she was not only quite sickly, bed-ridden, one foot in the grave, the other about to follow, but in every other way unqualified to sustain the family relations ; so that no one expected she would live more than two years at the longest. But, for some cause, this fine, spruce, healthy young man loved her beyond refusal, and insisted on marrying her. The cause why he loved her was well understood in the neighbourhood. They were married ; but instead of dying, so that he could gain her fortune, and marry some one more congenial to his feelings, the more he wished it the more *she would not* : she rapidly improved, finally regained her health, and lived to see him an old grey-headed man, dying only five years before he did. But soon after her death he went into the company of young ladies, making proposals, being as agreeable as possible, &c. ; but the young ladies, knowing his previous history, strenuously refused him, and told him that he had shown his cloven foot once, and would not be able to do it again.

Another instance from real life : Mr. M—, of O—, married a lady from the city, and carried her to his home. He thought her father was rich, and probably was sanguine in his hopes and anticipations. When they had been married some time it was rumoured that his father-in-law had met with losses, which would involve his property. So he took his *cara sposa* back to her father's mansion. She had not been there long before her father's affairs turned out more prosperously than was anticipated. Then the good

husband retraced his steps to the city to take his wife back again, but it was "no go,"—the father said nay.

Some are governed by beauty alone in their choice, but frequently find, to their constant annoyance, that their darling beauty is covered with a mantle of vanity, jealousy, ill-nature, or that the unsparing hand of disease may soon destroy that charm leaving nothing to be admired.

A lady of my acquaintance married a man for his beauty, contrary to the wishes of all her friends. His beauty has now vanished, and he is very ugly, and manifests a domineering disposition, frequently abusing her shamefully, and has even repeatedly threatened to take her life.

An interesting lady loved a young man most desperately for his sweet, charming voice, and, in spite of all entreaties, she married him—all his faults, his dissipated habits, having been made known to her previously. She now learns, however, from her sad experience, that his sweet voice is continually steeped in narcotics and stimulants, to her shame, as well as to his disgrace; so that she rues the day she ever wed or became acquainted with him.

If happiness be really the object of individuals governed by motives of this nature, then do they lay themselves open to sad and grievous disappointments; for it being known that this is a *consideration* which leads many to marry, some who have poverty written upon their personal attractions will pretend to be rich, and display the appearance of wealth until the object has been obtained, and the UNION consummated; which, of course, puts a finish to the deception. The reality being known, must produce very unpleasant feelings.

When both parties, acting upon this principle, are mutually deceived, their disappointment is equal, and its consequence just. The following fact will illustrate this point, and exhibit clearly the folly of similar conduct:—

A *distinguished* young man from the South, making great pretensions to rank and wealth at home, paid attentions to a young lady residing near New York Bay, whose father had been very wealthy, but, owing to reverses, had become quite reduced in circumstances. Still the family maintained their style, and the display of affluence equalled fully what it had been in their palmier days, and by so doing sustained their reputation in society, and gave to the young ladies a better opportunity to settle in life.

The new comer, prompted by the desire of securing the prize, and thinking she possessed sufficient of the "needful" to pay all expenses, dashed out in fine style, ran into every kind of extravagance, and displayed the fastest and most beautiful horses, &c. Finding debts accumulating and becoming pressing, he hurried on the wedding day, this being the only prospect for their discharge. Meanwhile, she, not suspecting that he had falsely represented his situation, and delighted at the idea of obtaining so liberal and generous a husband, encouraged his expenses, and was profuse herself, thinking he had the means to settle the bills. They were married; when, to their astonishment and shame, they found themselves not only destitute of the means to discharge their liabilities, but unable to buy the necessary furniture for housekeeping.

In cases where no deception is used, but a fortune obtained, it is generally a source of constant bickering and observation on one side, and of mortification on the other, unless he or she possess the cool philosophy of a man, who, in reply to the observation of his lady that her money bought the horse upon whose virtues he was expatiating to a number of his friends, said, "Yes, and your money bought me too."

Some have an idea that "matches are made in heaven," and that there is an over-ruling power that specially directs them all; or, at any rate, that the Lord will not allow any marriages but those which are as they should be. A good maid, a lady in affluent circumstances in Pennsylvania, who had waited with Christian patience a number of years for the directed one to make his appearance, at length received the attentions of a clergyman. He proposed; she required time for deliberation on account of injurious surmises; was taken sick suddenly, and for some time her life was despaired of. As she lay

upon the bed in the very lowest state, the subject troubled her : she *prayed to God* that if it were His will she should marry this man, He would allow her to recover ; that if it were *not* His will, she might die.

Well, in process of time the good woman recovered ; and, thinking the hand of the Lord was visible in pointing out her duty, she married the clergyman, supposing him to be a good man, and one who would make her happy, but soon found her worst fears were nothing to the realities of the case. He soon commenced displaying the cloven foot—had been divorced from *four wives*, was dictatorial and unkind, licentious and brutal. His clerical robe served but to conceal the vile enormities of his character.

Some have the motive of *conquest* alone in view—a motive which should never exist ; while others are actuated by *ambition*, esteeming rank and honours as the greatest prize—a most unpleasant situation, unless a fortune accompanies the union ; while others are influenced not so much by pure, strong, and proper attachments, and the desire of permanent settlement and a home of their own, as by motives of curiosity, by desire of change, and to have the name of being married.

In complying with these tendencies of our nature, we are liable to be influenced by motives and to resort to means which have an injurious influence, and should, therefore, be avoided. In paying our addresses to each other with the intention to marry, we ought never to trifle with each other's feelings, by teasing, quizzing, or deceiving. The evils arising from such a course are two-fold. 1st. It unhinges the judgment, and disqualifies the parties from making it an honest, serious transaction. 2nd. It sows the seed of future discord, jealousy, and suspicion.

DUTIES AND CONSISTENCIES

OF PARENTS AND TEACHERS.

THEY should secure the confidence of their children, so that they will be disposed to ask and take advice of them in relation to their social matters. They should be a guide and example to their children, and a living witness of the manner in which the social feelings should be properly exercised.

They should educate them with the design of making them good husbands and wives, instead of giving them a fashionable superficial, polite, and showy education, filling their heads with false ideas of society, and how they can most successfully entertain company and secure offers of marriage. Many parents are greatly at fault in this respect ; they allow their children to mature for marriage, and encourage them to anticipate it, with no qualification to enjoy it themselves, or to render those happy with whom they are connected.

Parents are under greater obligation so to educate and direct the minds of their children as to secure happy marriage, than to establish them in business ; for much more is involved in a good social settlement than a business one. The latter is a concomitant to the former ; as those who regard their families *will be diligent* in business.

Some parents are very anxious about their children at the wrong time, like the old hen that spreads her wings to protect her chicken, and raises a great tumult *after* the hawk has seized it and is bearing it out of its sight. So do some parents allow their children to mature, evidently regardless of who or what they love ; giving, as it were, a tacit consent for the affections to cement until the hand of the child is asked in marriage. Then they stoutly refuse their assent, and violently oppose the union, as though they had the highest regard

for the child. But in many cases this is too late, and it is almost certain to ruin one or both of the parties concerned.

There should be such an intimacy between the parent and the child that the latter will be disposed to consult the former in these matters from the first. There will then be no occasion for disappointments; for to have the attachments forcibly broken off is sometimes as injurious as it is to be unfortunately married. Besides, it is the duty of the parents to retain the affections of their children until they shall have the same degree of judgment to guide them in matters of love as in other matters.

The father should so effectually retain the affections of the daughter, and the mother the son, that they may not be disposed to change the object of their attachment until they have arrived at the years of discretion. As soon as parents, by their improper management, destroy the natural attachment existing between the parent and the child, the child will seek some other object of affection, either at home or abroad, which is frequently the commencement of many family difficulties. Home should be made the most pleasant spot on earth, the centre of attraction, the bower where the whole family can repose together in love, confidence, and harmony.

GENERAL SUGGESTIONS TO THE UNMARRIED.

WHAT TO DO, AND WHAT NOT TO DO.

To one and all I would say, Do not marry unless you love, and do not love unless guided by reason and judgment. Do not marry contrary to your own judgment and inclinations, merely to please your friends; for this reflection does not bring domestic peace, when you find that you are confined to one not at all congenial to your feelings. Your happiness in married life will depend on your *union*, and not *how* it was brought about.

Several ladies have told me that they married solely because they were so unfortunate that there was no other way to get rid of the importunities of their lovers; but they have all declared that they would give anything in their power, and even life itself, if they could free themselves from their burdens.

This being so very accommodating as to give your hand and virtue to a man without your love, because you cannot bear to see him weep when refused, or because you are afraid of hurting his feelings if you refuse him, is a spirit that would hardly be recognised among *angels*, and much less should it be among human beings where their own welfare and that of posterity depend upon a different course of conduct.

Do not marry, then, *in any case*, to avoid importunities and puerilities, or to save the tears and fears of others; as selfishness, if it can be so called, or rather self-love, is justifiable in this case.

Do not marry because you think it is the last opportunity. To refuse good offers in hopes of obtaining those more eligible, and then, through fear of living in single blessedness, to accept because you think you will have the "crooked stick at last," is like a man grasping a straw to save himself from going over a dam. Never marry to get rid of the stigma of being called an old maid or an old bachelor. It is an honour and a credit to many that they have had prudence and sense of duty sufficient to control their feelings, and to enable them to remain single. Many, by not consulting their organisation and qualifications for married life, have brought great evils on themselves and also on posterity, simply to show the world that they *can* marry, and thus remove

the reproaches (that many fling) on a single life. Said a certain lady, "I would not live single if I had to marry the greatest *roué* in the city."

In this all-important step, which has to do with your own *individual happiness particularly*, allow your friends and enemies to give you facts, and be thankful for them; but think for yourself, exercise your own judgment independently. By judgment I do not mean the calculations of mere intellect, but the whole mind, embracing the *feelings*, the sentiments, and propensities. When the consent of all these faculties of the mind has been obtained, then it is certain you are under a moral obligation to marry, regardless of opposition.

Do not marry with a determination to rule or not to be ruled. There is scarcely anything appears more foolish than this absurd feeling of "I am not to be dictated to," "I will have my own way," "I shall not sign away my liberty, I can tell you," &c.—the lady afraid to yield, for fear complete submission will be the result; the husband from dread of *appearing* to be under "petticoat government." A civil war of this kind puts to flight most effectually all hopes of domestic enjoyment. It is invariably the growth of foolish pride and *morbid, little* independence, as far removed from real dignity as light from darkness—oftentimes exhibited before marriage in persisting in certain actions or habits when their suspension is desired.

It cannot be too strongly impressed on your minds that "mutual forbearance is the touchstone of domestic happiness." "The ANGEL of the marriage covenant bears the inscription on each wing, which he *folds in sorrow* when the admonition is *unheeded*."

Do not be so modest as to let one do all the courting, the other replying only in monosyllables; for very frequently the tongue becomes more pliable or gets loose when damages cannot be repaired.

Playing the "*dumb belle*" and silent lover is a very silly mode of transacting business. No; it is your duty to unfold your characters in their true colours to each other. In the married state it is your *duty*, and should be your *pleasure*, to sympathise with and console each other, and thus beget a winning and soothing confidence that does much towards making home desirable and happy.

Do not marry a coquette or flatterer. A coquette has *no* heart, and a flatterer only a *hollow* and *deceptive* one.

Do NOT trifle with your affections by keeping company as a matter of curiosity or of opposition.

Writers have dwelt with much effect upon the evils produced on the intellect by novel reading, but the effects of literary trifling, bad as they may be, fall far short of the ravages of hydra-headed social dissipation. Parties, routs, the strained and tender compliment, the sigh and protestation, the coquetting and flirting practised as mere pastime, inevitably destroy true affection. Persons who have passed but *one season* in amusement of this sort, have generally rendered themselves incapable of being influenced by natural and true affection; their feelings having become completely seared.

Persons who have been drilled in the tactics of *fashion* should be resolutely avoided, nine cases in ten. They have become susceptible of but *one* love—the love of themselves. The plague has tainted their blood, producing certain death to all the warm and generous sympathies that should flow from the cup of gladness into the secluded bosom of the family.

Do NOT be so precise and regular in the time that you should make your visits. Both parties thus prepare for such occasions by embellishing and rendering their appearance foreign to nature; each parades his or her good qualities to the front, and shows how pleasant, kind, agreeable, and polite they can be when prepared for it. From using these forced and artificial means to entertain each other, an acquaintance is made for one's abilities for *pleasing* only, and not for *displeasing*: the disagreeable traits of character, not being necessary, are concealed; but the occasion over, they manifest themselves in

right good earnest ; and, when it is entirely too late, the words "for better or for worse" have been pronounced.

In your courting days you had the *better*, but now you are prepared to appreciate the meaning of the latter term.

It is a positive fact that men and women are not heroes and angels, except upon the pages of romance.

When you are married, you will be obliged to come in contact while your faces are flushed by exercise, dresses disordered by labour, tempers a little ruffled by trifling circumstances and annoyances, when the toilet is not prepared with *extra* care, and many other trifles connected with "little responsibilities:" establishing, beyond a doubt, that earth is not heaven, and poor human nature somewhat else than poetry. These things are so ; and you may as well study each other in these situations, as when "dressed up" and seated in the parlour. In the one case you are liable to be "taken in;" and in the other, knowing what to expect, disappointment cannot creep in : contentment must reign, giving a fair opportunity for happiness.

Do not excite your love by foreign stimulants. The influences of love and wine should never be united. Men, when under the excitement of intoxicating liquors, are not in full possession of their faculties : they have excited their animal propensities, and, in so doing, have rendered the manifestations of their feelings brutal. There is no woman of sense and purity throughout the land but must, having the knowledge of the debasing influences of ardent spirits, the foul and demoniac crimes which have been committed under the auspices of drunkenness, view the attentions of persons under this animal excitement as an insult of the blackest kind.

One word here in reference to the fashionable balls and dancing schools held at hotels—the assembly rooms where are congregated young and virtuous females, waited on by kind and attentive partners, generally immediately over a bar-room. Many a poor, wretched, and agonised wife and mother is at this moment bitterly regretting the near proximity of that debasing and enthralling spot of the ball-room where she was "woo'd and won."

Nothing is intended to be said in opposition to the accomplishment of dancing, for, when indulged in apart from unhallowed influences, it is a pleasant, graceful pastime, and healthy exercise.

It is the duty of ladies, and especially mothers, to put down associations of this kind ; for, many young gentlemen, feeling embarrassed through timidity and bashfulness, obtain a little "*Dutch* courage," in order that they may more readily throw off restraint, and by this means plant a moral canker in their bosoms, which eventually "eateth into their very heart's core." Intoxicating drinks stir up the temper and the whole of the animal nature, and blunt all the high and nobler qualities of man. Parents should bear in mind, therefore, when their daughters are entrusted to persons who have the slightest tendency to indulgences, that their happiness rests upon a very frail foundation. It is an awful fact that two-thirds of the idiots and insane in the land are the immediate result of one or both parties having been accustomed to steep their brains, scorch their blood, and wither their muscles by the free use of this liquid fire.

Do not go to a ball-room or to a fashionable watering-place to secure a true, affectionate, and domestic companion ; the very atmosphere of such places is destructive to nature's pure affection and her natural language. There art and deception take the place of nature ; the whole mind is highly charged with excitement, and the attachments (what there are left), the ambition, and the passions, are all greatly stimulated, and bias all other considerations, and present an entirely one-sided character in borrowed plumes and false pretences.

If you are very poor, do not marry a person very wealthy merely on account of his or her wealth, unless you wish to act the part of a servant, and to live with the continued reflection that you are eating another's bread, riding in another's carriage, &c.

If you have insane or consumptive tendencies of body, do not marry one who has the same, unless you wish to bring upon yourself, your family, and posterity, all the evils of hereditary disease.

If your mental or physical organisation is extremely susceptible to impressions, do not marry one of the same extreme or of the opposite order. There should be a tendency to the medium line. If an organ or function is very large in one, then it should be less in the other, so as to have a restraining influence; yet, it should not be so small as to be disgusted with the extravagant manifestations of it. If one has an organ very small the other should have it a little larger, so that it may not be deficient in the family, and also that it may serve as a stimulus for the one in whom it is weak.

A long article might be written on this subject, and a detailed account of the manner in which each of the developments should rank might be mentioned; but this is not necessary, as the subject addresses itself to the common sense of every one.

Variety is at times agreeable, and even desirable; yet extremes in any of the arrangements of nature, or in two separately-organised bodies, scarcely ever harmonise in action or in that adaptation necessary to produce uniform results.

A gentleman who thought he understood human nature very well, the motives of action, &c., had very small Acquisitiveness; and, in selecting a wife, looked for one with an organ large; but, when they were united, this was the source of trouble and contention, for she took all his earnings, and was unwilling that he should spend a single cent beyond his actual necessities. This state of feeling increased to such a degree that he separated from her, and now lives alone in the world, unhappy and desolate, convinced that extremes do not always produce happiness.

This law of harmony and balance should be recognised, not only for the convenience of the parties concerned, but for the sake of posterity.

The organisation of children depends on two things—first, the organisation of the parents; and, secondly, the influence of circumstances on the mind, and on the activity of the various faculties and functions of those parents before conception, and particularly on the part of the mother.

If, then, both parents have the same function very large or very small, the child must necessarily partake of this extreme, unless a change is produced by the force of circumstances. If both parents are idiots, the child will be idiotic; if very nervous or consumptive, the child will be so disposed. If Conscientiousness, Firmness, Self-esteem, or any other organ is very small in the parents, they will be so in the child, unless it is rendered large by the great activity of those faculties in the parents. If Cautiousness, Secretiveness, Destructiveness, Amativeness, or any of the animal propensities, are very large and active in the parents, they will be manifest in the children.

If you are very rich, select your companions yourself, instead of permitting another to choose for you; so that you may not be troubled with the reflection that you were selected for your wealth.

A young lady of royal blood, from the south of Europe, who was very wealthy, accomplished, and beautiful, travelled in this country in the garb of a servant or companion, for the purpose of making her own observations, and selecting her friends, without her name, rank, and wealth being known, fearing that *they* might be the means of attracting attention, and draw a crowd of flatterers around her, regardless of her own natural qualities; which was not a very pleasant reflection. She was a true, unsophisticated child of nature, travelled extensively, and enjoyed herself highly. A gentleman appreciating her native talent, made love to her, and they were married, and settled at the south. She had the satisfaction to know and experience that she was beloved for herself alone. He was made thrice happy when he found, in addition to her own personal and acquired qualifications, all other things desirable. They lived in the enjoyment of almost uninterrupted felicity for many years. After his death she returned to Europe, to grace again the

circles of wealth and intelligence which she had voluntarily left for a season. Had she followed some other course, she might have been the dupe of some fortune-hunter prowling over the country.

Be sure that you have the confidence and sanction of the parents before you proceed with your negotiations. To secure the affections of a young lady, and make arrangements to be married, and then ask the consent of the parents and be refused, is quite an unpleasant predicament in which to be placed. In this case you are left to one of two alternatives, either of which is unfortunate—to marry contrary to the wishes of friends and parents, or sacrifice your love; both of which might have been avoided if the necessary precautions had been taken in season. Do not marry so much above or below your sphere as either to secure the contempt and the reproaches of friends, or to fail to adapt yourself to the peculiar condition of your companion.

Finally, DO NOT allow *any* ONE faculty of the mind, *any* ONE condition of the body, *any* ONE favourable or flattering remark, the enthusiasm of the moment, or the excitement of passion, to over-balance all other considerations; thus bringing about a *partial* union, and securing the *possibility only* of imperfect happiness.

Those individuals who are governed by selfish motives in these matters will resort to dishonest and improper means to accomplish their object. They have not a sufficient amount of *conscience* or *principle* to regulate and control them; the consequence of which is, there can be no confidence placed in them; they are liable at any and at all times to go or be led astray, and are especially unfit to assume the weighty responsibilities which devolve on heads of families.

Persons of this character should be resolutely and determinedly avoided. From the existence of such men and women in society can be traced the origin of the deception, pretension, falsehood, flattery, assumed piety, strained politeness, and artificial endeavours to entertain each other while together, which may be denominated the reefs and shoals of the sea of matrimony.

Many unprincipled young men of fortune, leisure, and accomplishments in our cities, spend much of their time in female society, using all their faculties and powers of pleasing with apparently honest intention, and labour assiduously to secure the affections of young ladies, who afterwards make their *dignified* and *lofty boasts* of how many beautiful and charming young ladies are crazy after them, if they should not proceed farther and trifle *with their affections* in the basest manner. Such *men*, or *apologies for men*, deserve to be branded with the blackest marks of infamy, the most indelible sign of disgrace, meriting nothing but obloquy and contempt.

Young women, too, *regardless of consequences*, sometimes thoughtlessly turn coquettes, present their charms and bright attractions, use their best endeavours, exhibit excessive devotion and exclusive affection, and by these means decoy and lead astray, if not absolutely ruin, many an honest, worthy young man. The hearts of such ladies exist but in name; they have long since been dissipated in thin air; they are only worthy of becoming the wives of the *soulless* persons described in the last paragraph.

Were the evils brought upon society, families, and individuals by this extensive but very pernicious course of conduct thoroughly investigated and dwelt upon, we should be presented with the real first cause why there are so many lewd men and women, so much vice, immorality, and licentiousness in our cities—it would unfold the origin of the wretchedness and despair of miserable thousands, and expose the cause of many an early death.

It is the duty of every one—and God holds them accountable for the performance—to use their personal influence in removing unhealthy tendencies, especially of the kind to which I have alluded.

As young people are now educated, many are not capable or qualified to discharge the duties which necessarily present themselves in the marriage relations.

They are urged on by the blind impulses of their nature to the altar of marriage, no more prepared to fulfil their solemn vows, or to discharge their duties, than is the MARINER to navigate the broad surface of the mighty ocean without chart or compass.

The education of young ladies, especially, is very defective in this respect, particularly among the more fashionable, wealthy, and artificially accomplished.

Instead of being taught to work and help to support themselves, thereby forming habits of industry and economy that are of invaluable service in after-life, and securing health, hilarity, vivacity, and sprightliness by the free and ready exercise of muscle and mind, they become feeble and sickly in their bodies, as well as peevish and fretful in their dispositions. Their parents become their slaves, their very drudges, and they are allowed to grow up in a debilitating and enervating idleness, their bodily powers only equalled in puerility by their mental—unable to take care of themselves or boldly meet difficulties which some unforeseen event may cast in their path; fitted only for toys and playthings, not for companions and confidants—the whole extent of their *useful acquirements* being, ability to dress fashionably, behave genteelly, walk and dance gracefully, play upon the piano very beautifully, talk very softly and sweetly, to ridicule the idea of coming in contact with any of the commonplaces of life, pore over the sickly and trashy tales of a magazine or novel, and amuse the company by a display of their *personal* attractions, *natural* and *unnatural*—exciting an *unhealthy*, if not an *immoral* influence over others. Or if, perchance, they *work*, it is merely to show their taste upon some article of dress designed to adorn their too artificial bodies, consulting neither health nor convenience; or perhaps to put on their *gloves* and dust the parlour—possibly to set the table; and are yet very anxious to marry without understanding the rudiments of housekeeping.

Such wives and mothers should be scarce. And yet such a *system of education* is encouraged by the other sex, who are by far the greatest sufferers, being more fond of their wives and daughters when they *appear well*, even to the neglect of their families; also by paying attentions and clustering around those young ladies whose dress is most *babylike*. The true principles of education, founded upon phrenology and physiology, would say, Cultivate and improve the physical powers to the utmost, so as to secure health of body, strength of constitution, and the power of becoming parents of children not characterised by weakness or effeminacy. Exercise the mind, the whole mind, bearing in view the fact that the brain, the material organ of the mind, is capable of being benefited by regular tasks, and of being injured by excesses, precisely in the same manner as the body can be weakened by any over-action.

When the mental and physical organisation of man is properly understood, and the laws by which those organisations are affected are obeyed, families will enjoy uninterrupted health, long life, and uniform happiness.

Man's enjoyment in this life depends more upon the proper exercise of the social feelings and their gratification in the domestic relations, than in any other condition in life. For him to enter upon these duties, and assume the necessary obligations without being thoroughly qualified and prepared, would be as great a sin and violation of duty as for an ignorant man, unacquainted with the principles of Christianity, and not enlightened by grace, to attempt to teach the way of salvation.

We should change our situations and enter into the matrimonial relations solely with the intention of becoming more happy and useful. It should be looked at, reasoned upon, and spoken of, as an honest and most important business. To treat serious subjects in a light, trifling, nonsensical manner, is quite injurious, and should be reprobated.

We should do it with an eye upon our mutual and individual happiness, remembering that perfect happiness can arise only from the proper adaptation and exercise of all our natural powers, socially, morally, intellectually, and

physically ; consequently, we should consult all of them and gratify as many as possible. And, above all, we should do it with the reflection that from three to six generations of our descendants will be *directly* affected by the choice we make.

HEREDITARY INFLUENCES.

HAVING glanced at some of the evils resulting from the perversion of the means put into our hands to continue the race, it is my present design to present some further considerations which bear on this subject ; although it is quite an unpleasant task to dwell on the errors, evils, and discrepancies with which we meet in social life. It is far beyond the limits of my time and space to do justice to a description of the dreadful effects which directly result from these evils. Our vagrants in the street, our poor-houses, prisons, penitentiaries, lunatic hospitals, and a vast multitude of wretched victims which no man can number, filling every nook and corner of old Europe, and spreading with rapidity over young America—who are living out an existence of misery and torture—one and all rise up, hosts of maimed, blind, diseased, and imbecile beings, as witnesses, and point to their several defects as the strongest testimony that can be uttered in behalf of Nature and her broken laws.

Why is it that children are thrown into the world, ignorant of almost every principle which it is important for them to understand, and necessary for them to practise, in order to render life either useful or happy—retarding man's advancement and general civilisation, until, in contemplation of the increasing evil, one despairs of the prophetic millenium, or only dreams of its realisation in a far-off eternity of time? Parents in these indigent circumstances are excusable if they do not use the means to multiply and increase : indeed, it is their *duty* not to use them. But, instead of being guided by duty and the decisions of common sense, tinctured with philanthropy, and wishing to be excused, these are precisely the ones who have the largest families. When the eyes are opened, and they not only *see* but *feel* the wretched and responsible situation in which they have placed themselves, they are very ready with an excuse, and, by way of self-justification, to throw the entire blame from their own shoulders upon the allotments of Providence. But Providence has kindly placed the whole matter in their own hands, and they are to be blamed, and they alone, for any ills which may arise from a mismanagement of them.

When attention is paid to the resulting consequences upon society, it must be admitted that this increase of children beyond all expected ability properly to educate their physical, moral, and intellectual natures, is not only a manifest evil of the highest nature, but a positive and undeniable moral sin ; and, as such, should be strictly guarded against.

As the condition of man now is, many are not proper subjects to hand down to posterity a healthy, happy, family. Persons who labour under hereditary diseases of any kind should avoid becoming parents ; for, by so doing, they multiply sorrow, suffering, and early death.

If persons affected with any hereditary disease marry with the intention of becoming parents, they should pay strict attention to the laws of physiology, and marry those only who are particularly well fortified in those qualities in which they are deficient—those having a strong and well-balanced constitution, a good stock of vitality, and an active and energetic mind. The children in this case will be like or resemble the more active and healthy parent, and be much less affected by the one diseased, than they would if both were diseased or unhealthy, or than they would be if there were no counteracting qualities in either of the parties. Parents of the same physical qualities in the extreme should not marry.

THE MENTAL TEMPERAMENT.

THE Mental or Nervous organisation may be known by a delicate frame, sharp features, thin skin, fine air, sparkling eyes, quick movements, rapid speech, joined to a great desire to read, think, and gratify the intellectual powers generally.

If the nervous organisation prevails, the mind is predominant in power and activity, and the constitution suffers severely from the constant drains made upon it. Such persons mature early, suffer or enjoy in the extreme, lead a brilliant but short career, and generally find a premature grave.

Two persons uniting with a predominance of this organisation will live too fast, be too extravagant in thought, word, and deed, will enjoy and suffer in the extreme, carry everything to excess, devote themselves too exclusively to the exercise of the mind as such, and will be restless, uneasy, feeble, irregular, uneven, and inconsistent.

Children of such parents are generally few in number, dwarfish, puny, and "too smart to live." The ranks of the insane are too frequently increased from families of this organisation; and when young they consequently require double the care and attention, and are much more dependent, than other children. They are endowed with feelings so keen, and susceptibilities so acute, that their existence is almost a burden for the want of the ability to look on the trials, privations, and hardships of life, as though they were prepared to meet them. Such families soon become extinct, and "the places that once knew them know them no more."

The Motive or Bilious organisation comprises the framework of the body, the bones and muscles, the moving part of man, the house which encases the vital functions.

The indications of this organisation, when greatly preponderating, are solid bones, hard muscles, firm flesh, close and large joints, large and irregular features, dark hair and complexion, heavy expression, and slow movements. Such persons are difficult to excite and hard to restrain; have strong and well-fortified constitutions; are generally well qualified to resist foreign influences, both mental and physical. Such persons are our hewers of wood and drawers of water—are capable of sustaining the fatigues and hardships of life. They do the coarse, heavy work, are backward in youth, tenacious of life, and struggle in death.

Two persons with a predominance of this organisation united in marriage would be far behind the age and the spirit of the times; would always be in the rear; and would act as machines or automatons for their neighbours. In such there is more ability to act than to plan, more strength and toughness than refinement and sensibility.

The children of such parents will be hardy and healthy, but awkward, homely, backward, and never in their element except when the harness is on; real plodders through life; doing all the hard work, fighting all the battles, raising all the monuments, but obtaining none of the credit; helping to make others rich, but dying poor themselves; and are soon obliterated from memory.

They are the real sinews of the land, but rarely exert a moral and intellectual influence. Their standard is physical, their exertions are physical, and their attainments physical.

The Vital organisation is the combination of what is generally called the Sanguine and Lymphatic. It has reference to the thoracic and abdominal regions of the body, and may be known, when in the ascendancy, by a large,

round, plump body, full chest, broad shoulders, round limbs, strong pulse, large base to the brain and lower portion of the face, with a florid complexion, sandy hair, and a healthy, social, and animated expression. All the vital organs, those on which life depends and is generated, are large and active.

Persons with a predominance of this organisation place a high value on life and its pleasures, enjoy all there is to be enjoyed, sleep soundly, breathe freely, eat heartily, and like to partake of the luxuries of the table.

Their motto is, "Live while you live." They are fond of excitement and amusement; always busy, yet do not trouble themselves about hard and steady work; more disposed to oversee others and give orders than to obey those of others. They frequent social gatherings, have a predominance of the feelings and passions which, when perverted, render them violent and passionate. Their feelings are tender, sympathies lively—are very sensitive and susceptible to foreign influences and change of circumstances. They act upon the high-pressure principle with force and impetus. Two persons united with a predominance of this organisation will be too impulsive—put on too much steam in proportion to their freight—are too easily carried away by the impressions of the moment—too little under the restraint of the controlling elements, and, when excited, are too warm, ardent, and passionate—are too much under the influence of the feelings—may evince considerable intellect at times, but will have no uniform and steady mental action. We never see persons of this class close students; neither do they have much patience or application of mind. Their first thoughts are generally their best. They do not trouble themselves much about mental reflections or physiological investigations; they lack balance of power; have too much of the animal; and consequently act and live for present enjoyment, without reference to future results. If the digestive functions (which are part of the vital) predominate, then the person becomes dull, indolent, corpulent, and gouty, especially in advanced life, after having retired from active service. Children born of such parents will be passionate, difficult to control, dull scholars, extravagant eaters, units and ciphers in society, mere nonentities, very liable to yield to licentious and intemperate habits, to violate law and good order, to exert a demoralising influence over others, to live and die degraded, and are too frequently very inferior in intellectual and moral capacity.

It is not well to have any of these conditions of the body developed in the extreme, as it will be very unfortunate, both to the parents and the children, for two of the same extremes of organisation to be united, and equally so for two of the opposite extremes. They will always be regarded as creatures of circumstances and the folly of their parents. Their existence would, in fact, exhibit only the phenomena of vegetable life.

A balance of all the temperaments is the most desirable, and what one is deficient in let the other have to a sufficient degree to act as a counterpoise; by this means uniformity and evenness of action may be inherited by your children, instead of their becoming but *second editions*, with numerous additional illustrations, of their parents' original imperfections. If persons will arouse from their lethargy, and make themselves thoroughly acquainted with the theory and philosophy of the temperaments, and put in practice the knowledge so obtained, the corner-stone of the great social reform will be laid, which must produce more blessings, dissipate more evils, and advance mankind toward a state of perfection with greater rapidity than any other measure of the day.

Young gentlemen, or men having formed intemperate and licentious habits before marriage, are very liable to retain them, and should, therefore, receive no encouragement from the ladies. If they value the welfare of their family, wish to secure health and happiness in their union, and pay due regard to the moral improvement of society, they will, one and all, unite in reprobating by their actions, in the *most positive manner*, all tendencies of this nature.

The desire or fondness for strong drinks has been proved by facts to be a

condition of appetite capable of being entailed through successive generations. Think one moment what misery and wretchedness you may be the means of settling upon the poor, innocent, and unoffending offspring from not having attended to this one hereditary law; and not on them *alone* is the injury inflicted, but *on* it goes, through their descendants, gathering new strength and producing a wider career at every extension of the family, until the evil brought on by your direct agency assumes a magnitude that is incalculable. Can you ascribe to any other cause than ignorance of the principle that unnatural appetites, when active in the parents, are generally implanted in the children, not by legal *will*, but by the stronger *will* of nature, the existence of the great army of drunkards, rank and file, militia and regulars, with which our country was filled two or three years since?

What energetic and praiseworthy efforts have been made by a noble few to check the impressment of new recruits, and to organise from deserters a cold-water army; and how wonderfully successful they have been! Their object, however, is but half attained. They may reform the present generation; but in your hands, mothers and daughters, there still remains a most important portion of this great work of the present century. It remains with you whether there shall be planted in the hearts of the future world the poisonous seed, capable of bringing forth such bitter harvest. Come boldly forward, and throw the weight of your mighty influence on the side of this high cause. Imitate the noble example of those ladies of Rochester who have raised their gallant HUMANITY BANNER—"Total abstinence from all licentiousness and all that intoxicates, or no husbands." Carry it out resolutely in practice, and future myriads will sing your praise in the sublime strains of heart-felt gratitude and reverence.

Young ladies who devote their time to leisure amusements, and the follies that invariably attend them, should be regarded as entirely *unworthy* the notice of those young men who have any regard for a healthy and happy family. They are entirely unqualified to discharge the duties of a mother and companion in a proper manner; and it is to be hoped that measures will be taken which will have the effect more thoroughly to open the eyes of all on this important subject. Do not allow yourselves and your "fair loved ones" to be *victimised* any longer, even if it be done in obedience to the imperious mandates of fashion, when that obedience renders them incapable of transmitting to posterity that vital energy and mental power necessary for long life or distinction.

It is true that there are many persons in society, of corrupt and unnatural tastes, who are gratified by existing modes; young men, and married men too there are, who encourage such fashions and habits; they like, forsooth, to be entertained by young ladies of *leisure* and *accomplishments*, who have *small waists* and *bare shoulders*.

But we would ask, *who* are these men? What are their characters, habits, and *principles*? Inquire here, and turn your investigations from the discovery of what their connexions are into this channel. And, mark my words, you will find that they are men of *perverted* passions, and generally accustomed to intemperate or licentious associations.

You will then perceive—and what emotions of shame and mortification ought it to produce—that it is their *animal natures and propensities* which you are labouring so assiduously to please; while, very few indeed are the efforts which you make to please by gratifying their moral and intellectual faculties.

And here woman (confined to these circles, we trust) is found ruining her moral purity and debasing herself, to *please licentious man*. A most degrading motive, truly! For there is no doubt—you must admit it yourself—that it is *man*, and not *woman*, you are so anxious to please.

It should also be borne in mind that the fashions of the day are carried to such an extent that we can have no correct knowledge of the natural form of a fashionable lady. The following anecdote will illustrate this point better

than a long treatise. However strong it may appear, our readers may place implicit confidence in its entire authenticity; for, we assure them, it is but one of those facts which serve to establish the old adage, "Truth is stranger than fiction."

A few summer months ago, while ascending the Hudson river, our attention was arrested by the peculiarity of the passengers. On this river the boats are generally crowded with men whose anxious countenances and hurried, restless steps pronounce them men of business, and that their minds are busily absorbed in the remembrance of some transaction; but now their characters appear to be changed. There were as many ladies as gentlemen on board—a most unusual circumstance. The looks of all were free and unrestrained. A great many were bound for the Saratoga Springs. The appearance it gave the boat was as if it were on some merry pleasure excursion. It was this singularity that first prompted us to particularise in our observations. We were soon arrested by the striking personal appearance of one young lady, who shone above all around—was the centre of attraction—every one gazed on her with admiration. She occupied a conspicuous position upon the promenade deck. Soon every one was remarking about her. *Whispers* were passing around—"What a beautiful young lady!" "How perfectly handsome!" "What a noble bust!" "What grace!" One gentleman exclaimed, quite ardently, to his companion—"By Jove! she is a goddess!" The ladies made remarks of a similar nature. I was particularly struck with the following: A matronly lady observed to another of similar appearance—"What a most beautiful and well-formed lady your young friend is!" "Yes," was the reply: "but you see her now as she has been made by the art of the MILLINER; you should see her as NATURE has formed her! I can assure you, in that condition she is as flat as a board!"

It is to be hoped, from the influence of facts of this nature, in conjunction with the other evils which have been mentioned, that honest young men will, for their own sakes, come forward *en masse*, avow their sentiments, and unfurl their banner—INDUSTRY, together with HONESTY in DRESSING, or NO WIVES.

When this is done, distinctly understood, and practised, we shall see a radical change in the dress and habits of the ladies, and not till then.

Let young men encourage HONESTY and INDUSTRY, and a great change will be wrought in society. What a difference in our families and children! What great improvement may we not reasonably expect! Let things go on as they now are, and in a few centuries the result will be seen, and felt too, in this country, by a *small, dwarfish, consumptive, and incipient* race of mortals, on whom will devolve the honourable task of perpetuating the political existence, name, and constitution of the republic.

How are you situated at the present time? Why, in some circles, and those not very limited in extent, every third woman is an invalid, and every sixth male also. They labour under dyspepsia, particular weakness, and many other diseases of the kind—all produced by a violation of the physical laws. The only true means of saving this country from dismemberment, decreasing influence, and from being a nation of hospitals, is by commencing at once a great social reform.

Examine the condition of the times, and see what can be foretold by their aspect. At what stage of the world, and at what period, as far back as our knowledge extends, has there been a similar upturning, loosening, and stirring up of every principle and institution—moral, social, political, and intellectual? Everyone is beginning to inquire into the abuses, visible and invisible, with which society is pregnant. Everyone feels an indistinct prompting for a change. All are looking from the quarter from which it must emanate. When has the religious world been so distracted with differences of opinion? Were there ever as many changes and innovations in theology, as at the present time? When did science unfold truths of greater importance, and in greater profusion, than at this moment? Have the political world and the political

institutions of the day ever been in so strange a situation as they are now? When did our various systems of education differ so widely, and hang so loosely together as they do now?

None are stamped with the character of permanency, for all seem aware that errors will and must be reformed. Does not everything appear to be hurrying into one grand reservoir, as it were, where all principles shall become united in one chaotic mass? Theologians, philosophers, politicians, may, from the purest motives, do all in their power to reduce this chaos to order, but it will be of little or no avail: the commencement, to be complete and thorough, must be made farther back than their peculiar spheres of action, for all these various systems are mere offsets from the social circle—political government from patriarchal authority—education is affected materially by social manners and customs; and so with all other institutions—they proceed directly or indirectly from the family circle. Let the reform be commenced here on the principles of phrenology and physiology, and a gradual process of regeneration will be entered on that will produce the most salutary effects upon the habits, characters, motives, and actions of all mankind.

Parents and guardians must feel the *full force* of the obligations which rest on them, and in consequence train their children for happiness and usefulness.

In these matters rest assured we cannot be too careful. One sufficient, amply sufficient, reason, if none others existed, why we should be thus particular is because we hand down to posterity the qualities which we possess in the highest activity and strength.

Parents are to be blamed for the natural, primitive defects of their children; for it is an inevitable law of nature that constitutional qualities and deficiencies are hereditary. Children are impaired, and their physical structures ill-balanced from various causes in harmony with the varieties of organisations that become united. The marriage of those who are enfeebled by age, or debilitated by disease, must be productive of little stamina in the offspring.

Look at some of our families: the diseases of insanity, idiocy, consumption, scrofula, and a host of others, have become incorporated with them—regular heirlooms transmitted from father to son, and mother to daughter, with far greater regularity and certainty than relics or property of any kind; for the latter may be dissipated, lost, and destroyed, but the former run throbbing through our veins, are united with our very system, and we become disenthralled from them only by the assistance of death—the great tyrant by whom all are freed.

We could deduce illustration upon illustration, which would enforce what is now stated, so that you could not violate the principle without doing your sense of right and wrong a grievous injury, from facts which have come under our own observation—when families have mourned the suicide of a grand-father, father, and son, the lunacy of a grandmother, mother, and daughter; and from various families whose family registers of deceased members are filled with records of “died of consumption.”

Another principle that can be relied on, as a cause of deterioration, is a continuation of marriage in near relations. This course when pursued by a few generations produces imbecility, degeneracy, and inferiority in the descendants of those who were once renowned for strength and vigour.

Early marriages are another fruitful source of imperfection.

As agents in this great and important work, it is your duty to become well acquainted with these principles. If you do not, you prove yourselves unfaithful servants; and it is through your ignorance in going contrary to the laws of nature that the world has been peopled with those who live a miserable existence, and fill a premature grave.

Lay it up in your memories that *we* give to our *children* their bad heads and bodies. The Bible says, speaking of the sins of the children, “And your sins

will I visit upon your children, and your children's children unto the third and fourth generations." And you may rely on it this is the way the child receives the curse on his head and body.

The truth of the matter is, you might as well expect sixty or a hundred fold of wheat from off a barren, sterile, sandy soil, as to expect *perfect* children from imperfect parents.

The violation of the preceding laws, at some periods of existence, is, in a great measure, the cause why there are so much native imperfection and natural depravity in the world, and not because we were constituted so frail and bad by the design of heaven, or that it proceeds from the fall of our forefathers. It is time that we should awake to this subject. Its evils are sufficiently strong and glaring for us to take some of the blame to ourselves, instead of casting the *whole* burden upon the head of poor old Adam. He has been our scapegoat long enough; and, at this day of light and knowledge, we can atone for this neglect only by an immediate and complete reform.

There is another important principle which should be stated, and one whose bearings are as extensive in their application as any connected with the subject, namely—

As is the *mental condition* of the parents, particularly the mother before the birth of the child, so is the state of the mind after birth; and this principle also extends to an influence on the bodily condition. It is stated by Pinel, that out of ninety-two children born after the blowing-up of the Arsenal at London, in 1793, eight were affected by a species of cretinism, eight died before the expiration of the fifth year, thirty-three languished through a miserable existence from nine to ten months' duration, sixteen died on coming into the world, and two were born with *numerous fractures* of the larger bones.

Children born during the Reign of Terror, in France, were, to a vast proportion, idiots and insane. Many cases are on record, some of which we have seen, where the mother, who had received some strong impression, stamped it upon the child indelibly. A mother near Hudson, State of New York, became very anxious for a bunch of currants to gratify her appetite: her mind continued resting upon the pleasure to be derived from them, and her child has a bunch of currants impressed as plainly and as legibly as could be drawn, on his shoulders. In the eastern part of the State of Massachusetts is a lad whose actions and manners closely resemble those of a monkey. He is idiotic, and has a very small and contracted brow, occasioned by the mother having been startled by one of these animals. In Worcester county is a lad, some twenty years of age, who appears to be mimicking a turtle in every motion. He is also idiotic. The mind of his mother was disturbed from its tranquillity by the appearance of a turtle; hence the result. We could proceed almost *ad infinitum*, and enumerate cases which support the principle here advanced; but there is no necessity for it.

In the same manner, passions, desires, impulses, and tendencies of mind, as well as special talents, are given to the child by a special and particular exercise of these faculties in the parent. Both physical and mental qualities cease to grow, or are not formed at all; and in other cases they are doubled in size and activity in consequence of the influence or impressions which circumstances have had upon the mind of the mother before the birth of the child.

If the principle can be clearly established that this intimate relationship and connexion between the parent and child does exist, then it is a subject worthy the attention of all, and demands the serious notice of every man and woman who is, or ever intends to become, a parent.

Some person's false delicacy may step in here, and charge us with using rather too strong and plain language in a work intended for promiscuous circulation; and so has it called out on many other occasions, with such influence, that ministers, teachers, and authors have been compelled to hold their peace on this most important of all subjects connected with our earthly existence, until nature herself has burst forth in a flood of tears, and is giving vent to

unutterable anguish in consequence of her sufferings, caused by the vice and wretchedness that have been brought into the world through sheer and culpable ignorance of these laws.

As public sentiment becomes more correct and liberal, however, they will cry, "*give, give;*" and the thousands and millions now suffering daily for the want of this knowledge will be enlightened.

Is it not absurd for any one to advance the opinion that it is too *delicate* a subject to improve the human race, while at the same time the animal kingdom is thought to be of such vital importance? Great pains are taken to improve our breeds of horses and sheep—papers are published, books circulated, and much said and done on this subject; those individuals who are quite active in these stock improvements being looked upon as very public-spirited men. Even the hog is not exempt from these attempts at improvement, and very successful have they been too. But man, the noblest work of God, made in His own image and likeness, possessed of an immortal mind, heir to a future existence, and having charge over these animals, must be allowed to go on, gather strength in impurity and imperfections, and grow more imperfect daily, because of a proper *delicacy*! How excessively inconsistent, as though, if it were improper for us to become acquainted with these laws, it would still be necessary for us to understand them, so as properly to discharge the duties which devolve on us as parents.

If it be *really too delicate* to discuss the principles necessary to be known and observed before one is qualified to enter on the duties incident to this change of condition, then, it is most certainly entirely *too delicate* to be married, and absolutely *shocking* to become parents.

You may attempt to hinder the progress of knowledge, by saying that the time has not yet come for us to understand these things; but if you wait until the world grows older and men wiser, before you deem it advisable for these principles to be understood and put in operation, there can be little doubt that that time would not be brought about until nature should burst her bonds and give over the struggle.

Jacob in his day, 1739 years before the Christian era, and when there was far less necessity for the knowledge, knew more of this subject than we do in the nineteenth century. For further information on this subject we refer you to the 30th and 31st chapter of Genesis, where you will find the principle carried into practical operation. The fact that every cartman in our streets, and almost every farmer in the country, knows more of these things as connected with the animal kingdom, when a few paltry dollars and cents have been the inducement for investigation, than he does when applied to his own children, speaks volumes, and should be sufficient entirely to stifle every approach to false delicacy and sickly sentiment on this subject. Certain strict sectarians and peculiar *religionists* may say it is assuming too much—taking the work of God out of His own hands—because Providence will always direct in these matters. To them we would remark, so will Providence take care of our cattle in the same way, and furnish in them all the qualities we desire—rather a broken reed to lean on in this respect. Faith would hardly prevent your stock from running out and down, unless good, prompt, and substantial common sense works accompanied your belief.

The true nature of the case is: The means for continuing the existence of man are put into our hands; and if we use them *properly* we shall have the blessings of Providence, as a matter of course; but, if we abuse this power, the curse will rest on our own heads, and our children will suffer the consequences. Society, generally, has been wrapped in cloaks of ignorance and innocence long enough.

We most certainly have obeyed the command to increase and multiply; but, in a most reckless, unprincipled, and impious manner, without having paid any regard whatever to the principles established by Almighty Power as guides for our conduct in these transactions.

That you may see the truth of what has been stated, and feel its force, you have only to look into the bosoms of your own families, or of your acquaintance, and notice the difference between those who obey the laws of their organisation and those who do not. Observe what kind of children they severally send into the world ; mark the degree of health, perfection, and happiness there is in those families, when compared ; and you will not fail to forget the delicacy of the subject in the contemplation of its vast importance.



EXTREMES IN MARRIAGE AVOIDED.

THERE is great need of a thorough social reform ; in fact, *no* reform can succeed when our social relations, and the proper training of children, are neglected. The time never has been, agreeably to history, when our social relations have been conducted strictly in accordance with the laws of our being. The religion of our Saviour has done more, up to the present time, to improve our social relations, and to elevate the condition of women, than all things beside. Still, Christ presented some general rules by which we should be guided, as connected with our *moral* relations only, they having an intimate connection with our *social* ; while it is left to the sciences of Phrenology and Physiology to present the real nature of man, and to show on what laws and principles the social nature of man is organised, for what purposes, and how we can best secure the objects of our destiny in compliance with these laws. We see, through the light of these sciences, that man was created a social being, on scientific principles, for the sake of constituting him a special agent of his race ; and that perfect love between both sexes depends on these principles and fixed laws, and that neither God's designs nor man's best interests can be secured without attending to these laws. Inasmuch, then, as a social reform is at the foundation of all other reforms, and as Phrenology and Physiology *do* point out the real duties and relations of man to his fellow-man, we infer that these sciences have a claim on society paramount to all others that have been presented, and that those who intend to marry are under a moral, social, and intellectual obligation, not only to become thoroughly acquainted with the nature of these laws, but also to obey them practically.

Morally speaking, man has no right to marry unless he is prepared to conform to the dictates of that nature, and obey her laws. If we were mere animals in nature and capacity, and transmitted only that nature to posterity, then it would be right to live and act like animals, but not otherwise. I would say, then, to young men and women, Do not take one step towards consummating your affections in matrimonial life till you know what you are to do, how you are to do it, and whether you are prepared to act with reference to the proper results. As you value the laws of your being, and your own individual happiness, let me entreat you, when choosing a companion, to regard marriage as a matter of reason and judgment, as well as of love and feeling. To those who have already entered the pale of matrimonial life, and have taken on themselves the responsibilities of domestic duties and relations, let my entreaties be not disregarded ; for you should discharge these new obligations in a becoming manner ; not *as* though, because you are married, you have a perfect licence to yield to uncontrolled passion—to multiply and rear children just as it happens, without reference to consequences ; but act like sensible, moral, and intellectual beings, not only for your own mutual best interests, but for *posterity* and *eternity*. Do not console yourselves with the idea that you have perfect liberty, if a husband, to violate the happiness and feelings of your wife, to break her constitution, and shorten her days, by gratifying extravagant passions.

Death makes many inroads in family circles, in consequence of the excessive and abusive exercise of the sexual feelings.

Another important idea should be borne in mind : that the interests and happiness of both are intimately connected—so that, by securing our own happiness effectually, we secure that of our companion also. Where true love exists, the one cannot be happy or miserable without affecting the other. A separate class of friends, separate ~~table~~ nurse, separate table, and separate enjoy-

ments, cannot exist where there is true love ; for, *its* effects are to combine all the energies and all the sources of happiness. True love is a friend that "sticketh closer than a brother," and it bindeth stronger than the band around the sheaf of wheat.

Another evil in domestic life arises from the fact that husbands and wives do not make sufficient endeavour to adapt themselves to each other ; but each is continually exerting him or herself to bring others under his or her influence, failing to adapt themselves to their companions, but requiring perfect adaptation *from* them ; and, in this way, neither are accommodated or agreeably entertained.

It is too frequently the case that husbands are favourably disposed to render their wives happy, but are so ignorant of their real characters, dispositions, capacities, and organisations, that they require impossibilities, and fail to fulfil their *own* obligations.

A thorough knowledge of each others' character is absolutely necessary for perfect happiness ; and, as Phrenology and Physiology unfold the true nature of man, they are the sciences, above all others, that should be studied in connection with our social relations.

Let all, then, come to this book of Nature, and, unfolding its pages, learn from it their duty as social beings, studying their own nature and that of others. Witnessing, as I do, daily in my profession, and as I have done for fifteen years past, the debasing result of the continued violation of our social relations, I am constrained to speak thus plainly, and urge the claims of abused Nature and her broken laws ; and had I the voice and trumpet of an angel, the united talents of the nation, and the reformation of a man depended on my influence and efforts, I should not cease my exertions till I had made every man and woman acquainted with the laws of Phrenology and Physiology. I entreat you, therefore, one and all, to make yourselves thoroughly acquainted with your own organisation, to act according to the laws of your being, and to "be not unequally yoked together."

The male and female organisations are such as to conform most happily to the different circles in which they move, and the different duties to be performed by each respectively.

The male has the broader shoulders and chest ; he is also taller proportionally, possesses larger lungs, heart, and larynx ; his voice, in consequence, being rougher and more sonorous. The situation of the female makes her dependent upon the male. Feminine is used in contradistinction to masculine ; the one having reference to vigour, strength, and robustness—proper requisites for the male, and the absence of which renders him contemptible, and subject to the disgraceful epithet of feminine ; the other being characteristic of softness, mildness, delicacy, beauty, and all other womanly qualities. The female is more narrow in the chest : her neck is of less volume ; her limbs throughout are more rounded and delicate, and she has the wider pelvis ; in consequence of which her step is less firm and decided.

The human body is divided, anatomically and physiologically, into three distinct divisions : 1st, the Abdominal ; 2nd, the Thoracic ; 3rd, the Cephalic regions.

First. The Abdominal region. It embraces the whole of the digestive and chyle-making apparatus, together with the organs of generation.

This region predominates in the female, giving the capability of manufacturing an extra supply of nutrition—a power which, as mothers, they must possess in order to maintain their offspring. Some writers have fallen into a manifest error (particularly Dr. Alexander Walker), by confounding the functions of these organs with those comprising the Thoracic region, and stating that the "vital system" is larger in the female than in the male. They make *nutrition* and *vitality*—two terms wholly distinct in their signification—synonymous.

Second. The Thoracic region. This important part of the body is the

centre and great container of those organs to whose functions are ascribed respiration and circulation, and embraces the heart and lungs particularly. This region predominates in man, and to it must be ascribed his greater size, strength, and impetuosity; the fact being that our activity, physically, and sometimes mentally, is dependent on the activity of the sanguinous circulation. Man leads a life of greater activity and exercise than woman. For this reason his muscular system becomes more developed; and stands out more clearly: and particular muscles can be more distinctly defined.

By an attentive observation of their location you will be enabled to decide very correctly in what degree they are developed in those whom you meet daily—whether one overbalances the other, or whether there is a true natural proportion between them.

These organs have to do, mainly, with the body and man's physical nature. The remaining region belongs more directly to mind and the powers of sensation.

Thirdly. The Cephalic region embraces the head, containing the brain proper, the medulla oblongata, the roots of the cranial nerves, the face, and the blood vessels which supply the various parts. The characteristics which distinguish male and female are very strongly marked in this region. So clear are they, that one who has had experience in this department can point out a male from a female by the skull alone.

The male head is larger in size—broader from ear to ear—has a higher and deeper forehead—is also broader in the occipital region, and will uniformly measure more from the ear to Firmness. The female head is more narrow in the base—higher and fuller in the coronal region, where the moral sentiments are situated, which give mildness and moderation to the character. The occipital, or back portion of the head, is longer and contains more brain in proportion, while the cerebellum is less. To sum up the leading differences of character: the male has stronger intellect, will, and propensities, together with greater force and energy of character; while the female has the stronger moral sentiments and domestic feelings.

These leading peculiarities of the sexes arise from the difference in the size and combination of the following faculties: Benevolence, Veneration, Approbateness, Conscientiousness, Adhesiveness, Secretiveness, Ideality, Individuality, and Philoprogenitiveness are stronger in the female sex; while Amativeness, Combateness, Destructiveness, Self-esteem, Firmness, Acquisitiveness, Constructiveness, Causality, and Comparison are stronger in the male.

Women are universally noted for fondness of children, strength of attachment for friends; for their ease, politeness, and for disinterestedness; for kindness, deep religious and devotional feeling; for refinement, great ambition, and curiosity; for taste and susceptibility of impressions; together with quickness and readiness of resource, occasioned by their more narrow brain, and consequent greater mental activity: while man is acknowledged to have naturally more dignity, pride, resolution, independence, force, and energy, together with greater mental power, growing out of the greater width of his head—it being a phrenological rule that length of fibre is an index of activity, while width denotes power.

SUGGESTIONS.

DEVELOPMENTS WHICH SHOULD AND SHOULD NOT BE UNITED.

I HAVE previously stated that extremes of the same development, either very large or very small, should never go together. I will now illustrate my meaning with suitable characters and explanatory remarks.

The first to which your attention is called are those who have a very large head and slim physiology—too much brain and nervous power for their vital system to sustain.

For various reasons, such should not marry one exactly their counterpart, neither the opposite extreme. If one such should be united with the *same* organisation, there would be too much of the mental, and not sufficient physical power, to give health, strength, and vitality; and his children would inherit a nervous, puny, weakly, and susceptible frame of mind. He has a predominance of the reflective intellect, with uncommon perseverance and concentration of mind, with limited observation, so that he is liable to abstractedness of thought, forgets to eat, and frequently does not hear or heed the call to dinner.

If the organisation of the wife should be like his, she would be so absent-minded that she would forget to prepare dinner; or, if she commenced, she would be just as likely to take up a book and neglect her domestic duties; and, in this way, many inconveniences would arise. She should have more observation, less reflection and abstractedness of mind, that she may attend to the details and minutiae of things which he generally overlooks; yet, if her reflectives were small, or not all developed, she would fail to adapt herself agreeably to him. His large Concentrativeness and rather small Language incline him to relate long stories, and to hesitate, sometimes, for the appropriate word or expression. If the case was reversed, and she had large Language and small Concentrativeness, her patience would soon be exhausted, and she would desire to supply the ellipsis in his speech. Again: his head being large in proportion to the size of his body, particularly at the corners of Causality, Mirthfulness, and Cautiousness, it would not do for his companion to be a small woman, with a closely-built form and small head.

It is in accordance with the order of Nature that woman's capacity for childbirth is in harmony with her own organisation; but it cannot be adapted to extremes of difference in size, which many times cause either the life of the mother or that of the child to be sacrificed.

His Causality is very large, and disposes him to give and require a reason for everything; and, if she were incapable of tendering a reason, it would be a source of mortification and dissatisfaction to him.

His Conscientiousness and Firmness are very large: he is a terror to evil-doers, and will adhere to what he thinks is truth and justice; and, if he should be united to one in whom these faculties were small, she would be wanting in sterling virtue, uprightness, and stability of character, for which he is so remarkable. There would then be a want of appreciation of the motives of each other and proper adaptation. He would criticise her, because she did not attain to his standard, and she would blame him for his censoriousness; so there would be constant regret and unhappiness.

There are parties in whom the head is not well-proportioned at all. Some of the faculties are very large, while others are very small, constituting the owner of it a very uneven, unsafe, and injudicious character, as those persons whose heads are not well-balanced cannot be relied on as safe and judicious. In some

cases Benevolence is small, Veneration and Conscientiousness not large, while Acquisitiveness, Firmness, and Destructiveness are very predominant. All such an organisation would desire to do would be to make money at all hazards, sacrificing everything beside for the accomplishment of this main object.

If he had a wife with the same organisation, then there would be too much mind bent in a selfish channel, while many important subjects connected with their mental and moral relations would be neglected. They would be too one-sided in every thing, extremely selfish, stubborn, passionate, and regardless of the wants and woes of their neighbours—the one stimulating the other to selfishness and cruelty. The children of such parents would be outrages on civilised society. There would be no redeeming trait in the parent which the child could inherit; and if these selfish organs were very active in the parents, as they probably would be, then they would be still larger and more active in the children. It would not answer for the wife to have entirely a reverse organisation; for then there would be no sympathy between them, the one being continually dissatisfied with the actions of the other; but she would need the moral sentiments large enough to exert a counteracting influence upon his deficiencies. In this way their offspring would be an improved edition of themselves.

Other heads have extremes of development, but the reverse of the preceding delineations, having very large Benevolence, with only average Firmness, Acquisitiveness, and Destructiveness. Such would give away a fortune, and, not possessing energy enough to support himself, would be a burden to himself and family. His large and indiscreet Benevolence, however, is his principal failing. If he had married a person with equally large Benevolence, they would have squandered all their property, and would have been thrown upon the charities of others for support. They would have been wanting in energy and economy, without which no family can prosper; and their children would never have accomplished much in the world, but would have been so good as to be good for nothing. But, if the wife possessed more of the energetic qualities, more decision of character, and less disinterestedness of feeling, then she would be a gentle check to his sympathies, a spur to his energy and economy, and would do for him as did a woman for her husband living in P. He gave her twenty dollars a week, to meet their family expenses; but she, knowing his prodigality and liability to lose all his property, saved ten dollars a week, and continued to do so year after year. Eventually (as she expected) he failed, greatly in debt, and would have been obliged to sacrifice all his property to meet the demands of his creditors, had not his wife, like a good angel, ministered to him in the hour of his distress. She referred him to the Bible for consolation (a book that had been heretofore sealed to him); on opening which, to his great surprise, he found as many ten dollar bills between the various leaves as they had been married weeks—enough to satisfy all his creditors, and to enable him to start again in business.

We now give the history and delineation of a character differing from those already given. As a young lady she was fair, very social, entertaining, and fascinating, and had many suitors from those in respectable ranks in society, was a member of a church for five years, and, at one time, prayers were said for her in the church, because it was thought she had been persecuted. Her passions, however, broke loose again, and, as I was informed by one who knew her well, having lived in the same neighbourhood, she was not positively detected, neither was her career ended, until she had poisoned thirty or forty individuals of various ages, all to accomplish a great variety of selfish purposes.

Her name was *Gesche Margarethe Gottfried*, of Germany. Dr. Hirschfeld of Bremen, took the bust and sent it to the Edinburgh Phrenological Society. The back view shows a large neck and great breadth of the head, particularly in the region of Secretiveness and Destructiveness, and also a great height

indicating that the organs of Self-esteem and Firmness were enormously large. The side view of the head shows that the brain was located chiefly in the selfish propensities and sentiments, and that there was a very great deficiency of the moral sentiments—in fact, an almost entire want of Benevolence and Conscientiousness. The organ of Amativeness was decidedly large. Adhesiveness moderate, and Philoprogenitiveness only full. From such an organisation we should infer, according to phrenology, that the individual would be cruel, cunning, sensual, supremely selfish, and very independent, and would be entirely destitute of kindness, affection, benevolence, and a sense of justice. And her true character corresponds most perfectly with her organisation. Her father was a tailor in Bremen—an active and industrious man, though very stingy, selfish, and superstitious. Gesche was an only daughter; became addicted to stealing in her seventh year, and continued to commit petty thefts until her twentieth year, when she married a man by the name of Miltenburg. He is represented as having been fond of his wife; but she had been married only four months before she fell in love with Gottfried, and only a few months after this with another of the name of Kissau. After having three children by Miltenburg, she resolved to murder him, in order to marry Gottfried; but, this being done, two obstacles remained in the way—her parents interfered, and said the union never should be consummated, and then Gottfried declined marrying her on account of her children. Her mother being unwell, came to reside with her for a time, and Gesche seized this opportunity of killing her mother, and within ten weeks after this date she put to death her father and three children. Another obstacle to the marriage arose. Her brother unexpectedly returned from a foreign country, and him she also killed. But she had scarcely been married to Gottfried before he also became an object of her jealousy, and fell a victim to her Destructiveness. She murdered after this two of her suitors and several of her acquaintances. She was finally detected, convicted, and condemned to death for the numerous murders, all of which she accomplished by means of poison. Among these were both her parents, her three children, her brother, two husbands, and two suitors—persons connected to her by the nearest, dearest, and most sacred ties. It seems as though she would permit no object to stand in the way of gratifying her Amativeness and Destructiveness, and that she actually took delight in the destruction of human life.

Supposing the character previously given had married Mrs. Gottfried by way of counterbalancing his own deficiencies, what a predicament he soon would have been in; or supposing that one of her own character had selected her as a helpmate because her organisation was similar to his, what would have been the result, taking both histories and developments into account? Such a woman ought not to be married at all; and yet she had three husbands and three children, who were all victims to her selfishness and brutality.

There are others who have an extreme mental and physical organisation, which produces extreme traits of character. They are extravagant in everything they say or do, never use tame language to express their ideas, possess very strong imagination and originality of thought, with small observation, and such limited practical common sense, that they are unable to take care of a family, scarcely to provide for their own individual wants. Such a one will live most of his time in his own reveries, building imaginary castles of his own creation—subjects too light and airy for mortals to live on. His only means for securing a livelihood will be by writing poetry, acrostics, &c.; so that he may frequently be very destitute of the common necessities of life, having no business capacity whatever.

Many more illustrations might be presented, setting forth other extremes of character; but I trust the above will suffice to explain the general idea that where extremes exist in the character of individuals, these extremes should be modified as much as possible.

One reference, of course, should be had to the influence of circumstances,

and the bias of education in developing or restraining the various mental powers ; for their influence at times is great, though never equal to the native original development.

IMPORTANT FACTS.

MARRIAGE AND LONG LIFE.

THE influence of marriage on health and human happiness is an interesting and important inquiry. As this institution is based on the natural laws of the human constitution, there can be no doubt but that its relations, when properly entered into, are productive not only of happiness, but of a greater increase of health as well as longevity. An European philosopher has recently made very extensive observations on this subject, and has collected a great mass of facts which conclusively settle these points. His researches, together with what was previously known, give the following remarkable results : Among unmarried men, at the ages of from thirty to forty-five, the average number of deaths are only eighteen. For forty-one bachelors who attain the age of forty, there are seventy-eight married men who do the same. As age advances the difference becomes more striking. At sixty there are only twenty-two unmarried men alive, for ninety-eight who have been married. At seventy there are eleven bachelors to twenty-seven married men ; and at eighty there are nine married men for three single ones. Nearly the same rule holds good in relation to the female sex. Married women at the age of thirty, taking one with another, may expect to live thirty-six years longer ; while for the unmarried the expectation of life is only about thirty years. Of those who attain the age of forty-five, there are seventy-two married ladies for fifty-two single ladies. These data are the result of actual facts, by observing the difference of longevity between the married and the unmarried.

PROGENY OF MEN OF GENIUS.

A writer in the London Quarterly gives the following remarkable array of facts in relation to the family history of men eminently distinguished for intellectual attainments. The remarks occur in an article on the subject of an extension of the right of property of authors in their productions ; a bill for that purpose having been under discussion in the British Parliament.

"We are not going to speculate," he says, "about the causes of the fact—but a fact it is—that men distinguished for extraordinary intellectual power of any sort very rarely leave more than a very brief line of progeny behind them. Men of genius have scarcely ever done so—men of imaginative genius, we might say, almost never. With the one exception of the noble Surrey, we cannot at this moment point out a representative in the male line, even so far down as the third generation, of any English poet ; and we believe the case is the same in France. The blood of beings of that order can seldom be traced far down, even in the female line. With the exception of Surrey and Spenser, we are not aware of any great English author of at all remote date, from whose body any living person claims to be descended. There is no other real English poet prior to the middle of the eighteenth century, and, we believe, no great author of any sort, except Clarendon and Shaftesbury, of whose blood we have any inheritance amongst us. Chaucer's only son died childless. Shakespere's

line expired in his daughter's only daughter. None of the other dramatists of that age left any progeny—nor Raleigh, nor Bacon, nor Cowley, nor Butler. The granddaughter of Milton was the last of his blood. Newton, Locke, Pope, Swift, Arbuthnot, Hume, Gibbon, Cowper, Gray, Walpole, Cavendish—and we might greatly extend the list—never married. Neither Bolingbroke, nor Addison, nor Warburton, nor Johnson, nor Burke, transmitted their blood. M. Renard's last argument against a perpetuity in the literary property is, that it would be founding another *noblesse*. Neither jealous aristocracy nor envious jacobinism need be under much alarm. When a human race has produced its "bright consummate flower" in this kind, it "seems commonly to be near its end." Poor Goldsmith might have been mentioned in the above list. The theory is illustrated in our day. The two greatest names in science and literature of our time were Davy and Sir Walter Scott. The first died childless. Sir Walter left four children, of whom three are dead, only one of them (Mrs. Lockhart) leaving issue, and the fourth (his eldest son), though living, and long married, has no issue. These are curious facts.

CHANCES OF MARRIAGE.

The following curious statement by Dr. Granville, is taken from an English paper. It is drawn from the registered cases of 876 women, and is derived from their answers to the age at which they respectively married. It is the first ever constructed to exhibit to females their chances of marriage at various ages. Of 876 females there married—

3 at 13	59 at 23	5 at 32
13 at 14	58 at 24	7 at 33
16 at 15	36 at 25	6 at 34
43 at 16	24 at 26	2 at 35
55 at 17	20 at 27	0 at 36
66 at 18	22 at 28	2 at 37
115 at 19	17 at 29	0 at 38
113 at 20	1 at 30	1 at 39
86 at 21	7 at 31	0 at 40
85 at 22		

One single remark in this place, particularly for your own good. Ponder it well, abide by it, and happiness will be yours; neglect its monitions, and misery will almost certainly be your destiny:—

STUDY WELL YOUR OWN CHARACTER, AND THAT OF THE ONE WHOM YOU SELECT AS YOUR PARTNER FOR LIFE, BEFORE YOU MAKE THIS IMPORTANT CHOICE.

THE HISTORY OF MARRIAGE.

MAHOMET acted with unusual sagacity, and displayed no ordinary understanding of human nature, and also adopted effectual means for the accomplishment of his cherished object, when, to secure converts to his new religion, he promised that the eternal abode of the faithful should be made joyful, and lighted up with the charms and smiles of Woman! This was an appeal to one of the strongest passions of our nature, and proved effectual in securing the attention of the stronger sex; and, in that age, this object achieved, secured the influence and commendation of the gentler and more refined half of our race.

From the earliest time, and among all nations, whether shrouded in Pagan darkness or enjoying the pure and elevating influence of Christianity—as well those who treat the female sex like slaves and beasts of burden, as those who recognise her as entitled to an equal rank with man—companionship between the sexes has ever been found among the strongest desires of our race. It is not *peculiar* to either sex, but is cherished in common by both.

That this is an ordinance of Heaven, none can deny who believe in the existence of a Supreme Moral Governor of the Universe, and a revelation of His will to man. But how should this companionship, so essential to the happiness of mankind, be modified and regulated by the laws of the land? Or, should it be left without any regulation? Very few, indeed, have embraced a theory so wild and dangerous as the latter—although even this sentiment has not been wholly destitute of its advocates. Those who have embraced the doctrine of abolishing all restrictions upon this institution, or at least the leaders in that theory, have not been men destitute of an acquaintance with the history of the subject, but such as, in their imaginary philosophy, have thought themselves able to improve upon the laws of nature and the ethics of the sacred writings.

Wherever God has been acknowledged and worshipped, the opinion has generally prevailed that matrimony is an institution of divine origin; that it harmonises with the constitution and philosophy of the human mind; and is, therefore, indispensable to the happiness and welfare of society. But, in regard to the relations and relative standing of the parties united in wedlock, there has been a great variety of opinion. Some have regarded the husband as vastly superior in authority to the wife; that he had a right to her highest and purest regard; that he had the right divine to monopolise all her attentions; while she had no right to claim the same undivided and unreserved surrender in return. In those countries where this false estimate of the relative rights of the parties prevails, polygamy or a plurality of wives is the almost certain result. In almost all heathen countries this has been allowed. Husbands have had several wives; some females likewise have had several husbands; and, again, in some countries, men have been allowed to have a lower order of wives called concubines. In many countries men have been allowed to divorce their wives at pleasure. Some have loved them as mere instruments of physical enjoyment; while others still have properly estimated their rights and virtues, and have honoured them as “bone of their bone, and flesh of their flesh,” and, in obedience to the injunctions of the Bible, have forsaken all other female society, and sought connubial felicity in that of the

wife alone. But all have agreed, with but few exceptions, in the necessity of the institution of matrimony, in some form or other.

By the little that can be learned from the Bible of the history of the antediluvian race, it appears that in the early ages of the world woman was regarded as of but little consequence except as a wife. In any other light she was considered as a kind of menial servant, a mere creature of no benefit whatever, in her day and generation, except to render tribute to the other sex. But as a wife, as an instrument or medium for the propagation of her species, she became invested with that dignity in reference to the welfare of succeeding generations which her position demanded.

Before the Flood there is evidence of but one instance of polygamy: "Lamech took unto him two wives!" As though it were strange uncommon, and worthy of record. And we would here suggest a new interpretation of a passage of Scripture, concerning which no theologian, as far as we have examined, gives an opinion at all satisfactory:—

"And Lamech said unto his wives, Adah and Zillah, Hear my voice; ye wives of Lamech, hearken unto my speech; for I have slain a man to my wounding, and a young man to my hurt." This is truly a remarkable passage and must mean something—something too of no trivial importance to his wives. "Hear my voice, ye wives of Lamech, hearken unto my speech." It is not generally supposed that he had committed murder; if so, why should he address them in that impressive manner, as though the fact of informing *them* was of about as much consequence as the fact itself. Would it be a wide stretch of fancy to suppose him acknowledging the injury he had done to some man, of course unknown, and a "young man" too, by depriving him of his rights in appropriating two women to himself, and obliging thereby the young man to live a single life? Matrimony was even at that early day regarded as a blessing; and thus early there is no other case of polygamy recorded. Might not Lamech have discovered that the number of the sexes was nearly equal, and felt constrained to confess the wrong to his bosom friends?

At a much later period it seems that the inhabitants of the plain entirely abolished the marriage relations, and freely gave themselves up to a licentiousness at which human nature, with all its frailties, instinctively revolts. It was probably a mercy to them that they were suddenly destroyed; and God in that instance, as He has ever done, exhibited his utter abhorrence of the promiscuous intercourse of the sexes. He has ever followed it with the most loathsome and degrading diseases. He has thus undertaken to teach mankind that it is a most palpable violation of the laws of the human constitution; and how much more should he reprobate the inconceivable pollution of the cities of the plain.

In ancient Greece, twelve hundred years before Christ, matrimony was viewed of so much importance, and was regarded as so choice a blessing, that the strongest anathema that could be pronounced against a man was to say that "he deserved not to enjoy the rights of a citizen, the protection of a subject, or the happiness of domestic life." At this period of Grecian history the violation of the marriage bed was considered a crime of equal enormity with murder, and the guilty criminal seldom escaped death, except by flight.

But at a later period in the history of Greece we find that the value of the female sex was estimated like that of the most ignoble objects—merely by profit or utility. They were perpetually confined to the most retired and secluded apartments, and doomed to the performance of the meanest offices of domestic economy. They were unceremoniously excluded from all the fond delights of social and domestic intercourse, which nature has fitted them so peculiarly to adorn.

Before Christ, 333 years, Alexander conquered Persia. Greece was now at the height of its glory, and her inhabitants gave themselves up to all those unbridled and enervating indulgences which are sure presages of a nation's fall. Luxury, pride, licentiousness, and debauchery had grown with its growth;

their passions had become base and powerful, till virtuous love could scarcely furnish the least evidence of its existence.

Concerning the ancient Persians and other inhabitants of Asia but little is known. From the few fragments of history which have come down to us, it appears that polygamy was indulged, which is proof *per se* that the wife was not regarded as the equal of the husband. She was guarded with watchful care as at the present day; which shows the little confidence men placed in each other's honour and fidelity; and every man seemed to consider and take for granted that every other man would regard female charms as lawful plunder.

In Syria and Western Asia, prostitution was connected with their religious services and ceremonies, as was the case in Greece. Females of tender age served in the Aprodite, and unhesitatingly bestowed their semi-religious favours upon the visitors. This mock religion, no doubt, had many sincere worshippers, for thus they had been taught from early childhood; but at this day the cultivated mind sickens at these painful disclosures of almost beastly degradation under the solemn sanctity of religion.

In Upper Asia the Brahmins, the aristocracy of the population, are permitted to monopolise the first attentions and favours of the newly-married wife, who esteems it an honour. The Brahmin, strange as it may seem, is regarded as unreservedly consecrated to his religion, so much so that earthen vessels belonging to him, when used by profane persons, or for certain purposes, must be broken.

In Assyria, girls of proper age to marry were sold at auction; and the bids received for those whose charms commanded a round sum were sequestered for those whose attractions commanded no bid at all; in other words, the sum which was paid for the young damsel who had external accomplishments to recommend her to the favour of her courtier was passed to the credit of some one less favoured by the bestowment of those graces.

No small portion of the laws given by Moses to the Israelites had reference to the sanctity of the relations of husband and wife. Adultery and incest were punished capitally, or with death! The modern Jews ratify the marriage rite with a regular and uniform ceremony. The contracting parties stand up under a canopy, both veiled; a cup of wine is blessed and given them to drink. The bridegroom places a ring upon the finger of the bride, saying, "By this ring thou art my spouse, according to the custom of Moses and the children of Israel." The marriage contract is then read, and given to the bride's parents or nearest relations; after which another cup of wine is blessed six times, of which they partake; the remainder is emptied, and the husband dashes the cup against the wall, in perpetual remembrance of the mournful destruction of their once noble and magnificent temple.

The institution of matrimony was regarded as a matter of no trifling concernment among the ancient Romans. Fathers who refused to apportion their daughters, or to permit their marriage, were compelled to do so by the civil authorities. Married men in society took precedence of unmarried men or bachelors, wholly irrespective and independent of any considerations of wealth, rank, or age. They were looked upon, and justly too, as having discharged a high and important duty which they owed to society and the world.

In China, Corea, and the Burman Empire, women are treated more or less as chattels—bought and sold under certain regulations, and according to certain customs. Polygamy and concubinage are allowed; and, as a natural result, woman is sunk in the eyes of man, and loses her self-respect.

The religion of the Hindoos strongly enjoins the necessity of marriage, and marriages are consummated at very early ages among them. Here, however, we find that the husband, instead of receiving a dowry with his wife, has very frequently to offer presents to a liberal extent to the bride's father. On the coast of Malabar, in the west of Hindostan, a rather singular custom prevails, that of one woman having a plurality of husbands—each woman having as many as suit her disposition. In Barbary a man may have four wives, and as

many concubines as he thinks proper. He can divorce a wife for various causes, and she enjoys the same privilege if he does not provide for her, or curses her more than twice.

In Caffraria and the kingdom of Dahomey we behold the same sickening spectacle: the woman is scarcely thought worthy of being at all consulted in a matter of the utmost importance to her. In most of the kingdoms of Africa scarcely another stain could be added to the female character. They are really transcendentalist in all that is degraded, loathsome, and disgusting. In Central Africa the same revolting spectacles meet the eye of the Christian and philanthropist.

In Europe, perhaps no country pays less deference to the rights of woman than Spain. Until married, she lives a secluded life; but as soon as married every man seems to think her his lawful property, if he can only win her favour. The countries in Europe where woman receives the greatest amount of respect, and her rights are most recognised, are Great Britain, Germany, Norway, and Switzerland; but even in these the education of the female is most shamefully neglected, especially on those points which the female mind ought to be instructed in.

The ceremonies and rites of marriage of the various nations form a most interesting subject; and it is the intention of the author to enter more minutely into them on some future occasion. Meanwhile the few observations here made will serve to show that there is *even* in our day, as well as in ancient times, great injustice done to the female portion of society, and through them, to the world at large.



FAMILIAR LESSONS ON ASTRONOMY.

CHAPTER I.

DISCOVERY OF ASTRONOMY—DEFINITIONS—THE SUN.

1. My dear young friends, this is a beautiful world in which we live. Its surface is diversified by mountains, valleys, plains, rivers, and oceans. We have forests and shady groves, whose green and waving foliage apparently ascends to heaven, and the cloud-capped mountain, emitting from its summit fire and lava; we have sparkling streamlets, whose crystal waters meander through mossy meadows, fragrant with rich and velvet flowers; we have rocks, fields, and warbling songsters; each and all of which are but so many messengers or evidences of the goodness of the Creator. He caused each tiny floweret to put forth its tender leaves, to bud, expand, and blossom, to call forth meet incense of praise and gratitude.

2. We might spend many delightful hours in enumerating and describing the beauties of our lower sphere with profit; but it is my present purpose to direct your thoughts to the worlds and systems of worlds which stud the canopy above us. We shall then see, that as a family is but one among the numerous groups which compose society, so our earth is but a speck in the whole universe of God.

3. You have all doubtless gazed with delight at the little twinkling, twinkling stars, and often wondered what they are, what their use is, who made them, etc. They are indeed very beautiful, and the more so, because they are arranged in perfect order and system, and their motions are all regulated by fixed and certain laws.

The science which treats of all these stars is called Astronomy, which means, relating to the stars.

4. As remote in the annals of history as the flood—even three hundred and fifty years before the flood, over two thousand years before the Christian era—the attention of different nations was directed to the study of Astronomy; especially the Chaldean, Egyptian, and Grecian nations. It is thought that in past ages of the world, this science was carried to a great degree of perfection, and that many of the great principles then discovered and disseminated are now lost, or have been transmitted in a feeble manner.

5. Egypt, that great fountain-head of science, philosophy, literature, and the arts, was one of the early nations that patronised this science.

6. The Chinese have records of the motions of the planets one hundred years before the flood.

7. When Alexander captured Babylon, many astronomical observations were found, some of which had been computed nearly two thousand years previous to that time.

8. The Grecians were much interested in the study of the stars. Thales, a philosopher in Miletus, predicted an eclipse which occurred six hundred and ten years before Christ.

9. Although the ancient philosophers and astronomers watched earnestly the starry heavens—though they manifested an exceeding great interest and desire to learn more of the worlds which floated before their vision in the

blue expanse, yet their ideas and systems were crude and vague, and it remained for those in more modern times to systematise, arrange, and perfect.

10. Formerly many theories prevailed. One was called the **PTOLEMAIC**, because **PTOLEMY**, an Egyptian philosopher, maintained that the earth was the centre of the whole solar system, and was at rest, or stationary, while the sun and all the planets revolved around it. This theory was believed for many ages, but was finally discarded.

11. **COPERNICUS**, on the contrary, declared that the sun was the centre of the solar system, and that the earth and all the other planets revolved around it. This theory was at first supposed to be very erroneous, and Copernicus was threatened with banishment, and even death, if he did not deny his belief in it; but, as truth is mighty and will prevail, and as ridicule and persecution have tried in vain to arrest the progress of any newly-discovered science, so the principles of Astronomy are now universally disseminated, and the Copernican system is the one that is believed to be the true one.

12. Since the fifteenth century there have been many advocates and discoverers in Astronomy; among them, the most distinguished are Copernicus, Galileo, Kepler, Tycho Brahe, Newton, Dr. Nichols, and the two Herschels, in Europe. In America, we have Professor Mitchell, in Cincinnati; Professor Olmsted, Hon. Walter Folger, Hon. William Mitchell, besides many others.

DEFINITIONS.

13. In every science there are many terms used peculiar to that science. These are called **TECHNICAL** terms, and require an explanation before they are understood.

14. When we speak of the vertebræ of the spine, the ribs, or the heart, we use the technical terms which belong to the science of Physiology.

15. When we call the leaves of a flower the petals, the slender threads inside of it the stamens and pistils, we use the technical terms which belong to Botany.

16. When we speak of the organs of the brain, such as Combateness, Self-Esteem, and Inhabiteness, we use the technical terms which belong to Phrenology.

17. The more we are acquainted with the different sciences, the more evident this will appear. In Astronomy, as in all other branches of knowledge, there are many terms or names which require to be explained. These must not be only learned, but remembered, so that when they are again mentioned you will be able to understand them.

18. **AXIS**, or **DIAMETER**, is an imaginary straight line passing from north to south, through the centre of the earth.

19. The **POLES** are the ends or the extremities of this line, and are ninety degrees distant from the centre. One is called the **NORTH POLE**, the other the **SOUTH POLE**.

20. The **EQUATOR** is a circle drawn around the earth, from west to east, which passes through the centre at right angles with the diameter. It divides the earth into half-circles, which are called **HEMISPHERES**. Every circle is divided into three hundred and sixty parts called **DEGREES**. If the circle be small, there are just as many degrees, but each one is smaller.

21. **MERIDIANS** are circles which cross the Equator and pass through the Poles from north to south.

22. **PARALLELS OF LATITUDE** are small circles parallel to the Equator. The **LATITUDE** of any place is its distance north or south from the Equator.

23. The **LONGITUDE** of a place is its distance from some standard meridian, reckoned on the Equator. The meridian generally taken as a standard, is that of Greenwich, near London.

24. **TROPICS** are parallels of latitude that pass around the earth, twenty-three and one half degrees from the Equator. The one north of the Equator is called the **TROPIC OF CANCER**. The one south of the Equator is called the **TROPIC OF CAPRICORN**.

25. There are five **ZONES**. Zones are divisions which extend between the poles and the tropics. The **TORRID ZONE** lies between the two tropics. The **TEMPERATE ZONES** are between the tropics and polar circles. The one north of the Equator is called the **NORTH TEMPERATE ZONE**; the one south of the Equator, the **SOUTH TEMPERATE ZONE**. The **FRIGID ZONES** lie between the poles and polar circles. The one around the North Pole is the **NORTH FRIGID ZONE**, and the other around the South Pole is the **SOUTH FRIGID ZONE**.

26. The **ECLIPTIC** is the path in the heavens which the earth makes in her annual revolution around the sun, or which the sun appears to make. It is called ecliptic, because eclipses occur when the moon is in or near this apparent path.

The diameter of the earth does not lie at right angles with the Ecliptic, but is turned out, or inclined about twenty-three and a half degrees. The Equator is turned out in the same direction the same number of degrees, in order to agree with the Ecliptic.

27. The **EQUINOXES**, or **EQUINOCTIAL POINTS**, are the intersection of the Ecliptic and the Equator, or the points where the two circles cross each other. The **VERNAL** (which means spring) equinox is the time when the path of the sun passes the Equator in returning northward. In reality it is the earth which moves, instead of the sun, which appears to us to move. The **VERNAL EQUINOX** is the twenty-first of March. The time when the sun crosses the Equator, in going south, is the **AUTUMNAL EQUINOX**. This takes place about the twenty-second of September. At these two seasons of the year we always expect, and have, storms. If we notice particularly the nature of these storms—their duration, violence, whether or not they are accompanied by wind—we shall be able to ascertain or predict the nature of all the succeeding storms for the next six months; for they are generally similar in almost every respect.

28. The **ZODIAC** is an imaginary belt, or broad circle, which extends eight degrees each side of the Ecliptic. It is, therefore, sixteen degrees wide. The Zodiac is divided into twelve equal parts, called the **SIGNS** of the Zodiac. These names will be given in another part of this work. The planets are never seen out of the Zodiac.

29. **HORIZON** is a circle which divides the earth into upper and lower hemispheres. The **SENSIBLE horizon** is a circle where the earth and sky appear to meet.

30. **ZENITH** is a point immediately above our heads.

31. **NADIR** is a point directly under our feet.

32. **SOLSTICES** are the two points of the Ecliptic which are most distant from the Equator. The summer solstice takes place about the twenty-second of June; the winter solstice occurs about the twenty-second of December.

33. The **ORBIT** of a planet is the circle in which it moves.

34. The **DISC** is the face or surface of the planet.

35. An **ELLIPSE** is a long circle, or a circle flattened at two ends.

36. **NODE**. The point where the moon's orbit crosses the Ecliptic is called node.

37. The heavenly bodies are divided into two classes—luminous and opaque.

38. **LUMINOUS** bodies are such as shine by their own light, without reference to any other body, as the sun and fixed stars.

39. **OPAQUE** bodies are dark, and are seen only when light from some other body shines on them. The earth, moon, and planets are opaque bodies.

40. TELESCOPE. The telescope is an instrument through which the heavenly bodies, which cannot be seen by the naked eye, are visible.

THE SUN.

41. The sun is the centre of the solar system. From age to age it has dispensed its rays of light and heat to all the planets, regulated their motions, and affected their conditions.

42. Change and "passing away" are stamped on all things earthly, yet the sun, as far as power and influence are concerned, has not diminished. The loftiest monuments moulder and crumble to dust. The most huge rocks on the earth are worn away by the swelling tide which beats against their columns, and the idea is not improbable that our whole earth will pass away; but the sun, mighty and powerful, still continues to revolve around the throne of that Being who rules the universe.

43. It was formerly supposed that the sun was a vast globe of fire; but it is now generally believed that the sun is an opaque or dark body, surrounded by an extensive atmosphere, filled with luminous clouds of sufficient brightness to produce light and heat.

44. When the sun is viewed through a telescope, dark spots are visible on its face.

These spots are occasioned by the thinness of the atmosphere in different parts, so that portions of the sun's surface can be seen through it. These spots change their positions; they sometimes appear on one side, and then on the other. By means of this change it has been ascertained that the sun turns on its axis from west to east in about twenty-five days.

These spots are generally small, but frequently one hundred are seen together in one group, and sometimes they are many times larger than our earth.

45. The size of the sun is enormous. It is the largest of all the known heavenly bodies, and is eight hundred thousand miles in diameter. It is fourteen hundred thousand times as large as the earth; so that the earth, which appears inconceivably great to our minds, is in reality but a speck, or as a grain of sand on the sea-shore, when compared with this large body, which is continually shedding its light on us, causing vegetation to grow, and rendering the earth a fit and pleasant abode for mankind. Without the presence of the sun, we should be in complete darkness, with no heat, in an eternal night of coldness.

It has been calculated that it would require one hundred and twelve bodies like the earth, if laid side by side, to reach across the diameter of the sun.

46. A query may arise, Why does not the sun, when it is of such immense size, fill our atmosphere, and crowd out the innumerable stars which we see above us? The reason is, that it is ninety-five millions of miles far away in the depths of space; so distant, that, according to one writer, the swiftest steamboat, at the rate of two hundred miles per day could not reach it from the earth in thirteen hundred years. If a person should travel one hundred miles per day, it would take him nearly eighty years to cross the sun's equator, while it would not require one year to travel around the earth at the same rate.

47. The sun is round. Its figure is not a perfect circle, but is elongated somewhat as an egg would appear, if both of its ends were of the same size. It is called an ellipse.

48. An exposure to the rays of the sun, *without* sufficient exercise to create perspiration, will produce sickness; but the same exposure to the sun, *with* exercise, will not be at all injurious. If a person sleep exposed to the sun, he will wake in great perspiration, and possibly may not live. But if the same person dig or use his muscles for the same length of time, he will perspire ten times as much, and be very well. It is a recorded fact that not only the

direct rays of the sun, but the heat of the atmosphere, produce an abundance of bile on the stomach, to remove which requires powerful exercise.

49. There is a faint light which is seen in certain seasons of the year following the course of the sun, after twilight in the evening, or before his appearance in the morning. This is called the ZODIACAL LIGHT. It is seen in the months of October, November, and December. The true nature and cause of it are not known. It was thought to be the atmosphere of the sun; but this light extends farther than the atmosphere of the sun could reach.

50. The density or weight of the sun is one-fourth as great as that of the earth, and a little heavier than water. Yet the quantity of matter in the sun is over three hundred and fifty thousand times as great as in the earth.

51. The sun resembles the other globes of the solar system, and may have inhabitants whose constitutions are peculiarly adapted to the extreme heat of its climate. Dr. Herschel thinks they enjoy the most delightful scenery; that the light of the sun is eternal, as well as its seasons, and that it offers one of the most delightful habitations for intelligent beings which can be conceived.

QUESTIONS.—What are the subjects of Chapter I.? 1. In what way is the surface of the world diversified? What messengers remind us of the goodness of our Creator? For what purpose are all things created? 2. To what will the thoughts be directed? What conclusion shall we form? 3. What are sources of delight? What constitutes their chief attraction? What science treats of the stars? What is astronomy? 4. How early was the attention directed to astronomy? How do the present and past ages compare in this respect? 5. What is said of the interest of the nation of Egypt? 6. What is said of the Chinese? 7. How is it known that the early people were interested in this science? 8. What other nation evinced an interest? What did Thales predict? 9. What did the ancient philosophers do? What remained for those in modern times? 10. What was Ptolemaic theory? 11. What is the Copernican theory? How was this theory received? With what was Copernicus threatened? What is the influence of truth? What are the effects of ridicule and persecution? In what way did they affect the science of astronomy? 12. Name some of the most distinguished astronomers of Europe. Name some in America. 13. What are there in every science? What are they called? 14. What are some of the technical terms of physiology? 15. Botany? 16. Phrenology? 17. Does this apply to astronomy? Why should these be remembered? 18. What is the Axis, or Diameter? What is its direction to the Equator? 19. What are the Poles? 20. What is the Equator? Into what does the Equator divide the earth? What are Degrees? Do these vary in size? 21. What are Meridians? 22. What are Parallels of Latitude? What is meant by the Latitude of a place? 23. What is the Longitude of a place? What meridian is generally used as a standard? 24. What are the Tropics? What is the Tropic of Cancer? What tropic lies south of the Equator? 25. What are Zones? How many are there? Which is the Torrid Zone? Which are the Temperate Zones? How many and what are they? How many of the Frigid Zones are there, and where are they situated? 26. What is the Ecliptic? Why is it called the Ecliptic? How is the Axis of the earth situated? What is said of the Equator? 27. What are the Equinoxes? What is the Vernal Equinox? Does the Sun really move? When does the Vernal Equinox occur? What is meant by the Autumnal Equinox? When does this occur? What takes place at these seasons? Why should we notice these storms? 28. What is the Zodiac? What is its width? What are the signs of the Zodiac? What are situated in these borders? 29. What is the Horizon? What is the Sensible Horizon? 30. What is the Zenith? 31. What is the Nadir? 32. What are the Solstices? When do they occur? 33. What is the orbit of a planet? 34. What is the Disc? 35. What is an Ellipse? 36. What is the Node? 37. What are the divisions of heavenly bodies? 38. What Luminous bodies? 39. What are Opaque bodies? What are examples of Luminous and Opaque bodies? 40. What is the use of the Telescope? 41. What is the centre of the Solar System? What is said of its influence? 42. With what is every thing stamped? Do these principles extend to the Sun? What changes do we see in nature? What does the Sun continue to do? 43. What was an early theory

respecting the Sun? What is now believed? 44. How does the Sun appear when it is viewed through a telescope? What occasions these spots? What is said of their position? What is said of the size of the spots? 45. What is the size of the Sun? What is its diameter? What is its size, compared with that of the Earth? What is the Earth, in reality? What advantages arise from the presence of the Sun? How does the size of the diameter of the Sun compare with that of the Earth? 46. What question do many ask? What is the cause of the fact? How long would it require a steamboat to sail to reach the Sun? At what rate must an individual travel? 47. What is the shape of the Sun? Is its figure a perfect circle? What is it called? 48. What is the effect of exposure to the Sun without exercise? With exercise? Explain the cause of this? 49. What is the Zodiacal Light? When is it visible? What causes it? Why is it not caused by the atmosphere of the Sun? 50. What is the density of the Sun? What is the quantity of matter in the Sun? 51. To what peculiarity may the Sun be adapted? Why? What is Dr. Herschel's idea respecting these things?

CHAPTER II.

PLANETS—MERCURY, VENUS.

1. AN unknown number of dark bodies revolve around the sun, which are called PLANETS. The word for planet, in the Greek language, is called wanderer; and this term is applied to these bodies because they change their positions in the heavens, while the stars are fixed, and maintain the same relative place.

2. Those planets which revolve only around the sun are called PRIMARY PLANETS and COMETS. Those which revolve around a primary planet at the same time that they are revolving around the sun are called SECONDARY PLANETS, MOONS, or SATELLITES.

3. All of these planets shine by light reflected from the sun. They are readily distinguished from the stars, because their light is steady, while the stars appear to twinkle.

4. There are thirteen primary planets, which are called Mercury, Venus, Earth, Mars, Vesta, Astrea, Juno, Ceres, Pallas, Jupiter, Saturn, Herschel or Uranus, Leverrier or Neptune. Very recent observations have added Iris, Hebe, and Flora to this list. But it is not fully decided that these are correct.

5. There are eighteen secondary planets, or moons. The earth has one moon, Jupiter has four moons, Saturn seven, and Herschel six.

6. Those primary planets that are more remote from the sun than the earth is are called SUPERIOR planets. Those that are nearer the sun than the earth are called INFERIOR. Mercury and Venus are inferior planets. Mars, Vesta, Astrea, Juno, Ceres, Pallas, Jupiter, Saturn, Herschel, and Neptune are superior.

7. The planets differ from each other greatly in their distances from the sun, their size or magnitude, the number of satellites by which they are attended, their time of revolving around the sun and on their own axis, and their density.

8. Sir John Herschel describes the difference of the size and distance of the planets in the following plain and simple manner: Suppose the sun is represented by a globe two feet in diameter, then eighty-two feet distant, put down a grain of mustard-seed, and you have the size and place of Mercury, which point is generally immersed in the sun's rays. At the distance of one hundred and forty-two feet lay down a pea, and it will represent Venus, the morning and evening star. Two hundred and fifteen feet from the globe place another pea, a grain larger than the last, and we have the earth. A large pin's head, at the distance of three hundred and twenty-seven feet,

represents Mars. About five hundred feet from the sun Vesta, Astrea, Juno, Ceres, and Pallas appear as small grains of sand. Jupiter is represented by a moderate-sized orange, about one quarter of a mile distant; Saturn, with his ring, by a small orange, at the distance of two-fifths of a mile; Herschel, by a full-sized cherry, at about three-fourths of a mile distant. Neptune would be about a mile and a half distant.

MERCURY.

9. The nearest planet to the sun is Mercury. It is the smallest in size of all the planets. It revolves around the sun at the distance of thirty-seven millions of miles in about three months; so that while the earth is revolving once around the sun Mercury revolves four times. If their year is computed in the same manner as that of ours on the earth they would have four years while we had one.

10. Mercury is the most dense of the planets, and receives seven times as much light and heat from the sun as the earth. Water there would pass off into steam and vapour.

11. It may appear incredible to suppose that this planet is inhabited. Certainly creatures like those whom God has placed on the earth could not endure the intensity of the light and heat there enjoyed; but it is just as reasonable to suppose that there are beings dwelling on the planet Mercury, whose capacities are enlarged and peculiarly fitted to enjoy its climate, as to believe that some of God's creatures live in the Frigid Zones of the earth, while others bask under the sunshine and heat of the tropical climate of the Torrid Zone.

11. Mercury emits a white light, but being so near the sun cannot be long seen at a time, and then only at twilight. It is never seen more than twenty-eight degrees from the sun.

It is said that Copernicus, even on his death-bed, regretted very much that he had never seen the planet Mercury.

13. It revolves on its axis once in twenty-four hours, so that a day at the planet Mercury is of the same length as at the earth.

14. Mr. Schroeter discovered mountains on its surface, one of which was ten miles in height. When Mercury is seen through a telescope it presents all the different appearances and changes of the moon. This fact proves that Mercury is a dark body; for only that side is light which is turned toward the sun. Sometimes Mercury passes over the face of the sun, or between us and the sun; it is then called the TRANSIT of Mercury.

15. When Mercury is in the same part of the heavens with the sun it is said to be in CONJUNCTION with the sun. When it is in the opposite part it is said to be in OPPOSITION to the sun.

VENUS.

16. The second planet from the sun is Venus. This is a bright and beautiful star, the most brilliant in our firmament. This planet revolves on its axis once in twenty-four hours. It is sixty-eight millions of miles from the sun, and completes this revolution in about seven months, so that at the planet Venus they have nearly two years to one.

17. Venus is never seen forty-eight degrees from the sun; hence it is visible in the west only about three hours after sunset, or in the east three hours before sunrise. When it is first visible it is seen a few moments after sunset, and then soon sets. In a few evenings it is seen farther from the sun, until it reaches its greatest distance, when we see it for several hours. It is then called Hesperus, or evening star. After being visible for about nine months it disappears, and is seen in the morning, when it is called Phosphorus, or morning star.

18. The ancient philosophers supposed that there were two distinct stars, but they finally discovered that they were the same.

19. Venus is sometimes so brilliant that she casts a shadow, and is then said to be equal to twenty of the brightest stars. The reason that Venus does not appear brighter when she is near the earth as at her greatest distance is that her dark side is turned toward the earth. Were it not the case Venus would appear twenty-five times as brilliant as she now does.

20. When Venus passes over the sun's disc it is called the TRANSIT of Venus. Many think that Venus has a moon revolving around her as large as our own moon, but there is no certainty as to the correctness of their surmises.

21. It is supposed that Venus has an atmosphere, because there are appearances of twilight. In another chapter, the relation between the two will be described.

22. Very high mountains, besides dark spots, hills, and valleys, have been discovered to diversify the surface of Venus.

QUESTIONS.—What is the subject of Chapter II.? 1. What revolves around the sun? What does the word planet mean? Why are these bodies so called? 2. What are primary planets? What are secondary planets? What other names do these have? 3. What is the light of the planets? In what way are they distinguished from the stars? 4. How many primary planets are there? Name them. What new ones have been recently added? 5. How many secondary planets are there? Name them. 6. What are superior planets? What are inferior planets? Name the superior planets. The inferior planets. 7. In what do the planets differ? 8. Who has described the size and distance of the planets? How does he represent the sun? Mercury? Venus? Earth? Mars? Asteroids? Jupiter? Saturn? Herschel? Neptune? 9. What is the nearest planet to the sun? What is its size? What is its distance from the sun? What is the time of its revolution? What is said of the year at the Earth and Mercury? In what time does it revolve on its axis. 10. What is the density of Mercury? What is the degree of its light and heat? What would be the effect on water? 11. What idea appears incredible to us? What is quite evident? What is a very reasonable supposition? 12. What is the colour of the light of Mercury? Why is it so seldom seen? How far is it seen from the sun? What was a regret of Copernicus? 13. In what time does it revolve on its axis? How long is one of Mercury's days? 14. What did Mr. Schroeter discover on its surface? What was the height of one? How does Mercury appear through a telescope? What does this prove? What is the transit of Mercury? 15. When is Mercury in conjunction with the sun? Opposition? 16. What is the second planet from the sun? Why is this an interesting body? What is the time of its revolution on its axis? What is its distance from the sun? What is the time of its yearly revolution? What is the length of their year? 17. How long is it visible in the west or east? Why is it not seen longer? Describe its appearance. What is it called? How long is it visible? What is the morning star called? 18. What did the ancients suppose, respecting this star? Was this correct? 19. What is said of the brilliancy of this planet? Why does not Venus appear brighter, when near the earth? How brilliant would Venus appear, otherwise? 20. What is the transit of Venus? What is said respecting the moon of Venus? 21. What is said of the atmosphere of Venus? 22. What have been discovered on the surface of Venus?

CHAPTER III.

EARTH.

1. It may appear singular that the earth is classified among the stars and planets; for to us the earth appears to be stationary, while the planets revolve in their accustomed orbits, and change their places in the heavens. But the motions and movements of the earth are the more interesting, as we are

participants in the changes which are produced by her revolutions, and are sensibly affected by them.

2. The form of the earth is nearly round, or spherical. That such is the case, has been proved in the following conclusive ways :

Firstly, because all the other planets are round ; and, as there is a general relation between them in all other respects, it is but right to conclude that the similarity holds good in regard to their form.

Secondly, because the earth casts a round shadow on the moon, in an eclipse.

Thirdly, it has been sailed around. A Portuguese embarked from Spain, with a fleet of four vessels, and sailed in a westerly direction. After three years, one of the vessels reached the point near which they started. Many other individuals have also performed the same voyage.

Fourthly, we see the tops of masts, the steeples of churches, and the highest parts of all distant objects, first.

Fifthly, by actual observation and measurements which astronomers have made, to find the distance from the centre of the earth to various places on its surface. These are found to be nearly equal.

3. The earth is ninety-five millions of miles from the sun, and its motion is about sixty-eight thousand miles in an hour. Mountains, valleys, seas, and rivers are hurried onward with impetuous force, moving, moving, without any cessation, from month to month, and from year to year.

4. The reason why this remarkably swift motion is not perceptible to our senses, is, that every thing partakes of it, and maintains its relative place. If a ball be thrown into the air, it is very easy for us to perceive the velocity with which it falls to the ground, because we are at rest, when compared with it, although both the ball and the ground on which we stand have another motion, which is common to them, or is the same.

5. When we are riding in the cars, or in a carriage, the trees, rocks, land, and sky appear to move before us, and to pass by us ; but in reality, it is ourselves that are moving. So when the earth moves in one direction, the stars and planets appear to move in an opposite one. When the earth moves from west to east, the sun *appears* to move from east to west ; but in fact, it does *not* move around the earth. We say that the sun rises in the east in the morning, and sets in the west at night. By it, we mean, that that part of the earth on which we are situated, is turned from the side of the sun, by the revolution of the earth on its axis, so that we are unable to see it until the morning, when the earth has turned on its axis.

6. The revolution of the earth around the sun is performed in one year, or three hundred and sixty-five days, five hours, forty-eight minutes, and fifty-seven seconds. This is called its ANNUAL—meaning yearly—revolution. It turns on its axis once a-day, or in every twenty-four hours. This is DIURNAL, or daily revolution.

7. One of the first changes which we observe, is that from *day* to *night*, and *night* to *day*. If the sun shine ever so brightly during the day, yet at night darkness overshadoweth the land. There is a cause for every thing which we see around us. Let us examine this subject, and see if we can ascertain the cause of this phenomenon.

8. The earth is a dark body, like all the other planets, and receives light from the sun. If the sun and earth were both stationary, then only that part of the earth which was turned toward the sun would be enlightened, while the remainder would be in total darkness ; but the motion of the earth on its axis from west to east, brings first one side toward the sun, and then the other side ; so that every part in its turn receives light from the great luminary of day.

9. The axis of the earth is inclined to the Equator ; therefore some parts receive more light, or for a longer time, than some of the others ; hence some regions have a longer day and night. When the days are longest in north latitude, they are shortest in the south. At the Poles, there is but one day and night in the year, which is six months in length.

10. When the axis of the earth passes the Equator at the Equinoxes, the days and nights are equal all over the world. The sun rises and sets exactly at six o'clock. Those periods are called equinoxes, because the word means equal nights.

11. During the year, the earth turns on its axis once more than we have days. She turns a little more than once every day. The complete revolution of the earth on its axis is called a **SIDEREAL DAY**. This is determined by the revolution of a star, from the instant it crosses the meridian, until it turns to that meridian. This day is divided into twenty-four hours. It is called a sidereal day, because the Latin word **SIDUS** means a star.

12. The time from noon to noon, is called a **SOLAR OR NATURAL DAY**. If the sun had no motion on its axis, then the solar and sidereal days would be equal. But while the earth is revolving on her axis, the sun is performing his revolution, so that he moves forward one degree ; consequently, the earth has to move forward one degree more than her usual distance in twenty-four hours. It has been computed that a solar day is about four minutes longer than a sidereal day. This difference is generally added to the sidereal day, which is said to be twenty-three hours, fifty-six minutes, and four seconds in length.

13. The solar days are not all of the same length, because the earth moves faster when she is in that part of her orbit which is nearest to the sun, than when she is more distant. Hence some consist of more, and some less than twenty-four hours. When a day consists of less than twenty-four hours, it is noon by the sun before it is by the clock ; then the sun is faster than the clock. When time is measured by the clock, it is called **MEAN** time. That indicated by the sun on a shadow, or on a sun-dial, is called **APPARENT** time. The difference between them is called **EQUATION OF TIME**.

14. There are two causes why the days are unequal in length. One is, that the earth's orbit is not a circle, but an ellipse. Kepler, a distinguished mathematician and astronomer, ascertained that if a line were drawn from the sun to the earth, this line would, by the earth's motion, pass over equal spaces in equal times. If, then, the distance of the earth from the sun were always the same, and if its orbit were a circle, the earth would pass through equal portions in equal times. But as the earth's distance from the sun is continually changing, the earth must pass through unequal portions of its orbit in equal times, or pass through greater portions of it in some days than others. The second cause is the obliquity or inclination of the Ecliptic to the axis of the earth.

15. The **SOLAR OR ASTRONOMICAL** year is the time in which the sun passes from one point in the Ecliptic to the same point, which is three hundred and sixty-five days, five hours, forty-eight minutes, and fifty-four seconds. The **CIVIL OR COMMON** year is three hundred and sixty-five days. There are about six hours difference between the two. If no reference were had to this want of agreement, the seasons would in a short time change, so that summer would come in winter, and spring in autumn. This difficulty was obviated by Julius Cæsar, a Roman emperor, who added one day in every fourth year to February. In every year which can be divided by four, February has twenty-nine days. That year is called **BISSEXTILE**, or **LEAP YEAR**. 1848, 1852, 1856, &c., were leap years.

16. But it was soon perceived that they had added too much, by ten or twelve minutes, and that this, in one hundred years, would amount to three-

fourths of a day. Hence it was ordered that the years 1800 and 1900 should not be leap years, and that after 1900, there should be a leap year only every four hundred years. This was called the Julian calendar, or the *old style* of computing time.

17. As the day was still too long, the difference had amounted to ten days ; therefore Pope Gregory, in the year 1582, ordered ten days to be taken from the year, and called the fifth of October the fifteenth. This was termed the *new style*, and was adopted in England in 1752 ; but they were obliged to take out eleven days ; hence they called the third of September the fourteenth.

18. The solar year commences and ends on the same day of the week ; but the leap year ends one day later in the week than it began. According to one writer, fifty-two multiplied by seven gives three hundred and sixty-four. The next day would commence the next week. If this year commenced on Monday, the next would begin on Tuesday, and so on all the days of the month. But this is not so of leap year. If that year commences on Monday, it ends on Tuesday, and the next commences on Wednesday, so that all the days of the month are later by two days.

19. The DOMINICAL LETTER is the one which is placed against Sunday. Tables are computed, and by referring to them, you can easily ascertain on what day this takes place.

20. Besides the succession of day and night, we notice another change. We enjoy many weeks of warm, delightful weather ; vegetation blooms and flourishes, the green leaves spring from the ground, the plants put forth buds and blossoms, the lambs skip in the fields and frolic in the green grass, and all nature beams with a radiant smile of gladness. But soon seed-time and harvest pass away, and chilliness gathers in the atmosphere ; the trees, stripped of their foliage, are all naked and bare, and the cold snows of winter cover the ground ; or, in other words, we have four different SEASONS—spring, summer, autumn, and winter.

21. The changes of the seasons are produced by the annual revolution of the earth around the sun, and the direction in which the sun's rays fall on the earth. When they fall *perpendicularly*, the season is warmest, and when *obliquely*, the season is coldest. The earth is in that part of her orbit which is nearest to the sun, about the last of December, and that part most remote, the last of June ; but owing to the direction of his rays, we have severe cold in winter, when his rays fall *obliquely* upon this point of the earth, and in summer we have it hot, because then his rays fall more directly upon us.

22. The SOLSTICES are the two points where the Ecliptic and the Equator are at the greatest distances from each other. The earth passes through each of these two points in her annual revolution. One is called the SUMMER SOLSTICE, which takes place on the twenty-first of June, when the days are longest, and the nights are the shortest, in our hemisphere. The other is the WINTER SOLSTICE, which occurs on the twenty-first of December, when the days are the shortest, and the nights are the longest. When the earth is in the Summer Solstice, on the twenty-first of June, with the North Pole inclined to the sun, the whole Arctic Circle will be illuminated, and the sun's rays will be extended twenty-three and a half degrees beyond the North Pole. When the earth turns on her axis, the whole of the Frigid Zone is within reach of his rays. There would, therefore, be perpetual day at this time.

23. But just the same proportion of the earth that is enlightened in the northern hemisphere, will be in total darkness in the opposite region of the southern hemisphere ; so that while those at the north are blessed with perpetual day, those at the south have perpetual night.

24. Those who live near the Arctic Circle, in the North Temperate Zone, will, during the winter, be for a few hours within the regions of light, by the

earth's diurnal revolution. The greater the distance from the circle, the longer their nights will be, and the shorter their days. At this season, the days will be longer than the nights everywhere between the Equator and the Arctic Circle. At the Equator, the days and nights will be equal. Between the Equator and the South Polar Circle, the nights will be longer than the days, in the same proportion that they are longer than the nights from the Equator to the Arctic Circle. As the earth is a globe, the sun enlightens the half next to him, while the other half is in darkness.

25. When the earth moves round the sun, she comes to that position at the twenty-first of September, in which the line of light and darkness passes through the poles and divides the earth equally from east to west; the days and nights are of equal length all over the world. Then the sun is said to be in the autumnal equinox.

26. As the earth moves onward the light reaches the Antarctic Circle. The days are shorter in the northern hemisphere, and the whole Arctic Circle is in total darkness. All those places which enjoyed constant day in June, have now perpetual night. The sun is now in the Winter Solstice. The nights of winter are as long as the summer days, and the days of winter are as long as the summer nights.

27. When the earth passes through another quarter of her orbit, the days and nights are equal all over the world, and the sun is in his vernal equinox. As the earth advances, the northern hemisphere enjoys more light, and the southern is immersed in darkness. The days north of the Equator increase in length until the earth comes to the point from which it started.

28. At the Poles there are alternately six months of darkness and winter, and six months of sunshine and summer. While we are enjoying the pleasures and delights of summer, those in the southern hemisphere are suffering from the severities of winter. At the Equator there is no winter, but two summers, and the days and nights there are always equal. As the sun constantly shines on the same half of the earth, in its turn, there are twelve hours of light and twelve hours of darkness.

29. Though the sun is three millions of miles nearer the earth in the winter than in the summer, yet, as has been before stated, we have colder weather. We do not have the most intense heat when the sun is the most vertical or perpendicular, and when the days are longest; for the heat accumulates in the atmosphere, and is increased after the days are shortened. It is most intense in the months of July and August. It is generally warmer in the afternoon, at two or three o'clock, than at twelve, when the sun's rays are the most powerful, because there is more heat in the atmosphere.

30. Our Creator has made a happy provision against our enduring very great vicissitudes of climate, by giving us the requisite changes of season for our comfort and safety.

ATMOSPHERE—REFRACTION—TWILIGHT.

31. When the rays of light pass from one substance or medium into another of different thickness or density, they will not be seen in a straight course, but will be turned or bent in their direction. This turning or bending of the rays of the sun, is REFRACTION.

32. When light passes through air into water, it is refracted. Sometimes a stick is placed in a pond of water, to ascertain the depth of the stream. The water appears more shallow than it really is, because the line of light which comes to our eye is bent by means of refraction. Hence this method cannot always be correct.

33. One author mentions an interesting experiment which every one can test for himself. If a small piece of money, or any other substance, be put into a dish, and the eye be placed so that the piece will not be quite visible, then, if water be poured into the dish, the piece will *appear* to rise to the spot where it will be distinctly seen. The reason is, that when the ray of light entered the water, it passed into a different medium than air, and was therefore bent by means of refraction, so that the object, like the stick in the water, appeared higher in the dish.

34. The earth is surrounded by an ATMOSPHERE forty-five miles high, of different degrees of density. It is more dense at the surface than several miles beyond it. There is a very perceptible difference in the atmosphere on the summits of high mountains, and several miles below. It is a very common thing for persons on the Catskill mountains to see clouds floating below their tops, which are the messengers of rain, lightning, and thunder to the inhabitants in the valleys, while they enjoy a clear, pure air, without a cloud to obscure their sight above.

35. Owing to the different degrees of density of the atmosphere, all the rays of light which enter it obliquely, are bent out of their course. Therefore, we never see the heavenly bodies in their true places, without they are over our heads in the zenith.

36. If we look through a three-cornored piece of glass, called a prism, or observe the beautiful rainbow when it spans the heavens after a shower of rain, we notice seven different colours. Sir Isaac Newton was the first who separated a ray of light into seven colours. This is done by means of refraction. In the case of the rainbow a ray of light from the sun passes through drops of water, and is divided into its primitive colours. Some are more refracted than others, and are therefore more bent, so that it presents a curved appearance. According to Sir Isaac Newton, the red is the most refracted, then the orange, yellow, green, blue, indigo, violet. All these colours mingled together in certain proportions produce white. Every youth can mix these seven different colours of paint, and make a white colour.

37. The atmosphere is sometimes more dense than it is at others; hence arises the difference in the colour of the sky, being at one time tinged with blue, and again presenting the most delicate violet and red appearance. We owe to refraction the gorgeous sunsets which often fill our souls with delight and admiration, and call out a response from all that is beautiful within us, as we behold the outward semblance of loveliness and perfection.

38. Refraction causes us to see objects higher above the horizon, or it elevates them higher than they really are; hence the sun and moon are visible longer above the horizon than they otherwise would be. The sun is visible about three minutes before he rises, and three minutes after he sets. Thus five or six minutes are added to each day.

39. This faint light before and after the setting of the sun is called TWILIGHT. It is owing mostly to the *reflection* of the sun's rays through the atmosphere, and depends on the direction of the rays of light. When the sun arrives at eighteen degrees below the horizon his rays are reflected, or bent down to the earth, then light gradually steals over the eastern horizon, and day dawns. This is the MORNING TWILIGHT. In the evening the faint light is visible until the sun is eighteen degrees below the horizon. This is called the EVENING TWILIGHT. The latter is the longest, because the heat of the sun has raised clouds, vapours, and mists which render the atmosphere more dense; consequently both reflection and refraction are greater.

40. If we had no atmosphere there would be light only in that part of the sky where the sun was situated, the remaining part would be dark, and when the sun set at night darkness would instantaneously follow light. On the

tops of very high mountains the atmosphere is quite rare or thin ; hence but few of the sun's rays are reflected, and the sky sometimes presents a dark and almost black appearance, and stars are frequently visible in the day-time.

41. The sun and moon *appear* much larger when they are in the horizon than when in the zenith, although they are much more distant. The reason of this is not because such is really the case, but because we imagine the distance less. When we see objects over our heads, with nothing to intercept our view, we judge them to be nearer to us than when we look at them more remote from surrounding objects. When we suppose them to be at a greater distance we almost insensibly conclude that they must be larger. If the sun and moon be viewed through a piece of smoked glass when on the horizon, they will appear, if anything, smaller in size, because we exclude all other things from our view.

42. Refraction causes objects on earth to appear higher, because the air is more dense at the surface of the earth. For this cause a mountain or any distant object appears to be higher and nearer. At sea, in thick, foggy weather, distant objects "loom up," or seem to draw near.

43. As has been stated, on account of refraction, none of the heavenly bodies are seen in their true places. The difference between the *true* and *apparent* place is PARALLAX. Both refraction and parallax cause distant bodies to appear where they are not. Refraction elevates bodies, parallax depresses them.

QUESTIONS.—What is the subject of Chapter III.? 1. With what is the earth classified? Why does this appear singular to us? Why are the motions of the earth more interesting? 2. What is the form of the earth? What is the first reason why the earth is globular? Second? Third? Fourth? Fifth? 3. What is the earth's distance from the sun? What is the speed of its motion? What are carried round with it? 4. Why is not the motion perceptible to us? Why can we perceive the motion of a ball? 5. In what way does this principle apply to our riding in the cars or in a carriage? What is said of the apparent motion of the sun? What do we mean by the sun rising and setting? 6. In what time does the earth revolve round the sun? What does annual mean? What is the time of the earth's diurnal revolution? 7. What is one of the first changes we perceive? Explain this. Is there a cause for this? 8. What kind of a body is the earth? What would be the consequence if the sun and earth were stationary? What is the case? What results from this? 9. Why do some parts receive more light than others? What is the consequence? What is the fact with the days in north and south latitude? What is the length of a day and night at the poles? 10. When are the days and nights equal? At what time does the sun rise and set? What are these periods called? Why? 11. What is a sidereal day? Why was this distinction made? In what way is this determined? What is its length? What does the word mean? 12. What is a solar day? When would the solar and sidereal days be equal? Why are they not? What is the difference? To what is this difference added? What is the length of the sidereal day? 13. What is the length of a solar day? Is there any difference between time measured by the sun and clock? What is mean time? What is apparent time? What is equation of time? 14. What is one cause of the inequality of the days? What law did Kepler discover? Does the earth pass through equal portions of her orbit in equal times? What follows from this? What is the second cause of the inequality of the days? 15. What is the solar year? What is the length of the solar year? What is the length of the civil year? What difference is there between the two? What would be the effect of this? In what way was this difficulty obviated? What is leap year? What years will thus vary? 16. What fact was soon perceived? In what way was this difficulty removed? What was this called? 17. What was the amount of this difference? What course did Pope Gregory take in reference to it? What was this called? When was it adopted? How many days were taken out? 18. What is said of the commencement and end of the solar year? In what way does the leap year differ? Explain how this takes place. How does this apply to leap year?

19. What is the dominical letter? How can this be ascertained. 20. What other change do we notice besides day and night? What different seasons do we have? 21. What produces these changes? When is the season the warmest? Coldest? Does the distance of the earth from the sun affect the heat? How do we know that this is not so? 22. What are the Solstices? Are these points near the earth's orbit? What are they called, and when do they take place? What is said of the days and nights at the Summer Solstice? At the Winter Solstice? 23. What portion will be in total darkness? What will ensue? 24. What is said of those near the Arctic Circle? What will affect the length of the days? In what regions will the days be longer than the nights? Where will the days and nights be equal? Where will the nights be longer than the days? What follows from the fact that the earth is a globe? 25. Explain how the days and nights are equal all over the world. What is this reason said to be? 26. When are the days shorter in the northern hemisphere? What changes take place in the days? Where is the position of the sun? What is said of the winter nights at this time? 27. When is the earth in the vernal equinox? What takes place when the earth advances from the northern hemisphere? 28. What is the difference between the seasons of the northern and southern hemispheres? Poles? What are the seasons at the Equator? Days and nights? 29. Is the sun at the same distance from the earth in summer and winter? Does this affect the heat or cold? Do we have the warmest weather when the sun is most vertical? Why? When is it the most intense? What part of the day is the hottest? Why? 30. What is a wise provision of our Creator? 31. What will be the effect when rays of light pass from one medium into another of different density? What is this called? 32. Give an example. What is the effect of a stick being placed in water? Why does the water appear more shallow than it really is? What follows? 33. What experiment is mentioned? What is the reason? 34. By what is the earth surrounded? Does its density vary? What fact is related of the atmosphere on the Catskill mountains? 35. What results from the different degrees of density of the atmosphere? What is the consequence of the rays of light being bent out of their course? 36. When are rays of light separated? Who first discovered this law? What is the cause? Explain the principle of the rainbow. What is Newton's theory? How can white be produced? What can all do? 37. What is another consequence of the difference of the density of the atmosphere? What do we owe to refraction? 38. What is another effect of refraction? In what way does this apply to the sun and moon? What difference does it make? How much is added to the day? 39. What is twilight? To what is it owing? What is morning twilight? What is evening twilight? Why is the latter the longest? 40. What is one benefit of an atmosphere? What is true in reference to the atmosphere on the tops of high mountains? What follows from this? 41. When do the sun and moon appear larger than they really are? Why? In what way can this be explained? How will the sun and moon appear through a piece of smoked glass? 42. Why does refraction cause objects to appear higher? Why does a mountain appear higher? 43. What is parallax? What is the difference between parallax and refraction?

CHAPTER IV.

MOON—ECLIPSES—TIDES.

1. NEXT in interest to our earth, is its satellite, the moon. It is the nearest of all the other planets, and of vast importance. By its various motions and changes, the astronomer ascertains the form of the earth, the cause of the tides, of eclipses, the distance of the sun, and the size of the solar system. By means of calculations from the moon, the mariner is enabled to track his way through the briny deep with safety and certainty.

2. So great reverence had the ancients for this little orb, that many nations, the Greeks, Romans, and Hebrews, were accustomed to assemble at the full

or new moon, to offer thanks and gratitude for her unwearied attendance on the earth, and for the discharge of all her varied duties.

3. The moon revolves around the earth once in twenty-nine days and a half. It turns on its axis at the same time ; so that a day and night at the moon are equal to one of our months.

4. The moon revolves with the earth around the sun once in a year, so that a year at the moon is as long as one at the earth ; yet the moon has but twelve days in its year, each of which is equal to our month.

5. The same side of the moon is always turned toward us, and those who live on the opposite side of the moon never see the earth, around which they revolve.

6. It has been thought that inhabitants on the earth were particularly favoured, because we are placed in that position of the solar system where more planets can be seen than in any position on any other planet.

7. The moon is two hundred and forty thousand miles from the earth. It is two thousand miles in diameter. It may appear impossible to ascertain correctly the distances of the planets from the earth or sun. On the earth, large tracts of land are measured or surveyed ; the height of lofty mountains, even, is estimated. It is done, not by actual measurement, for frequently this is impossible ; but by finding the proportion between the unknown distances, and other distances which are known : and so of the size and magnitude of an object. We compare an object whose size we do not know, by one with the size of which we are acquainted.

8. Dr. Lardner illustrates this principle in the following interesting manner. He says, " Let us take, for example, a cent piece, or a penny, which measure about an inch in diameter, and let it be placed between the eye and the moon, at any distance from the eye. It will be found, on the first trial, that the coin will appear larger than the moon ; it will, in fact, completely conceal the moon from the eye, and produce what may be termed a total eclipse of that luminary. Let the coin be moved, however, further from the eye, and it will then apparently diminish in size as the distance from the eye is increased. Let it be removed until it becomes equal in apparent magnitude to the moon, so that it will exactly cover the disc of the moon, neither more nor less. If its distance from the eye be then measured, it will be found to be about ten feet, or one hundred and twenty inches, or, what is the same thing, two hundred and forty half inches.

9. " But it is known that the distance of the moon is about two hundred and forty thousand miles ; and, consequently, it follows in this case, that one thousand miles in the moon's distance is exactly what half an inch is in the coin's distance. Now, under the circumstances here supposed, the coin and the moon are similar objects of equal apparent magnitude. In fact, the coin is another moon on a smaller scale, and we may use the coin to measure the moon's distance, provided we know the SCALE, exactly as we use the space on a map of any known scale, to measure a country. But it has just been stated that the scale is in this case half an inch to one thousand miles ; since, then, the coin measures two half inches in diameter, the moon must measure two thousand miles in diameter. The moon is, then, a globe whose diameter is about one-fourth that of the earth. Its bulk is about one-fiftieth of our globe, and its density is about three-fourths of the density of the earth."

10. When the moon is seen through a telescope, mountains and valleys appear on its surface. Some of the mountains are four or five miles high, and are of great extent. The heights of these mountains have been ascertained, by observations on the shadows which they cast.

11. Dr. Herschel declared that he saw volcanoes in the moon. He not only saw the light, flame, and smoke, but inferred the fact, from the formation of new mountains by the accumulation of matter, where fires had been seen to exist, and which remained after the fires were extinguished.

12. More than two hundred spots are seen on the face of the moon. It is not supposed that there are any seas or lakes there, but huge masses of rock are piled on its surface.

13. There are large circular cavities on the disc or face of the moon. Some of these huge caverns are nearly four miles deep, and forty miles in diameter. They reflect the rays of the sun in a brilliant manner, and are said by astronomers to present the same appearance to us that our earth would to the moon, if all our great lakes and seas were dried. These lunar cavities are probably intended for the reception of water, or are the beds of lakes and seas which have formerly existed in the moon.

14. The scenery at the moon is more irregular, grand, and terrific than at the earth, as its mountain precipices are higher, its valleys are deeper, and its rocks are more cragged.

15. A celebrated German thought he discovered the existence of a great city on the eastern side of the moon, an extensive canal in another place, and beautiful fields of vegetation in another.

16. There have been various opinions respecting the ATMOSPHERE of the moon. As no clouds or mists can be seen at the present day, it is supposed by many that the moon has no atmosphere. Again, as there are very faint appearances of twilight, these would not take place unless there was an atmosphere to reflect the sun's rays. The extent and density of it are, however, very slight, when compared with that of the earth.

17. The light of the moon has no heat or cold. This was proved by means of a thermometer. The thermometer consists of two glass hollow circles, one on each side of a glass tube filled with some kind of liquid. When these circles or bulbs are placed where there is any heat or cold, the air inside of them will either increase and expand, or diminish and contract. The light of the moon was concentrated on one particular spot, and when the thermometer was placed there no effect was perceptible. If the sun's rays had been collected in that spot, they would have been sufficiently powerful to have burned the hardest substance, or, at least, to have ignited a piece of gold.

18. The moon is sometimes much farther from the earth than at other times. That part of the moon's orbit in which she is nearest to the earth is called PERIGEE. The point where its distance is the greatest from the earth is its APOGEE.

19. One peculiarity about the moon, and one which affects us in a great degree, is the *phases* or *changes* of the moon. Every one who notices the moon at all, will see that sometimes she appears resplendently beautiful; then her light face diminishes in size, until what was once so bright and beautiful is dark and invisible.

20. The moon is a dark, opaque body, and shines by the light which she borrows or reflects from the sun; hence, that part only which is turned to the sun will be illuminated.

21. When the moon is between the sun and the earth, her dark side is turned toward the earth, as its bright side is presented to the sun. It has a dark appearance, and is invisible. The moon is then said to be in CONJUNCTION with the sun, and presents a black surface to our view. But in a short time she continues in her orbit east of the sun; then a small part of her illumined side appears in sight, and we have a *new moon*, which is said to be HORNED.

As she continues on her course, one-half of her illumined side is visible. The moon is then said to be in QUADRATURE. When she has passed still further round, nearly the whole of her bright side is turned toward the earth. She is then said to be GIBBOUS. A little farther round and all her illumined side is toward the earth, and we have a *full* moon. When she performs the other half of her revolution, she presents the same appearances as before.

22. The earth appears to the inhabitants at the moon thirteen times larger than the moon does to us. To those who live on the hemisphere next to the earth, our earth is always visible, and turns on its axis nearly thirty times as rapidly as the moon. The latter revolves only once in thirty days.

23. Those who live on the opposite hemisphere of the moon would be compelled to travel fifteen hundred miles to catch a glimpse of our earth above the horizon; but they would be amply compensated for their trouble in beholding a luminary thirteen times as large as the one we behold.

24. When the moon is *full*, at the time of the autumnal equinox, in September, she rises about sunset, for several nights in succession. As this was noticed in England at the time of harvest, the phenomenon was called the HARVEST moon. The cause or reason of this occurrence is, that the moon passes over a greater portion of her orbit in one day than another; hence the difference between her times of rising is not perceptible.

25. Another peculiarity which relates to the moon is her ECLIPSES. The word eclipsed means obscured, shut out, in a shadow, darkened, etc., etc. The eclipses, of both the sun and the moon, depend on the situation of the moon with regard to the earth. They present many interesting phenomena, and the more so because they are predicted with great accuracy and certainty.

26. A SHADOW is produced by the interception of the rays of light. When rays of light are thrown on a dark body, that body or substance prevents some of the rays passing through it; therefore, there is a space where the bright rays cannot come, which is the shadow. When we stand before the light, our shadow or image is thrown on the opposite side of the room. The same is true of the planets. When any one of these passes between another and the sun, the rays of the sun are prevented from shining on the planet which is obscured.

27. The ECLIPSE OF THE MOON is occasioned when the earth passes between the moon and the sun. It intercepts, or cuts off, the rays of light from the sun, and casts its own shadow on the moon. The moon, being a dark body, has no light of its own, and is, therefore, eclipsed.

28. An ECLIPSE OF THE SUN takes place when the moon passes between the sun and the earth, or falls into the shadow of the earth. An eclipse of the sun, however, takes place only when the moon is full; for the sun, moon, and earth must be in the same straight line, otherwise the effect will not be produced.

29. The diameter of the shadow of the earth is nearly three times as large as the diameter of the moon, and the length of the earth's shadow is nearly four times as great as the distance of the moon.

30. There are more eclipses of the sun than of the moon in a year, yet more eclipses of the moon are visible. As the sun is very much larger than the earth and moon, the shadow of these bodies comes to a point. The sun illuminates half of the earth's surface, or a whole hemisphere. But the moon's shadow falls on but a part of this hemisphere, and, therefore, the sun appears eclipsed to only a part of those to whom he is visible.

31. When the moon is at its greatest distance, its shadow terminates before it reaches the earth. Directly under the end of the shadow, the edge of the

sun's face is seen, like a bright ring around the moon. This eclipse is called ANNULAR, which means like a ring.

32. When all the rays of the sun are intercepted or cut off, the eclipse is called TOTAL. When only a part of the sun's rays are intercepted, the eclipse is called PARTIAL.

33. When the moon is in the earth's shadow it is deprived of all the sun's light, and is therefore eclipsed to all the inhabitants of the earth. It is supposed that eclipses of the moon are visible to twice as many inhabitants as those of the sun are.

34. We call it the eclipse of the sun, when his rays are intercepted ; but the sun shines on as ever, with brightness in his beams, and diffuses his rays of light around him in rich effulgence, although they are hidden from our view. But in eclipses of the moon, that satellite does not receive its accustomed light from the sun, therefore it cannot reflect it to the earth. The moon undergoes a change, and this change is perceptible to the whole hemisphere of the earth.

35. We have generally two solar eclipses in a year. The greatest number we have is seven. An eclipse of the sun lasts about three minutes. The first observations of a solar eclipse that are on record, were made by the Chinese, two hundred and twenty years after the flood. That they understood the method of calculating eclipses is very evident, from the fact that a Chinese emperor was once so much enraged against the officers of state, because they neglected to predict a certain eclipse, that he caused them to be put to death.

36. The Chinese have always considered solar eclipses as of great importance to the condition of their empire ; and, by means of them, they operate on the fears, the ignorance, and superstitions of the common people. The Mexicans were accustomed to fast during eclipses. They thought that the Great Spirit was in distress, and endeavoured to relieve him by this means.

37. Among barbarous nations they are regarded with fear and astonishment. The historian relates that when Christopher Columbus was shipwrecked on the island of Jamaica he extricated his crew from a most embarrassing condition by the exercise of great tact and management. He was greatly distressed for want of provisions, but the natives refused to render him any assistance. When all hope appeared to fail, and he was about to yield to discouragement, he accidentally remembered their superstition in regard to eclipses. He assembled the principal men of the island, and, after remonstrating with them against their inhumanity, he told them that the Great Spirit was offended ; that a great plague was about to come among them, and, as a token of it, they would on that very night behold the moon hide her face in anger, and put on a dreadfully dark and threatening aspect.

38. This scheme or artifice produced the desired effect ; for the eclipse had no sooner commenced, than the frightened barbarians ran with all kinds of provisions, threw themselves at the feet of Columbus, and implored his forgiveness for their inhumanity.

39. Total eclipses of the sun, while they are regarded by the ignorant with fear and superstition, are, among enlightened nations, hailed as one of the strongest proofs of the truth of astronomy, for they show that the laws by which they are calculated are remarkably correct.

40. The eclipse of the sun which occurred in June, in the year 1806, is the most remarkable one on record. It was at noon. The sky was free from clouds, and when the sun was wholly obscured, the planets and stars were visible ; gloom and dread overspread the earth, the animals manifested fear, and were considerably affected ; the temperature of the earth decreased, chill and cold were everywhere experienced, and much relief was felt when the rays of the sun were once more seen.

41. Another peculiarity which relates to the moon is the effect it produces on the waters of the earth. TIDES are the rising and falling of the water in the ocean. There are two tides every day. When it is HIGH tide at one place, it is LOW tide at the opposite place.

42. The periods of high and low tide correspond with the passage of the moon above and below the horizon so accurately, that it was discovered that the cause of the tides must chiefly be attributed to her course and influence.

43. Tides are occasioned by the attraction both of the sun and moon on different parts of the earth. Professor Olmsted says, that if we "suppose that force by which the earth is carried forward in her orbit to be suspended, and the earth to fall toward one of these bodies—the moon, for example—in consequence of their mutual attraction, then, if all the parts of the earth fell equally toward the moon, no derangement of its different parts would result, any more than of the particles of a drop of water in its descent to the ground. But if one part fell faster than another, the different portions would evidently be separated from each other. This is precisely what takes place with respect to the earth, in its fall toward the moon. The portions in the hemisphere next to the moon, on account of being nearer to the centre of attraction, fall faster than those in the opposite hemisphere, and consequently leave them behind.

44. "The solid earth, on account of its cohesion, cannot obey this impulse, since all its different portions constitute one mass, which is acted on in the same manner as though it were all collected in the centre. But the waters on the surface, moving freely under this impulse, endeavour to desert the solid mass, and fall toward the moon. For a similar reason, the waters on the opposite side, falling less toward the moon than the solid earth, are left behind, or appear to rise from the centre of the earth."

45. If the earth and moon did not revolve on their axis, or around the sun, but were stationary, the attraction of the moon would rise the water on the earth in one high heap, in that part of the ocean which was directly underneath the moon's rays, and it would always continue in that position.

46. As the earth revolves on her axis, every part of its surface is brought under the action of the moon; it follows, therefore, that there is a high tide at one place, and a low tide at the opposite.

47. At the same time that the earth revolves on her axis, the moon advances in her orbit, so that the earth has to turn round a little more before the same place comes under the moon. It has been ascertained that the tide is fifty minutes later one day, than it was on the preceding day.

48. The tides are higher at the Equator than at the Poles; because the moon is nearer that part, and consequently attracts the earth more.

49. The sun also attracts the earth, but its action is only one third as great as that of the moon. Though the magnitude of the sun is much greater than that of the moon, yet, as the moon is so much nearer the earth, it has greater influence on its waters. The attraction of the moon is not the same in different parts of the earth, which causes the different tides.

50. When the sun and moon act together, in concert, as it were, they produce very high tides, called SPRING tides. These occur twice in one month.

51. Sometimes the sun and moon act in opposition to each other. These opposite actions of the sun and moon produce low tides, called NEAP tides.

The action of the sun tends to raise a tide in one place, but the moon's action is greater, and raises a tide in a contrary direction. The tide raised by the sun is a small one, and is called a NEAP tide

52. There are scarcely any tides in lakes or seas, because small collections of water receive an equal amount of attraction, so that every part is equally attracted.

53. The tides are not always the greatest when the moon is on her meridian. Her influence is felt some time afterward. There is considerable resistance in the waters, which retards their motion, so that it is frequently several hours after the moon has left the place, before the tides rise.

QUESTIONS.—What are the subjects of Chapter IV.? 1. What is the earth's satellite? What is its comparative distance? Why is it very important to us? In what way is the mariner benefited? 2. What feelings had the ancients for the moon? In what way did they show them? 3. In what time does she complete her revolution around the earth? What other motion does she have at the same time? How long is their day and night? 4. How long is a year at the moon? Why? Does the moon revolve around the sun. 5. What part of the moon do we see? What is said of those who live on the opposite side of the moon? 6. Why are the inhabitants on the earth particularly favoured? 7. What is the distance of the moon from the earth? How many miles in diameter? What appears an impossibility? What measurements do we know are made? In what way is this done? In what way can we ascertain the size of an unknown object? In what way does Dr. Lardner illustrate this principle? What will be the result if the coin be moved? What will the last measurement be? 9. What is already known? What, therefore, follows? What can we suppose the coin to be? What can we then use for a measurement? What is the scale in this case? What are the final results? 10. What is the telescopic appearance of the moon? In what way has the heights of mountains been ascertained? 11. What did Dr. Herschel see in the moon? What was Herschel's evidence? 12. How many spots have been seen? Is there any water on the moon? 13. What is said of the cavities? What appearance do they present? What are these cavities? 14. What is the nature of the scenery at the moon? 15. What did a German discover? 16. Concerning what have there been various opinions? What are the various opinions respecting the atmosphere of the moon? Can the atmosphere be very dense? 17. In what does the light of the moon differ from that of the sun? By what has it been proved? Of what does the thermometer consist? Explain the experiment. What would have been the effect, if the sun's rays had been collected? 18. What is perigee? What is apogee? 19. What is the greatest peculiarity of the moon? What facts must all notice? 20. What kind of a body is the moon? What is the effect of this? 21. Explain when the moon is in conjunction. What is its appearance? When is the moon horned? When is she in quadrature? When is she gibbous? When do we have the full moon? What takes place when she performs the other half of her revolution? 22. How does the earth appear to the moon? To whom is the earth visible? How does its revolution compare with that of the moon? 23. What is said of those who live on the opposite side of the moon? Why would they be compensated for their trouble? 24. What phenomenon takes place in September? What was the full moon in September called, and why? What is the cause of this occurrence? 25. What is another great peculiarity of the moon? What does eclipsed mean? On what do they depend? Why are these phenomena interesting? 26. By what is a shadow produced? Explain this idea more fully. In what way does this hold true with the planets? 27. What occasions an eclipse of the moon? Why is the moon eclipsed? 28. What occasions an eclipse of the sun? When only can this eclipse occur? Why? Explain the cut. 29. What is said of the diameter and length of the shadow of the earth? Which eclipses are the most frequent? Most visible? Why? 31. What is the shadow of the moon at its greatest distance? What is an annular eclipse? 32. What is a total eclipse? What is a partial eclipse? 33. Why is the moon eclipsed to all parts of the earth? What follows from this? 34. Does the sun change when he is eclipsed? What is the fact in reference to the moon? 35. What number of solar eclipses do we have in one year? How long do they last? By whom were solar eclipses first computed? What fact is recorded concerning them? 36. How are they considered by the Chinese? What use did they make of them?

In what way were the Mexicans affected? Why did they do this? 37. How were eclipses regarded by barbarous nations? Relate the anecdote of Christopher Columbus. 38. What effect did this artifice produce? 39. How should the eclipse of the sun be regarded? Why should eclipses be regarded as one of the strongest proofs of the truth of Astronomy? 40. What is the most remarkable eclipse that is recorded? Describe the appearance. 41. What is another peculiarity of the moon? What are Tides? How many are there? Explain how this is the case. 42. What led to the idea that the tides were caused by the moon's influence? 43. By what are tides occasioned? What is Professor Olmsted's theory? When would derangement take place? Is this the case? Why are portions left behind? 44. Why does not the earth yield to this impulse? What course do the waters take? What is said of the waters on the opposite side? 45. What would arise if the earth and moon were stationary? 46. What, then, produces the high and low tides? 47. Why is the tide later every succeeding day? How much? 48. Where are the tides the highest? Why are tides highest at the Equator? 49. How much greater is the attraction of the moon than that of the sun? Why does not its size make a difference? 50. What are spring tides? How often do they occur? 51. What are neap tides? 52. In what are there no tides? Why are there no tides in seas or lakes? 53. When is the tide the greatest.

CHAPTER V.

MARS—ASTEROIDS.

1. MARS is the first of the superior planets, next to the earth in the solar system. It revolves round the sun at the distance of one hundred and forty-two millions of miles. Its diameter is four thousand two hundred miles, being about one half as great as that of the earth.

2. Mars turns on its axis in a little more than twenty-four hours, which makes a day at Mars about the same length as on the earth. It revolves around the sun in about two years. One of their years is equal to two on the earth.

3. Mars is sometimes much nearer the earth than at other times. When the nearest, it is only forty-seven millions of miles from the earth. It then rises with great brilliancy, about the time the sun sets. When at the greatest distance, it is two hundred and thirty-seven millions of miles, and then presents the appearance of a small star. When the sun and Mars are on the same side of the earth, Mars is said to be in CONJUNCTION; when on opposite sides, Mars is in OPPOSITION to the sun.

4. There is a great resemblance between Mars and the earth. Both have equal days and nights, the same succession of seasons, and the same variety with respect to climate, zones, temperature, and atmosphere. The surface of Mars is diversified by continents, seas, islands, land, and water.

5. Mars is very easily distinguished from the other planets, by its bright red light. Some suppose that this ruddy appearance is caused by an extensive and very dense atmosphere; others, that it arises from a peculiar colour on the surface of the planet, similar to the red sandstone which is very abundant in some parts of the earth.

6. That Mars has an atmosphere, has been proved by the fact that when any star approaches the planet, its light diminishes, and sometimes it disappears; yet others suppose that there is not sufficient evidence of this atmosphere. When viewed through a telescope its surface is diversified by great varieties of appearances and colours, lights and shades, spots and belts.

7. There is a great variety in its seasons. There are white spots around the poles, which Dr. Herschel thinks are indications of snow and ice. These alternately appear and disappear, according to the situation of the planet with respect to the sun; which would favour the supposition of there being summer and winter. One third of its surface is covered by water. Some portions appear red, while others appear green. The former is thought to be the land, the latter seas.

ASTEROIDS.

8. Until the present century, there was a very large space between the planets Mars and Jupiter, in which no planet was discovered to be situated. It had been observed by many individuals, that there was perfect harmony and regular proportion in the distances of all the other planets from the sun.

9. The distance between Mercury and Venus is about twice as great as between Mercury and the sun. The distance between Venus and the Earth is twice as great as between Mercury and Venus. The distance between the Earth and Mars is twice as great as between Venus and the Earth. But this regular law of distance was broken by the space which intervened between Mars and Jupiter; for their distance instead of being twice, was five or six times as great as between the other planets. After Jupiter, the same rule holds true, for the distance between Saturn and Herschel is twice as great as between Jupiter and Saturn.

10. In the year 1800, twenty-four astronomers united, with a view to examine the heavens thoroughly, in order to ascertain if a planet could not be discovered. The result of this examination was very satisfactory. Instead of finding one planet, they discovered four, which were called ASTEROIDS.

11. There were various causes which led them to think that these planets were the result of a terrible explosion of a large world, or planet, which at one time revolved between Mars and Jupiter.

12. These bodies are much smaller than the other planets. They are so small, and at so great a distance, that their size can scarcely be determined. They all revolve at nearly the same distances from the sun. Their paths, or orbits, in which they move, are more eccentric, and all cross each other. It is thought that two of these bodies may come in contact with each other at some future time, and, in their turn, produce other planets.

13. The other planets are round or spherical; but these Asteroids are angular. They have corners, and, as Mr. Burritt says, are "star-form." The above peculiarities render the idea more clear, that these small planets are the result of some tremendous convulsions in the heavens.

14. It is supposed that METEORIC STONES, which have, from time to time, fallen to the earth, are the result of the convulsion of a large body.

15. METEORIC STONES are stones which have fallen to the earth from the sky. They are different from anything on the earth. Before they fell, there has been a light appearance in the atmosphere—a loud and hissing noise, like an explosion. The stones are hot, and are covered with a black crust.

16. There have been many theories concerning the fall and nature of these bodies, several of which will be mentioned before we proceed to examine the planets themselves. Some suppose that they were thrown from volcanoes in the moon. This is called the LUNAR theory. But there is no certainty that any of the volcanoes of the moon are now in operation.

17. Another theory is, that these stones are thrown from volcanoes on the earth; that they are sent into the air with great force, and fall in another place. This is called the VOLCANIC theory. But this cannot be correct, for it has been ascertained that they come from a greater height than any volcano could throw them.

18. Another is called the ATMOSPHERIC or ÆRIAL theory, which supposes that they were formed by the particles of air being condensed, or frozen. But it seems rather impossible for air to freeze hard enough to make iron or metallic substances.

19. The PLANETARY THEORY, as has been before explained, is, that a large planet exploded, and formed a number of smaller ones, and that the fragments were attracted by the earth, and at different times fell to its surface. This theory is generally believed by most astronomers, although it is not yet fully established.

20. Some of these stones have been very large, and have weighed three hundred pounds. They have fallen with such force to the earth, that they have been imbedded several feet in its surface.

VESTA.

21. Vesta is next to Mars, and is the first of the Asteroids. It is the only one of these bodies which can be seen without the assistance of a telescope. Vesta was discovered by Dr. Olbers, of Bremen, one of the twenty-four observers, on the evening of March 9th, 1807.

22. Its light is pure and steady, and it appears like a star in the heavens. It revolves around the sun in three years and eight months, at the distance of two hundred and twenty-three millions of miles. This planet is so small, that it cannot be determined whether it turns on its axis or not. It is two hundred and seventy miles in diameter.

23. When we say that these bodies are small, we mean that they are so in proportion to the surface of the earth; but, if peopled with inhabitants, they would contain a large population, equal to several of the American states.

ASTREA.

24. Astrea has recently been discovered to be the next asteroid to Vesta.

25. Professor Encke, of Dresden, recognised it to be a planet, December 8th, 1845. It was again seen on the 14th of the same month. Though it was not discovered at the time of the Asteroids, yet it was thought to belong to them. It is two hundred and fifty millions of miles from the sun. Little is yet known respecting it.

JUNO.

26. Juno is next to Astrea, and was discovered by Mr. Harling, near Bremen, on September 1st, 1804.

27. It revolves around the sun in four years and four months, so that one of their years is equal to four of ours. It is two hundred and fifty-three millions of miles from the sun, and moves at the rate of forty thousand miles per hour.

28. It has a red color. Schroeter says that Juno has an atmosphere more dense than either of the planets. Our earth is nearly two hundred times as large as Juno. The light and heat at Juno are seven times less than we enjoy, so that her seasons are not only much longer than we have, but they endure a much greater quantity of cold.

29. Juno revolves in a very epilliptical orbit, and is sometimes twice as far from the sun as at other times.

CERES.

30. Ceres is the fourth of the asteroids. It was the first one discovered by Piazzi, of Palermo, on the 1st of January, 1801. It was so near the sun that it was not perceived for a while, but was again discovered.

31. Ceres revolves around the sun in about four years, and is about two hundred and sixty-three millions of miles from the sun.

32. Ceres has a very dense, cloudy atmosphere, said to be seven hundred miles in thickness, so that although she is much farther from the sun than the earth, yet she may enjoy the light of his beams in a great degree, on account of the refraction and reflection of her atmosphere.

PALLAS.

33. Pallas is the next asteroid to Ceres. Pallas is about the size of the moon. It is about the same distance as Ceres, and completes its revolution in the same time. Their orbits sometimes cross or intersect each other.

34. Pallas has a dense, cloudy atmosphere. It is not known whether it has a diurnal revolution or not. Probably there will be more known respecting these small bodies as science advances, and as the power of the telescope is increased.

35. Within the last year, another small planet has been discovered by Mr. Hinds, an Englishman, to belong to the asteroids. It has been called Iris. But little is yet known respecting it. The symbol adopted for the planet Iris, is a semicircle representing the rainbow, with an interior star, and a base line for the horizon. The symbol was suggested by Professor Schumaker.

36. Hebe was discovered by Professor Encke, of Dresden, in 1857. Mr. Hinds has recently discovered another planet, which is called Flora by Sir John Herschel. The emblem is the "Rose of England." There are now eight small planets between Mars and Jupiter, which revolve around the sun in about the same length of time, at nearly the same distances.

QUESTIONS.—What is the subject of Chapter V.? 1. What planet is next to the earth? What is its distance from the sun? What is its diameter? 2. In what time does Mars turn on its axis? How long is their day? What is its annual revolution? How long is one of their years? 3. What is the least distance of Mars from the earth? How does it appear? What is its greatest distance? What is its appearance? When is Mars in conjunction? When in opposition? 4. What resemblance is there between the earth and Mars? With what is the surface of Mars diversified? 5. How can Mars be distinguished from the other planets? What is the cause of its ruddy appearance? 6. How do we know that Mars has an atmosphere? What is its telescopic appearance? 7. In what is there a great variety? What led Dr. Herschel to suppose that there was summer and winter on Mars? Is there any water? What produces the difference of colour in Mars? 8. What is said of the distance between Mars and Jupiter? What observation had been made by many? 9. What is this regular law of distance? In what way was this broken? Does this law hold true after Jupiter? 10. What occurred in the year 1800? What was the result? 11. To what cause did they attribute these planets? 12. What is their size? What is said of their revolutions? What is the nature of their orbits? What may result from this? 13. How do the Asteroids differ from the other planets? What idea does their form indicate? 14. What causes meteoric stones? 15. What are meteoric stones? What circumstances have preceded their fall? What is the nature of these stones? 16. Have there been any theories concerning meteoric stones? What is the lunar theory? Why is not this correct? 17. What is the volcanic theory? Why is not this correct? 18. What is the atmospheric theory? Why is this not possible? 19. What is the planetary theory? Which theory is generally believed? 20. What is said of the weight of meteoric stones? Do they fall with much force? 21. What planet is next to Mars? Can these bodies be seen with the naked eye? By whom was Vesta discovered? When? 22. What is its light? In what time does it revolve round the sun? What is its distance? Does it turn on its axis? What is its diameter? 23. What do we mean by saying that this planet is small? 24. What is

the next asteroid? 25. Who discovered Astrea? When? By whom was it again seen? When? What is its distance from the sun? 26. What is the next asteroid to Astrea? By whom was it discovered? When? 27. What is its period of revolution? What is the length of their year? What is its distance from the sun? At what rate does it move? 28. What is its colour? What is its atmosphere? What is its size? What is the light and heat at Juno? What is the nature of the seasons? 29. What is the orbit of Juno? 30. What is the fourth asteroid? Who discovered it? When? Why was it not perceived for a while? 31. What was the period of its revolution? What was its distance from the sun? 32. What is the atmosphere of Ceres? Does Ceres enjoy the light of the sun? Why? 33. What is the next asteroid to Ceres? What is its size? What is said of its revolution and distance? What is said of their orbits? 34. Has Pallas an atmosphere? Has it a diurnal revolution? When shall we know more respecting these bodies? 35. What did Mr. Hinds discover? What is this planet called? What is its symbol? 36. Who discovered Hebe? When? What else has Mr. Hinds discovered? What is its emblem? How many planets are there between Mars and Jupiter?

CHAPTER VI.

JUPITER—SATURN.

1. NEXT to the asteroids is Jupiter, the largest of all the planets. It has a bright, beautiful appearance, is eighty-nine thousand miles in diameter, and is over one thousand times as large as our earth; yet its density is only one-fourth as great.

2. It revolves around the sun at the distance of four hundred and ninety millions of miles, at the rate of thirteen thousand miles per hour, and completes its revolution in twelve years. If the seasons at Jupiter are divided in the same manner as at the earth, they have three years of extreme heat, three years of extreme cold, three years for their autumn, and three years to endure the cold chilly blasts of spring.

3. Its diurnal revolution is completed in ten hours; so that though they may have seasons of great length, yet their days are of short duration, being only half as long as the earth.

4. But, as has been stated, the change of the seasons in a planet depends on the inclination of the axis to its orbit. The axis of Jupiter is not inclined, but is perpendicular to its orbit; hence, in the same parallel of latitude there is a uniformity of season. At the Equator there is a continual summer, and at the Poles everlasting winter, dread and dreary, with the day and night equal at both. The heat and light at Jupiter, received from the sun, are twenty-seven times less than the earth enjoys.

5. It has been estimated that if a steam-engine should move on a railroad, at the rate of twenty miles per hour, to the planet Jupiter, it would require over three thousand years to accomplish the distance. Or if a cannon ball should move at the rate of five hundred miles an hour, it would be over one hundred years before it reached its destination.

6. When Jupiter is viewed through a telescope, it presents a magnificent appearance. Broad belts or stripes extend across its surface, which vary in number and size. Sometimes as many as seven or eight have been seen, some of which are five thousand miles in breadth. These frequently continue without any change for some time, and then new ones have been formed within an hour.

7. Many have regarded these belts only as clouds which collect in the atmosphere of Jupiter: and that, as they are agitated by constant winds, they

assume the form of belts, which lie parallel to the equator. These belts are affected by currents of air that pass around the planet, in the same manner that trade winds and other currents pass around our globe. It is, however, believed by many that the belts are portions of the planet, which are seen through the clouds and mists that exist in its atmosphere by the openings which are made by currents.

8. The inhabitants of Jupiter have some compensation for their great distance from the sun, for they have four bright resplendent moons to light their sky, and cheer their prospect.

Some of these moons are visible to Jupiter at every hour of the night. These satellites revolve around Jupiter, at the same time they revolve on their axis. They also undergo the same changes and appearances that the planets do when they move around the sun.

9. When Jupiter is seen from his nearest moon, he presents a most magnificent appearance, of a size as large as a thousand of our moons. We can scarcely conceive so bright, luminous, and stupendous a body in our sky. This planet alone would indicate the great power of our Maker, if there were no other proofs of His existence and omnipotence.

10. One of these moons treads its track around its primary in about one day and three fourths; another in three days and one half; the third in seven days and one sixth; the fourth in sixteen days and one half. These satellites have a great variety of length to their day and year.

11. The moons, or satellites, of Jupiter, are frequently eclipsed, in the same manner that our moon is eclipsed when she passes through the earth's shadow. They pass behind their planet, and, consequently, are deprived of their light; for they, like our moon, are dark bodies, and shine by the reflected light of the sun, the great source of light to the whole system.

12. On account of the great size of Jupiter, and its great distance from the sun, its shadow is much longer; therefore, the satellites are eclipsed in each of their revolutions. These eclipses can be seen by means of a telescope, and from them the time has been ascertained that it takes for light to reach the earth; also, that light is progressive and not instantaneous.

13. It was observed that when the earth was in that part of her orbit nearest to Jupiter, eclipses took place sixteen minutes sooner than when she was in her remotest point. It therefore takes light sixteen minutes to cross the diameter of the earth's orbit. It moves at the rate of one hundred and ninety-two miles per second.

14. Our Earth, Mercury, Venus, and Mars are never seen by inhabitants of Jupiter, because they are so much nearer the sun that they are lost in his rays. But they have the vast space beyond, where they can direct their gazing eyes, and, perhaps, behold worlds and systems of worlds, whose distance from the earth for ever excludes them from our sight. Their own firmament is sufficient to excite their wonder and admiration, and to call forth all the sublime within their souls, and to raise their hymn of praise and thanksgiving to the great Creator of the planetary world.

15. Mr. Lassell, at Cambridge, discovered another satellite of Jupiter. By calculation it is supposed that there is still another.

SATURN.

16. Saturn is next to Jupiter in the solar system. It is one of the most interesting and beautiful of all the planets. It is the most distant planet that can be seen by the naked eye, and shines with a pale feeble light.

17. Saturn is one thousand times as large as our earth, and is seventy-nine thousand miles in diameter. It revolves around the earth at the immense distance of nine hundred millions of miles, and completes its revolution in less than thirty years.

18. The degree of heat and light received from the sun at Saturn, is eighty times less than that enjoyed at the Earth. Its inhabitants, therefore, have a long, dreary winter, or an equally long, scorching summer.

19. On account of the great distance of Saturn from the sun, it has been more impossible for astronomers to make observations on its surface. But it is diversified by dark spots and belts, and is accompanied by seven bright luminaries, which tend to relieve the absence of the sun's rays.

20. Sometimes five belts extend across the surface of the planet; three of them are dark, and the other two bright and luminous. When viewed through a telescope, two rings encircle this beautiful planet. Observations show that there are four divisions to the ring instead of one, as was originally supposed. Even six divisions have been noticed, in which case there would be seven rings revolving around the planet.

21. They often appear as if they were only one ring; but they are eighteen hundred miles apart. When we think of this distance on the earth, we shall be able, in some degree, to comprehend it among the celestial bodies. These rings, like the planets, are thought to be peopled with some of God's creatures.

22. That these rings are dark, opaque bodies, is proved by the shadows which they cast on the planet. They, however, shine with a bright and beautiful light reflected from the sun. Between the rings and the planet, stars are frequently visible. That side only which is turned towards the sun is enlightened; the illumination of the rings is much greater than of the planet itself.

23. The rings of Saturn revolve in ten and a half hours, which revolution was discovered by means of dark spots which change their position.

24. Sometimes the rings are invisible. There are three causes that produce this. Firstly—When the sun and earth are on opposite sides of the rings. This will occur once in every fifteen years. Secondly—When the edges of the rings are turned toward the earth, it is not seen on account of its distance and small size. This will also occur once every fifteen years. Thirdly—When the edges of the rings are turned to the sun, the edge is the only part which is illuminated, and it is at too great a distance to be seen. This will occur once in every fifteen years.

25. During the year 1847, Saturn appeared surrounded by his rings; but these became less and less visible, till, during a part of 1848, the rings were not visible at all; the planet then presented the appearance of a round ball.

26. The use of the rings is to reflect light on the planet, in the absence of the sun; for one half is turned toward the sun for fifteen years, while the other half is turned away and receives no light from the sun.

27. The axis of this planet is perpendicular to its orbit, so that, like the inhabitants of Jupiter, those who live in the same latitude enjoy a uniformity of climate.

28. Both of the rings are one hundred and fifty times as large as the earth; the inner one is about thirty thousand miles distant from the planet; so that though Saturn appears like a point in the starry heavens, yet, with its rings, it requires an immense amount of space to enable it to revolve without coming in contact with the other planets.

29. When we consider that this planet revolves around the sun and on its own axis, that its rings revolve around the planet and on its own axis, its seven satellites revolve around their primary and on their own axes, and that all these revolutions are completed in regular appointed times, without any interference or contact, when but the least difference in the rapidity of the rings and the planet would hurl the rings against the planet, and produce a convulsion in nature which would probably affect our whole planetary system, we are filled with wonder at their perfect arrangement and harmonious action.

Then when we think that these little worlds are but as specks in God's whole universe, we are led to exclaim with the Psalmist, "What is man, that thou art mindful of him, or the son of man, that thou regardest him?"

30. The rings of Saturn present a splendid appearance to those inhabitants to whom they are visible. Sir John Herschel describes them "like vast arches which span the sky from horizon to horizon, as far as the eye can extend, and hold a place among the stars. The dark side of the planet, which is obscured for fifteen years, would appear to our comprehension a wild and dreary waste: yet we do not know but there are inhabitants or intelligences peculiarly fitted by nature to enjoy this peculiarity of their planet."

31. The wide ocean is peopled with fish after its kind, the lakes and seas sparkle with animated life, and every drop of water is filled with a thousand little animalculæ. It would be no more than a reasonable conclusion to suppose that the vast worlds above us were also filled with intelligences.

32. To an inhabitant at the moon, where there is no water, the earth, two-thirds of which is covered by the deep, deep, billowy ocean, would appear an inhospitable abode—an undesirable place for the habitation of an intelligent being, created with susceptibilities for happiness or misery. This beautiful earth, with all its loveliness and grandeur, would be the last spot to which a lunar spirit would desire to wing its flight.

33. We do not know that but cataracts far more sublime than Niagara, rivers whose depths are unfathomable, mountains whose summits are inaccessible, and nature's scenery in her wildest, maddest forms, are the enjoyments of mortals on the planet Saturn. This we do know, that Saturn has seven glittering satellites to attend him. These moons are at so great a distance from us, that they can be seen only by the most powerful telescopes.

34. The evening scenery at Saturn, with its seven moons, must be magnificent. As one rises above the horizon, another sets below, while a third approaches the horizon. These moons change in appearance in the same manner as ours. One appears like a crescent, another is gibbous, while another is full. Sometimes all of them shine in the same hemisphere, in one bright assemblage. The splendid rings at one time illuminate the sky, and eclipse the stars with their brightness; and again cast a deep shadow over parts of the planet, and reveal the wonders of their starry firmament.

QUESTIONS.—What is the subject of Chapter VI.? 1. What planet is next to Jupiter? What is its appearance? What is its diameter? What is its size compared with the earth? What is its density? 2. What is its distance from the sun? At what rate does it move? In what time does it complete its revolution? What would the seasons of Jupiter be, if they were divided like those of the earth? 3. What is its diurnal revolution? What is the length of their days? 4. On what does the change of the seasons depend? What is the position of Jupiter with respect to its orbit? What is the result? What are the seasons at the equator and poles? What is the heat and light at Jupiter? 5. How long would it take a steam-engine to reach Jupiter, at the rate of twenty miles per hour? How long would it take a cannon ball to reach Jupiter? 6. What is the telescopic appearance of Jupiter? How many belts have been seen on the surface of Jupiter? What is the breadth of some of them? Do these change? 7. How do many regard these belts? By what are these belts affected? What is the general opinion respecting these belts? 8. What compensation have the inhabitants of Jupiter for their great distance from the sun? What is said of the revolutions of these satellites? Do they change in appearance? 9. What is the appearance of Jupiter to his nearest moon? What would this planet indicate? Why? 10. What is the period of the revolution of these different satellites? What is the effect of this? 11. Are these satellites ever eclipsed? What kind of bodies are they? 12. What causes the frequent eclipses of these satellites? Can these

eclipses be seen? What has been ascertained from them? 13. Explain the process. At what rate does light move? 14. What planets are never seen by inhabitants at Jupiter? Why not? What may they see which we cannot? What feelings ought their own firmament to excite? 15. What recent discovery has Mr. Lassell made? Where? What supposition still remains? 16. What planet is next to Jupiter? What is its nature? What is said of its distance? 17. What is the size of Saturn, compared with the earth? What is its diameter? What is its distance? In what time does it complete its revolution? 18. How much light and heat does Saturn receive? What is the consequence? 19. Why has it been impossible for astronomers to make observations on Saturn? With what is its surface diversified? By what is it accompanied? 20. How many belts are there? What is visible through a telescope? How many divisions are there to this ring? 21. How do they appear? How far apart are they? Can we comprehend the distance between the rings of Saturn? Are the rings probably inhabited? 22. What is the nature of these rings, and how is it proved? How do they shine? What are sometimes visible between the rings. What part is enlightened? Which is the brightest? 23. In what time do the rings revolve? By what was it discovered? 24. Are the rings of Saturn always visible? What is the first cause? Second? Third? How often will these different causes operate? 25. How did Saturn appear in 1847? What change then took place? What appearance did the planet present? How long will it continue thus? 26. What is the use of the rings? Why is this necessary? 27. What is the direction of the axis to the planet? What is the result of this? 28. What is the size of these rings in comparison with the earth? What is the size of Saturn's inner ring? What do Saturn and its rings require? 29. What fills our souls with wonder? What are we led to exclaim? 30. How do the rings of Saturn appear? What is Herschel's description of them? Why ought we not to conclude that the dark side of the planet is a dreary waste? 31. To what extent do we find the earth inhabited? What is a reasonable conclusion? 32. How would the earth appear to an inhabitant of the moon? Would he desire to live in it? 33. What features may exist in Saturn which we do not have? What do we know? Are these ever visible? 34. Describe the evening scenery at Saturn.

CHAPTER VII.

HERSCHEL—NEPTUNE.

1. THERE is a great regularity between all the motions of the different planets; but inequalities between Jupiter and Saturn led astronomers to think that there must still be a planet beyond Saturn.

2. In 1781, Dr. Herschel discovered the motions of a body which he at first supposed to be a fixed star, but which he afterwards found to be a planet.

3. This planet was discovered during the reign of George III. of England; he therefore called it *Georgium Sidus*, the Latin term for Georgian Star. Some call it *Herschel*, after its illustrious discoverer; others, *Uranus*. This is the most distant of the planets yet discovered, with one exception. It cannot be seen without the aid of the telescope, unless the night be very clear.

4. *Herschel* is eighteen hundred millions of miles from the sun. Though it completes its revolution in the long time of eighty-four years, yet it moves at the rate of fifteen thousand miles an hour. If a steamboat on the earth sail four hundred miles, or a rail-car move eight hundred miles in one day, they are thought to move very swiftly; yet this planet moves on its way without any cessation or impediment, with a still greater velocity.

5. *Herschel* has not completed one of its revolutions around the sun since its discovery, though it has been recognised as a planet for nearly seventy years. It is supposed to revolve on its axis, but this motion, as yet, has not been discovered with certainty. Its diameter is thirty-five thousand miles. It is eighty times larger than our earth.

6. The sun must appear to an inhabitant at *Herschel*, three or four hundred times smaller than it does to us: and they receive but a small portion of his

rays; yet their light is said to be more than the light of one thousand full moons. Its atmosphere is dense and cloudy.

7. Herschel has six satellites to illuminate its sky. These are so far away from us that they are but faintly seen. Two of them were discovered by Dr. Herschel, four by his sister.

8. These satellites have peculiarities which are not found in those of the other planets. They all move around their primary from east to west; their orbits are also perpendicular to the ecliptic.

NEPTUNE.

9. When Saturn was discovered, it was thought to be the most remote planet; but it was soon found that there was some influence which operated on it, and disturbed the regularity of its motion. Sir William Herschel made observations with his telescope, and discovered that what he had supposed to be a comet was really a planet.

10. It was not thought possible for human investigation to extend further, as Herschel was eighteen hundred millions of miles from the sun. Its revolutions and distances was computed, but it was soon discovered that they had either made some mistake in their calculations, or that a contending power was exerting an influence on the planet; for it had increased its distance from the sun twice the distance of the moon from the earth.

11. Leverrier, a Frenchman, began to investigate the movements of the planets. He resolved to compute a new set of tables. He did so, and predicted the precise instant when Mercury would cross the sun. At the very moment, on the 18th of May, 1845, Professor Mitchell witnessed the transit, from his new observatory, in Cincinnati. This was a great triumph to Leverrier. He then investigated the movements of Jupiter and Saturn, and ascertained what influence they exerted on Herschel. He arrived at the conclusion that there must be some outward cause which operated on Herschel, and that this power must be a planet.

12. He knew that Saturn was double the distance of Jupiter from the sun, and that Herschel was double that of Saturn; he hence concluded that the new planet must be twice the distance of Herschel, and that it must be somewhere in the ecliptic. If so, the new planet must be thirty-six hundred millions of miles from the sun, and its revolution would be three times as long as that of Herschel, which would be two hundred and twenty years. He ascertained when and where Herschel was mostly drawn away from the sun, and from this he concluded that the new planet would be in the same line.

13. September 23rd, the astronomers of Berlin Observatory, guided by the conclusions of Leverrier, saw the planet the first evening they looked for it. It is as bright and beautiful as Jupiter, and its diameter is forty thousand miles.

14. A Mr. Adams, an English astronomer, who had also been attempting to solve the difficulty which existed, arrived at the same results with Leverrier, and presented his tables to the royal astronomers of the university where he was, for their examination. This was seven months before Leverrier made his investigations known. As soon as the planet was discovered, astronomers in every section of the country were on the look-out to examine it.

15. It was soon perceived that a wrong calculation had been made in reference to its distance from the sun. Also, the time of its revolution, and that the planet seen would not account for the irregular motions in Herschel.

16. Many believe that this body is but one of a number of planets which may be yet discovered to revolve in similar orbits, the same as the eight small planets between Mars and Jupiter were at one time thought to be but one.

17. There is no reason to suppose that we have discovered, and are acquainted with all the planetary system, or that we scarcely begin to know what will be revealed from time to time. Even on our earth, at this age of

rapid travelling, when we can almost fly on the wings of steam, and sail from continent to continent, there is yet much unexplored country; the mariner still discovers new islands, and as telescopic power increases there may be worlds and systems of worlds revealed to our line of vision which revolve around the common centre with our earth.

QUESTIONS.—What is the subject of Chapter VII.? 1. In what is there great regularity? Why did many suppose that there was a planet beyond Saturn? 2. Who discovered the planet? When? 3. What was this called? Why? What are its other names? Is this planet visible? 4. What is its distance from the sun? In what time does it complete its revolution? With what velocity does it move? How does the velocity of Georgium Sidus compare with that of a steamboat or rail-car? 5. Has Herschel yet completed a revolution? How many years since its discovery? Does it revolve on its axis? What is its diameter? What is its size compared with that of the earth? 6. How does the sun appear at Herschel? How great is their light? What is the nature of its atmosphere? 7. How many satellites has Herschel? By whom were they discovered? 8. What are some of the peculiarities of these satellites? 9. What was the opinion with regard to Saturn at one time? What was the final result? 10. Why was this considered the limit of discovery? What did they soon perceive? Why must this be so? 11. What course did Leverrier pursue? What was the result of this prediction? What further investigations did Leverrier make? 12. What is true of Saturn and Herschel? What relation must the new planet bear to these? What other inference did he make? 13. Where and when was the planet seen? What is its appearance? 14. Who was Mr. Adams? To what had his attention been drawn? To whom did he present his tables? How long was this before Leverrier's were made? What did astronomers do? 15. What errors were soon discovered? 16. What is the opinion of many with regard to this planet? 17. What supposition would be incorrect? Why would this be inapplicable to the earth?

CHAPTER VIII.

COMETS.

1. WE have not only planets in our solar system, but other bodies, called comets.

2. These were formerly regarded by the ancients, who knew very little respecting them, as messengers of great calamity, of pestilence, of war, or as an expression in some way of wrath from the Deity.

3. We are not at all surprised that this should have been the case, for all comets are singular bodies; they move in very eccentric orbits, are sometimes very near the earth and the planets, and then are millions of miles distant, wending their path through unknown space.

4. Comets are divided into three parts, the NUCLEUS, the ENVELOPE, and the TRAIN, OR TAIL.

5. The NUCLEUS is a bright spot in the head. The term nucleus means gathering around the pith, or point. Some think that the nucleus is always transparent, and that comets are only a collection of thin vapour, which is condensed at the centre; others suppose that it is dark and solid like the planets.

6. Comets, when viewed through a telescope, present the appearance of dense vapour surrounding the nucleus. They have been divided into those which have no nucleus, those which have a transparent nucleus, and those which have a solid nucleus. The nucleus is generally small when compared with the rest of the body.

7. The second part of a comet is the ENVELOPE. This is a dense, cloudy vapour, and sometimes entirely conceals or obscures the nucleus. It is often called the COMA—which means hair—because it has a hairy appearance.

8. The TRAIN, or TAIL, is a long, luminous appendage of vapour, which accompanies these bodies in their missions hither and thither, but generally precedes them when they go in an opposite direction from the sun. These trains are sometimes of enormous length and size. If we were unacquainted with some of their laws they would appear to threaten destruction wherever their seeming wayward course was directed.

9. There is no certain knowledge with reference to the materials which compose them, or their nature. Some of the old astronomers supposed the tail to be the sun's rays which shone through the nucleus; others, that it was the atmosphere of the sun, which was cast off or sent away by the influence of the sun; others, that it was thin vapour emitted from the sun in the same way that smoke and vapour rise from the earth. But these are points which are yet to be satisfactorily explained.

10. The train is often of great length, and extends from the horizon to the zenith.

11. One strong and plausible reason why comets contain very little solid matter is that they often pass very near the planets without affecting them or interrupting their motions. They are themselves disturbed by the close proximity, and frequently their orbits are materially changed.

12. There is an interesting account of a large and brilliant comet which was visible in 1770. This comet approached very near the earth, but did not disturb her motion in the least. When it had passed through space in the vicinity of Jupiter and her satellites the attraction was so great that it remained four months among them, though the motions of Jupiter were not disturbed. At the time of its discovery its orbit was an ellipse, which required five years and a half for a complete revolution. This orbit was changed for one which required fifty years. When it approached nearer to Jupiter its orbit was changed to five and a half years. The third orbit required twenty years to complete its revolution. The comet which appeared in the years 1680 and 1811 was one of the most remarkable that has been seen. It moved in different and various revolutions round the sun. The comet which visited our firmament in 1680 was the first whose motions were explained on mathematical laws and principles by Sir Isaac Newton.

13. There are three comets whose revolution and course have been ascertained. One is called Halley's comet, because he predicted its return. When it appeared in 1305, it was very large, and its train reached from the horizon to the zenith. Terror and fear filled the minds of all beholders. The Pope of Rome had prayers offered in all the public churches at noonday, to appease the wrath of his offended Deity. The churches and convents were crowded with trembling suppliants, who came, with their purses in their hands, to obtain the remission of their sins. It was a common practice in olden times, for the common people, when they wished to commit any sin, to buy the confession of it before it was committed, or to pay for its remission afterward.

14. Over three hundred years since, Tetzal travelled through Germany to obtain the people's money, and grant them permission to commit different sins. A certain person applied to Tetzal, and told him that he wished to take revenge on a gentleman, and offered to pay him ten crowns if he would grant him permission to do so, and give him a letter which would free him from any obligation to his enemy. Tetzal agreed to this proposal, if the gentleman would give him thirty crowns, to which he consented. Soon after, Tetzal left the place; but he had not proceeded far, when this gentleman, with some of his servants, waylaid him, gave him a beating, and took away his large bag of money. Tetzal was very much enraged at this unexpected encounter, and

brought the case before the judges, but could obtain no recompense from Duke George, because the gentleman had a special permit in writing to commit the deed, which Tetzels himself had granted.

15. But happily this fear and superstition have died away before the unfoldings of the triumphs of science. Halley's comet again appeared in 1759, but it was so far distant that it could be seen only through the telescope. It again appeared in 1835, and will probably appear again in 1910 or '11. It performs its revolution in seventy-five years. At its greatest distance from the sun it is nearly two thousand millions of miles from the orbit of Herschel, as it is twice the distance of Herschel from the sun. This comet is a very small one, although its vapour occupies great space; therefore, should it approach quite near to the earth, its effect would not be very great.

16. The second remarkable comet is Biela's. This completes its revolution in about seven years. In 1832 it came very near the orbit of the earth. If it had remained in its place one month longer the earth would have passed through a portion of the comet's train. Considerable anxiety and alarm were felt by many persons in reference to it. If the nucleus be a light, vapoury matter, and the earth should make its way directly through the comet, Professor Olmsted considers that it is not probable a single particle of the comet would reach the earth, or if it did, the portions arrested by the earth would be inflamed by the atmosphere, and would exhibit, on a more magnificent scale, the phenomena of shooting stars, or meteoric showers.

17. The third comet which has been predicted with certainty is called Encke's. It is so transparent that it has been called the "ghost of the world." This is a very small comet, and completes its revolution in three years and one third. By means of this comet it has been discovered that the planets move through a medium, or kind of air or atmosphere, and that they do not pass through a vacuum or empty space. This atmosphere sometimes retards their motions, as this comet now performs its revolution in two days less than formerly.

18. Comets, like the planets, shine by reflected light from the sun. The number of comets which belong to our solar system is very great; they are almost as numerous as the fish in the sea. About seven hundred have been observed since the Christian era. Great numbers escape notice, because they pass above the horizon in the day-time. One historian mentions that, sixty years before the Christian era, a total eclipse of the sun occurred, when a very large and splendid comet was observed near the sun.

19. What the mission or use of these erratic wanderers to the earth can be, conjecture can alone answer. We know that not a particle of animate or inanimate matter is created which is not designed to answer some specific purpose—to form some link in the great chain which extends from the lower creature of God's creation to man, the highest, thence to angels, archangels, and even reaching to the throne of God. There is not an insect that crawls over God's footstool but fulfils its destiny. So intimate is this connection between one grade and another, that in whatever part the chain be severed the whole is affected.

20. Law governs all things around us; even the most minute animalcule has its time to sleep, its time to wake, to breathe, live, and die. We find that the planetary worlds are also governed by laws fixed and immutable; that these orbs roll through the depths of space, not in a haphazard, chance-like manner, but that they move as regularly as an army of trained soldiers at the beat of the drum. They are all at relative distances from the sun and each other, and perform their respective revolutions without any collision, from infinity to infinity.

21. Some may say that these eccentric comets are exceptions to the general rule that law governs the universe. This view of the case would result from our own ignorance. As far as investigations have been made, they prove that

comets move in regular orbits ; we can but hope that future time will reveal more concerning these mysterious visitants. Perchance some lad who reads these pages may be the one who will penetrate the mystic veil, and track the wandering comet as it speeds its way from planet to planet, from world to world, and may not only be a second Herschel, but progress farther onward through the mazes of science, and explore regions of worlds that it never entered into the mind of Herschel to conceive.

“Lives of great men should remind you,
You can make your lives sublime ;
And, departing, leave behind you
Footprints in the sands of Time.”

QUESTIONS.—1. What other bodies are there in the solar system besides planets ? 2. How were these regarded by the ancients ? 3. Why should we not be surprised at this ? 4. Into what three parts are comets divided ? 5. What is the nucleus ? What does the term mean ? What different ideas do persons have in reference to the nucleus and the comet ? 6. What is the appearance of comets when seen through a telescope ? Into what classes are comets divided ? What is the comparative size of the nucleus ? 7. What is the second part of a comet ? What is the envelope ? What is it often called ? Why ? 8. What is the train, or tail ? What is said of their size ? What might their appearance indicate ? 9. Of what are they composed ? What are various opinions concerning them ? 10. What is said of the length of a comet's train ? 11. Why is it thought that comets contain very little matter ? Are they affected by the contact with other bodies ? 12. For what is the year 1770 remarkable ? What effect did it produce on the earth ? On Jupiter ? What was its orbit at first ? What change occurred ? What comets are the most remarkable ? 12. What is peculiar to the comet of 1680 ? 13. The laws of how many comets have been discovered ? What is the first called ? Why ? Describe its appearance in 1305. 13. What course did the Pope of Rome pursue ? What did the people do ? What was a common custom among them ? 14. Relate the anecdote of the gentleman and Tetzal. Why could Tetzal obtain no recompence ? 15. Is there as much superstition at the present time ? When was Halley's comet again visible ? What was its appearance ? When will it be seen again ? What is the time of its revolution ? How far distant is it from Herschel ? What is its size ? What follows from this ? 16. What is the second remarkable comet ? What is the period of its revolution ? What is said of its appearance in 1832 ? What would be the consequence if the earth should pass through this comet ? 17. What is the third comet which has been predicted ? What is its size ? What has it been called ? What is the period of its revolution ? What discovery has been made by means of this comet ? 18. What is the light of comets ? What is said of the number of comets ? Why do we not see all that are near us ? How was this fact known ? 19. In reference to what are we ignorant ? What things do we know ? 20. What governs all things ? Explain this idea. How does this apply to the planetary world ? 21. What will some say about the comets ? From what does that view result ? What do all investigations prove ? What may the future do ? Why should all be encouraged to study ? What can children learn from the lives of great men who have lived ?

CHAPTER IX.

FIXED STARS.

1. WHEN a German has been long away from his home, the place of his nativity, on his return, as the lovely and beautiful Rhine—a river in Germany—with its picturesque scenery, appears in sight, with a heart almost bursting with admiration, he exclaims, “The Rhine ! the Rhine !” If our

eyes were to be darkened, and our sight rendered dim for a brief space, when sight was restored, we should look upward and exclaim, with feelings of rapture and delight, "The stars! the stars!"

2. Said an old man, who had not been able to discern the stars in our firmament for nearly forty years, but whose vision was afterwards partially restored, "I had never conceived the idea of the magnificence of the starry worlds." Those of us who admire them the most, fail much in duly appreciating their wonders and glory.

3. Besides the sun, the primary planets, with their satellites, and the comets, there are an innumerable number of stars that twinkle above us in distant regions in God's firmament.

4. The stars are called **FIXED STARS**, because they appear to retain the same situations with respect to each other.

5. The *number* of the fixed stars is not known. In a clear night, as many as one thousand glitter in our firmament; but there are probably thousands so far distant that they will never be seen with the aid even of telescopes.

6. They do not reflect the light of the sun, as is the case with the planets, because they are more than two hundred thousand times as distant from the sun as the earth is. The sun would appear to them but as a star. The nearest star is more than twenty billions of miles from the earth; and it would take light sixty thousand years to reach the earth from some of the most distant stars.

7. The stars are much larger than our earth. Dr. Wollaston, an English astronomer, measured—by means of an instrument called the photometer—some of the stars; he thinks that Sirius is equal in size to fourteen of our suns.

8. Each one of these stars is probably a sun, surrounded by its primary and secondary planets. By means of a telescope, as many as two hundred millions are seen. When we think that each one of these glittering points is the centre of a universe as vast, and perhaps more extensive than our solar system, we shall begin to form some feeble conception of the immensity and grandeur of the works of the Deity. When our spirits are divested of these mortal clogs, which fetter and bind the soul to the confines of earth, we shall be permitted to wing our flight among these celestial habitations; shall then understand more of their structure, their nature, their physical and spiritual elements.

9. The fixed stars are easily distinguished from the planets by their twinkling light; the light of the planets is steady, clear, and uniform.

10. The stars are divided into different classes, with respect to their *size* or *magnitudes*. Those stars which are the brightest, are of the first magnitude. There are about fifteen or twenty which belong to this class. The next brightest are of the second magnitude. There are about fifty or sixty which belong to this class. Two hundred of the next brilliant belong to the third class or magnitude, and so on, to the sixth magnitude. There are many other stars called **TELESCOPIC** stars, visible through a telescope. These have been divided into **EIGHTEEN** magnitudes.

11. The stars are also grouped and classified together, and are divided into **CONSTELLATIONS**. These will be more fully explained in another place.

12. Those stars whose brilliancy changes, or does not always remain the same, are called **VARIABLE** stars. There is one bright particular star, which appears every year, and is very bright for the space of two weeks. It is then a star of second magnitude. But it gradually loses its brightness for three months until it is invisible; it remains thus for four or five months, when it again appears in sight, and increases in brightness till the time for it to be again obscured. This star is in the constellation called the Whale.

13. The cause of this singular phenomenon is not known. Many theories and causes have been assigned for it, the most plausible of which is, that one of the planets which revolves around it passes between it and the earth, so

that the star or sun is eclipsed. Some stars are visible for a time, and then are not seen for twenty or thirty years. Many stars, which are distinguished for their splendour and brilliancy, have suddenly disappeared from our sky; others, which were not known to the ancients, have as suddenly appeared. These are called **TEMPORARY STARS**.

14. In 1562, Tycho Brahe, a celebrated astronomer, saw a star in the constellation of Cassiopea, which he knew was not there previous to the evening on which he witnessed it. This was as bright as a star of the first magnitude, and increased so much in brilliancy, that it exceeded the brightest of the planets, and was seen even at midday. After it had been visible for sixteen months, it gradually diminished, and in three months entirely disappeared. Its colour was variegated, first of dazzling white, then a reddish yellow, and lastly of an ashy paleness, in which its light expired. Many predicted its return in one hundred and fifty years, but it has never again appeared. The change of colour would render the idea plausible that the bright light was produced by the conflagration of some bright world.

15. One astronomer has observed that the disappearance of stars may be the destruction of systems at the time appointed by the Deity for the probation of its inhabitants, and that the appearance of new stars may be the formation of new systems for the new races of beings then called into existence to adore the works of their Creator.

16. Dr. Good remarks, that "worlds and systems of worlds are not only perpetually creating, but also perpetually disappearing. It is an extraordinary fact that within the last century not less than thirteen stars in different constellations appear to have totally perished, and ten new stars to have been created. In many instances it is an unquestionable fact that the stars themselves, the supposed habitations of other kinds or orders of intelligent beings, together with the different planets by which it is probable they were surrounded, have utterly vanished, and the spots which they occupied in the heavens have become blanks! What has befallen other systems will assuredly befall our own. Of the time and the manner we know nothing, but the fact is incontrovertible; it is foretold by revelation, it is inscribed in the heavens, it is felt through the earth."

17. That the earth will be consumed at some future day, is predicted in Holy Writ. Many were very anxious at the time the appearance of Encke's comet was predicted, and thought that this would be the day of the final end of all things. But the comet came, and has passed away, and the earth still revolves in her orbit, a monument of God's goodness and mercy.

18. Many of the followers of Miller have had anxious doubts, and thought they knew the time when "the heavens and the earth would be gathered together as a scroll, and pass away; but their fears proved delusions, their arguments and reasonings proved fallacious, and they have lived to see their folly. It is not right for our minds to be troubled with these fears, which at best are only speculations; we should recollect that whether our earth is to be destroyed this year, or whether it will roll on through countless ages, it is under the care and direction of "Him who doeth all things well."

19. **DOUBLE** stars are those which appear single to the naked eye, but are found to be composed of two or three when viewed through a telescope. One star revolves around another. These are called **BINARY** stars. They do not revolve as one primary around the sun, but the same as if our sun, with all its planets and satellites, revolved around another sun. There are many double stars which are near each other, but which do not have this motion.

20. These double stars were first discovered by Sir William Herschel, who has been untiring in his astronomical investigations. When he commenced his discoveries, he was acquainted with but four; but during his life he observed two thousand four hundred. About four or five thousand of these

double stars have been discovered by the two Herschels ; also many TRIPLE stars, and QUADRUPLE stars, have been observed by them.

21. The double stars are of various colours. According to Sir John Herschel, they exhibit the curious and beautiful phenomenon of contrasted or complimentary colours. By complimentary colours is meant any two that, together, will produce white light. "The larger star is generally of a ruddy or orange hue, and the smaller blue or green. What a variety of illuminations two suns, one red and the other green, or one yellow and the other blue, must afford to a planet ! And what charming contrasts and grateful vicissitudes a red and green day, alternating with a white one and with darkness, might arise from the presence or absence of one or the other, or both, above the horizon ! Insulated stars of a red colour, almost as deep as that of blood, occur in many parts of the heavens, but no green or blue star had been noticed unassociated with a companion brighter than itself."

22. It may be asked why the stars were created, what their use and purpose are, and what end they accomplish in the economy of God's universe. Dick, in his celestial scenery, says : "It could not have been to adorn the sky that the stars are made, for by far the greatest part of them are wholly invisible to the naked eye ; nor as landmarks to the navigator, for only a small portion of them are adapted to this purpose ; nor to influence the earth by their attractions, since their distance renders such an effect entirely useless. If, then, they are suns, and if they exert no important agencies on our world, but are bodies adapted to the same purpose that our sun is, it is as rational to suppose that they were made to give light and heat, as that the eye was made for seeing, or the ear for hearing. If they were made to give light and heat, there would certainly be beings who would require these elements for existence ; hence there must be a plurality of worlds."

23. Galileo, who invented the telescope, formed the design of composing a map of the stars, as they appeared when he viewed them through his telescope. When he commenced, he counted twenty-one distinct stars in the space which he had seen through smaller telescopes to be occupied by one spot of dim light, or about five hundred in a square degree. He finally abandoned his attempt, but modern astronomers have made discoveries of vast quantities of these stars, which had before escaped observation.

QUESTIONS.—What is the subject of Chapter IX. ? 1. Describe the feelings of a German who returns to his home after a long absence ? When should we enjoy the stars in a great degree ? 2. Relate the anecdote of the old man ? Can we admire them too much ? 3. Are there any other heavenly bodies besides the planets and comets ? 4. What are they called ? Why ? 5. What is their number ? How many can be seen in a clear night ? Why are they not all visible ? 6. How do they differ from the planets ? How do we know this to be the case ? How far distant is the nearest star ? How long would it take light to reach the earth ? 7. What is the size of the stars ? What experiment did Dr. Wollaston try ? How large is Sirius ? 8. What is each star considered ? How many can be seen through a telescope ? When shall we begin to form some idea of the grandeur of the works of the Deity ? When will our understandings be enlarged ? What shall we be able to understand ? 9. How are they distinguished from the planets ? 10. With reference to what are the stars divided ? What are the brightest stars called ? How many belong to this class ? What are the next brightest called ? How many are there in this class ? How many belong to the third class ? How many magnitudes are there ? What are telescopic stars ? Into how many classes have these been divided ? 11. What are the general divisions of the stars ? 12. What are variable stars ? What is an example ? Does its brilliancy continue ? Where is this star ? 13. What is said of this phenomenon ? Which is the most plausible ? What are temporary stars ? 14. What fact is related of Tycho Brahe ? What was the nature of this star ? What became of the star discovered in the constellation of Cassiopea ? What was its colour ? What did some predict ? Was this correct ? What would the change of its colour imply ? 15.

How do some account for the disappearance of stars? Appearance of new stars? 16. What are Dr. Good's ideas concerning these things? How many stars have disappeared? How many have been created? What is an unquestionable fact? Why will this state of things probably affect the earth? 17. What is predicted in Holy Writ? What caused anxiety to many? 18. What is said of the followers of Miller? What did their fears and arguments prove? Why should not we be troubled about these things? 19. What are double stars? What are binary stars? How do they revolve? Do all have this motion? 20. By whom were they discovered? What is the extent of his observations? How many did both of the Herschels discover? 21. What are the colours of the double stars? What are complimentary colours? What is the effect of these? What would arise from the presence or absence of one or both of these stars? What stars are often seen in different parts of the heavens? What kind have never been noticed alone? 22. What questions might be asked concerning the stars? For what purpose does Dick say that the stars COULD NOT have been made? What conclusions follow from this? 23. What design did Galileo form? Why did he abandon this idea? What have modern astronomers done?

CHAPTER X.

CONSTELLATIONS.

1. IN order to avoid confusion, and to enable the observer to distinguish the different stars, the ancients divided them into GROUPS, or CONSTELLATIONS.

2. La Place maintains that this division of the stars was made thirteen or fourteen hundred years before the Christian era, as the first celestial globe was made at this time, on which the constellations were inserted. Frequent reference is made to these constellations, by the sacred writers. Their names are very fanciful, and are founded on a supposed resemblance to the objects which they designate; but in very few cases is this resemblance perceptible.

3. They are probably the symbols or heiroglyphics by which the ancient Egyptians intended to transmit to posterity a record of their deeds, their religion, and their history.

4. The religion of the ancient Grecians, Egyptians, and other nations, consisted in having a god for every passion and virtue, and in paying deference to the particular god which their own inclination prompted. Thus, some in the ancient days worshipped Bacchus, who was the god of wine; others, Minerva, the goddess of wisdom, etc., etc. So that it does not appear at all wonderful that they should "give to the stars their names." These names are retained by modern astronomers, for the sake of convenience, as the constellations are more easily learned and remembered by means of them.

5. The stars in the constellations are named by the letters of the Greek alphabet. The largest star is called by the first letter, the next by the second, and so on to the end; and if there are more stars than letters in the Greek alphabet, the English is used; after which, numbers are employed. Sometimes there are several thousand stars in one constellation.

6. CATALOGUES of these stars have been made by Herschel and other astronomers, in which the location and situation of each star are placed; also their position and number, in the same manner that directories are made in large cities to give the names of individuals, and the street and number of the house where they live.

7. The catalogue made by Hipparchus contains one thousand and twenty two stars, the most that can be seen by the naked eye; not more than three thousand can be counted, when an observer stands on the Equator, and can see the stars in both the northern and southern hemispheres, though millions can be seen through large telescopes.

8. The firmament has been divided into the northern and southern hemispheres, and the zodiac. There are thirty-four constellations in all.

9. The zodiac is eight degrees each side of the ecliptic; hence it is sixteen degrees in breadth. The sun, and all the planets, are never seen farther from the ecliptic than the zodiac. This zodiac is divided into twelve signs. The constellations and the signs of the zodiac have the same name, and were formerly in the same place; but there is now thirty degrees difference between them.

10. The names of some of the principal constellations will be given, and particular reference will be made to some of the largest, and those which can be most easily traced in our firmament. The names are derived from the Latin, the English of which will be given.

11. CONSTELLATIONS OF THE ZODIAC.

Aries—The Ram.
Taurus—The Bull.
Gemini—The Twins.
Cancer—The Crab.
Leo—The Lion.
Virgo—The Virgin.

Libra—The Balance.
Scorpio—The Scorpion.
Sagittarius—The Archer.
Capricornus—The Goat.
Aquarius—The Water Bearer.
Pisces—The Fishes.

12. CONSTELLATIONS OF THE NORTHERN HEMISPHERE.

Andromeda.
Perseus.
Auriga—Wagoner.
Lynx.
Leo Minor—Little Lion.
Coma Berenices—Berenice's Hair.
Bootes.
Corona Borealis—N. Crown.
Hercules.
Ophiucus.
Aquila—Eagle.

Delphinus—The Dolphin.
Pegasus—Winged Horse.
Ursa Minor—Little Bear.
Ursa Major—Great Bear.
Draco—Dragon.
Cepheus—King.
Cassiopea—Lady in Chair.
Cygnus—Swan.
Lyra—Lyre.
Camelopardalis—Camel Leopard.

13. CONSTELLATIONS OF THE SOUTHERN HEMISPHERE.

Cetus—Whale.
Orion.
Canis Major—Large Dog.
Canis Minor—Little Dog.
Hydra—Goat.
Cervus—Crow.
Crux—Crow.
Argo-Navis—Ship.
Centaurus—Centaur.

Columba—Dove.
Eridanus—Rhyne.
Indus—Indian.
Lepus—Hare.
Lupus—Wolf.
Pavo—Peacock.
Phoenix—Bird.
Pisces Australis—Southern Fish.
Triangular Astrale—Southern Triangle.

14. There are a number of constellations which are situated around the North Pole. The one we shall first examine is Ursa Major, or Great Bear.

URSA MAJOR, OR GREAT BEAR.

15. Ursa Major is a very large constellation, one of the most celebrated in the northern hemisphere. It is always above the horizon, and is one of the most conspicuous clusters in the firmament. Nearly every one can trace Ursa Major, if they are entirely unacquainted with astronomy.

16. It is composed of eighty-seven visible stars, but can readily be distinguished by the form of a DIPPER, which seven of its stars make in the heavens.

Four of its stars in the body of the animal form the basin, and three form the curve, or handle in the tail.

17. It is a very remarkable circumstance that a tribe of the earliest Arabs in Asia, and a very remote nation of American Indians, called the Iroquois, should have given the same name to this constellation, when there is no resemblance to a bear in its form, or situation of its stars.

18. There are also accounts that different nations, who have held no intercourse with each other, have divided the zodiac into the same number of constellations, and have given to them nearly the same names, which represent either the twelve months, or the seasons of the year.

19. The head of the Great Bear is composed of a number of small stars, and is situated west of the dipper. The feet are composed of two small stars. But this constellation is always recognised by the seven stars which form the dipper. The two stars in the part of the dipper opposite to the handle, are called POINTERS, because a line drawn through them, points or leads to the North Pole star.

20. It is supposed that the ancients formed the stars near the North Pole into bears, because those regions abound with that animal, which generally remains in that vicinity, and does not wander about as extensively as many animals do.

21. This is an important constellation to the mariner; for, if he sails in unknown seas, and loses his way, he need only find this constellation, and can then easily trace out the north star, ascertain the points of his compass, and pursue his course in safety. The ancient Egyptians and Arabians were guided in their journeyings through the sandy deserts by this dipper.

URSA MINOR, OR LITTLE BEAR.

22. Ursa Minor is situated nearer the North Pole than any other constellation. It contains twenty-four stars; but only seven are conspicuous. These seven stars form a SMALL DIPPER, which is about half as large as that in the Great Bear, and is situated in an inverted position to it. The handle of the little dipper is turned toward the basin of the great dipper.

23. The first star in the handle is the Polar star, which is about one degree and a half from the Pole. This constellation is very easily traced. If we imagine a straight line to extend from the pointers in the Great Bear, it will pass through the first or Pole star in the handle of the Small Bear.

24. Latitude can be computed by means of the Polar star.

25. Thales, of Miletus, is said to have invented this constellation, or to have brought the knowledge of it from Phœnice into Greece.

DRACO, OR THE DRAGON.

26. Between the constellations of Ursa Major and Ursa Minor, the winding, serpentine folds of the constellation Draco is situated. It is composed of eighty stars, and is about as far from Ursa Minor, as that is distant from Ursa Major. Its tail is situated between the pointers and the Pole star. This constellation can be easily distinguished by four stars in the head, which form an irregular square.

27. It was from one of these stars that ABERRATION OF LIGHT was discovered. By aberration of light is meant, that we do not see the stars in the actual position which they occupy in the heavens, on account of the motion of the earth. Therefore, when an observer wishes to find a star with his telescope, he has reference to this fact, and adjusts his instruments accordingly.

28. The Egyptians represented the heavens by a serpent, the scales of which were stars.

29. The constellation of Draco is situated near the pole of the ecliptic, and as it winds around the North Pole, the Egyptians thought it was a good

emblem of the motion of the pole of the equator around the pole of the ecliptic. Draco was formerly called the Polar constellation, before Ursa Minor was discovered.

CEPHEUS.

30. Cepheus is situated between Ursa Minor and Cassiopea, and is east of the breast of the Dragon. If a line be drawn through the POINTERS to the North star, and extended about the same distance beyond, it would pass through the constellation Cepheus.

31. This constellation can always be seen at every hour in the night, when the sky is clear. It is composed of thirty-five stars. It can be distinguished by three stars which form a curve line; one of these stars is situated in the left shoulder, one is in his girdle, and the third is in his knee. There are three stars in the crown of Cepheus, which form a triangle.

32. Cepheus is represented as a king, with a crown or diadem of stars on his head, a sceptre in his right hand, which is extended towards Cassiopea, and with his left foot over the pole.

33. As you have learned, the ancients had many gods. Every signal act which their kings or nobles performed, was enshrined in indelible characters; sometimes the stars were called after their names, and sometimes their deeds were commemorated by monuments of marble, erected in public places.

34. Cepheus was King of Ethiopia, and was one of the Argonauts who accompanied Jason in pursuit of the golden fleece; hence it is supposed that he was honoured by having his name given to this constellation.

35. The Argonautic expedition was the first that was undertaken by the early Grecians. Some suppose that its object was to extend commerce to the Black Sea. Others say that Jason commanded it to recover some treasures which had been taken from him by the King of Colchis, in Asia.

CASSIOPEA.

36. Next to Cepheus, and directly opposite to Ursa Major, is Cassiopea. This constellation is represented on the celestial globe by a woman seated in a chair. She holds in her left hand a branch of the palm-tree, and in her right a portion of her head-dress.

37. This is a beautiful constellation. It contains fifty-five stars, and can be seen at any hour in the night, at every season of the year. Four stars form the legs, and two the back of the chair. One of its stars, Caph, is used to determine the latitude of places. It also designates on which side of the Pole the Polar star is situated, as it does not always occupy the same place. It was in the constellation Cassiopea, a few degrees from Caph, that a bright star was lost, or obscured from sight. The place which knew it once knows it no more.

38. Cassiopea, for whom this constellation was named, was the wife and queen of Cepheus, King of Ethiopia. History says that she was a most beautiful queen. She was so vain of her beauty, that she boasted that she was more lovely than Juno, the sister of Jupiter—who was said to be the father of the gods of the ancients—and surpassed the sea nymphs, the Nereides, in grace and elegance. The latter felt themselves insulted, and complained to Neptune, the god of the sea. He therefore sent a frightful monster to ravage her coasts, as a punishment for her vanity.

39. The above anecdote is a fabulous story as far as the gods—who were only imaginary beings—are concerned, though the queen really existed, and was actually a very beautiful woman.

ANDROMEDA.

40. Next to Cassiopea is Andromeda, which is represented as a woman with her arms extended; each of her wrists is chained to a rock.

41. Andromeda contains sixty-six stars, but may be distinguished by three stars, which form a straight line ; one is in the foot, another is in the girdle, and a third is in the left shoulder ; there is also one in the head, which makes a curve with those in the body.

42. Andromeda was the daughter of Cepheus and Cassiopea. The queen was very much attached to her daughter. Neptune and the sea nymphs were not satisfied with ravaging the country of Cassiopea, but they commanded that she should chain her daughter to a desert rock, near the sea, and there leave her to be devoured.

43. But at the moment when the sea monster was about to devour her, Perseus, a fabulous being, saw her and promised to liberate her if her father would give her to him in marriage. This request was granted, and the sea monster was changed into a rock by the sight of a trophy which Perseus held in his hand.

44. Mr. Burritt, in his excellent work, the Geography of the Heavens, says that the interpretation of this fable may be, that Andromeda was engaged to be married to some monster of a sea captain, who attempted to carry her away, but was prevented by another more gallant and successful rival.

PERSEUS.

45. South from Cassiopea, and west from Andromeda, is the constellation of Perseus.

46. He is represented as a man with a sword in his right hand, and the head of Medusa, one of the Gorgons, in his left. He has on his head the helmet of Pluto, which was said to have the power to render the wearer invisible ; on his breast he wears the shining buckle of Minerva, and his feet are supplied with wings from Mercury, which enabled him to fly through the air with safety.

47. Perseus was the son of one of the gods. When a great feast was about to be made for a certain king, who had been very kind and hospitable to him, every one was expected to present the king with a beautiful horse. He engaged to bring the head of the Gorgons as a trophy or expression of regard to the king.

48. The Gorgons were fabulous monsters, represented with serpents around their heads for hair, hands of brass, and their bodies covered with scales, which were so hard that nothing could penetrate them ; they had such an expression of countenance, that they turned every one who looked at them into stones.

49. When Perseus came to the place where they were asleep, with one blow of his sword he cut off the head of one of them, named Medusa, and was immediately invisible, an account of his helmet. Perseus then flew away, and when he came to Andromeda, who was chained to a rock, he changed the sea monster into a rock, by the sight of the head of Medusa, and liberated and married Andromeda.

50. Such is the story, as related by historians. Imaginative and fictitious as it is, yet it is given to you that you may understand what the different views and ideas of the ancients were.

51. Perseus and the head of Medusa contain sixty-seven stars. In the head there is one very bright star, called Algol. Algeneb is also a bright star in the side of Perseus, and makes a right angle with the bright star in the foot of Andromeda, which is turned towards Cassiopea. There are also four or five bright stars which form a curve line which extends towards Ursa Major.

52. Many small clusters of stars in this constellation render it very beautiful, but they are too small to be seen by the naked eye. The star Algol has often

dark spots on its surface, which prove that, like the sun, it turns on its axis. This constellation can be seen every pleasant evening, from September till May

TAURUS.

53. The constellation Taurus is situated near the foot of Perseus. It is remarkable for two brilliant clusters of stars which are visible to the naked eye, called PLEIADES and HYADES. This constellation contains one hundred and forty-one stars.

54. The PLEIADES were originally seven stars, of which only six can now be seen. The fable concerning these stars is, that they represented the daughters of the astronomer who first discovered them. Others say that they were seven beautiful sisters, who were turned into stars, and that one of them married a mortal, and was therefore banished from the cluster.

55. The Pleiades were at one time considered the "stars of the ocean," because mariners steered their courses by them. Professor Madler thinks that the Pleiades are the centre of the starry system, the same as the sun is considered the centre of the planetary system.

56. The second cluster, called the HYADES, is situated in the face of the animal, a short distance from the Pleiades, and is easily distinguished by five stars, which form the capital letter V.

57. Taurus is represented by the head and shoulders of a bull, as if about to attack Orion. It is thought that the constellation received this name from the ancients; for this animal was worshipped both by the Persian and Egyptian nations, under the name of Apis. They frequently embalmed—preserved their bodies by means of spices—these animals, which would not have been the case, if they had not regarded them of great value.

58. Taurus is one of the most interesting of the constellations. It can be traced very easily and remembered.

ORION.

59. Orion is one of the largest and most beautiful of the constellations. It is situated south-east from Taurus.

60. Orion is represented as a man with a club in one hand, as if he intended to attack Taurus. He has a sword in his belt, and a lion's skin in his hand for a shield. A cluster of small stars form the head. Two large stars make the shoulders. One, called Rigel, in the left foot, is a star of the first magnitude. Three bright stars compose the girdle, and three make his sword.

61. This constellation is distinguished by a long square, called a parallelogram. It is formed by four stars; one is in each shoulder, one is in the left foot, and one is in his right knee. In the middle of the parallelogram is the girdle, called the THREE STARS, the ELL, or YARD, because the three stars are three degrees in length, and the star in the centre divides it into two equal parts, in the same manner as the three feet in a yard-stick are divided in the centre.

62. Orion is said to have been a great hunter, and to have boasted that his skill was so great that there was not a single animal that he could not kill. As a punishment for his vanity, a scorpion sprung from the ground and bit his foot, which caused his death. A constellation was called for his name.

63. Orion rises at noon, on the ninth of March, and sets at noon, on the twenty-first of June. It was thought to be a forerunner of storms and heavy rains, and the ancient mariners saw this constellation rise with dread and anxiety.

64. All the historical accounts of the ancients that we have on record, credit the idea that they watched the stars very minutely, and regulated their actions by their movements.

LEPUS, OR HARE.

65. Immediately south of Orion is Lepus. It contains nineteen stars. The four largest form a square, by which it can be distinguished.

66. The hare was an animal which Orion delighted to pursue; hence the cluster or constellation near him was called Lepus, and represented by the form of a hare.

CANIS MAJOR.

67. Canis Major is a very interesting constellation, and is situated in a south-east direction from Orion. It is remarkable because it contains the largest and most beautiful of the fixed stars, called Sirius. This star is said to be fourteen times larger than our sun.

68. This constellation contains thirty-one stars. It is represented by the figure of a dog with its face, or the bright star in its face, turned towards Orion. Sirius is nearer the earth than any other star, yet it would take a single ray of light three years to reach the earth from Sirius.

69. In Africa, the river Nile overflows its banks twice during a year. The ancient Egyptians thought that the appearance of this star foretold the overflow of this river, which they called Sirius; they therefore watched its approach with a great deal of interest. They observed that when Sirius was visible in the east just before morning, the overflowing of the river immediately followed; they therefore represented this constellation under the figure of a dog, as symbolical of its watchfulness and care for the people.

70. Many of the inhabitants of Africa determined the length of the year by Sirius. The ancients gave the name of "dog days" to the latter summer months, on account of the influence of this star, together with the sun's rays. Sirius is over our heads in the zenith, during the day in the summer months, and is seen at night in the southern hemisphere. It is visible to us only in the winter nights, as the sun is so bright we cannot see the stars till he has set.

COLUMBA.

71. Columba is a small constellation situated near Canis Major. It contains ten stars, only two of which can be seen and distinguished. The Latin word columba means a dove, and it is supposed that this constellation received its name from the dove which was sent from Noah's ark at the time of the flood and which returned with a branch of the olive-tree in its mouth.

CANIS MINOR.

72. Above Canis Major is Canis Minor. It contains fourteen stars, the most brilliant of which is called Procyon. It is a star of the first magnitude.

73. This star rises in February, a little before Sirius in Canis Major. It was therefore watched by the ancient Egyptians with much interest, as it was the forerunner of the dog star.

74. According to fable, this was one of Orion's hounds, and was therefore placed near him in the heavens.

BOOTES.

75. Next back of Ursa Major, Bootes is represented as a hunter, with a club in his hand, attended by Chara and Asterion, or two greyhounds, as if in the pursuit of the Great Bear. With it they revolve around the north pole.

76. This constellation contains fifty-four stars, and is easily recognised by means of Arcturus, a very bright star in the knee, which is of the first magnitude, and has a reddish appearance. There are three small stars in its vicinity, which make a triangle.

77. Reference is had to Arcturus, and some of the other stars, in the Bible, where the writer says, "Canst thou bind the sweet influence of Pleiades, or

loose the bands of Orion? Canst thou bring forth Mazzaroth in his season or canst thou guide Arcturus with his sons? Knowest thou the ordinances of heaven?" Mazzaroth is thought to mean all the heavenly bodies in the zodiac, which, by their revolutions, produce different seasons and day and night.

78. Chara and Asterion are composed of a number of stars between Bootes and Ursa Major. Only one star in the neck of Chara is remarkable. This is called Cor Coroli, or Charles's Heart, because it is named after Charles I.

BERENICE'S HAIR.

79. Berenice's Hair is a small group of stars which, although not large, are quite beautiful.

80. The stars which compose it, forty-three in number, are so small that they are not visible when the moon shines brightly.

81. Berenice was a beautiful lady, who married one of the kings of Egypt. At a certain time when he intended to engage in a dangerous expedition against the Assyrians, she made a vow to dedicate her hair, which was very beautiful, to Venus, the goddess of beauty, if he returned in safety.

82. In due time her husband returned, and she cut off her hair, which was deposited in the temple. This was removed in some way. The king regretted the loss very much, when one of the astronomers assured him that Jupiter had placed it among the stars as a constellation.

83. We have now described, in a brief manner, some of the principal constellations that glitter in our firmament, and have also related some of the ancient superstitions regarding them. This subject presents an interesting field for enquiry and investigation. When we find one constellation it incites the desire to learn to trace another. They are all, as it were, closely bound together in the strong bonds of an association. One suggests another, and has strong relations to the other. Be not weary in gazing at the stars. They are bright worlds rolling above us, teeming with life, intelligence, and beauty.

84. Nothing will have a greater tendency to expand the mind, or to make us feel our own insignificance more to reflect well on the idea that our world is but a mite in the system of worlds, and that we are but a speck, or as a particle of dust on it, destined to live but for a brief space of time, and then passing away, to sink into oblivion. Your attention will be directed next to the CLUSTERING OF STARS, called NEBULÆ.

QUESTIONS—What is the subject of Chapter X? 1. Why did the ancients make this division? 2. When was this division made? How is this known to be the case? By whom are these often mentioned? What is said of their names? 3. What is probably their design? 4. In what did the religion of the ancient nations consist? What are some of their gods? Why are the names of the gods retained? 5. In what way are the stars named? What is sometimes the number in one constellation? 6. For what purpose have catalogues been made? 7. Who made a catalogue? How many stars did it contain? What is the greatest number that can be seen? In what position? 8. What is the general division of the firmament? How many constellations are there in each division of the firmament? How many in all united? 9. What is the zodiac? What are situated in the zodiac? What are the divisions of the zodiac? What is the difference between the signs and the constellations? 10. What will be given? From what are these names mostly derived? 11. Name the constellations of the zodiac? 12. Name the constellations of the northern hemisphere? 13. Of the southern hemisphere? 14. What is the first constellation mentioned? 15. What is said of this constellation? What is its situation? 16. Of how many stars is it composed? How is it readily distinguished? 17. What remarkable circumstance is recorded? 18. What other striking fact is recorded? 19. Of what are the head and feet of the Great Bear composed? What are two of the stars

called? Why? Where are they situated? 20. Why is it thought that the ancients formed these stars into bears? 21. To whom is this an important constellation? Why? To whom was it of great assistance? 22. Where is Ursa Minor situated? Of how many stars is it composed? What stars are conspicuous? What do they form? How is it situated? 23. What is the first star called? In what way is this constellation traced? 24. Is this star of any importance? 25. Who invented this constellation? What is situated between Ursa Major and Ursa Minor? Of how many stars is it composed? Where is the tail of Draco represented? By what means is this constellation distinguished? 27. What was discovered from one of these stars? What is meant by aberration of light? What follows from this? 28. How did the Egyptians represent the heavens? 29. Near what is Draco located? What did the Egyptians consider it to be? 30. Where is Cepheus situated? How can this be found? 31. When is it seen? Of how many stars is it composed? In what way can it be distinguished? Where are these stars located? What other stars are conspicuous? 32. How is Cepheus represented? 33. What custom prevailed among the ancients? 34. Who was Cepheus? How was he honoured? 35. What is the Argonautic expedition? 36. What constellation is next mentioned? How is this represented? 37. Of how many stars is this composed? When is Cassiopea visible? What are its principal stars? For what is Caph used? What is there remarkable about this constellation? 38. Who was Cassiopea? What was her character? Whom did she insult? What was the consequence? 39. What is the nature of the story? 40. How is Andromeda represented? 41. How many stars are there in this constellation? How is it distinguished? Where are these stars situated? 42. Who was Andromeda? What was Cassiopea commanded to do? 43. What was the result? 44. What interpretation does Mr. Burrit give to this fable? 45. Where is Perseus situated? 46. How is he represented? 47. Who was Perseus? What was celebrated at one time? What trophy did Perseus engage to carry to the king? 48? Describe the Gorgons? 49. Describe the attack of Perseus? What did he then do? 50. Why is this story related? 51. How many stars do they contain? What are some of the principal stars in the constellation of Perseus? 52. What renders this a beautiful constellation? What is said of Algol? When is this constellation visible? 53. Where is Taurus situated? For what is it remarkable? How many stars does it contain? 54. What were the Pleiades originally? What is the fable concerning them? What is another opinion? Where are they situated? 55. What were the Pleiades considered? Why? What is Professor Madler's opinion? 56. What is the second cluster, and where is it situated? How is it distinguished? 57. How is Taurus represented? From whom did it receive its name? Why is this a plausible idea? 58. What is said of Taurus? 59. Where is Orion situated? What is said of it? 60. How is Orion represented? Where are some of the principal stars situated? 61. How is Orion distinguished? Describe the parallelogram in the constellation of Orion? What is the ell or yard called? Why? 62. What is the history of Orion? 63. When does Orion rise and set? Why did the ancients regard this constellation with terror? 64. What do all the records of the ancients show? 65. What constellation is south of Orion? How many stars does it contain? How is this distinguished? 66. From what did this constellation take its name? 67. Where is Canis Major situated? For what is it remarkable? What is the size of this star? 68. How many stars are there in this constellation? How is it represented? What is the comparative distance of Sirius from the earth? How long would it take light to travel to the earth? 69. What is a peculiarity of the river Nile? What connection did the Egyptians think there was between the river and Sirius? What did they observe concerning it? Why did they represent this constellation under the figure of a dog? What was one use of this star? What is the origin of the term "dog days?" Where is Sirius at different seasons of the year? 71. Where is Columba situated? How many stars does it contain? From what does this constellation receive its name? 72. Where is Canis Minor? How many stars does it contain? Which is the most brilliant? 73. Why was this star regarded with interest? 74. What is the fable concerning it? 75. How is Bootes represented? Around what does he revolve? 76. How many stars does the constellation of Bootes contain? By what is it recognised? 77. What reference is made to Orion in the Bible? 78. Of what are Chara and Asterion composed? Which is the most remarkable star in Chara and Asterion? 79. What is Berenice's Hair? 80. How many stars compose it? What is their size? 81. Relate the anecdote of Berenice? 82. What was the result?

83. What has been described? What does this subject present? Why? Is there a connection between the different constellations? Why should we never be weary in looking at the stars? 84. What will have a tendency to expand the mind? To what will attention be next directed?

CHAPTER XI.

NEBULÆ.

1. YOU have learned that the stars are grouped together into constellations; but besides this general division, there is a great quantity of small clusters, which, when viewed through a telescope, are seen to consist of a large quantity of stars. These are called NEBULÆ, and shine with a feeble, white lustre.

2. The GALAXY, or MILKY WAY, is supposed to be a vast nebula of which the sun is one of the stars. The reason why it appears larger than the small points of stars, is because there it is nearer to the earth. In forty minutes Dr. Herschel saw two hundred and forty-eight thousand stars through his telescope.

3. Most of the nebulae are round, of a globular form; but they are often thick at the centre, as if studded with numerous points, and are more scattering on the surface. If we look at the Pleiades, we see at first but six stars; but a close inspection with the telescope will reveal as many as fifty or sixty. There is a remarkable nebula in the constellation of Andromeda.

4. Nebulae sometimes present the appearance of a luminous atmosphere, in which no stars are seen, even with a good telescope. This appearance is probably caused by a quantity of small stars, which are at so great a distance that one cannot be distinguished from another. When we are at a distance from a city or town, it appears like a confused mass of brick and stone; but as we approach nearer and nearer, we see form and shape in what previously appeared without outline or proportions.

5. There is a remarkable nebula in the constellation of Orion, but until very recently all attempts to resolve it into stars proved futile. The large telescope erected at Cambridge, Massachusetts, however, has achieved that victory, and almost annihilated the bounds of space.

6. NEBULÆ STARS are those which have a bright spot in the centre, with a faint nebulous atmosphere around them.

7. ANNULAR NEBULÆ are those whose centres are rather dim, but the misty vapours which surround them appear like a ring.

8. PLANETARY NEBULÆ are those which have a round disc, and appear like planets. They are often as brilliant as the planets. If we suppose them to be as distant as the fixed stars, their size would be enormous, and according to Sir John Herschel, one alone would fill the whole orbit of the planet Herschel.

9. The SHOOTING STARS present an appearance at once interesting and remarkable. They are seen in all parts of the earth. As we look into the heavens, we see, as it were, a bright world suddenly fall and unite with another. The question naturally arises, what is the nature of these bodies, or what causes them to change their places?

10. Some suppose that they are luminous gas; others, that they are caused by electricity; others, that they are luminous bodies, which, like the comets,

revolve round the sun, and that their appearance can be calculated as well as that of the planets or comets.

11. Though they generally shoot singly, and are but few in number, yet they sometimes fall in showers. One gentleman, who witnessed them very early in the morning, thus describes the phenomenon: "I was called up about three o'clock in the morning, to see the shooting stars, as they are called. The sight was grand and awful. The whole heavens appeared as if lighted with sky rockets, which disappeared only by the light of the sun at daybreak. The meteors, which at one instant of time appeared as numerous as stars, flew in all possible directions, except FROM the earth, TOWARD which they all inclined more or less, and some of them descended perpendicularly over the vessel in which we were, so that we were in constant fear that they would fall on to us." These stars apparently filled the whole atmosphere between Cape Florida and the West India Islands.

12. The most remarkable shower of meteors or falling stars, occurred in the United States, about 1834. "The appearance was that of fireworks of the most imposing grandeur; they covered the entire vault of the heavens with myriads of fire-balls resembling sky-rockets; their corruscations were bright, gleaming, and incessant, and they fell as the flakes in the early snows of December.

13. "To the splendours of this celestial exhibition, the most brilliant sky-rockets and fireworks of art bear less relation than the twinkling of the most tiny star to the broad glare of the sun. The whole heavens seemed in motion, and suggested to some the awful grandeur of the image employed in the Apocalypse upon the opening of the sixth seal, when the 'stars of heaven fell unto the earth, even as a fig-tree casteth her untimely figs, when she is shaken by a mighty wind.'

14. "One part consisted of phosphoric lines; the second of fire-balls, that darting across the sky, left a track behind them; the third, of luminous bodies, which remain stationary for a long time in the heavens."

15. An Italian thinks that these appearances are occasioned by electricity, because when he was walking one evening with a friend, he "observed that as a shooting star approached them, it became larger, and larger, but disappeared just before it reached them. When it went away, their faces, hands, and clothes became suddenly illuminated with a diffused light. It was attended with no noise.

16. "During their surprise at this appearance, a servant informed them that he had seen a light shine suddenly in the garden, especially on the streams of water which he was throwing on the garden. He also observed that a quantity of electric matter had collected about his kite, which had the appearance of a falling star. He saw a kind of halo which accompanied the kite as it changed its place, and left glimmerings of light."

17. The theory of Professor Olmsted concerning shooting stars, is, "that the meteors proceeded from a nebulous body which revolved around the sun in an elliptical orbit in six months. He says that the meteors are supposed to consist of combustible matter, because they are seen to take fire and to burn in the atmosphere. They are known to be very light, because, though they fall toward the earth with immense velocity, few, if any, ever reach the earth, but are arrested in the air like a wad fired from a piece of artillery.

18. "Some of them are inferred to be bodies of comparatively great size, and amount in diameter to seven hundred feet, because they are seen under so large an angle while they are at a great distance from the spectator. These small, light, combustible bodies exist together, and compose a large nebulous body which emits its rays every year."

19. There is another very beautiful phenomenon called **AURORA BOREALIS**, or **NORTHERN LIGHTS**. These are bright lights which appear in the heavens generally during the winter months. They shoot forth with every degree of brilliancy, in every variety of form, figure, and colour. They sometimes shine with a white light, then again are red, orange, and present every tint of the rainbow.

20. The **Aurora Borealis** are composed of real clouds, which are formed of very thin luminous matter, which proceed from the north, and are arranged in parallel lines or columns.

21. The **Aurora Borealis** is said to be the effect of **ATMOSPHERIC ELECTRICITY**. When electricity is transmitted, or passes through thin light air, it exhibits a bright luminous appearance, the same as in the phenomenon. The more elevated the atmosphere is above the surface the lighter it is; hence the northern lights are discharges of electricity through this light air in the upper part of this atmosphere, and present light, luminous appearances.

22. Many theories have been advanced to explain the cause of these interesting lights. The most popular is, that they are owing to the electricity of the earth, which is excited in a peculiar manner.

23. They are called northern lights, because they are visible mostly in the northern hemisphere. In the Shetland Islands, they are called "merry dancers," and always seen in clear, cold evenings.

QUESTIONS.—1. What are *nebulæ*? With what light do they shine? 2. What is the Galaxy or Milky way? Why does it appear so large? What number of stars did Dr. Herschel see through his telescope in forty minutes? 3. What is the form of *nebulæ*? Describe the appearance of *Pleiades*? Where is there a remarkable *nebulæ*? 4. What appearance do *nebulæ* sometimes present? What causes this? What is an illustration of this? 5. What is said of the *nebulæ* in Orion? 6. What are *nebulæ* stars? 7. What are annular *nebulæ*? 8. What are planetary *nebulæ*? What is said of their size? 9. What appearance do shooting stars present? What question naturally arises as we look into the heavens? 10. What are some of the different opinions concerning shooting stars? 11. In what manner do they fall? Describe their appearance, as witnessed by a gentleman? 12. When did the most remarkable shower of meteors fall? Describe their appearance. 13. How do sky-rockets compare with celestial meteors? To what scenes are they similar? 14. Of what did the different parts consist? 15. By what are these occasioned? Why? 16. What facts were communicated to them? 17. What is Professor Olmsted's theory concerning shooting stars? Of what do meteors consist? What is their nature? 18. What is said of their size? Why? What do these small bodies compose? 19. What are the northern lights? Describe their colour and form. 20. What is the nature of the northern lights? What produces the **Aurora Borealis**? Explain this principle. Have other theories been advanced to explain this? 23. Why are they thus called? What is another name for them?

CHAPTER XII.

ATTRACTION—FORCE OF GRAVITY.

1. THE query often rises, Why do not the sun and all the planets fall to the earth? Such would have been the case a long time ago, if there had not existed a force throughout nature called the **FORCE OF GRAVITY**, which sustained them in their orbits, and prevented their fall.

2. By **GRAVITY**, or force of gravity, we mean that influence by which every body and particle of matter are attracted to every body and particle of matter.

3. This law of attraction or gravitation extends to all bodies on the earth, to the moon, planets, and the sun itself. It is proportioned to the quantity of matter that the body contains. All bodies tend to the centre of the earth. It is the force of gravity that produces this effect.

4. This principle was discovered by Sir Isaac Newton, in 1687. As he was sitting in his garden, one day, he observed an apple fall to the ground. He had a very inquisitive mind, one that was always thirsting for information, and he was anxious to find why the apple fell. He was not only interested in facts, but he sought to learn the primitive causes that produced them.

5. From the simple fact of an apple falling to the ground, this learned man discovered that there was a great fundamental law existing in nature, that would apply to the movements of all bodies even to the earth and planets.

6. When we drop a stone from one hand, the stone falls to the ground, because it is attracted to the earth. The earth is also attracted to the stone, but it is so much larger than the stone, that its motion or movement is not perceptible.

7. The power of attraction is greatest at the surface of the earth, and it decreases upward as the square of the distance from the centre of the earth increases. It decreases downward according to the distance.

8. When we speak of the WEIGHT of bodies, we mean that gravity or force by which they are attracted to each other. If there was no air, all bodies would be the same with respect to weight.

9. The force that draws a body to the centre is called CENTRIPETAL force. That which influences it to move in a straight line from the centre, is called CENTRIFUGAL force. When both of these forces are exerted, the body moves in a circle, as is the case with the planets.

10. Force of gravity would tend to bring the planets to the earth, while centrifugal force tends to make them move in a straight line; hence they move in a circle or in an ellipse.

What is the subject of Chapter XII.? 1. What query often rises? What has prevented this? 2. What is meant by gravity? 3. What is the extent of this law? To what is it proportioned? Where do all bodies tend? Why? 4. By whom and when was this law discovered? By what means? 5. What did Sir Isaac Newton learn from the falling of the apple? 6. Explain this as applied to the stone. 7. Where is this power the greatest? 8. What is meant by weight? 9. What is the centripetal force? What is the centrifugal force? How do these operate together? 10. Explain this, as applied to the planets?

CHAPTER XIII.

TELESCOPES.

1. WHEN we look into the heavens with the naked eye, the stars appear like small points, and countless multitudes are veiled from our sight. It is only by the aid of the TELESCOPE that we can ascertain their relative magnitudes, compute their distances, or gain correct ideas concerning them.

2. Not only the hosts of stars, but many of our planets, are so distant in the depths of space that they are invisible without the use of this instrument. It is, therefore, important that a brief explanation of it should be given.

3. Telescopes are of two kinds, REFRACTING and REFLECTING. In the refracting telescope there is generally one large glass for the purpose of

collecting the rays of light from the object. This is called the **LENS** or **OBJECT GLASS**. There is also another at the opposite end of the instrument, which reflects an image to the eye. This is called the **EYE-GLASS**.

4. **REFLECTING** telescopes form their images by a concave reflector or mirror, called a **SPECULUM**. The observer stands with his back to the object, and looks into the instrument to see the image.

5. The **MAGNIFYING** power of telescopes depends on the size of the lens or speculum, as compared with the eye. The telescope does **not MANUFACTURE** new rays of light, but it gathers or collects large quantities into a small space, so that they are rendered visible to us.

6. If the rays of light which proceed from any body are not brought to a point, called the **FOCUS**, we do not see the body.

7. As we look around us, we discover a variety of objects. The reason why we see at all is because the rays of light from **all** parts of the objects pass through the **PUPIL** or opening in our eyes, and are reflected on the back part of the eye, which is called the **RETINA**.

8. The construction of the telescope may appear comparatively simple, but there are many difficulties which are not easily obviated. In the refracting telescope frequently some of the rays of light are collected and brought to a focus sooner than others. Sometimes the light is separated or decomposed into its component parts; hence some rays are refracted more than others, and the image is confused and indistinct. This can be remedied by constructing the lens of two different kinds of thin glass. It is then called an **ACHROMATIC** lens, because the word means without colour, and the image reflected has none.

9. Another difficulty is **WANT OF LIGHT**. The object glass is oftentimes small, because it is extremely difficult to obtain good glass for large ones. Only the rays which pass through the centre are visible. So utterly impossible was it for opticians to obtain a lens of sufficient size from pure glass, that many constructed their lenses out of thin glass, in which they enclosed transparent sulphur and charcoal, and thereby rendered the expense of the telescope much less.

10. A number of telescopes have been, and are, much celebrated. Dr. William Herschel once constructed a large reflecting telescope which was forty feet long; the great speculum was four feet in diameter, and weighed two thousand and eighteen pounds. This great telescope was surrounded by a very heavy framework, and remained some time; but the frame decayed, and it was finally taken down, and another telescope of twenty feet in length was erected in its place.

11. Another large reflecting telescope has been constructed by Lord Rosse. The speculum is six feet in diameter, and weighs four tons; the tube is fifty-six feet in length. This is placed in the open air, and is surrounded on all sides by a large frame. This telescope is so powerful, that stars are visible through it whose distance is so great that it takes light sixty thousand years to pass from them to the earth. There is a very large telescope in the observatory of Pulkova, Russia, under the care of Struve, who has done much toward promulgating the science of astronomy. There is also another large telescope under the care of Dr. Madler, at Dorpat, Russia.

12. In the reflecting telescope, the speculum or reflector is made of metal. If glass were used, a double image of the stars would be reflected. It is said that when the great speculum of Lord Rosse's telescope was cast, it took about four months to anneal or cool it before it could be used. It was cooled slowly, in order to prevent its breaking, or even cracking.

13. The telescope of Professor Mitchell, which is at the new observatory, Cincinnati, was erected in 1844. The tube of the telescope is about seventeen feet in length. The object-glass at the extremity of the tube is twelve inches in diameter, and is composed of two lenses, one of flint glass, and the other of

crown glass. This, as has been before mentioned, is called a DOUBLE ACHROMATIC glass, and reflects a clear and distinct image. So perfect is the machinery by which it is retained in its place, or moved in almost any direction, that Professor Mitchell says that even a child a year old has strength enough to direct it to any part of the heavens. Its weight is two thousand five hundred pounds, and it will magnify with a power of fourteen hundred.

14. A refracting telescope does not require so large a lens as the reflecting, because in the latter much light is lost when reflected from a mirror, and therefore more must be reflected in order to see the object desired.

15. In order to find a particular star or planet with facility, there is a small telescope attached to the large refractor at Cincinnati. This is called the *FINDER*, and as it does not magnify much, a star is readily seen through it. This telescope was manufactured in Munich. It is one of the most powerful in the country, and cost nine thousand five hundred dollars. It is built on the summit of a hill called Mount Adams. Its corner stone was laid by John Quincy Adams, on the 9th of November, 1843.

QUESTIONS.—What is the subject of Chapter XIII.? 1. How do the stars appear to the naked eye? What is the use of the telescope? 2. Are the stars above observed? What is then important? 3. What are the two kinds of telescopes? Describe the refracting telescope. 4. Describe the reflecting telescope. 5. On what does the magnifying power of telescopes depend? What is the province of the telescope? 6. What is necessary in order to enable us to see an object? 7. What enables us to see? 8. Is the construction of the telescope simple? What are some of the difficulties found in refracting telescopes? How can the latter be remedied? What is it then called? Why? 9. What is another difficulty? What is the cause of this? What course did some adopt to remove this evil? 10. Describe Dr. Herschel's large telescope? What became of it? 11. Who constructed another large telescope? Describe this? What other telescopes are celebrated? 12. Of what is the speculum of the reflecting telescope composed? Why is not glass used? What is said of the speculum? 13. Where is professor Mitchell's Telescope situated? When erected? Describe this instrument. What is said of its machinery? Its weight? Its magnifying power? 14. What is the difference between the refracting and reflecting? 15. In what way is the star found sometimes? Why is this a convenient apparatus? Where was this telescope manufactured? What was its cost? What was the expense of the observatory? By whom and when was its corner stone laid?

CHAPTER XIV.

DIFFERENT ASTRONOMERS.

COPERNICUS.

1. COPERNICUS was born in Prussia, in 1473. He went through a regular course of study, and took a degree of Doctor of Arts and Medicine in the university which he attended.

2. In early life he evinced a decided taste for mathematics and astronomy, and when only twenty-three years of age, had the reputation of a skilful observer of the heavens, and was appointed a professor.

3. His father had designed him to be a minister, in which profession he served for many years, so that for a time his astronomical studies were interrupted or suspended.

4. At that period, it was the opinion of all the philosophers of the age that the earth was the centre of the universe, and that the changes of the day and the seasons were produced by the revolution of the planets around it.

5. Copernicus was not satisfied with these ideas, and declared that the earth revolved around the sun from west to east. He collected the facts, and made all possible observations to substantiate his doctrines. He computed tables of the motions of all the planets, which were found to be much more correct than those which had been made previously ; but for thirty-six years he did not dare to publish his new ideas to the world.

6. The Church of Rome, which at that time ruled Europe, were very bitter in their opposition to these new heresies, as they termed them, and if Copernicus had not died suddenly, he would probably have met with as severe a fate as that of Galileo, about twenty years after his death.

7. The house in Thorne, where he was born, is still preserved as a relic. Copernicus was very much esteemed by all his friends and acquaintances. An attempt was made at a certain time to satirise him, or bring him into contempt, by a dramatic author, before a public audience, on the stage. This actor introduced his theory of the earth's motion, but it was received with great indignation.

8. A colossal statue was erected at Warsaw, as a tribute to his memory.

GALILEO.

9. Galileo was born in Pisa, in 1564, of an ancient and noble family. His father was a man of superior talents, and designed to educate his son to be a physician. Though the son applied himself diligently to the study of medicine, yet his mind was not confined to books.

10. He had a great fondness for music and painting, yet his natural forte was mathematics, which he pursued in secret for a time.

11. He discovered that the vibrations of all pendulums, even of different lengths, were performed in equal times. This idea was suggested by his observing the motion of a lamp which was suspended from the roof of the cathedral in which he worshipped. He also ascertained the beating of the pulse from this fact, and counted it by the vibration of a pendulum.

12. His father had positively forbidden him to study mathematics ; but, as he perceived the strong inclination of his son for these pursuits, he gave his consent, and his son was soon on the road to fame.

13. He was introduced to the first mathematician of the day, and was soon appointed lecturer in the university of his native town, and afterwards professor of mathematics.

14. He discovered the thermometer, an instrument by which we can measure the expansive or condensive heat of the atmosphere, and in 1609 discovered the telescope. He had heard of the magnifying power of an instrument that had been constructed in Italy, that greatly enlarged objects, and made distant objects appear much nearer, and he thought he would try his skill, and see what he could do.

15. He fitted a spectacle glass to each end of a leaden tube, one of which was round, or convex, and the other hollow, or concave. By applying his eye to one end, he discovered that objects were enlarged. He carried this instrument to Venice, and presented it to the senate. Great was the interest and almost enthusiasm which prevailed. He was elected professor for life, and had a salary of one thousand florins.

16. This instrument magnified only three times ; he made another which magnified eight times, and at length made one which magnified thirty times.

17. He now proceeded to examine the heavens. By means of this instrument, he discovered inequalities in the moon's surface, the difference between the planets and the fixed stars, and resolved nebulae into distinct and numerous stars.

18. He discovered that Jupiter was attended by four moons or satellites. He saw the dark spots on the sun's disc, from which he calculated that the sun moved on its axis in twenty-eight days. He discovered the rings of

Saturn, and, not fully understanding their nature, described the planet as a triple star, each retaining its relative position with respect to the other. Soon after this he made known his belief in the Copernican system, that the sun was the centre of the universe.

19. On account of this belief or avowal he was greatly persecuted, and summoned to Rome, to have a trial before the Inquisition. This was a body of men who had great power in their hands, and who met together for the purpose of trying persons convicted of crime. The punishments which they inflicted were of the most severe and cruel kind. The Pope and the Inquisitors met, and decreed that if Galileo would agree neither to teach, defend, nor publish his sentiments, or, in other words, if he would renounce them as untrue, he should be acquitted and released. If he would not, he should be cast into prison.

20. They erroneously supposed that the Bible declared that the earth stood still, and that he must certainly be in the wrong. He was silent for a time, and their fears were quieted; but in about ten or twelve years he again published his views, in the form of a dialogue. One person represented the Copernican system, and another the opposite, or the Ptolmaic system.

21. This enraged his enemies to such a degree that he was again summoned before the Inquisition. He was found guilty by them of heresy, and condemned to imprisonment and death. He was an old man, bowed down with infirmities, and he renounced the opinions he had taught and published.

22. The form of his renouncement was as follows: "With a sincere heart and unfeigned faith, I abjure, curse, and detest the said errors and heresies, that the earth moves, etc. I swear that I will never in future say or assert anything, verbally or in writing, which may give rise to a similar suspicion against me. I, Galileo Galilei, have abjured the above with my own hand."

23. It is said that when Galileo rose from his knees, he stamped with his foot on the ground, and whispered to a friend, "It does move though!"

24. He was confined several days in the prison, and was then allowed to retire to his country seat, where he lived in great seclusion, as he was not permitted to enjoy the company of his friends. He, however, pursued his studies diligently, and made many new discoveries about the moon.

25. He was struck with blindness, about three years before his death, and so strong was the prejudice that existed against him, that he was scarcely permitted to make his will, or to be buried in consecrated ground. Thirty years afterwards, he was re-interred under a splendid monument, which now covers his remains. On this monument a bust of Galileo was placed, together with figures of geometry and astronomy. His house is preserved as a relic of departed worth. He was seventy-eight years of age when he died.

SIR ISAAC NEWTON.

26. Sir Isaac Newton was born nearly two hundred years after Copernicus, in the year 1642, in Lincolnshire.

27. Newton's early education was limited, and he was quite an idle lad, but very soon became the first in his class. His greatest taste was for mechanical pursuits. He made a model of a windmill, which was turned sometimes by a mouse inside of it, which he called the miller; it was turned also by the wind. He made a carriage which was moved by the person who sat in it, and a water-clock that kept accurate time.

28. His mother gave him employment on her farm; but he spent his time in reading, while a servant executed his commands. As soon as his mother perceived the strong bent of his mind, she sent him to the university, where he might gratify his inclinations. He soon became a proficient in mathematics, and made many inventions in that branch of study.

29. Before he was twenty-three years of age, he decomposed light into seven different colours, and began to construct a reflecting telescope. He also dis-

covered that the attraction of gravitation caused every body to fall to the centre of the earth.

30. He was elected a member of the Royal Society in Cambridge, and had many honours conferred on him. He made many investigations in chemistry; but the results of his studies for years were lost by means of a fire which was caused by his favourite dog Diamond. It is said that when he ascertained the extent of his loss, instead of being angry, he only exclaimed "O Diamond! Diamond! thou little knowest the mischief thou hast done!"

31. The society of Newton was much coveted in London, by those who were in rank and power. He was buried with much pomp in Westminster Abbey, and a monument was erected to his memory. There is a portrait of him in almost every room in Trinity College, Cambridge, and a large statue of him in the chapel.

SIR WILLIAM HERSCHEL.

32. Sir William Herschel was born at Hanover, in Germany, in 1738. His father was a musician, and instructed his sons in the same profession. At the age of fourteen, Sir William accompanied a regiment to England, as one of the band of guards. He spent several years in teaching music and acquiring different languages. He was quite a proficient in music, and it is said that at one time he gave a concert, at which he played a quartet alone upon a harp and two horns, one fastened to each shoulder.

33. When about thirty years of age, his attention was turned to astronomy. He borrowed a telescope of a friend, and, as he could not afford to purchase one, he attempted to construct one for himself.

34. He first made a reflecting telescope, five feet in length, and from this he continued until he constructed one forty feet in length.

35. In 1781 he discovered the planet which bears his name. He was then appointed private astronomer to King George III., which station he occupied as long as he lived. He made many brilliant discoveries, and gained great reputation and honour.

36. He discovered the sixth and seventh satellites of Saturn, and made many observations on the planet, also the six satellites of the planet Herschel. He discovered that the Milky Way, which appeared like a misty haze, was a collection of vast worlds and universes, each of which was as extensive as our own, and that the nebulae was composed of stars; he also computed the magnitude of the stars.

37. Herschel made tables of all the stars in the northern hemisphere, and his only son, Sir John Herschel, was an astronomer of much note and celebrity. Herschel was assisted in his observations by his sister, Miss Caroline Herschel, who was distinguished for the correctness of her observations and mathematical calculations.

HON. WALTER FOLGER.

38. Walter Folger was born on the island of Nantucket, in Massachusetts, in the year 1768. He never attended any institution of learning except that where the simple rudiments of education were taught; but he had superior natural abilities, a mind which thirsted for information, great powers of application, and continuity of thought.

39. He possessed in a high degree the mathematical, mechanical, inventive, and astronomical talents. During the French Revolution he wished to acquire the French language; he therefore procured the necessary books, translated the New Testament, and acquired much information in the arts and sciences from the French Encyclopædias.

40. For many years he employed most of his leisure time, which was principally taken from his sleep, in study. When about twenty-two years of age, he commenced making an astronomical clock, and completed it in two years, which was in 1790. Since that year it has kept perfect time.

41. While lying on a sick bed, he learned lunar observations, and was the first one in the country who taught the method of casting longitude from them.

42. The plan of the whole machinery of his clock was matured and completed in his own mind, before he commenced to put it together. It is made of brass and steel. It keeps the date of the year correctly, and the figures change as the year changes. The sun and moon, or balls that represent them, appear to rise and set in the clock precisely as those in the heavens; also the sun's place in the ecliptic, and the time that he rises and sets, are indicated.

43. The clock keeps account of the motion of the moon's nodes around the ecliptic, which require eighteen years and two hundred and twenty-five days for the revolution; it shows both the sun's and moon's declination. The wheel that keeps the date of the year revolves around once in one hundred years. It remains still ten years; at the expiration of each ten years it starts regularly one notch.

44. This clock is considered by those who have witnessed its performances to be one of the greatest specimens of mechanical ingenuity in the country. It required not only mechanical skill, but a perfect knowledge of the principles of astronomy, to plan and execute its machinery.

45. In the year 1819, when about fifty-four years of age, he constructed entirely himself a reflecting telescope. With it he has been enabled to discover spots on the planet Venus, which had never been discovered by Herschel's large telescope; it therefore must have been of great power.

46. He was six years in the Senate, six years Judge of the Court of Common Pleas, four years Representative in Congress, and twenty years an Attorney at Law. He tried the most responsible and difficult cases against powerful opponents, with uncommon success.

47. He lived to a great age, and is a witness of what can be accomplished with energy, perseverance, and determination. When over eighty years old he amused himself by solving mathematical problems arithmetically, keeping accurate accounts of the weather, wind, &c., making his observations in the morning, at noon, and at night.

PROFESSOR OLMSTED.

By the permission of Professor Olmsted, the following biography is copied from the "Yale Literary Magazine":—

48. Denison Olmsted was born at East Hartford, June 18th, 1791. His ancestors were among the first settlers of the city of Hartford, having emigrated from the county of Essex, in England. His father was a respectable farmer, of moderate though competent fortune, but was cut off in the meridian of life when this his third son was only a year old.

49. The days of his childhood were divided between the village school and the labours of the farm, to which he was very early trained. At the age of thirteen he was placed in a country store, to be educated as a merchant; but at his own solicitation he was permitted, at sixteen, to exchange the life of a clerk for that of a student. He entered Yale College in 1809, and graduated in 1813. The two following years were passed in New London, in the instruction of a Union School, a select academy for boys. In 1815 he returned to college, and discharged the office of tutor the two succeeding years, pursuing at the same time the study of theology, under the instruction of President Dwight. In 1817 he received and accepted the appointment of Professor of Chemistry in the University of North Carolina, entering upon the duties of the office near the close of the year 1818, having occupied the interval in the laboratory of Yale College, as a private pupil of Professor Silliman.

50. In this situation he spent the seven years following, during which time he commenced, under the patronage of the Legislature, a geological survey of North Carolina—an enterprise peculiarly worthy of note, as being the first attempt of the kind ever made in America. He published the first scientific

account of the gold mines of North Carolina, and made and published some original experiments on the illuminating gas from cotton seed, a new and copious source of light which, it is believed, will one day come into extensive use in the manufacture of gas-lights.

51. In 1825, on the decease of Professor Dutton, Mr. Olmsted was elected to the Professorship of Mathematics and Natural Philosophy in Yale College, since changed to that of Natural Philosophy and Astronomy.

52. Professor Olmsted's career as an author began in 1817, with the publication in the New Haven Religious Intelligencer of a series of essays, entitled, "Thoughts on the Clerical Profession." The same year he prepared a memoir of President Dwight for the Philadelphia Portfolio. In 1824 and 1825 he furnished the papers above mentioned, "On the Mines of North Carolina," and on the "Illuminating Gas," &c., for the American Journal of Science. Since that time he has been a frequent contributor to that able and valuable quarterly. He has also furnished for it, as well as for the Christian Spectator, the American Quarterly Register, and the New Englander, numerous reviews and biographical sketches.

53. His "Introduction to Natural Philosophy" was published in 1831, and the "Introduction to Astronomy" in 1839. The substance of the latter was given to the public in 1840, in a handsome 12mo, in the popular and attractive form of a series of letters addressed to a lady. His last work—if we except the articles in the Quarterly Register and New Englander, and a small work, entitled "Rudiments of Natural Philosophy and Astronomy," published in 1844—was the life and writings of his gifted and lamented pupil and friend, Ebenezer Porter Mason, a name which bade so fair to be one of the brightest stars in the sky of that science which both so deeply and so passionately loved.

QUESTIONS.—What is the subject of Chapter XIV.? 1. Where was Copernicus born? What is said of his attainments? 2. For what study did he manifest interest? 3. For what did his father design him? Did he pursue this profession? 4. What were the prevailing opinions respecting the earth and sun, at that time? What course did Copernicus take in reference to this? 5. How long before Copernicus published his ideas? 6. What is said of the Church of Rome? What would have resulted from it? 7. What relic is preserved of him? How was he regarded by his friends? What illustration is mentioned of the esteem with which Copernicus was regarded by his friends? 8. What tribute was paid to his memory? 9. Where and when was Galileo born? What is said of his father? Did Galileo relish the study of medicine? 10. What were his natural inclinations? 11. What was one of his discoveries? What suggested this idea? What other fact did he learn? 12. Did the father yield to the wishes of his son? 13. What advancement did he make in mathematics? 14. What other discoveries did he make? Of what had he received information? 15. What experiment did he attempt? What was Galileo's success? 16. How much did the first telescope magnify? Second? Last? 17. What discoveries did he make by means of the telescope? 18. What did he learn respecting Jupiter? The Sun? Saturn? What was his final declaration? 19. What was the result of this avowal? What is meant by the Inquisition? What was the decree of the Pope and the Inquisitors? 20. On what did the Pope and the Inquisitors base their opinions? What did Galileo do in ten or twelve years from that time? 21. How did this affect his enemies? What did he do? What excuse is there for him? 22. What was the form of his renouncement? 23. What did he say afterwards? 24. What became of him? Did his interest in study diminish? 25. What affliction did Galileo meet? How strong was the prejudice against him? How did the current of feeling change? What was his age when he died? 26. When and where was Newton born? 27. What were Newton's early advantages? What was his peculiar taste? What are some of the things which he constructed? 28. How did his mother employ him? Did he like this? What did she finally consent for him to do? 29. What were some of his discoveries? 30. What honours were conferred on him? What mischief was done by his dog? How did he resent it? 31. How was he regarded by his friends? How

did Newton's friends express their reverence for him? 32. Where and when was Sir William Herschel born? What was his father's profession? What did Herschel do when fourteen years old? To what extent did he excel in music? 33. When was the attention of Herschel directed to astronomy? What did he resolve to do? 34. What was the result? 35. What was his first discovery? What appointment was conferred on him? 36. Name some of his discoveries? 37. What tables did he make? What is said of his son? By whom was the father assisted? For what was she distinguished? 38. Where and when was Mr. Folger born? What were his early advantages? What had he naturally? 39. What talents did he possess? Give an example of his perseverance? 40. What did he construct, at the age of twenty-two years? 41. Did his mind ever rest? 42. Give a description of his clock. 43. What are some of the different motions of which Mr. Folger's clock keeps account? In what manner is the date of the year kept? 44. Of what is this clock considered a specimen? What did its execution require? 45. What did he construct in 1819? What did he discover through this? 46. What are some of the offices which he filled with credit? 47. Of what is he a witness? In what manner did he spend his time during his old age? 48. Where was Professor Olmsted born? Who were his ancestors? 49. Where was his childhood spent? Where did he receive his education? What important stations did he occupy? 50. What was his situation for the next seven years? What important statistics did he publish? 51. What appointment did he receive in 1825? 52. What are some of the publications issued by Professor Olmsted? 53. What other works did he write? What was his last work?

APPENDIX.

ASTRONOMY, like other sciences, has had to struggle with difficulties—not merely with those consequent on the prosecution of so intricate a science, but with those which have arisen out of the ignorance and prejudice of the people. Even Religion has been called upon to use her influence to retard the progress of scientific truth, and her ministers have been the first to exert themselves to prevent any new light from dawning upon the world in reference to this science. The following summary of the persecution of the Romish Church may not be uninteresting as a brief appendix to this little work. It is an awful stain upon that Church which professes to have in its keeping the infallible truths of an infallible Diety, and gives us an insight into the fearful doings of that tribunal, at the bare mention of whose name all men formerly trembled. We are indebted for the substance of the following, to a very useful and well written Life of Galileo, in the "Library of Useful Knowledge." Galileo's attention to the subject of Astronomy, led him to entertain opinions in reference to the solar system at variance with the then received notions. In the year 1630 he finished a work on the Ptolmaic and Copernican systems; and by using certain artifices, and a vagueness in the title of the work, he succeeded in obtaining the sanction of the Pope and the Inquisition for its publication. But when the book was once before the public, the enemies of Galileo found means to alarm the Court of Rome, and Galileo was summoned to appear before the Inquisition. The philosopher was then 70 years old, and very infirm, and although at first he was treated with more lenity than was the custom of the Inquisition, yet, in order to make him abjure his faith, he was subjected to the horrid torture of the rack. At his trial it was declared, 1st. The proposition that the sun is in the centre of the world and immovable in its place, is absurd, false, and heretical, because contrary to the Scriptures. 2nd. The proposition that the earth is not the centre of the world nor immovable, is also false, absurd, and heretical, because opposed to the Scriptures. 3rd. That whereas Galileo had published a book in which these heretical opinions had been supported, it was adjudged in the mercy of the Holy Inquisition, that he should first abjure, curse, and detest the said errors and heresies, and every other error and heresy contrary to the Catholic and Apostolic Church of Rome, and that as a punishment for the said heresy, it was decreed that the Book of Dialogues, by Galileo, should be prohibited by a public edict, that Galileo himself be kept in prison for life, and that for three years he must recite once a week the seven penitential psalms. The sentence of Galileo was signed by seven Cardinals, and he was made to kneel, to curse, abjure, and denounce those truths which he firmly believed in.

The Inquisition succeeded in crushing a noble spirit, but not in crushing the great and noble scientific truths he had given tongue to. They had succeeded in inducing Galileo to belie himself, but the truths once having birth given to them, became immortal. They lived in embryo existence when the Inquisition was in full vigour and power, and now that its sun has set, and its day of glory has passed, the scientific truths of Galileo are honoured the wide world over. The world perhaps has lost nothing by the persecutions to which Galileo and others have been subjected. The fact of their being persecuted has called the attention of able men to the questions in dispute, and has led to the disputed points being settled for ever. We may deplore

the want of the martyr's courage in Galileo, and wish that he had stood firm to his principles, in which case history would not have presented us with a nobler character. "At the age of seventy," says Dr. Brewster, "on his bended knees and with his right hand resting on the Holy Scriptures, did this patriarch of science avow his present and his past belief in the dogmas of the Romish Church, abandon as false and heretical the doctrine of the earth's motion and the sun's immovability, and pledge himself to denounce to the Inquisition any other person who was even suspected of heresy. He abjured, cursed, and detested those eternal and immutable truths which the Almighty intended him to be the first to establish. Had Galileo but added the courage of the Martyr to the wisdom of the Sage—had he carried the glance of his indignant eye round the circle of his judges, had he lifted his hands to heaven and called the living God to witness the truth of his opinions, the bigotry of his enemies would have been disarmed, and science would have enjoyed a memorable triumph."

On the subsequent life of Galileo, there is some dispute. On one hand it is contended that he prosecuted his studies and made discoveries in the science; on the other, it is said that his spirits were entirely broken, and that he was never after known to write or speak upon the subject of astronomy. Since the time of Galileo, the science has made wonderful progress, and daily, we may say, some new discovery is made. Perhaps there is no science calculated to give us such enlarged views of the character of the Great Creator, as this; and in concluding this little work we would earnestly advise the young to gain as correct, and as extensive a knowledge of the heavenly bodies, as their means and opportunities will allow them. As a companion to this work, we would recommend one written by J. Jevons, an admirable little work, which may be obtained from the publishers of this. After the perusal of these elementary works, they might pass to others of a more erudite character; and at a little expense, and the sacrifice of a little time, gain a general knowledge of a science which they will find to afford endless satisfaction.

the first of the century, the country was a vast, unbroken forest. The land was covered with a dense growth of trees, and the soil was rich and fertile. The people who lived in the country were hunters and trappers, and they lived a simple life. They were not interested in the land as a source of wealth, but rather as a source of food and shelter. They were not interested in the land as a source of power, but rather as a source of life.

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SELF-IMPROVEMENT.

CHAPTER I.

CONSTITUENT ELEMENTS OR CONDITIONS OF PERFECTION OF CHARACTER.

SECTION I.

PROGRESSION A LAW OF THINGS—ITS APPLICATION TO HUMAN AND PERSONAL IMPROVEMENT.

THE EARTH PROGRESSIVE.

IMPROVEMENT is written in living characters upon every department of nature. The earth herself, once probably only a gaseous formation, during the lapse of infinite ages, condensed and cooled till a crust formed upon her surface, and she became ultimately fitted for the abode of life. But her earlier productions, as evinced by the petrifications found in her lowest strata of organic deposit, were coarse in structure, and every way exceedingly inferior. Yet every successive epoch, compared with the preceding ones, and even the latter as compared with the previous portions of each era, brought forth vegetables and animals of a higher and still higher order, in the exact date of the world's age, doubtless because, as she grew older, her elements became prepared to produce and sustain a higher and still higher order of life, till, at the epoch just preceding the creation of man, a lower order of the monkey tribe made its appearance; and finally, when this law of progression had fitted the earth for the habitation of man, the "lord of creation"—this last and most perfect work of God—was ushered into being.

Nor did her progress stop here. Her fertility is still becoming constantly re-augmented. All her mountains, hills, and even rocks, as well as those materials of which she is formed, are also so many storehouses of manure, and consist of material for making and enriching soil. By slow degrees the outside and fissures of rocks decay, and ultimately form soil, which wind and water transport to her valleys, and thus both supply the waste effected by growth, and perpetually enhance her fertility. Of this the rich mould in the seams of rocks and around stones, and the strength of stony land, as well as the fact that lime, pulverized rock, and some kinds of sand, re-fertilize the earth, furnishes both proofs and examples. Nor will this process cease, or our world be destroyed, till all her mountains, all her depths, are converted by surface decay into soil, vegetable formations, animal fabrics, and the materials for the manifestation of MIND. Our world was not created yesterday, and will not grow old or be destroyed to-morrow. These exhaustless stores, capable of being converted into vegetable and animal life, were not created in vain, and will not be destroyed; but, during countless

millions of centuries to come, will go on illimitably to re-augment the earth's fertility, and minister to human happiness. Indeed, every successive age will render her more and still more a paradise, and fit her to enhance more and more the happiness of all sentient life.

This conclusion is supported by the fact that vegetable and animal offal decay, re-enrich the soil, and re-augment the earth's productiveness. In fact, this enriching progress cannot be prevented. Hence a given piece of land, tilled in the best possible manner, if re-enriched only with the manure made from the cast-off portion of its own products, and especially if chemistry and electricity be brought into requisition, will support human life, and yet become richer and more productive illimitably and for ever.

THE MULTIPLICATION OF ALL THAT GROWS

furnishes another illustration of this principle of progression. No nut, grain, or seed whatever, is content to replace itself; but every vegetable, every animal, is constituted to "MULTIPLY." A single elm-nut produces a tree which often reproduces many millions of nuts PER YEAR, for centuries—enough, if all were properly planted and tended, to cover a large area of the earth's surface. The seeds borne by a single apple or cherry tree furnish another example. This multiplying law appertains equally to the seeds of all vegetables, of all fruits, of all grains, of universal vegetable life. Behold throughout the whole earth the perpetual workings of this prolific principle, not only in filling her gradually but effectually with all manner of products, but also in furnishing a vast surplus for waste and the sustenance of life!

This law of universal increase, except when thwarted by art, is perpetually multiplying the entire animal kingdom, and may possibly be multiplying suns and worlds from age to age. In general, the more inferior the animal the more fruitful. This increase of law, applied to man, is also perpetually effecting an

INCREASE OF POPULATION.

The inhabitants of given nations and districts unravaged by war, are reputed to double every twenty-five years. Our own population redoubles every twenty-three years. How astonishing our increase within the memory of us all! At this rate, what will it become in a hundred years? Over THREE HUNDRED MILLIONS—sixteen then to one now! And in two hundred years, OVER FIVE THOUSAND MILLIONS—twenty-five hundred then to one now! Nor is 2046 so far off either, but that some of our great-grandchildren will see it. And in a thousand years, ABOVE FIVE AND A HALF BILLIONS OF MILLIONS TO ONE NOW!! Other civilized nations will meanwhile also increase. A thousand years will crowd every mountain and crevice, and every isle of the sea, on the whole earth, yet this numerical progression of man will not cease in a thousand years, nor in a hundred thousand. Its ultimate destiny man's finite mind cannot conceive. Yet this is certain, that it will both crowd land and water with human beings to the utmost capacity of room and sustenance, and plying every possible means of augmenting her productiveness on the one hand, and observing the utmost economy of the means on the other, and then keep them as full as the highest happiness of the greatest number will allow, probably countless millions of years; for, to nature, "a thousand years are as

one day." Though this multiplying principle, doubtless, has its natural check, by which to prevent overpopulation, yet God alone knows the prospective number of His children.

Nor does this prolific law multiply vegetables, animal, and human life merely. It is also perpetually

IMPROVING THEIR QUALITIES.

Take an illustration from the kingdom of fruits. The tree which is grown from an apple seed rarely bears an apple like that in which its seed grew; because it must be pregnated with some foreign pollin in order to its fructification. Suppose, then, that a blossom on a tree which bears sweet apples is impregnated by the pollin—transported by wind, or bee, or insect—of a sour apple tree, the tree which grows from this seed will bear an apple unlike its sweet or sour parentage, but, between the two, a blending of the qualities of both, and perhaps better than either; and thus of the seeds of all other apples, cherries, pears, plums, and fruit of all kinds. This very principle is now at work over the whole earth, to improve and re-improve, from age to age, every species of fruit which grows. It is constantly reproducing new and superior kinds of apples, and varieties of the plum, peach, and grape, more and still more fair and delicious as time rolls on. Our forefathers were not permitted to feast themselves on fruits anywhere near as rich and as various as those which delight our taste; and our descendants will regale their palates both with new varieties, and those almost incalculably more delicious than any we now enjoy. Let those who question this recount the improvements in fruits which have taken place since they can remember, or compare the fruits of old orchards with those of new. None but those who have tasted the new Flemish and other varieties of the pear can either appreciate this improvement or realize what delicious fruits this very principle has recently brought forth. And may we not safely predicate what will be from what HAS been, especially when our own eyes see the actual workings of that very law which is effecting such improvement? Is nature's ingenuity or means exhausted? Scarcely commenced. Barely reached a fair beginning. All our splendid varieties of the pear doubtless spring from an austere, hard, astringent variety, and this parented by the little insipid thorn pear. All those large, beautiful, productive, rich, and delicious varieties of the apple, adapted to all tastes, which regale our palates, doubtless sprung from the hard, austere, astringent crab apple, and this was probably parented by the little bitter thorn apple.

All those magnificent varieties of peaches which delight our appetite, and moisten the parched mouth in oppressive August, were parented by a small, nurlly, bitter, and even poisonous product of the Persian desert.

Of the potato this is equally true—true of universal nature. Nor is the end yet, only the beginning. If from such materials for a commencement, this improving law has wrought out such magnificent edibles, what, with these luscious fruits on which to start anew will it not produce in ages to come? And since every new variety can be disseminated and perpetuated illimitably, by grafting, is it not possible for the most exalted imaginings to depict upon what luxurious varieties of all kinds of fruits, if not of new varieties, our descendants will regale themselves a thousand years hence?

Nor does this progressive principle improve fruit merely, but applies equally to animals. From the inter-propagation of different breeds of horses, cattle, sheep, etc., new, and often superior, kinds are produced. And thus of all that grows. In short, this all-perfecting principle must necessarily continue, throughout all time, to carry forward and upward every department of nature to higher and still higher degrees of perfection, inconceivably and illimitably! Our eyes behold only the mere beginnings of these incalculably glorious results which this progressive law must ultimately work out to all sentient beings!

HUMAN PERFECTIBILITY.

But much as this law of progression should awaken emotions of gratitude and admiration for improving soil, fruit, animals, and nature in general, shall we not rejoice that it applies also to our race, and in a degree as much higher as it is their superior? How should we literally EXULT in the prospect, aye, CERTAINTY, that man is not always to remain that low, stupid, degraded, ignorant, gross, sensual, gluttonous, lustful, deceitful, selfish, cruel, tyrannical, rapacious, blood-thirsty, depraved animal THING he now is, and always has been. He commenced his career under the dominion of the organs situated in the back and lower portion of the head—the social. For three thousand years he cared and lived mainly for offspring and sodomy; of which the exultation of Eve over the birth of every child, the desire of Abraham, Sarah, Leah, Tamar, the daughters of Lot, and all the ancients for issue; the vauntings of the fabled Niobe on account of her having seven sons and seven daughters, the grossest sensuality of the cities of the plain, the unbridled licentiousness of Babylon, the number and devotedness of the worshippers of Venus throughout the old world, and much more to this effect bears ample testimony. But the power of these passions evidently diminished as time rolled on, and has finally yielded its sway to Combativeness and Destructiveness, the organs of which are located higher up and farther forward than the social. War succeeded love, first uniting with it in chivalry, and the world has gone mad, almost down to our own times, after martial glory. Those who have won battles have been the earth's idols.

Alimentiveness—still farther forward—united with war, and Bacchus revelled with Venus and Mars. But within the last three centuries a new divinity—a god of gold and goods—has become a joint partner with sensuality, war, and feasting, and is now fast usurping universal dominion. Wealth is now man's master passion. Its organ is located still higher up, and farther forward, and this shows that man is advancing towards that ascendancy of the intellectual and moral faculties which constitutes virtue and happiness. But within the last fifty years Constructiveness—located still farther forward and upward—has ascended the throne, and is now ruling man in conjunction with Acquisitiveness, of which modern mechanical inventions, manufactures, and the like furnish examples.

That man is rapidly advancing is equally evinced in those successive governmental improvements which have taken place. Compare American government and institutions with those of any previous epoch, and behold the change for the better. Contrast the tyranny of the kings of Babylon, Nineveh, Tyre, the Cæsars, Nero, and even ancient England—of all antiquity—with the far greater leniency of all modern thrones.

and especially of all old governments with the comparative liberality and justice of the last and infinitely the best government on earth, and the improvement of governments is no longer problematical.

Similar advances have been made in religion. How sensual and debased the religion of the Egyptians, Parthians, and the mythology of Greece and Rome. A god for every depraved propensity; and the more disgusting the god, the more numerous and zealous its devotees, of which the numerous temples and thronged courts of the goddess of shameless public prostitution furnish pertinent examples. Judaism, with its interdiction of idol worship, was a great advance on all previous religions, and the pure and peaceful doctrines of Jesus Christ on the Mosaic dispensation.

But men, on a whole, were not yet prepared to appreciate these heaven-born and heaven-tending doctrines, and consequently perverted them. Yet every new sect of professing Christians has made more or less advance on the religion of its predecessors. And a mighty reform is now in progress before our own eyes, and a great and glorious change is becoming more and more developed as time progresses. Nor is the end yet.

Bad as the world still is it has been much worse. Many are the evils and abuses under which we groan; they are greatly diminishing compared with those of any former age. Nor are the KINDS of existing evil anything like as grievous now as formerly. The burglaries, drinking, swindling, and shark-like rapacity of the present age bear no comparison with the robberies, extortions, murders, and warlike courage of feudal times, and especially of barbarous antiquity. Who would not rather live in our speculating, money-grasping age than in former ones of clannish hatred, or knight-errant foolery and carnage? Are not our educational facilities annually improving, and the means of human comfort and even luxury multiplying apace? Let me live now in preference to any former age, and, for personal enjoyment, centuries hence rather than now. Man is destined to become almost infinitely more elevated in the scale of intellectual and moral excellence than he now is. This progressive law which has brought mankind immeasurably out of the ignorance, superstition, idolatry, tyranny, and bloodshed of past ages, will go on to make them terrestrial angels, and to render our earth a perfect paradise. Yes, the predicted millennium is not a fancy sketch but a prospective reality, and things are now shaping preparatory to its dawn. This all-perfecting principle is now rapidly ushering it in; nor can anything whatever arrest its advent or long postpone its blessed approach. It has already incalculably diminished sensuality in all its forms, especially lust and cruelty. It is fast banishing war and all its bloody horrors. It will soon "beat swords into ploughshares, and spears into pruning hooks," demolish the gallows, and convert prisons into mansions of happiness. It will increase knowledge illimitably, and diffuse it throughout the whole earth. It will promote health, by teaching and enforcing its laws, till "no one shall say I am sick," till "as the days of a tree shall be the days of my people," and till it banishes sin and suffering, augments men's talents and capabilities for enjoyment a hundred fold, and renders him as perfectly happy as it is possible for his nature to become or endure.

Is the SCIENTIFIC WARRANT for all this incredulously required? The following fundamental truths render it absolutely certain. First, this

universal tendency of all nature, animate and inanimate to perfection ; and shall MAN be its only exception ? Shall he not rather constitute its highest subject—the grand climax of this all-pervading principle ? Secondly, man's inventing capabilities are continually devising inventions without end, and making improvements innumerable, which his imitation is copying, extending, and perpetuating illimitably. If he invented merely, the improvements made by every individual would die with their author ; or if a copyist merely, he would have no new discovery to copy, whereas this union of both in his primitive constitution compels him to progress for ever in machinery, agriculture, scientific discoveries, and every conceivable species of improvement. Thirdly, an effectual and all-pervading hereditary instrumentality is perpetually at work throughout all ages and nations for perfecting mankind physically,* intellectually, and morally.† Fourthly, the past history of our race shows a considerable diminution from age to age of propensity, and a progression onward and upward from predominant Amativeness, through Philoprogenitiveness, Combaticiveness, Destructiveness, Alimentiveness, and Secretiveness to Acquisitiveness (its present governing passion), a recent rapid advancement of Constructiveness, and a present walking up of intellectuality. Every succeeding age has advanced him from the predominance of Amativeness, his lowest and posterior cerebral organ, up through one propensity after another, each higher up and farther forward than its predecessor, to Acquisitiveness, the last of the animal group, which is now powerfully exciting both Constructiveness and Intellect. Man is just beginning to think—is just learning the great truth that laws govern all things, and commencing to investigate and apply them, so as to promote virtue and happiness. Nor can he retrograde except temporarily. He is now under the reign of the last of the propensities. Backward this progressive principle will never let him go. His next step will dethrone propensity, and give the dominion to his higher faculties. Then shall all know the Lord, from the least even unto the greatest ; every species of sin and suffering shall be done away, and all mankind rendered perfectly holy and happy.

INDIVIDUAL PROGRESSION

is equally an ordinance of nature. Man is not brought forth, like the fabled Minerva, from the brain of Jupiter, in the full possession of every physical power and mental faculty, but a helpless infant, yet grows by slow, but sure, gradation in strength and stature to ultimate maturity. Youth is passionate, age deliberative. The pleasures of youth are trifles, and mainly appertain to animal gratifications, but rise with age to objects higher and still higher through life. When the distinctive characteristics of manhood or womanhood appear intellect proper expands. Thoughts flow more abundantly, ambition to be and do something worthy is enkindled, thirst after information increases, and every succeeding day adds to knowledge and mental capacity. These two instrumentalities—our being obliged to learn something daily, and to remember what we learn—literally compel that mental progression which is written in the very constitution of mind. Hence “old men for counsel.”

* See “Hereditary Descent.”

† See “Love and Parentage.”

Happiness being the summing up of all the ordinances of our nature if our capabilities of ENJOYMENT are constitutionally progressive, of course we improve by nature in all that renders life desirable—in “the chief end of man.” Our mental and all our other POWERS increase; and as these are but the “raw material” of enjoyment, why should not the latter proportionably increase? Experience also greatly facilitates happiness by warning us to avoid causes of unhappiness, and constituting a sure guide to success and pleasure. This great teacher of the most valuable lessons of life is weak in our childhood, but “grows with our growth.” Shall not, then, the happiness it confers? Our knowledge, another powerful auxiliary of enjoyment, also augments daily. Why then should not the vast range of pleasure it confers? As friendship is perpetually enlarging its circle, and strengthening its ties continually from childhood to old age, why should we not become more and more happy every successive friend we meet, and friendly expression reciprocate?

About our twentieth year we find a PARTNER of all our pleasures, a powerful augmentation of all the joys of life in “a friend that sticketh closer than a brother.” Love opens the seal of a new and incalculably delightful fountain of happiness, as well in anticipation as fruition, which increases as love strengthens, till it ripens into the tenderest emotions and sweetest pleasures of our natures. Though the course of true love never does run smoothly, yet it always might, and though marriage often diminishes love and its sweets, yet that its constitutional tendency is vastly to enhance, has been fully established in “Love and Parentage,” the causes of this decline explained, and directions given for becoming more and more happy every succeeding day of married life. The “honey-moon” barely USHERS in those hymeneal pleasures for the perpetual augmentation of which through life nature has amply provided. Ask any one who has lived in affectionate wedlock forty years, whether they would exchange a week of present connubial pleasure with that of any previous week since they first loved, and learn as well as heed in their prompt negative the great practical truth that love and all its exalted delights are governed equally by this great law of progression.

Marriage also unseals still another source of love in the transports of parental love. Every successive heir is constitutionally adapted to increase parental endearments and domestic enjoyment. When it does not ours is the fault, not nature's. “But its death often renders us most wretched.” It need not die. “But the family increases our cares and trouble,” objects one. Yes, but never NEED do. Yet of this, in “Matrimony.” Nature has also adorned the increase of property and the comforts of life with years, and of course all the pleasures they yield. And thus of honour, self-reliance, discretion, manual skill, taste, the application of causation, and, indeed, all that we do, and are.

“All this, and much more, is indeed true of a comparison of adolescence with maturity; but as advanced age DIMINISHES physical and mental action, it of course enfeebles our capabilities of enjoyment,” objects another. This is plausible, but superficial. “Can then decrepit old age enjoy muscular exercise as well as sprightly youth?” It relishes quiet better, and what it does do, tells far more than the mettlesome, ill-directed exertions of the young. The older we grow, the more we husband our steps and strength, make every blow tell, and do more

with less labour. Healthy old age, too, is generally sprightly, "But appetite certainly diminishes," says another. Is it not a law of appetite to relish favourite dishes more the more we indulge in them? "At all events," it is farther objected, "youth is free from those pains and diseases contracted through life, to which old age is generally subject." That age might be as free as youth is fully shown in "Physiology." "But the Bible expressly ascribes 'trouble and sorrow' to those who exceed seventy," rejoin its believers. Rather says it is so, yet not that it is their FATED destiny. This usually is the case, because men generally violate the physical and mental laws through life, and must, of course, abide the consequences in old age; yet neither such violations nor their penalties are NECESSARY. Those who become more and more diseased do so because they violate the physical laws more and more as they grow older, and of course become more and more wretched; yet we speak of those who through life FULFIL the ordinances of their nature, nor violate nature's requisitions, and thus incur her penalties—of what MIGHT AND SHOULD BE instead of what is.

"But look at facts," objects still another. "See how much more happy, sportive, and gay, childhood and youth than middle and old age. Ignorant of the world's wickednesses, unrestrained by its customs, unconscious of its troubles, yet their morning sun always DOES go into a cloud of sorrow, or a storm of adversity. Does and MUST are two things. Our capabilities of being happy increase with years, why then should not our happiness? It would, as invariably as it now declines, if men only knew HOW TO LIVE. Nature has done her part towards rendering us all more and still more happy every succeeding year and day of life from birth to death, and he who does not become so, does not live up to his glorious privileges or destiny; nor should any be content unless they do. Yet those who still reject this progressive doctrine are quite welcome to its down-hill converse, and their own consequent "growth in misery" instead of "good."

But this doctrine is set completely at rest, and all cavilling silenced by that constitutional increase of the intellectual and moral faculties secured by age—their predominance being the great condition of all enjoyment. We shall soon demonstrate the principle that the ascendancy of the intellectual and moral faculties over the propensities constitutes virtue and happiness, while that of the propensities causes sin and misery. Now children and youth are constitutionally more animal and impulsive than matured and advanced age. Their passions are relatively stronger, and intellectuals and morals weaker, and hence their enjoyments less. INTELLECTUAL AND MORAL excellence is the great cause and condition of happiness, and as this constitutionally increases with age, of course that happiness which it always and necessarily induces, proportionably increases. Age is as much better adapted to reading and reflection—those great means of intellectual advancement—than youth. The latter is too restless to endure the confinement requisite for reading or study, while age seeks "that old arm chair," which facilitates both. Healthy old men of eighty, who have cultivated their minds through life, and can get books, literally feast on them. Catechise them on this point, as the author has, and learn in their answer how to render their own descent to the grave the happiest period of life. Listen to their stores of anecdotes and information, and heed their ripened wisdom and sound judgment, and you

may well wish to be of them. Even up to the last day of life, nature ordains that they retain these transcendent gifts.

Age, too, when nature has her perfect work, constitutionally augments MORAL excellence—that crowning feature of humanity—and ripens all the moral virtues besides facilitating the control of the passions—and thus secures, by a natural process, that very ascendancy of the moral faculties which mainly constitutes happiness. Moral excellence does not consist in isolated goodness, but in a long succession, every addition to which augments both it and its consequent enjoyment. It is like the morning light which grows gradually into the perfect day. Hence it is impossible for the young to become as good and consequently as happy as the old. Age constitutionally purifies the moral virtues and their delights. The young Christian may be more fervent, yet cannot be as holy. Though he may evince more rapture, yet for close communion with God, and desire to see and be like Him, the aged saint is much the senior as in years. Age loves to meditate on “heaven and heavenly things,” and by having breathed forth holy longings and aspirations for so many successive years, has become “the shock of corn fully ripe” for heaven, and just ready to be gathered into its anticipated “rest.” Would ye, who have so long panted after perfect holiness, return to the zeal and the temptations of your earlier religious life? On your verdict rests this, the ultimate issue of our glorious doctrine. Moral excellence being the great instrumentality of all enjoyment—which age constitutionally augments; nature has provided that we become better, and therefore, more and more happy every succeeding day of life.

Even its very closing is its happiest period. As sunset and evening twilight are the most beautiful portions of the natural day, so departing life sheds a holy calm and sweetness over the soul unknown before, and as, when the last rays of day invite that rest which is now more welcome than all waking pleasures, so when life dies away by slow degrees, it welcomes nothing equally with that eternal rest which awaits the children of God. Nature’s thus weaning us from earth preparatory to our leaving it, and her thus ripening us, as we approach the grave, by this natural decay of propensity, and growth of moral feeling, for the joys of heaven, is one of her most beautiful provisions. Nor is even death itself, when occurring after the ordinance of nature, that grim, horrid monster generally represented, but a real blessing, even the crowning blessing of life, not merely as the usher of heaven, but in and of itself, as we shall show under VITATIVENESS.

Man was then ordained by nature to become more and more happy every succeeding year and day of life, up to its very close; and this life itself is but a preparation for an order and amount of happiness infinitely higher than our limited faculties can conceive. Behold that literally INFINITE scale of progression in happiness and goodness thus placed within our reach.

But this scale descends as well as ascends. We can deteriorate as well as improve, and become more and still more miserable instead of happy. Indeed, one or the other we must become. Stationary we can never remain, in this matter, any more than in age. PROGRESS WE MUST, not in goodness and happiness, in sinfulness and misery, which depends mainly on our own selves. And how many grow in wretchedness as they grow in age—so that nearly all think they, too, must descend in

this mighty current with the mass ; Such know neither their glorious privileges, nor how to secure them. But shall we thus retrograde and suffer ? “ God forbid ! ” Shall we not rather strive to attain the highest possible measure of perfection and happiness ? Shall the pursuit or the possession of riches drag us down from this soaring destiny of our natures ? He is richest who is most happy. Or shall anything whatever ? No, not everything combined ! We CAN be happy, and WE WILL. This, the one destiny of our being, shall become the paramount employment of our entire lives. What else is desirable ?

But we have something to do. Though nature has created these capabilities of perpetually increasing enjoyment, yet their productiveness will be only in proportion to their right CULTIVATION. She treats us as voluntary, not as passive beings ; and having furnished us with the means of rendering ourselves happy, leaves us to use or neglect them, and take the consequences. As soil, however rich, is productive in proportion as it is tilled, so, having planted the SEEDS of enjoyment in the rich soil of human capability, she leaves us to perfect their fruit by culture, or to choke their growth by sin, and embitter their fruit by violated law. Ye who are careless of happiness, idle or trifle on ; but let us who would render ourselves, by self-improvement, what God has capacitated us to become, turn from vanities, bury no talent, but redouble all while we live, and by studying and improving all our natural gifts, fit ourselves for that high and holy destiny hereafter secured to such by this great principle of ILLIMITABLE PROGRESSION ! And to this end let us proceed to investigate its CONDITIONS that we may fulfil them.

SECTION II.

CONDITIONS OF PERFECTION AND ENJOYMENT.

THE HARMONIOUS ACTION OF ALL THE FACULTIES

Constitutes a fundamental condition alike of perfection of character and happiness of life ; whereas CONTENTION among the faculties is both destructive of all enjoyment and the cause of intense and mental agony. A few illustrations :—

During the revival which transpired in New York, in 1842, a gay and volatile young lady became seriously impressed, but loved the pleasures of the world too well to yield to her religious convictions. Yet so firmly had they fastened upon her, that her resistance only increased them. This state of mind lasted several weeks ; and in describing the feelings consequent on this conflict of her moral with her worldly faculties, she expressed herself to this effect :—“ I could never have believed, unless I had experienced it, what extreme agony of mind one can endure and yet live,”—all because her faculties conflicted with each other. A young woman who became thoroughly enamoured of a young man, whom she at first supposed every way worthy of her confiding and tender love, when finally convinced that he was sensual, depraved, and every way unworthy of her, could not, however, cease to love him. Her high moral feelings forbade her marrying him, yet her social affections still clung to him with all the yearnings

of a woman's first and only love; and this contention between misplaced but deep-rooted affection on the one hand, and her high intellectual and moral faculties on the other, broke down one of the very best of constitutions, rendered one every way capable of being exquisitely happy in the domestic relations most wretched, and continued, in spite of long separation, the entreaties and remonstrances of friends, and in opposition to her own convictions of interest and duty, till it made a complete wreck of a truly magnificent woman. This internal warring of the affections with the other faculties is like pulling one limb one way and another the other, till the ligaments which united them are torn assunder. Many female readers have doubtless experienced, in their own souls, the indescribable anguish caused by this clinging of their affections to those who were repulsive to their other faculties; and how many others will be able to call to mind pitiable victims of the physical and mental disasters consequent on this internal warfare. How many men, likewise, who, while deciding whether they should crown their love by marriage, have had their pride wounded by being required to demean or humble themselves more than their proud spirits would bear, yet were unable to tear their gushing affections from their loved one, although rendered most miserable by this contention between their pride and their love.

Let any young man who loves his independence, and yet loves money, go into business where he is made a menial, with the certain prospect of becoming a partner and getting rich, if he will submit for a while to dictation. He wants the place, but he hates the service; and this struggle between liberty and interest is perfect torment to his troubled soul. Have not many readers had experience in this, or some other kindred illustration?

Pardon a personal allusion. A godly clergyman who preached where I was brought up, and to whom I looked up as a model of perfection, was rarely ever seen to smile, and frequently remarked that the Saviour was often known to weep, but never to laugh. From this, joined with a very rigid religious education, I imbibed the notion that it was wicked to laugh or joke. Still, Mirthfulness would out. Conscientiousness would then upbraid till a promise of reform gave a truce. But traitor Mirthfulness often broke the armistice, and again and continually embroiled the contending armies in civil war. Year after year did this internal warfare go on without cessation, till Renenology separated the combatants, and restored peace by telling Conscientiousness that it was not wrong to laugh, but was right, because Mirthfulness was a primitive faculty of the mind, and should therefore be exercised, besides being every way promotive of health and enjoyment. I have suffered from a broken limb, and have endured a dislocated joint, and suffered much from other causes; but the like of this civil war I never experienced before or since. And all from this warring of the faculties. And this from ignorance and superstition. The exercise of every primitive faculty is right, is necessary, provided it be in conjunction with all the others, and upon its legitimate object.

A man whose Combativeness is subject to quick and powerful excitement, yet whose large Conscientiousness condemns him therefor, endures more than the pains of purgatory by this quarelling of Conscientiousness with Combativeness. Or perhaps appetite and duty quarrel—the former insisting on eating more than the latter will allow—so that a

guilty conscience continually upbraids him for his continual violation of what he knows to be right. Reader, does not this illustration come home to your own experience? Do not conscience and appetite struggle for victory, each at the same time inflicting deep wounds upon the other, and thus lacerate your guilty soul with more than ten thousand stripes? Or, perhaps thy kindness and justice, or thy justice and love of money, or thy devotion and propensities, are at swords' points, each thrusting daggers through thy soul more dreadful than death itself, or, at least, sufficient to mar all the pleasures of life? A house divided against itself cannot stand. He who condemns himself for what he does, or any of whose faculties act in opposition to each other, is thereby rendered inconceivably wretched. Well has the Bible said, "Happy is that man who condemneth not himself in that which he alloweth," and it might have added, miserable those who do.

Yet happy he whose faculties work together in the silken cords of harmony. Happy he whose conscience APPROVES what his appetite craves, and thereby sweetens his rich repast—whose love of family and of money each redouble the energy and augment the happiness of the other; whose parental feelings are gratified by seeing his children grow up in the fear of the Lord, and walk in the ways of wisdom; who loves the wife of his bosom without alloy, and sees no blemish in her, but every perfection to heighten the action and the pleasure of all his other faculties; whose love of justice and of money delight to acquire it, in order to discharge all his pecuniary obligations; whose hopes and fears never oscillate; whose intellectual convictions of truth never clash, but always blend with all his feelings and conduct; whose tastes are all gratified by his occupation and associations; whose friends have every quality he likes, and none which mars his pleasure in them; in short, all of whose faculties move on in harmonious concert to attain one common end, desired by all, delightful to all, and who is completely at peace with himself. He is happy. His cup of pleasure is full to its brim, unmingled with a single drop of bitterness or atom of pain. He is holy. He is perfect. May every reader see this law, apply this law, enjoy this law, and your children and household along with you!

Let me not, however, be misunderstood. I shall elsewhere show that one way, and that the most effectual, of subduing dominant propensities, is to array the moral sentiments against them. Whenever they become perverted, pit the moral sentiments and intellect against them in mortal combat. This will reform them if they can be reformed, besides being the severest punishment mankind can possibly endure. Yet this clashing should not occur except as a means of reform; and when it does, its cause should be ferretted out and corrected. When all the faculties co-operate in harmony with their legitimate functions, none of this clashing can occur; and when it does, let the guilty sufferer—even his suffering implies that he is guilty—ferret out the cause. Let him see which faculty has broken from its normal function, or whether both have strayed from the fold of virtue, and restore the wanderer. In other words, let no faculty be found arrayed against the legitimate function of any others, but only against their ABNORMAL or VICIOUS manifestation, and then for the express purpose of effecting reform.

An additional advantage derived from this concert of action is the

increased power imparted to all the faculties by this co-operation. Thus, when Cautiousness and Combativeness oppose each other, they produce that mental uncertainty, and consequent irresolution, which palsy every effort and blast success; but when they blend together, they give that energy and prudence combined which render success well nigh certain. Let Casualty lay hold of the same measure, and devise a well-concerted plan for this combined prudence and energy to execute; let Benevolence draw in the same trace; let this well-concerted and efficiently-executed plan seek the happiness of mankind; let Conscientiousness sanction it, and urge on every other faculty to labour for its accomplishment; let Hope cheer them on with bright prospects of abundant success; let Language and all the other faculties contribute their resources, and find ample employment in furthering this labour of love; let firmness keep them stable to their work, and prosecute this well-laid scheme till it is completely effected; let ambition, piety, and all other powers of the soul and body combine together to carry on and carry out the noble purpose, and each, besides contributing its quota of help, also increases the action of all the others. Union is strength: division is weakness. How vast the augmentation of power derived from this harmonious co-operation of all the faculties. If any faculty refuse to come up to the work, besides the absolute loss of its own power, its absence weakens the hand of all the others. This concert is like concord in music, while conflict is double discord. Frequently a single faculty will completely nullify the combined efforts of all the others. But enough. The principle involved is clear, is forcible. Let every mother apply it. Let every child be trained in view of it. Especially let all those faculties which the business or the pleasure of any require should act in concert be trained accordingly, and a vast augmentation of success and happiness will be the delightful result.

NORMALITY OF FUNCTION.

Every physical, every mental function of man is capable of a two-fold action—the one natural or normal, and therefore pleasurable; the other unnatural or abnormal, and therefore painful. The normal action of the various physical faculties constitutes health, and bestows its pleasures; their abnormal action causes disease in all its forms, and occasions all its pains.

Each of the mental faculties is capable of this dual action. The natural, and therefore pleasurable exercise of Conscientiousness confers that happy state of mind consequent on the consciousness of having done RIGHT, or the approbation of a clear conscience; while its abnormal or painful action begets the upbraidings and compunctions of a guilty conscience, or the goadings, self-reproaches, and self-condemnations occasioned by the convictions that we have done wrong. The natural or primitive function of Ideality is the pleasure experienced in beholding or contemplating the beautiful in nature, art, and sentiment, and in exercising those refined, elevating feelings which this faculty inspires; while its reversed action causes those painful feelings of disgust and loathsomeness with which this organ regards vulgarity and grossness. The normal function of Approbativeness is that delight which we experience when commended for truly praiseworthy honorable conduct, while its abnormal or reversed

action causes that feeling of mortification and shame which we experience when rebuked for what we know to be disgraceful. The normal function of Adhesiveness is that unalloyed pleasure taken by cordial, sincere, intimate friends in the society of each other, but its reversed unnatural function is the pain felt, the lacerations of friendship produced by the loss, death, removal, or separation of friends, or by their traitorously turning enemies. The natural function of Philoprogenitiveness gives the pleasure parents take in their children when they see them growing up healthy, talented, and good; while their sickness, depravity, or wretchedness, wound, pain, reverse this faculty. The normal function of Combaticiveness is resistance, resolution, self-defence, protection, energy of character; its unnatural or vicious action is anger, violence of temper, irritability, peevishness, faultfinding, and abusiveness. The natural function of Alimentiveness is appetite for those kinds of food best calculated to sustain nature and improve health; its sinful exercise is gormandizing, gluttony, sensuality, intemperance, tobacco chewing, tea and coffee hankering and drinking, etc. The natural function of Casuality is to investigate truth and expose error, as well as to adapt lawful means to the attainment of proper ends; its perverted function consists in either employing wrong means or effecting wicked ends, or reasoning against truth, or in defence of wrong, that is in putting this power to an improper use. The natural function of Language is to express correct and useful ideas in a proper and beautiful manner; its perversion consists in retailing petty slander, or using it to excite improper, injurious feelings, or to communicate what will do harm. Similar remarks will apply to Mirthfulness, Individuality, Time, Calculation, Secretiveness, Acquisitiveness, and indeed to every mental power. In other words, every function of our complicated nature takes on a natural and therefore pleasurable action whenever the laws of its constitution are fulfilled—whenever it is rightly applied to the promotion of the end to secure which it was created, but experiences a painful action whenever exercised out of the pale of its primitive constitution. To exercise any faculty in harmony with its primitive function renders its action necessarily pleasurable; to exercise it in contrariety therewith, always, and by a law of things, causes pain. And one of the first great steps to be taken in securing that improvement and happiness, the conditions of which constitute our present inquiry, is to learn and fulfil this NORMAL function of all our faculties. Hence, to be happy is not, after all, so very difficult, provided we KNOW HOW, and this work will, therefore, give both the natural, and also the perverted, or painful, or sinful—all the same—action of all the faculties—the normal, under the head of ADAPTATION, and the other under that of PERVERSION or ABUSE.

It deserves more specific remark that this moral action of the various faculties constitutes virtue, and their abnormal or perverted action, sin, vice, or depravity; so that, by following their natural direction, we shall avoid sin and its penalties, and render ourselves virtuous, and therefore happy,—a principle too intrinsically and practically important to be thus cursorily dismissed, and therefore laid over for re-consideration. Simple as it is, it discloses one of the first and most fundamental conditions of morality and happiness, as well as causes of sinfulness and suffering, which exists. Let all, therefore, to whom

pain is painful and enjoyment desirable, study out this normality of all the functions, and fulfil it. Nor can too much pains be taken to give the faculties of children this natural action, or, rather, to RETAIN that normal action which unperturbed nature imparts at first, and does so much to perpetuate.

CEREBRAL DISEASE AS CAUSING DEPRAVITY.

This abnormal or depraved action of the faculties is caused, among other things, by disease of brain and nerve; and such disease always produces their abnormal, and therefore more or less painful and depraved manifestation. By a law of things, sickly organs can never produce healthy functions, nor healthy organs sickly functions. As is the state of any organ at the time it executes its function, so will be that function. As like parents like children, so like organs like functions. Can a diseased heart execute a healthy function, or a healthy heart disease of function? Does not stomatic disease necessarily disorder the digestive process—and its inflammation or debility inflame or debilitate its product? Can a diseased liver possibly produce healthy bile? Or diseased eyes correct vision? This law pervades hearing, taste, smell, intellect, morals, and every other organ and function of body and mind. All sickness consists, solely, in functional derangement caused by organic disease, and all remedial efforts pre-suppose that organic restoration secures functional health. The intimacy which exists between them is demonstrated in "Physiology" to be perfect. The perfection of this reciprocity is what constitutes an organ an organ. How is it POSSIBLE to disorder the brain without similarly deranging the mentality? The diseased, that is the abnormal, condition of the brain, MUST produce a similarly diseased or abnormal action of the mental functions. And what is abnormal mental action but a departure from the natural or constitutional, and therefore RIGHT action? The natural or normal function alone is right, is virtuous, is happy; all departures therefrom are sinful.

If this new doctrine require proof, it has it in the fact that all normal action is necessarily pleasurable because it fulfils law, whereas all abnormal action is painful, because it violates law. All cerebral disease violates the laws of MIND, and breaks the MORAL as well as physical laws; and this is sinful. All normal exercise of mind is virtuous, because it fulfils the laws of mind, and therefore occasions happiness. But all abnormal action of mind violates its laws, and this occasions pain, and is of course sinful. Now all diseased action is painful, and, by consequence, sinful; for how can pain exist unless caused by violated law, and what is such violation but sin? The fact that anything is painful proves that it is sinful. Since, then, cerebral and nervous disease is painful, therefore it causes sin. The fact is, MIND is as capable of being sick as body, and this mental sickness is sin. That is the mental functions performed by diseased brain are diseased; that is, depart from nature's institutes, and such departure constitutes depravity. Other things also occasion depravity, yet so does this. The idea may be new, yet it is true, that Approbativeness, Combaticiveness, Appetite, Acquisitiveness, and even Devotion, Conscientiousness, Hope, Reason—all the mental faculties—are capable of becoming sick, as much so as the stomach, liver, lungs, eyes, or any other organs, and when sick their products are depraved, sinful. Not that all sin and consequent misery

has this physical origin, but that much of it has is a matter of observation and experience. Do not children become ill-natured, that is, depraved, in proportion as they are unwell, and more sweet and good when perfectly healthy? Much of the wickedness of mankind is on a par with insanity. It is the offspring of PHYSICAL DISEASE. It is caused by the sickness of the ORGANS of the erring faculties, not by depravity of purpose.

Those, therefore, whose propensities clamour for unlawful gratification, may find the cause in cerebral or nervous inflammation, which must be restored before normal and virtuous action can take the place of the erring propensity. Will may aid such restoration, yet the CAUSE—disease—must be obviated before the evil can be removed. In short, all who would improve their intellects and morals must begin by keeping their BRAINS and BODIES in a healthy and vigorous state. But the full power and importance of this principle will be still further established and enforced by—

SECTION III.

THE INTER-RELATION EXISTING BETWEEN THE BODY AND THE PROPENSITIES.

EXISTENCE OF THIS RECIPROCITY OF CONDITION.

THOUGH the reciprocal inter-relation of the brain as a whole to the mind, and also between the various states of brain and mind, that is, between body and mind, has already been shown to be complete, yet this reciprocity of condition is more especially intimate between the body and the BASE of the brain, and of course between all the various conditions of the body and the PROPENSITIES—a principle which Phrenology first disclosed, and which lies at the very threshold of all self-improvement, all human reform, and all educational efforts. Though all physical irritation preternaturally excites the brain, and of course the mind, and all bodily debility enfeebles brain and mind, yet these and all other kindred influences of the physiology upon the mentality, affect the BASE of the brain and the ANIMAL PROPENSITIES much more, relatively, than the higher organs and faculties.

ANATOMY demonstrates this law. All those nerves already shown to connect the body with the brain, originate in its base, none in its coronal region, as shown in "Physiology." This anatomical fact alone completely establishes this principle.

THE FUNCTIONS of the animal organs still more fully establishes this law. To serve the BODY, and execute the ANIMAL functions of our nature, is their exclusive office. Alimentiveness feeds the body; Acquisitiveness stores up food, clothing, property, and, with Constructiveness, builds houses, and provides other means of physical comfort. Combactiveness and Destructiveness defend and protect the body first, and especially LIFE, while Amativeness, parental love, and all the other organs in the base of the brain, have special reference to the functions and demands of our ANIMAL nature. Hence, they are appropriately located close to the body which they serve, and whose wants they

supply, so that the inter-communication between the two may be as direct as possible, and be facilitated by their juxtaposition—a principle elsewhere explained. Hence also, the conditions of each exert a more direct and powerful influence upon the other than the body exerts upon the moral sentiments, or the moral sentiments upon the body. The moral organs—those of the higher, religious, god-like sentiments—and also the reasoning elements, occupy the upper portion of the head, as far removed as possible from the body, so as to be disturbed as little as possible by its morbid excitement.

FACTS, not isolated, but in ranges and classes, in which one fact represents MILLIONS, also place this law beyond all cavil and doubt. Thus, why do not colds and fevers enhance benevolence, devotion, justice, and goodness, and render us holy and heavenly-minded? Why do they actually enfeeble these higher elements, while they greatly enhance the propensities? Why does being unwell, that is, bodily irritability, render all children so cross and peevish, that they fret at every little thing? Do and forbear as much as you will, nothing pleases, but everything irritates. But restore them, and how cheerful, happy, and good-dispositioned you render them. Hence many children are ill-natured because unwell, and yet punished in consequence of their being sick. Rather punish their mothers or nurses for not rendering them good by keeping them well. Sickly children, however good-disposed by nature, are necessarily irritable; and by far the most effectual means of rendering them sweet-dispositioned, is to keep them in excellent health.

But let them become so very sick as to prostrate instead of inflame their bodies, and their passions are prostrated more, relatively, than their higher faculties. Obedient, sweet-dispositioned, they submit to their fate with almost angelic reconciliation; and if they die, mark that benignant, almost angelic, expression stamped on their countenances by the moral sentiments, which, dying last in accordance with our law, because less affected by bodily disease, leave their benign impress, whereas, if the propensities were last to die, they would leave their animal impress on the expression. If both classes of faculties were equally affected by the state of the body, both would become irritated and debilitated, and die simultaneously, whereas the moral elements die last, because less intimately inter-related with the body.

But let them not quite die, and what is the first sign of returning health? A mad snarl, reviving appetite, re-irritated propensities; so much so as to cause the speak-word, "O, you are better, because you are getting cross—the best sign of it in the world." Why does dyspepsia render its unhappy victims fault-finding, irritable, and peevish? Why do disordered nerves excite mainly the bad passions, and render even the amiable fretful? Why are the sick generally so ill-natured, ungrateful, unreasonable in their anger, and cross-grained throughout? Why do not diseases promote kindness, forbearance, talents, and practical goodness? Because the irritated state of their bodies, and CONSEQUENTLY of their animal nature, caused by physical disease, affects the BASE of the brain more, relatively, than the top.

The mode in which death transpires, also, corresponds perfectly with this principle. The extremities die first; sensation and nervous energy rapidly decrease; the animal passions follow in quick succession; and conjugal and parental love, appetite, anger, revenge, love of the world, etc.,

are all deadened before the moral or intellectual faculties become stupified. Love of life, also an animal organ, situated in the lowest part of the base of the brain, lets go its hold on life before the moral faculties give up; and hence the dying man is willing to depart, because his love of life and of sensual joys has been subdued by the grim messenger before his higher faculties are prostrated.* Dying persons often attempt to speak, but cannot, because the organs of Language and Memory, situated low down in the forehead, near the body, fall before the approach of death sooner than the still operating organs of reason, which are situated higher up. Every one must have noticed that the dying bid the last earthly adieu to their friends, and even to their companions and children, whom, through life, they have loved most enthusiastically, with as much coolness and indifference as if they were to be gone but a day, and yet their still vigorous intellect gives wise directions as to their future conduct. Those who die in the triumphs of faith, that is, in the vigorous exercise of the moral faculties after the death of their animal nature, also practically illustrate this law, as do those who die in the reversed or painful action of these organs. After presenting this principle in a lecture at Smithville, New York, an elderly deacon stated that he had EXPERIENCED its truth in his own person. He said that he had been once so very sick, that he and all his friends expected every breath to be his last; yet that he had no desire to live, and no regard for his wife and children, although, both before and since, they were particularly strong; nor the least ill-will against any one, though before he had felt hard toward several; no regard at all for property, and not a worldly feeling left, although in the entire possession of his intellectual and moral faculties, and perfectly conscious of everything that occurred. He was also able to reason and think, though unable to speak. On the return of health, his domestic and other animal feelings returned. He said it had always been a matter of surprise to him that, just as he was, to all appearances, about to bid a final adieu to his family, whom he dearly loved, he should have regarded them with such perfect indifference, and yet that both before and after his sickness he should have loved them so devotedly.

Dr. Vanderburgh, of New York, relates the following:—A patient had taken, by mistake, a preparation of potash, which gradually, in about eighteen months, terminated his life. It first neutralised his love of his wife and child, before very enthusiastic; his anger, before ungovernable, next fell a prey to its ravages, and his ambition next; while his still vigorous intellect noted, and often commented on, this gradual decay of his animal nature—all in perfect accordance with this law. Abundance of other instances, illustrative of the above theory, might be adduced if required, but these we deem quite sufficient.

The proverb, "old men for counsel, young men for action," embodies

* How beautiful this principle, how wise this provision, merely as a means of rendering death less painful than otherwise it would be! If we died during the full vigour of love and life, property, family, ambition, and other worldly desires, how much harder would it be to be torn forcibly from them than after the weakening of the body has deadened our love of life, unclasped our hold on wealth, palsied connubial and parental love, and destroyed nearly all our earthly desires! This principle will render dying less painful than the living suppose, especially to those who die a natural death—that is, by the gradual wearing out of the body.

this same principle. "Action" and force of character are given by the vigorous exercise of the animal propensities, which are stronger in young persons than in old, only because their BODIES are more vigorous. During childhood and youth, while the body is vigorous, the propensities and perceptive organs are extraordinarily active, but the higher sentiments less so; in middle life, the passions and intellect are both powerful; but the talents attain their maximum of power after age begins to enfeeble the body. Milton commenced his "Paradise Lost" after he was fifty-seven years old, and decrepit and enfeebled by age. The most splendid intellectual efforts ever put forth have been made by men in the decline of life. In harmony with this principle it is that many young men, who, between the ages of twenty and thirty, were wild, dissipated, and given to animal indulgence, after thirty become excellent members of society. Probably most readers can bear witness to the fact that, as age advances, the energy of their propensities declines, while that of their intellectual and moral powers increases. Observe your tastes, the tone and cast of your intellects, your likes, studies, and all those mental operations which furnish a test of this law, and you will doubtless perceive a permanent augmentation of the power of your intellectual and moral elements, and decline of your propensities.

This principle is still farther established by one great law of both Physiology and Phrenology. At first, the base of the brain is alone developed. In infants, but little brain is found in the top head, while the basilar region, and especially the OCCIPUT, is much larger, relatively, than in adults. As youth progresses, or, rather, as the brain grows, it expands, not proportionably in all its parts, but forward and upward—in the MORAL AND INTELLECTUAL region, more, relatively, than in the basilar—and this change goes on till the body is fully matured, and begins to decline, when the propensities become enfeebled, yet the intellect is augmented in power; love of reading increases; the thinking powers branch out into new regions of thought; the judgment becomes more sound; and the higher elements of our nature ripen up to their full maturity and power. How beautifully also does this principle explain the fact that old men are more cautious than when young. The organs of Cautiousness and Casuality are located higher up than the propensities, and, therefore, age weakens the latter, yet augments the former, and increases prudence, protection, provision for the future, and the like, but diminishes recklessness.

Sometimes age increases irritability, selfishness, and all the animal passions; but this is the case only when the body is in an inflamed condition, the physiology morbidly inactive, and of course the propensities likewise preternaturally excited; when the body is in a healthy condition, cheerfulness and contentment increase with years.

So also the memories of children and youth are astonishingly retentive and vigorous, while those of aged persons usually become enfeebled: but the judgment of the latter grows strong, while that of the former declines; because the organs of memory, being in the base of the forehead, are vigorous when the body is vigorous, and become enfeebled by age; but those of the judgment are in the upper portion of the forehead, and therefore partake less of the weakened state of the body. A severe fit of sickness, when it leaves the body in an enfeebled state, is sure to weaken most kinds of memory, while it seldom impairs the judgment.

Not long since, a Mexican called to deliver a letter from a friend in Mexico. In conversing on Phrenology, he wished to recall the name of an old schoolmate and friend of his, who is an ardent student of Phrenology, and physician to the present king of France, but was unable to do so, though perfectly familiar with it. For fifteen minutes he laboured to recall it, but failed, and then said, that "since his suffocation by the burning of charcoal in his sleeping-room, which came near killing him, he had been unable to remember names." This, of course, weakened his body, and, by the action of this principle, also his memory, but not his judgment. Probably half of my readers have had their memories enfeebled by sickness; and scores of cases could be narrated in which improved health has strengthened memory. Were I to give a recipe for improving this power, its first and most important item would be, "improve the tone and vigour of the BODY."

Again: hunger causes anger and peevishness. Wives and daughters will bear me witness, that when their husbands and fathers come home hungry they are cross, irritable, and displeased with everybody and everything till a hearty meal restores them again to a pleasant humour. If you wish to break unpleasant news to a man without offending him, or to obtain a special favour, approach him AFTER DINNER has thrown his body, and thereby his propensities, into a comfortable state. Those in England who solicit donations for charitable objects, never once think of applying to the rich or great till after dinner. When well fed, ferocious animals are tame and harmless, but when hungry, their ferocity becomes ungovernable, and their Destructiveness lashed up to the highest pitch of fury. So the ferocious Indian, when he wishes to kindle his thirst for war and blood to the very climax of rage and revenge, fasts a WEEK. WHY should the irritated state of the stomach, and thereby of the body in general, excite to morbid action the animal propensities MAINLY? Why does it not increase the flow of kind, of conscientious, and of devotional feeling, instead of anger, revenge, and ferocity? This principle contains the answer.

The labouring classes, contrasted with those who are above work, furnish another striking illustration of this principle. The former are far more virtuous, sensible, and intelligent than the latter. Labourers rarely commit robbery, theft, counterfeit, assault and battery, murder, or other glaring crimes, unless intoxicated; while most of our pick-pockets, debauchees, prison-birds, etc., disdain to work. "Idleness is the parent of vice," while labour is a great cause of moral purity. The reason is, that labour consumes those energies created by food, breath, etc., which must be expended on something, in muscular action; but when this door of escape is closed by fashionable idleness, its next egress is through—not the sentiments or intellect—but through the PROPENSITIES. Consequently, vice is vastly more prevalent and aggravated in the upper circles of society than among the industrious. Hence, since virtue is above wealth, and since the industrial classes are more virtuous and talented than the "higher," of course the "upper tens" are at the BOTTOM in the scale of true worth; and there let our practical estimation place them. Those who live without some useful occupation should be despised, not honoured. The industrious are nature's aristocracy.

The influence of alcoholic drinks furnish another conclusive proof, and forcible as well as varied illustration of the law under discussion. Their

one distinctive effort is to excite the brain and nervous system. Hence, if the body be more intimately related to the base of the brain than to the coronal region, these drinks will of course stimulate the PROPENSITIES more, relatively, than the moral and reasoning organs; otherwise they will excite all equally. What, then, is the fact?

That they powerfully excite Amativeness—located at the lowest point in the base of the brain—is attested by the fact that they always enhance sensuality. The vulgarity and licentiousness they occasion are proverbial. Do they not incline all drinking parties to indecent allusions, the narration of obscene stories, and the singing of lewd songs, if not to carnal indulgence itself!

Wine or ardent spirits of some kind is indispensable to any and every debauch. Why do abandoned females always drink to intoxication? This principle answers—Because these drinks drown the voice of conscience, blunt modesty, stifle the claims of morality, intellect, and virtue, and whirl their guilty victims on in their sensual career of merely animal indulgence. Men and women, be they ever so moral and virtuous, under the influence of intoxicating drinks are not safe. Before the first advantage can be taken of a virtuous woman, without force, she must be partly intoxicated; and intoxication will render most females unchaste in feeling, if not in action. And if this be true of a virtuous woman, what is the fact of less virtuous man?

These drinks also excite the combative or contending propensity. So combustible is the anger of the intoxicated, that they take fire at every little thing, and even seek occasions to quarrel; and more bickerings, broils, fights, and duels are engendered by ardent spirits than by all other causes united. How rarely do men fight unless when excited by liquor? How easily and powerfully provoked, how “all fit for a fight,” do even well-disposed men become when intoxicated? Byron said that stimulants always rendered him “savage and suspicious.”

Alcoholic drinks also stimulate Destructiveness, or the bitter, hating, revengeful feeling; and hence drinkers will caress their wives and children one minute, but beat them the next. More murders are caused by ardent spirit than by all other causes combined. Let the calendars of crime decide this point. Hence, also, intoxicated men not only rail, curse, break, destroy, vociferate, and threaten vengeance, more than when sober, but it is then that an old grudge, otherwise long since buried, is raked up, and dire vengeance sought and obtained; and generally a human being can screw up his Destructiveness to the sticking point of murder, and depress his Benevolence and Conscientiousness below the remonstrating point only, or at least most effectually, by ardent spirit. Gibbs, the inhuman pirate, who committed so many cold-blooded murders, confessed to his clergyman before his death, that when about to perpetrate his most atrocious murders, his courage often failed, till he had taken several potent draughts of strong liquor, which enabled him to commit any act of cruelty, however horrible, upon even defenceless females. Fieschi, the attempted regicide, who fired the infernal machine at the King of France, on his trial testified that when he saw the procession coming his courage failed him, but was revived by a dram of brandy; that it failed him a second time, but was restored by a second dram, but that he could not bring himself to do the fatal

deed till he had taken a third, and still more potent draught, and then he did it with a relish.

Nothing but animal propensity subjects criminals to the penalties of civilised law. Let, then, our intelligent lawyers, judges, sheriffs, justices, and observers, answer the question, "Does not most, if not nearly all, your criminal business have its origin in drinking?" But unless alcoholic drinks excite these propensities more, relatively, than the higher faculties, especially if they stimulate the moral sentiments, this state of things would be reversed, and drinking would render mankind more virtuous instead of more vicious.

In olden time, a man who had committed some heinous crime, and deserved punishment, was allowed to choose between the three crimes of drunkenness, incest, and parricide. He chose the former, but while drunk committed both the others. The fact stands out in bold relief, that drunkenness and vice go hand in hand. Intoxication is indeed the parent of all the vices, and this principle shows why, namely, because this reciprocal connection between the body and the base of the brain causes stimulants to excite the propensities more, relatively, than the moral or intellectual organs, and this induces vice and wickedness.

This law also shows why intoxication often renders good men real demons incarnate. As long as the moral and intellectual faculties predominate, no matter if the propensities be vigorous. Duly governed, the more the better, because they impart force. When the two are about equal, with the moral in the ascendancy, and the animal not stimulated, all goes right; but a little stimulant will often give the ascendancy to the propensities, and thus render truly good men very bad. But mark well the converse; it never renders bad men good, nor the immoral virtuous; because it never stimulates the moral and intellectual faculties more than the animal feelings.

This principle also shows why men drink grog with friends, instead of drinking or doing anything else. As Adhesiveness is located in the base of the brain, ardent spirits warm it up into vigorous action, and thus augment the flow and intensity of friendly feeling, and hence those who are half intoxicated often hug and caress each other. If alcohol excited friendship alone, it would do little injury—perhaps good—but since it inflames the other animal passions also, drinkers will be the warmest of friends one minute, and the bitterest enemies the next, and then make up over another glass.

Parental love is also located in the lower portion of the hind head, and hence the half-intoxicated father will foolishly fondle his boy, and laud him to the skies one minute, but beat him almost to death the next. Liquor excites conversation, because Language is in the lowest part of the forehead; but as the reasoning organs, which originate ideas, are in the upper portion of the forehead, and therefore not only not stimulated but actually weakened by it; drinkers talk, talk, talk, but say nothing—talk words, not ideas. Nor can the intoxicated reason. How almost impossible to convince them, however absurd their positions, or self-evident yours. They cannot see the point at issue; they argue at random, and seem callous to reasons, however clear or forcible. Yet their Combativeness and all their prejudices are enhanced. How destitute of sense, thought, and refinement, the conversation both of drunkards and of those who stimulate only moderately! Witness bar-room conversation!—full of stories to be sure, but what kind of

stories! The more animal the better. A Byron, half intoxicated, may indeed write *Don Juan* and like productions, and compose poetry mostly addressed to the passions; but no one in this state ever wrote *Paradise Lost*, *Thomson's Seasons*, *Locke on the Human Understanding*, *Brown's Mental Philosophy*, or *Edwards on the Will*. Pitt, Fox, Sheridan, and others, may be eloquent when partially intoxicated, yet their eloquence will be characterised by sarcasm, invective, denunciation, declamation, hyperbole, narration, and a remarkable flow of words, instead of by argument, profundity, or clear deductions from first principles; nor will it be freighted with rich ideas. But before drinkers can become even eloquent—a power far below reason—they require a peculiarity of temperament and phrenological developments not found in one man of millions; while it will destroy that of all the others by overcharging some with excitement, and rendering others foolish, others bombastic, etc.

Alcoholic drinks besides exciting the lower organs more, relatively, than the higher, also subsequently DEADEN them proportionally. After having surcharged Amativeness they prostrate it, and hence quench connubial love and all the domestic virtues. Hence drunkards generally neglect, if not abuse, their families—a fact as notorious as this explanation of its cause is clear. While the exhilaration lasts it surcharges Combativeness and Destructiveness, only to palsy them after it subsides. Hence its subjects lose all spirit and efficiency, and rarely take their own part, or that even of their families, when abused; so that boys may impose on them with impunity, and are irresolute and inefficient.

This principle shows why the ambition of inebriates DESCENDS to propensity instead of ascending to the higher faculties, and thus renders them doubly sinful and miserable.*

It also shows why intemperance enfeebles self-control. They know the right. Their less debilitated, because previously less stimulated, intellects know the right, yet they have not sufficient self-government left to stem the downward current. Conscientiousness remonstrates, but with little avail, and the moral powers lift up their warning and persuasive voice without effect, because located far from the body. Hence, nothing but dragging them into the kingdom of temperance by that inimitable principle of Washingtonian kindness, and then removing temptation till self-control revives, can save them. And if they fall, forbear—not condemn—and put them once more upon their feet.

Again: ambition always combines with those faculties which are the most active. Combined with Conscientiousness, it gives regard for MORAL character and correct MOTIVES; with Intellect, desire to be reputed learned and talented; with Ideality, for good taste, good manners, etc., but combined with Combativeness, for being the greatest wrestler, fighter, etc.; and, with the other animal propensities, for being first in their indulgence. Hence, since intemperance stimulates both ambition and

* Since the religion of Christ consists in the ascendancy of the moral and intellectual over the animal, and the subjugation of the propensities, and since all stimulating drinks morbidly excite propensity, and of course violate this cardinal requisition of the gospel, therefore wine and spirit-drinking Christians are as perfect anomalies as hot ice or cold fire. As well have WICKED Christians as spirit-drinking Christians.

propensity, it renders its victims emulous to be the greatest libertine, wrestler, fighter, drinker, and the like, but never to excel in talents or goodness. Two inebriates in Eaton, Md., in 1840, vied with each other, on a wager, as to which could drink the other drunk. The next morning one of them was DEAD drunk.

The half-intoxicated find their Acquisitiveness excited, and hence continually ask, "How much will you give?" "What will you take?" "How will you swap," etc., or suddenly become very rich, or bet, or else seek the gambling or billiard-table in quest of fortunes at once; yet, as their intellectual organs are not equally excited, they generally make bad bargains; but under the reaction which follows they have little or no regard for property, and little industry, economy, or forethought about laying up for the future, but squander their all for liquor, even to the bread out of the mouths of their children, and to the clothes from off their wives' backs. Hence they are universally poor, ragged, and destitute. During the exhilaration produced by strong drink, self-esteem and love of approbation become unduly excited, and occasion boasting, bragging, swaggering, egotism, and a disposition to swell and dash out in gaudy style, assume airs, attract notice, etc.; yet during the subsequent reaction, regard for character and reputation is annulled, and with it one of the strongest incentives to virtuous and praiseworthy actions, as well as restraints upon vice and self-degradation. At first they are mortified beyond description if seen intoxicated, but afterward care naught for credit, honour, promises, respectability, or even the disgrace of family; are destitute of shame, dead to dignity and manly feeling, and associate with those to whom they would before have scorned even to speak.

Why do not alcoholic drinks render the pious more devout, and the literary ten times more intellectual? Why not deepen and widen the channels of thought? Why not render ordinary men Websters, Franklins, Broughams, and Herschels, and these intellectual giants actual Gabriels in intellect? Or why not excite the moral faculties instead of the animal? Why not make infidels, Enochs? deists, Wesleys? sceptics, Paysons? Why are not all spirit-drinkers patterns of piety and good morals, and also stars in the firmament of intellectual greatness? The law in question answers: Not only do they not augment talent and enhance literary attainments, or make the profane pious, but they actually diminish them all. They prostrate intellect, bedim reason, darken counsel, render the ideas muddy, and, before their approach, literary attainments, intellectual greatness, and moral purity all vanish like the dew before the rising sun.

How overwhelming the proof, therefore, how powerful and absolutely inevitable the conclusion not only that all alcoholic drinks, but also that **WHATEVER** morbidly excites the brain and nervous system, thereby kindles the animal propensities mainly, but weakens the moral and intellectual powers. No more can any human being take either alcoholic liquors in any form or degree, or opium, tea, coffee, mustard, spices, or any other stimulant, without thereby proportionably inducing this result—without brutalising his nature, degrading his manhood below his beasthood, and subjugating intellect and moral feeling to the sway of passion—than he can "carry coals of fire in his bosom, and not be burned." As soon will any other law of nature fail as this. As soon will the deadly poisons become harmless or water run up the inclined

plane of itself, or the sun rise in the west, as any kind of morbid physical action fail to produce animality. Nor does any middle ground remain. Every ITEM of artificial stimulant produces this animal result as its LEGITIMATE, its CONSTITUTIONAL effect.*

Behold, then, ye who would subdue your "easily besetting" propensities, and elevate the moral above the animal, an easy yet efficacious means of obtaining so exalted an end, namely, by keeping the BODY in a healthy state. Behold, moreover, the great procuring cause of most of man's depravity, and consequent wretchedness, namely, a MORBID PHYSIOLOGY. Since an irritated or abnormal state of the body morbidly excites the brain, and thereby vitiates its functions, especially those of the propensities, and since such abnormal action causes abnormal and depraved mental desires, therefore that physiological inflammation caused by intemperance, gormandising, tea, coffee, and tobacco, condiments, colds, flesh-eating, sedentary habits, and the perpetual violation, by nearly all mankind, of the laws of health, must of necessity deprave the feelings by deranging the physiology, and, of course, the mentality. Both human and personal reform and improvement must begin with restoring normality of function to body and brain, and be mainly effected by physical regimen. Nor is it possible to effect moral reform without physical, any more than it is possible for inflamed brain and nerves to produce normal manifestations. This doctrine may find opponents, but no refuters. It is new, but TRUE. To be "temperate IN ALL THINGS" is the first great condition of goodness and talents. To "present our BODIES a living sacrifice, holy, acceptable unto God," is our SPIRITUAL sacrifice; whereas, to disorder the body by any violation of the laws of health whatever, is to deprave the mind. Moral purity is as utterly incompatible with physical impurity as intellectual power with physical weakness. O that all were duly impressed with the power and sweep of these physico-mental principles! Ministers may preach, and revivals be multiplied to any extent, without laying the axe at the root of the tree of vice. Mankind must abandon flesh, condiments, narcotics, gluttony, and fermented liquors, and substitute farinaceous food, cold water, and a light diet—must learn how to EAT AND LIVE before they can expect to attain the exalted destinies and powers of which human nature is capable. The pious yet ignorant Christian cannot grow better by praying to God to enable him to resist temptation on one hand, while on the other he is adding new fuel to the fierce fires of animal passions by fevering his body, and thereby his propensities, but must govern vicious and promote virtuous tendencies, in part, by physiological prescriptions.

Parents weep and pray over the waywardness and depravity of their children, and strive to reform them in vain, while they morbidly excite their Combativeness, Destructiveness, and Selfishness, by ignorantly keeping their bodies, and consequently animal organs, in an inflamed and abnormal condition by meats and drinks, heating in kind, excessive in quantity, ill-timed, and otherwise pernicious; or by allowing

* In a small treatise on Intemperance (price 3d.), founded on Phrenology and Physiology, the author brings the preceding principle and train of remarks to bear upon alcoholic drinks, and shows that every identical glass stimulates the propensities proportionably, and produce vice and misery—a most powerful appeal and argument in behalf of total abstinence.

them to contract colds and sickness, and, in short, by NOT keeping their bodies in a calm and healthy state. Morbid, nervous excitement can produce nothing but ill nature and general depravity, which physical chastisement only increases, because it enhances their cause. Infants cry little till bad nursing has disordered their bodies, but then they cry spitefully, and evince much wrath. Children cry when unwell, and because sick; but keeping them in perfect health will render them placid and lovely. Those who doubt this great practical truth have only to compare the sweetness of children when perfectly well, with the tartness and snappishness of those same children when unwell, of themselves or others when dyspeptic, nervous, or suffering from physical indisposition, with the same persons when digestion is good and health excellent.

In short, this and previous sections have placed these momentous truths beyond all manner of doubt and cavil—have established them by an order, variety, and amount of proof completely demonstrative. Let those who would be good or great hear and practice, and those who cavil remember that “THIS IS TRUTH, though at enmity with the teachings of ages.”

GOVERNING THE PROPENSITIES BY THE INTELLECTUAL AND MORAL FACULTIES.

Though the truth and paramount importance of preceding conclusions are absolute in and of themselves, yet they receive additional importance from the fundamental law of virtue and condition of enjoyment that the action of the propensities can be virtuous and pleasurable only when guided by intellect, and sanctioned by the moral sentiments. It so is that, to produce happiness, every action, feeling, and sentiment of human nature must be sanctified by intellect and governed by enlightened moral sentiment. Without rendering obedience to this law, no emotion, no action of life, is either virtuous in character or can result in enjoyment. Our own happiness and that of our fellow-men require that we exercise our propensities only “by and with the consent,” and under the direction, of the intellectual and moral faculties, and that all we say, do, and are, NOT thus governed, is sinful in character, and eventuates in suffering to the actor and all affected thereby.

To illustrate: Appetite, indulged for the mere pleasures of the palate, without intellect to select food of the right kinds and best qualities, or moral sentiment to restrain it from gormandising, will eat unwholesome kinds of food, and in excessive quantities, drink alcoholic liquors and other injurious beverages, chew or smoke tobacco, and so break the direct laws as to disorder the stomach, undermine the health, blunt the moral sensibilities, benumb intellect, abridge all the physical and moral pleasures, or else convert them into suffering, and create vicious inclinations, and weaken, pervert, and poison our entire nature, besides curtailing the very gustatory pleasures sought. But exercised under the control of intellect to choose the best KINDS, and direct the proper quantity of food, coupled with predominant moral sentiment to secure moderation, it furnishes abundant sustenance to all the other functions, and fits us, as far as possible, for our other duties and enjoyments, besides yielding the greatest gustatory pleasure attainable. Combativeness exercised by itself,

unsanctified by moral sentiment, and undirected by reason—that is, without adequate cause or in opposition to the dictates of Causality—becomes mere brute force, and quarrels without occasion perhaps in an unjust cause; whereas, exercised under the control of enlightened moral sentiment, it becomes MORAL courage, defends RIGHT and TRUTH, prosecutes moral objects with fearless energy, and opposes whatever is wrong or injurious—than which no element of our nature is more virtuous in character, or yields more pleasure to its possessor and to all concerned. Acquisitiveness, exercised independently of moral sentiment—indulged dishonestly, as the thief, knave, gambler, robber, and the like, exercise it, that is irrespective of justice and humanity, but getting money by foul means equally with fair—renders its possessor miserable, and those whom he wrongs unhappy, simply because this propensity is not governed by the moral sentiments and intellect; but exercised in conjunction with enlightened conscience, so as to acquire and pay HONESTLY, and subject to Benevolence so as to prevent injury in others or oppressing the poor, it renders him happy in the acquisition of property, and all around him happy in its proper expenditure. Ill-gotten gain curses all, and benefits none. HONESTY alone is policy.

Let a mother be ever so fond of her darling boy, but let her not guide and govern her maternal love by the dictates of the intellectual and the moral faculties combined, and she will not KNOW HOW to keep her child healthy, and, therefore, will suffer a world of anxiety on account of his being sick, and still more if he should die. She will not know how to operate on his intellect or moral feelings, and thus, unable to govern him, will be rendered miserable for life on account of his mischievous, wicked propensities and conduct. Or she will spoil her child by over-indulgence—an occurrence as lamentable as it is common—and thereby cause unutterable anguish to mother, child, father, society, all in any way capable of being affected by the child or the man. But let intellect tell her what physical laws she must obey to keep her child always well, and all the suffering of mother, of boy, of all concerned, on account of sickness or premature death, can be avoided, and, in their stead, his perfect health, sprightliness, happiness, beauty, and growing maturity, will fill the boy himself, will swell the bosom of the mother with joy unspeakable, and, always increasing, enable the boy to become a boon, a blessing to his fellow-men; and the more so if the mother's intellect enable her to cultivate and develop his intellect in the best possible manner, and pour a continual stream of useful knowledge and sage maxims into his young mind to guide his conduct, to call out all the powers of his mind, and to conduct the object of her deep-rooted and well-guided maternal affection into the paths of wisdom, learning, and influence, till, standing on a commanding intellectual eminence, he controls the opinions and moulds the characters of thousands of his fellow-men; while he himself enjoys all that mind can confer, his mother is happy beyond description in her son; and society owes and pays a tribute of praise for the happiness spread abroad by this well-educated son of intellect and morality.

Still more will these results be heightened, if she add high-toned moral feeling to this powerful and well-directed intellectual education. Unless thus governed she will not train him up in the paths of virtue,

but will tolerate, perhaps even foster, his depraved inclinations, and thus ruin the darling object of her tender but misguided love. But when moral sentiment, in conjunction with intellect, rules her maternal love, she will educate him morally, as well as intellectually and physically. She will "train him up in the way he should go, and when he is old he will not depart therefrom." She will imbue him early and thoroughly with the principles of virtue and morality. She will elevate all his aims, will chasten all his feelings, and write, as with the point of a diamond, upon the tablet of his yet plastic and susceptible soul, in living, burning characters, never to be erased: "My son, walk thou in the paths of virtue. Turn thou away from every sinful indulgence;" and he will obey her. Not will his moral character be unblemished, and he live in accordance with the principle we are presenting, and therefore be happy himself, but he will dedicate all those talents already presupposed to the cause of humanity, and thus do an incalculable amount of good. All this rich harvest of happiness to him, to herself, to mankind, will be the legitimate, the necessary, product of the intellectual and moral seed sown by his mother. It will all flow naturally from the mother's following the law we are urging, of governing her Philoprogenitiveness by the dictates of intellectual and moral feeling. And these fruits will be still farther sweetened and augmented, if parents go still farther back and apply the laws of hereditary descent, so as to secure a good original, physical, moral, and intellectual foundation in their child, on which to erect this glorious superstructure.

The importance of this principle can be measured only by the heaven-wide contrast between the effects on the happiness of the parent, of the goodness and badness, the health and sickness, the life and death, of their dear children. If this law were observed, we should have no premature sickness or death, no ebullitions of passion, no waywardness, disobedience, or immorality in children to wring the hearts of parents with anguish unutterable, and to carry them down to their graves mourning. Even if the parent love his child morally, and seek to make him better, but, unguided by intellect, actually makes him worse, a course very common, his child becomes a torment to himself, his parents, and all concerned. We must love our children intellectually AND morally, if we would either have them enjoy life, or we enjoy our children.

Those who exercise friendship without the governing influences of intellect and the sanctions of the moral sentiments, will choose ignorant, degraded, and immoral associates, who will lower down the tone of their moral feelings and lead them into the paths of sin, and thus make them unhappy. But he who exercises his friendship under the sanction of the moral faculties, will choose intellectual and moral companions, who will expand his intellect and strengthen his virtuous feelings, and thus will make him and them the more happy. Friendship, founded on intellect and virtuous feeling, is far more exalted in its character, and beneficial in its influence, than when founded on any other considerations; while friendship, founded on the propensities, will increase the depravity and misery of all concerned.

Associates chosen without reference to their moral characters, and especially in violation of the higher faculties, will increase the depravity and consequent misery of each other. O youth, hear this one

piece of advice:—mingle ONLY with the intellectual and the good, and you will thus almost imperceptibly, yet effectually, become like them.

Approbativeness, or love of the good opinion of others, sanctified by the moral sentiments, begets ambition to excel in works of philanthropy, seeks to keep the moral character pure and spotless, and inspires that noble emulation which prompts to beneficial deeds, and, guided by intellect, becomes intellectual ambition, and seeks eminence in the walks of literature or the fields of science; but when not thus governed, it degenerates into a low, animal, grovelling, sensual ambition, to become the greatest eater, or fighter, or duellist, or dandy, or coquette—a strife which causes unhappiness to its possessor and to all concerned. Self-esteem, governed by intellect and moral feeling, imparts that nobleness and elevation to character and conduct, which shed a beam of exalted pleasure on its possessor and all around him; but when not thus governed, it degenerates into egotism, self-conceit, imperativeness, and superciliousness, which occasion pain to himself and to all affected by this quality in him.

Cautiousness exercised without intellect, that is, when there is no reason for being afraid, produces evil only; but let intellect govern it, so that it is exercised with Benevolence or Justice, so as to render us fearful lest we do wrong, or careful not to injure others, and its product is most beneficial. This principle might be illustrated and enforced by Amativeness, and indeed by every one of the lower faculties, and completely DEMONSTRATED by showing how superlatively happy those are who fulfil this cardinal law of morality and happiness. But does a law thus clear and universal in its application require additional proof or illustration? Is not man constituted to be governed throughout all he does, says, and feels, by enlightened moral sentiment? Are not those aggravated miseries and the multiform wretchedness of mankind which appal us wherever we turn our eyes, caused mainly by the almost universal infraction of this law? And does not this principle harmonise perfectly with the universal fact that nineteen-twentieths of all the time, desires, pursuits—everything—of mankind consist in gratifying animal propensity in some of its forms—in scrambling after property, or office, or power—in procuring food, drinks, raiment, houses, fashionable equipage, attire, etc.—in family cares, contentions, backbiting, sensuality, and other gratifications? War, lust, money, display, propensity, and consequent misery, sum up the history of man; nor, in the nature of things, is it possible for him to be happy any farther than he is holy, that is, obeys this law. Before he can enjoy life, and in ORDER to such enjoyment, man as a whole, and as individuals, MUST TAKE TIME from the fashionable world, the money-grasping world, the sensual world, and this hot pursuit of animal gratification, to bestow upon the cultivation of the MORAL and INTELLECTUAL faculties. To be happy, he must become WISE and RELIGIOUS—must subject his animal nature to his higher powers; and he is most happy, other things being the same, who does this the most habitually and effectually. Oh, if mankind would but do this, no tongue can tell, no finite mind conceive, what happiness would be the delightful result! All those spiritual consolations conferred by that religion which is “pure and undefiled, and that fadeth not away,” would flow therefrom. Human sin and suffering

would be comparatively banished from our world, and this earth become again a perfect paradise!

It deserves additional remark, that even when the moral and animal faculties combine in action, if the animal rule the moral, misery is the inevitable consequence. What produced the Holy Wars—holy wickedness—but this combination! Yet the propensities ruled the morals, and an indescribable amount of misery was the natural consequence. The sacrifice of human life upon the altar of religious fanaticism, together with all the abominations of paganism, originate in this ascendancy of propensity. Nor need we go thus far from home to find kindred examples both of a breach of this law and its painful consequences. Indeed, our own souls bear this sad testimony every time propensity governs intellect.

Behold, reader, in this law an additional and most powerful motive for "preserving your BODIES holy, acceptable unto God." Since you can neither be good nor happy without subjecting the lower faculties to the higher, and since a morbid state of the physiology prevents such subjugation by inflaming the passions, how ALL-IMPORTANT that correct physical regimen which shall allay propensity and develope morality and intellect, so as to place the latter upon the throne over the former! And by converse, how wicked those abuses of the laws of health which occasion depravity, first by rendering the action of the propensities morbid, or abnormal; and, secondly, by perpetually irritating them, and thus both strengthening them, and enthroning them on the conquered necks of the angelic elements of our nature! Readers, ye who would understand the full force of these momentous conclusions, re-canvass those principles on which they are founded. Go over our preceding points carefully, with particular reference to their consecutive bearing on this grand focus of them all, and then say, not in the light of pre-entertained notions of sin and its causes, but in that of the LAWS OF NATURE, whether we overrate this cause of human sin and woe. At least say whether all others have not underrated it, or else overlooked it wholly. Above all, put it in rigid and long-continued PRACTICE, and then decide its claims.

In view of these truths, how comparatively ineffectual in its reclaiming power most of the preaching of the present day. Does it urge the preservation of health as a means of promoting moral excellence and intellectual power? Does it even recognise, except incidentally, the existence of physical laws, or the duty of obeying or sin of violating them? Yet should it not warn with all the thunders of Sinai, and entreat with all the persuasive power of Jesus, the observance of the PHYSICAL as a means of obeying the moral? Is not this glaring omission one great cause of its inertness? Can this partial view of duty be expected to convince or control conduct? Does not this silence in reference to the physical laws imply that they are insignificant, and may be violated with impunity? Is suicide so VERY little a sin?—and abuse of health is suicide. As Christ's "new commandment—That ye LOVE one another," superseded, because it embraced, the Decalogue, so nature's great command, OBEY MY PHYSICAL LAWS, embodies even this law of love, because, as already seen, physical irritability causes hatred, lust, and selfishness, in all their hydra forms? while holy, acceptable BODIES subdue raging passion, promote brotherly love, and develope all the higher aspirations and holier emotions of our

nature. Narrow-souled religionists will cavil at this superseding of their contracted isms by this view of one of the causes and remedies of human depravity; but ye who would learn and do your **WHOLE** duty, will heed and strive to fulfil these fundamental conditions of virtue and happiness. And woe to those who ignorantly or wantonly violate them. God will in no wise let him go unpunished who thus breaks this law. "The soul that sinneth, it shall die." This is one of heaven's highest laws, and its penalties correspondingly aggravated. Reader, let us make its study and obedience our daily, hourly, and paramount **BUSINESS**, and the solemn, imperious **DUTY OF LIFE**. And whenever we sin against it, let us most humbly **REPENT** and **REFORM**. Put your **PHYSIOLOGY** into the right state first, and then **KEEP** it right, and you will improve apace in this word, and ripen rapidly for a better.

SECTION IV.

THE EVENLY-BALANCED OR PROPORTIONATE ACTION OF THE FACULTIES A CONDITION OF PERFECTION—ITS FEASIBILITY, AND THE MODE OF SECURING IT.

PROPORTION A CONDITION OF PERFECTION.

THE work on "Physiology," and the antecedent sections of this work, have shown what constitute a perfect body, that is, what physiological conditions are most promotive of the highest order and power of mind. We come now to the momentous inquiries:—What constitutes perfection of head and character? And how can it be promoted? Phrenology answers. Let its answer be duly heeded, and reduced to practice.

That the **PROPORTIONATE** development and exercise of all the parts which compose a given thing is a law of nature, is fully shown in "Physiology," and this law proved to embody a fundamental condition of health, while its infraction was shown to be a prolific cause of disease. Can a small heart serve a large body as well as a large heart? Can a small or weak stomach digest for an athletic and powerful frame? Would small lungs work in connection with a powerful stomach any better than an elephant yoked up with a sheep? Since a given amount of oxygen inhaled through the lungs can combine with and burn up only its fixed equivalent of the carbon evolved by the stomach, and since a surplus of either is hostile to life, of course perfect health requires that both be equally large and powerful. As the supply of vitality must equal its expenditure, or exhaustion take place, and its exhaustion equal its supply, else corpulency and obesity ensue; as breathing, eating, sleep, etc., must be in proportion to muscular and mental action, and it to them, and thus of all the other physical functions,—so pre-eminently of the mental powers. Perfect **BALANCE** must exist between them all, or imperfection in feeling, opinion, and conduct must ensue. Hence, whenever, in my professional examinations, I find an unevenly developed head—some organs projecting far out, and others retiring far in—I predict an equally uneven character. Such are likely to have marked excesses and deficiencies; to take

partial and one-sided views of things ; and are subject to extremes, which is only another name for imperfection, excesses, and tendencies to evil. But an even head, in which all the organs are equally developed, and the faculties harmoniously exercised, facilitates correct judgment, consistent conduct, perfection of character, and a virtuous, happy life. Indeed, the very definition of virtue, according to Phrenology, is the harmonious exercise of all the faculties in due proportion, upon their legitimate objects, controlled by the moral sentiments and directed by intellect ; but vice and sin consist in the EXCESSIVE, DEFECTIVE, OR PERVERTED action of the faculties, and especially of the animal propensities, not thus directed.

This principle applies equally to the individual faculties, and to their classes. Thus, when the propensities predominate in action, they demoralize and debase reason and moral feeling—the highest, noblest gifts of God to man ; and while, in one sense, they assimilate the “lords of creation” to the “beasts that perish,” in another they render him far worse, because of his greater susceptibilities of enjoyment and suffering. Selfishness, the product of excess of propensity over the higher faculties, punishes its possessor. The selfish or vicious are of necessity miserable, for their selfishness and vice naturally render them so. On the other hand, feebleness of propensity constitutes imperfection ; for one with weak animal and selfish organs has too little force to carry forward any important plan, or even to take care of himself. He must, therefore, be taken care of by others, and of course poorly ; for to depend upon others for support or protection is to depend upon a broken reed. So, too, those in whom the moral faculties are very large, and the animal weak, are indeed good, moral, virtuous : but they are too good—so VERY good as to be good for nothing, because they have too little force or energy to carry their good feelings into execution. A man with weak propensities and great intellectual organs will never effect much with his intellect. One with weaker intellect and strong propensities will effect much more, yet it is liable to be only for evil.

A predominance of the propensities and intellect over the moral faculties leads to most disastrous consequences ; for powerful animal desires will then employ a powerful intellect to effect purely selfish, wicked ends, and stop at no means of attaining them. This was the organization of Patty Cannon, that most wicked woman and desperate murderer ; of Nero, that human fiend—and of most of the scourges of mankind. Nor is the predominance of the moral faculties with the propensities—but without intellect—scarcely less injurious, because, though it may give zeal, yet it will be without knowledge ; and this it was which lit the fires of Smithfield, devastated the world by the “Holy Wars,” caused the “Salem Witchcraft,” and has instigated religious persecutions, and created pious sinfulness. But where each of these three great classes of faculties are EQUALLY developed, the propensities give force, daring, energy, and eager desires : the moral convert the animal into a philanthropic and religious channel, and intellect guides them both, by the light of reason, to happiness—that great end of our being. The propensities require to be strong, but should be checked, and made subservient to high moral ends ; the moral sentiments require to be predominant, but must have the helping hand of the propensities to carry them out ; and both require

knowledge to enlighten, and judgment to conduct them to the best results.

This same principle of balance, or proportionate action, applies with equal, if not still greater force to the individual faculties. The predominance or deficiency of either is injurious; but their proportionate action is a leading condition of perfection and enjoyment. Thus Amativeness, fairly developed and governed by the moral sentiments, produces connubial love—than which there is not a more virtuous or pleasurable feeling in man; but its deficiency causes the proportionate absence of this virtue, while its excessive action produces one of the worst and most painful forms of vice. Very large Philoprogenitiveness spoils children by over-indulgence and excessive tenderness; while its deficiency annuls the joys of parents, and renders children intolerable and burdensome, instead of their being the greatest of pleasures; but its due development experiences all the joys of parental love, and, if governed by enlightened intellect and high moral feeling, secures the best good both of parent and child. Excessive Combativeness, acting alone, engenders contention, causes physical fighting, and creates a sour, ugly temper, which are highly vicious, and thereby incur the penalty attached to the violation of this mental law; whereas this faculty, when it acts in obedience to Conscientiousness and Benevolence, becomes moral courage, defence of rights, and of the oppressed—a highly virtuous emotion. The proportionate exercise of Alimentiveness, that, eating as much as we require, but no more, by strengthening the body, and thereby the moral and intellectual faculties, is virtuous, and brings with it its own reward; while its excessive indulgence, by overloading the stomach, and thus clouding the intellect, and blunting the moral sensibilities, becomes a cause of pain and sin. Average Secretiveness, governed by Conscientiousness, employs policy in a good cause; while its excessive action, unchecked by the higher faculties, leads to lying and duplicity, but its deficiency occasions too great openness and bluntness, and want of tact. Acquisitiveness, or love of property, duly exercised, promotes industry and sobriety, gathers around us the comforts of life, and, aided by Conscientiousness, produces even-handed justice; but its predominance leads to cheating, extortion, and miserly selfishness, while its deficiency causes prodigality. Excessive cautiousness begets irresolution, procrastination, and timidity, and is unfavourable both to virtue and efficiency; but, duly balanced, it gives that discretion which is the better part of valour, while its deficiency occasions recklessness. Self-esteem, when it predominates, unchecked by Conscientiousness or intellect, inflates almost to bursting, with pride, self-sufficiency, haughtiness, and egotism; whereas its due development, controlled by the moral and intellectual faculties, imparts dignity and that self-respect which elevates one above meanness and trifling, and causes him fully to appreciate and fulfil the great objects of life. But if it be smaller than his other organs, he underrates himself, is therefore underrated by others, and feels too diffident and insufficient to attempt or accomplish great things. Predominant Firmness, uncontrolled, renders one obstinate, impervious to conviction, and blindly tenacious of his opinions, whether right or wrong, merely because of his will; but those in whom it is small are too fickle to accomplish much—sow, but have no perseverance to wait for the harvest, and are “blown about by every

wind of doctrine," every new notion, every novel scheme ; but, fairly developed and balanced, no element of character is more valuable. Prominent Ideality renders one fastidious, and too delicate and refined ; its deficiency leads to coarseness and vulgarity, but its fair development blends the serviceable with the perfect, and combines utility with beauty.

This same principle—that balance of faculties is indispensable to perfection of character—applies with still greater force to moral faculties, and also explains that diversity which characterizes the religious opinions and practices of mankind. Few think alike, even in the fundamentals of religion, and fewer still in its details, because of the difference in their phrenological developments.

Every phrenological faculty constitutes the medium, or, as it were, the coloured glass through which the mind looks at all objects. As, when we look at objects through green glasses, they look green ; when through yellow glasses, they look yellow ; when through dark shaded, or smoky glasses, they look dark, gloomy, or smoky ; when through glasses that are light shaded, they look light ; when through red glasses, everything assumes a red aspect, and that, too, whatever may be their actual colour—so the phrenological faculties constitute the mental glass through which we look at mental and moral objects. Thus, those in whom Acquisitiveness, or love of money, prevails, look at everything, whether matters of science, religion, politics, business, etc., not in the light of philosophy, or the welfare of man, or of right and moral obligation, but in that of dollars and cents alone. But he in whom Benevolence predominates, looks at all matters, not in the light of their effects on his pockets but of their bearing on the happiness of man. He in whom Conscientiousness predominates, inspects and judges of things neither in the aspect of expediency nor of their pecuniary advantages, nor self-interest, or popularity, but in that of right and duty, and abstract justice. But he in whom Approbateness prevails seeks popular favour, and when any new thing is presented to his consideration—say Phrenology, or Magnetism, asks (as the first and main question) not "Is it true?" nor "Is it philosophical?" but, "What will the folks say about it, and about me for embracing it?"

The man in whom Reason predominates asks, "Is it reasonable? What are its laws? Is it consistent with itself and with nature?" and looks at everything through the glasses of philosophy.

To apply this fundamental law of mind to the religious opinions of mankind: The moral faculties constitute the coloured glasses through which we look at the Deity and his moral government, as well as at the moral relations of man to man, and to his Maker. Veneration worships God, yet the other organs colour our views of his character and attributes. Thus, the ancient Greeks and Romans had large Veneration, and were very religious, but their other moral organs were small, and their animal propensities were powerful. Hence they worshipped gods of various animal passions. Their large Veneration, combining with their very large Amativeness, worshipped Venus, the goddess of love and beauty ; combining with their very large Combativeness and Destructiveness, worshipped Mars, the god of war, carnage, and blood ; with their powerful Alimentiveness, worshipped Bacchus, the god of feasting, revelry, and wine ; with their large Ac-

quisitiveness, worshipped the god Terminus, who guarded their boundaries, and protected their goods from pillage; with large Secretiveness, worshipped Mercury, the god of cunning, finesse, duplicity, and theft; and thus of their other divinities. But they had fair intellectual organs, as well as unbridled passions. Hence they worshipped Jupiter, the great director and manager of the universe, and the governor of the gods, but a god full of most disgusting amours, most vindictive and revengeful, without moral principle, and swayed by a power of animal passions as much above that of mortals as he himself was rated superior to them.

This fully established law of mind shows sectarians why they differ and quarrel about religion. Their organs differ, and this diversifies and distracts their religious views and feelings. One sect has one set of organs, or looks through glasses of one colour, and another sect wears glasses of another colour, and both are looking at the same object, and quarrelling about its colour. Accordingly each sect has its own peculiar set of phrenological developments, which harmonises perfectly with the peculiarities of its creed.* To show minutely what characterise each, and their departure from the only true standard of religious faith and practice involved in this principle, would be to thrust the face into a hornet's nest of the worst character, which is unnecessary; yet we will give a few illustrations. Universalists almost invariably have large Veneration, combined with Benevolence and Adhesiveness in predominance over Conscientiousness, with moderate Destructiveness, and hence adore God for his goodness mainly, and dwell in glowing colours upon his love; but the old-fashioned Calvinists usually have large Veneration, with full Self-esteem, predominant Firmness, large Conscientiousness, and full of large Combativeness or Destructiveness, or both, and accordingly adore the SOVEREIGNTY and unbending JUSTICE of God. Has not the reader observed that the heads of stiff orthodox deacons often rise rapidly from the intellectual organs to Firmness and Self-esteem, which indicates more Reverence than Benevolence, and more Conscientiousness than either, with a tolerably wide head? But do Methodists, or Universalists, or Unitarians, or Episcopalians, often have this form of head? These remarks do not apply to Congregationalists, nor to believers in the "New-School" doctrines, whose Conscientiousness is usually predominant, but Self-esteem moderate, and Destructiveness only full, and whose high-toned, or rather ultra-Calvinistic notions are materially softened down. In them Amativeness is usually moderate, and accordingly they abhor no sin more than its perversion. Episcopalians usually have large Veneration, with predominant Benevolence and large Ideality, Firmness, Self-esteem, and Social organs, with Conscientiousness not always large, though often full; and hence they place their religion in the works of charity, and in attending "THE CHURCH," rather than in penitence. They are not as strict and rigid as the orthodox; yet they are always genteel, rather exclusive, and eminently social. Nearly all their women have superior heads, are remarkable for devotion, good sense, the domestic virtues, and especially for Benevolence. The Quakers have no characteristic

* This may be true in part, but holds not good in all cases, as the same mental and moral developments may be found in men belonging to different and opposite sects.—G. T.

moral developments, and accordingly allow their members to hold any and every belief, provided they do thus and so. Infidels, deists, etc., usually have moderate Hope, small Veneration, scarcely the least Spirituality, large Benevolence, and Conscientiousness variable. I never saw one of Infidel sentiments who had not a poorly-balanced moral head.

Those who have Conscientiousness predominant, with small Veneration and Spirituality, place their religion in doing RIGHT, or in honesty and morality, but disregard the externals of religion; while those in whom these organs are reversed attend to its outward forms and ceremonies; but though they are devout, yet they are sometimes unjust and immoral. Those in whom Benevolence predominates place their religion in doing GOOD, to the neglect of other Christian duties; those in whom Spirituality is great regard religion as consisting in FAITH, and implicit reliance upon Divine providence; but those in whom this organ is small do not feel that awe of God, that sense of the Divine presence which this faculty inspires, but attribute all events to cause and effect. But those in whom ALL these organs are fully and EVENLY developed "put on the WHOLE armour of righteousness." They do GOOD, do RIGHT, WORSHIP their God, and TRUST in his goodness; which, united, constitute the very perfection of the Christian character. Such live a blameless life, worthy of admiration and imitation; while imperfect religious faith and practice are the natural fruits of unevenly developed moral organs.

In harmony with this principle, that each phrenological faculty stamps its impress upon the religious opinions of its possessor, it follows that those in whom all the moral organs are PROPORTIONALLY developed will entertain CONSISTENT AND CORRECT religious opinions, and view the character and attributes of the Deity as they ARE. Since, as already seen, Veneration, with predominant Benevolence, worships a God of kindness; with predominant Conscientiousness, a God of unbending justice; with large Causality, as the great First Cause of all things; with large Self-esteem and Firmness, as the great Sovereign of the universe, immutable, omnipotent, unchanging, and unchangeable, clothed with authority, and doing his own will and pleasure in the armies of heaven above, and among the inhabitants of the earth beneath, etc.; those, of course, in whom Benevolence is large, will worship him for his great goodness to the children of men; in whom Benevolence and Conscientiousness are both equally large, as kind, but just; and with equal Firmness, Combative-ness, and Self-esteem added, as "a God merciful and gracious, long-suffering, and abundant in goodness and truth, yet who will by no means clear the guilty;" as perfectly holy himself, and requiring holiness in all his creatures; as creating and governing them with a wise reference to their greatest ultimate good; and in doing this, as rewarding those who obey his laws, but as punishing those who disobey; or rather as infinitely benevolent, yet as a God who will "not let the wicked go unpunished;" with large Cautiousness and Philoprogenitiveness, as exercising a fatherly care over his children, and providing a bountiful supply for all their wants, etc. Hence, those who have all these organs fully developed and evenly BALANCED will take ALL the characteristics of the Deity into account, and give each their due proportion; because the moral constitution of things must necessarily

harmonise with the moral character and attributes of God, and man's moral character, as far as it goes, must coincide with the attributes of the Deity. Consequently, those who possess well-balanced and perfectly developed phrenological organizations, or have all the faculties vigorous and UNPERVERTED, will take consistent and correct views of the character, attributes, and government of God. And the nearer our heads approach to this phrenological standard of perfection the more correct will be our moral feelings and conduct, as well as religious opinions and worship. But the farther they depart from this standard, that is, the more uneven they are, and the more imperfectly balanced the organs, the more erroneous will be our religious opinions, and proportionally imperfect our moral conduct and worship. By the application of this principle to our own heads, all of us can see at a glance the departures of our own religious opinions and practices from this the true standard of our nature, pointed out by Phrenology. Those in whom Veneration is moderate, or small, think too little of divine things, and should cultivate the sentiment of devotion; in whom Firmness, Self-esteem, Combaticiveness, and Conscientiousness predominate over Benevolence, that is, whose heads rise higher on the back part of the top than on the fore part of the top, and form a kind of apex near the crown, entertain too austere notions of the character and government of God. But, on the other hand, those in whom Benevolence rises high, while Conscientiousness, Cautiousness, and Destructiveness, are only moderately developed, take the other extreme, and regard God as all kindness, but not retributive. Those in whom Causality and Conscientiousness predominate, and Veneration and Marvellousness are only moderate or small, are too radical, ultra, irreverent, speculative, and hypothetical, and more moral than pious. Let such pray more, and theorise less. Those whose Veneration is larger than Reason should remember that they are too apt to believe as they are told, and require to exercise more intellect along with their religious feelings. But the principle is before the reader. Let each apply it accordingly as his developments may require, and let all profit by the great lesson here taught. By this standard—this moral FORMULA—any and every one of us should test our religion, and then should both cultivate the deficient moral organs, and also put intellect over against our warped and contracted feelings. By analyzing the phrenological faculties, intellect can and should inform us what is the TRUE or NORMAL standard of religious belief and practice, and to this standard let all conform. Then will sectarianism hide its many heads. and “all see eye to eye.” Then will all embrace the same doctrines of TRUTH, and “do works meet for repentance.” “He that is wise is wise for himself.”

This same principle of balance applies equally to the intellectual faculties. When they are all large, the judgment is good in regard to all subjects, but deficiency in any of them impairs it in regard to the functions of those that are feeble. Thus, let a picture be hung up for inspection, those who have Size large, and all the other intellectuals small, though they will judge accurately of its proportions, and derive pleasure from admiring them, yet all its other qualities will be unseen, unadmired, and their pleasure in beholding it proportionably restricted. But those who have Form also large, will observe and admire its LIKENESS as well as its proportions, and thus be doubly delighted;

and those who have large Colour added, will also be delighted with the beauty of its colours, and the richness and delicacy of its tints and shades, which will triple their pleasure. Add large Ideality, and they will discover what without it they would not have seen, the beauty, richness, and those other qualities of the picture which appeal to the faculty.

The proverb that we judge others by ourselves, is in harmony with this principle, and illustrates it. Thousands of times in my professional practice, when I have ascribed to a man some strong ruling passion, say love of praise, and described him as excessively sensitive to praise and reproach, "And so is every one," is the usual reply. Perhaps the next subject has small Approbativeness and large Self-esteem, and of course is described as not caring a straw for the opinions of others; "Well, who does? for I am sure I don't," or "He's a fool who does," apt to be the response. What we love, desire, hate, etc., we are almost sure to think others love, desire or hate.

Those whose perceptive powers, which give the various kinds of memory and the ability to collect and retain knowledge, greatly predominate over their reflectives, though they may be very apt as scholars and talkers, yet they will be superficial, lack thought, judgment, and contrivance, and be incapable of ascending from facts up to the first principles which govern them; and, on the other hand, those whose perceptive powers are small—but reflectives predominate—will have wretched memories, be unable to command their knowledge, or bring their talents to bear upon practical matters; be given merely to speculative, scholastic, abstract, therefore-and-wherefore, metaphysical, theorizing, which is valueless; and though they may know how to reason, yet their knowledge of facts will be too limited to furnish data sufficient to form correct inductions. But where both classes of faculties are powerful and **EQUALLY BALANCED**, the former will collect abundant materials, which the latter will work up into correct arguments and sound conclusions, possess versatility of talents, sound common sense, great strength combined with great correctness of intellect, and be endowed with well-balanced and truly philosophical minds, and gifted with the true Baconian inductive method of studying nature, by ascending from facts up to the first principles—the most conclusive and correct means of arriving at truth. This cast of development is not only perfectly adapted to the laws of nature, and harmonizes with the constitution of the human mind, but it also imparts what is called sound and correct judgment, and takes enlarged views of subjects; while its absence causes the intellectual lameness, warped views, and fallacious and diversified opinions which exist among mankind.

Those who have large Language, with weak reasoning faculties, talk much but say little; have words in great abundance and variety, but few ideas; and therefore experience and communicate but little pleasure; for who wishes to listen to senseless prattle? On the other hand, those who have Language small, with strong reasoning powers, will have excellent ideas and much valuable matter to communicate, yet be barren in expression; their rich mines of thought will remain buried for want of Language in which to express them, and the pleasure and profit of listening to them be proportionally abridged. But those who have Language and the reflectives both large, will experience double pleasure, both in thinking and in communicating their glowing

thoughts in rich, expressive language, and thereby administer much pleasure and profit to their delighted listeners.

But the power and importance of this principle of balance are greatly augmented when applied to the various COMBINATIONS of the faculties. Thus, to have predominant Cautiousness is bad, but to have it combined with small Hope is much worse, because it causes the most gloomy apprehensions and fearful forebodings, and shuts out every ray of expectation which large hope would throw in upon perpetual darkness. Excessive Approbativeness added, creates the strongest desire for approval, mingled with a constant dread of incurring censure, and no hope of obtaining that commendation so much desired—a most unhappy state of mind. Large Veneration, and small Self-esteem and Combativeness, added to this combination, produce the most oppressive diffidence, accompanied with that confusion and utter want of self-possession, which prevent any one, however talented or deserving, from accomplishing much, or even from enjoying intercourse with men, and also cause pusillanimity, and even cowardice. But when these faculties are EQUALLY BALANCED, large Approbativeness will aspire to distinction; strong Hope, expect that praise which Approbativeness desires; large Self-esteem will impart enough, but not too much, of that “modest assurance” requisite to push its possessor forward; and large Combativeness nerve him for contest with every difficulty, and give vigour and efficiency to all he says and does. And when this balance is still farther perfected by large intellectual organs, they give the requisite talents and high moral character which impart moral worth, and sanctify ambition, elevate motives, and ennoble the whole character; so that such will be every way calculated to enjoy life themselves, and to become blessings to mankind. But let either of these faculties be much stronger or weaker than the others, and their enjoyment will be proportionally marred, and usefulness diminished.

Though predominant Acquisitiveness, which predisposes to dishonesty, covetousness, and a miserly selfishness and meanness, and also its deficiency, which allows extravagance and diminishes industry, are each adverse to virtue and happiness, yet the evil is greatly magnified by its combinations. Thus, those who have small Acquisitiveness combined with large Benevolence will give away so lavishly to every apparently needy sufferer as to leave nothing for themselves, and no capital with which to make more to enable them to aid future sufferers, or even to live. Large adhesiveness increases the evil, by causing them to ruin themselves by helping their friends, and by exciting commiseration for those whom they desire, but are unable to relieve; whereas, if Acquisitiveness had been as large as Benevolence and Adhesiveness, they would have gratified the former by acquiring property, yet have retained enough to live comfortably, and continue business in order to make more; and the latter, by giving the balance to relieve friends and sufferers. This would have more than doubled their pleasures, besides preventing that distress occasioned by bestowing their all, and that perhaps upon unworthy objects. But those in whom Acquisitiveness predominates over Benevolence may, indeed, experience a sordid pleasure in making money, but are strangers to the exquisite satisfaction which accompanies works of charity, because predominant Acquisitiveness holds in its iron grasp the means of gratifying Benevo-

lence by giving, prevents Adhesiveness from entertaining friends; Ideality from having nice things, and indulging refined taste; the Intellectual Faculties from purchasing books, and taking time to think and study; Philoprogenitiveness from spending money in educating and improving children; Locality and Sublimity from travelling; Conscientiousness from paying debts, and freely discharging all pecuniary obligations; Hope from investing capital in what promises pleasure to the other faculties; Alimentiveness from indulging in table luxuries; and thus abridges most of the enjoyments of life, besides preying ultimately upon itself by grudging every farthing expended, and giving its possessor a world of trouble for fear of losing his possessions. A few facts as examples.

About twenty miles from Raleigh, North Carolina, there lived an old miser, worth twenty thousand dollars, who allowed his only daughter to live destitute of every comfort, dressed only in clothes coarse and shabby, almost starved, and, finally, even to go to the poorhouse, because he was too miserly to support her. The combination of very large Acquisitiveness and Cautiousness with large Hope produces a state of mind truly deplorable. We were brought up near an old miser, named George Rogers, who had this combination, and who, besides burying his money in different places, watched it the whole of dark and stormy nights, and suffered everything from the fear of being robbed. Mr. Green, a carpenter, in Norfolk, Va., has Acquisitiveness so strong that he lives upon spoiled meat, cold victuals, and such ends of the table as he can get for nothing; and is an old bachelor, because too stingy to marry, though worth some twenty thousand dollars.

A miser in Philadelphia, worth almost half a million, hires his children, whenever he can, to go to bed supperless for a penny a-piece, which he steals from them when asleep. He seldom provides decent edibles for the other meals, and used to give his children the old watermelons left over of his sales till they had become stale.

The combination of predominant Acquisitiveness with small Cautiousness, by speculating too largely and grasping at enormous profits, often loses all, as by speculating in village lots, mulberry trees, etc.; besides often contracting debts beyond the means of payment, inducing a perpetual series of difficulties, and, if Conscientiousness be also small, prompting to dishonest and unprincipled conduct. Moderate Causality added, tries a variety of ill-advised ways and means to get rich, but fails in all, and is tantalized with improper desires, which cannot be gratified, and so grasps at one straw after another, only to sink into deeper poverty and more hopeless disappointment.

But when these organs are equally developed, Acquisitiveness desires property, and prompts energetic efforts to acquire it; Hope creates due enterprise, and feasts, but not to excess, upon unfolding prospects; Conscientiousness is gratified by the payment of all dues; and Cautiousness and Causality combine foresight and prudence with that judicious application of appropriate means to the end desired, which crown effort with success. This combination secures the harmonious exercise and unalloyed gratification not only of all these faculties, but also of all the others if similarly balanced.

Those who have predominant Self-esteem, combined with large Firmness, Combativeness, and Destructiveness, and only moderate Con

scientiousness, Approbateness, and intellectual faculties, will be self-sufficient, proud, haughty, imperative, overbearing, dictatorial, obstinate, insolent, supremely selfish and revengeful toward all who do not obey their unreasonable demands, and submit to become their servants; and yet they will have too feeble intellects to support these high-sounding pretensions; but those who have all these organs equally developed—large Self-esteem—to impart dignity and nobleness of character, so that they cannot be trifled with, combined with large intellectual organs to impart the strength of mind requisite fully to sustain their high claims, of which Dr. Caldwell furnishes a good example; large Conscientiousness to add moral worth to intellectual greatness; and large Firmness and Combateness, to impart perseverance, moral courage, and energy of character—will duly respect themselves for their moral and intellectual qualities alone, and combine the man and the gentleman with superior intellectual abilities and high-toned moral principles, and thus enjoy life themselves, and promote the happiness of all around.

Other still more striking illustrations of the importance of this balance of the faculties might be drawn from the SOCIAL faculties; and others still from EVERY PHRENOLOGICAL AND PHYSICAL ELEMENT OF MAN. But why enlarge upon a principle, the necessity and value of which are so self-evident—a principle thus clearly shown to be so powerful and universal in its application as to be inseparably interwoven with the nature and happiness of every human being? Have we not already shown WHY AND HOW well-balanced intellect is so superior to the same amount of intellect unbalanced—how the moral faculties, when harmoniously developed and exercised, produce that moral feeling, that true piety, which constitute the grace of graces—the crowning excellence of man, and especially of woman—as well as that this endless diversity in the religious faith and practice of mankind which disgraces modern Christianity, and makes so many infidels, is caused by a want of this balance? Indeed words cannot express its value and importance. Hence, should not parents and teachers, in educating the young and moulding the characters, physical, intellectual, and moral, and, indeed, ALL who seek health, long life, happiness, or self-improvement, be guided by it as their polar star, and make it the nucleus around which all their efforts to remedy defects and cultivate virtues should cluster?

PROOF THAT THE ORGANS CAN BE ENLARGED OR DIMINISHED.

When Phrenology first came up before the author's mind for examination he saw at a glance that IN CASE its organs were capable of being enlarged or diminished, it disclosed the greatest discovery of this age or any other—the means of improving the MIND and perfecting the SOUL. Consequently, this single point engrossed much of his early as well as recent inquiries; and all his subsequent observations have tended to confirm the glorious truth, that small organs can be enlarged and excessive ones diminished, EVEN IN ADULTS. Man is NOT compelled to carry all his faults, excesses, and defects to his grave. Though the tendency of the large organs is to become larger, and of the smaller ones to become still more diminutive, on the principle that "to him that hath shall be given, and he shall have more abundantly, but from him that hath not shall be taken away even that

he hath"—though the larger an organ the greater the pleasure taken in its exercise, and therefore the more spontaneous and continual that exercise, which naturally re-increases its size and activity; while the smaller an organ the less pleasure is taken in its action, and hence the less it is exercised, so that it becomes diminished by inaction—yet this tendency CAN BE COUNTERACTED, and the power of any required faculty be increased or diminished at pleasure. That great changes often take place in the character is a matter of daily observation and experience. But can the phrenological ORGANS also be increased and diminished? Can so soft a substance as the brain enlarge and contract so hard a substance as the skull? "Impossible," says one. "I must see that point PROVED before I believe it, much as I am inclined to such belief," say others. To this important point, then, we address our first inquiry—the POSSIBILITY AND EVIDENCES of such enlargement.

To show that the enlargement of the skull is not impossible, that it is even not so very difficult as its cursory observation leads us to suppose is first in order. The skull is not that hard, unimpressible substance in the living subject which it is found to be in the dried skeleton. Nor is the matter of which it is composed stationary, but, like that of all the other portions of the system, it is undergoing constant change from the cradle to the grave. Its old and useless matter is perpetually taken up and carried off, while new deposits are continually going on, so as to allow all the latitude and opportunity for a change of skull required by any amount of cerebral diminution or increase.

Besides, is not its office to serve the brain? Which is the subject, which the lord? To subserve the purposes of the BRAIN, and through it of the MIND, was every organ of the entire body created; and shall the skull form the only exception? Is it not rather the highest confirmation of this law? We may rest fully assured that nature will never allow the skull to interfere with any required development or function of the brain or mind, but rather that it promotes both. Shall the shells of the oyster, lobster, turtle, alligator, and all the crustacæ, allow the perfect development and easy growth of the mass within, and shall not a similar provision be made for the unimpeded growth of an organ as much more important as the brain? This enlargement is not effected by the mechanical PRESSURE of the brain upon the skull, any more than the bark of trees, but by the natural process of growth and formation. As the skins of growing animals do not become larger by being STRETCHED, but by the mechanical pressure of the flesh upon all parts—for this would require an immensely powerful force—but grow and shrink with the growth and diminution of the enclosed mass, so the skull yields and shrinks in accordance with the increase and diminution of the brain within.

Another means by which nature allows this cerebral enlargement wherever it is required, is by rendering the skull THIN above that portion or organ of the brain enlarged, while the diminution of the latter thickens the former. Our phrenological collection contains twenty-one or more skulls which establish this fact, and none known to militate against it. A physician in Weschester co., Pa., kindly presented the skull of a female, respectably connected, who, in spite of the entreaties of her friends, had voluntarily abandoned herself to the unrestrained indulgence of *Alimentiveness* and *Amativeness*, and

whose skull is so very thin as to be transparent where those organs are located, but not elsewhere. That of John Earl, who murdered his wife, and who was given to the unrestrained and habitual indulgence of both these passions, is also thin in the same places. So is that of Burley—presented by Mr. Harris, treasurer of the London District, U. C.—a volunteer in the burning of the “Caroline.” This Burley armed himself for the purpose, and deliberately shot the sheriff who arrested him for stealing a young bullock and killing it for food. He was an habitual drunkard, and excessively licentious, and yet by turns extremely given to prayer and religious exercise; an explanation of the seeming anomaly of which Phrenology alone gives. One of his religious seasons immediately preceded his execution. When swung off, the rope broke. During the consequent delay he proposed to have a season of prayer, and was himself earnestly engaged in supplicating the Divine blessing when the sheriff interrupted him to re-adjust the rope.

L. N. Fowler has in his possession the skull of a slave, who was notorious for his propensity to steal, and was repeatedly whipped almost to death for stealing, but to no purpose: on the perpetration of a new theft, his master seized an axe and struck it through his skull into the brain, exclaiming: “I WILL break you off stealing, if I have to kill you.” He lived, but still continued to steal; and his skull is remarkably thin and transparent at Acquisitiveness and Secretiveness. The skull of another slave, noted for kindness, is thin where Benevolence is located.

He has also the skull of a woman, who, from being a moral and virtuous member of society, and a consistent and exemplary professor of religion, became a self-abandoned outcast, and grossly immoral, yet was passionately fond of music. It is thin where Amativeness, Combativeness, and Tune are located, but thickened upon the top in the region of the moral organs.

Again, does not the WHOLE head continue to enlarge till after thirty? Is not this an admitted fact? Then, is not the inference conclusive, that, since the resistance of the skull does not prevent the enlargement of the brain as a WHOLE, it will surely allow any PART of it to become enlarged?

Phrenology, moreover, demonstrates the fact that the brain is composed of particular organs, each of which exercises a special function. Hence, since the exercise of every organ causes a flow of blood to that organ in proportion to the vigour and continuance of that exercise, therefore the vigorous and continuous ACTION of any faculty, as of Benevolence, Causality, or Combativeness, causes a proportional flow of blood to its particular organ, which blood is freighted with matter which it deposits wherever it goes, and in proportion to its abundance. This causes each ORGAN to enlarge in proportion to the exercise of its faculty. This law of increase, by and in proportion to action, and of decrease by inaction, is familiar in its application to the hands of sailors and labourers, to the feet of dancers and pedestrians, to the chests of rowers, the muscles of the labouring classes compared with those of puny “upper tens,” the right hand as compared with the left, and, indeed, to every portion of the body. Does, then, the brain form the only exception to this law? Is it not a part of the body, and therefore governed by all those physiological laws which govern the

physiology? How unphilosophical and absurd such supposed exception! Besides, it is an established fact, that the heads of the literary classes are larger than those of labourers, because exercised more. Then, since the exercise of the brain, as a whole, causes its gross enlargement, why should not the exercise of any of its parts cause the enlargement of its particular organ in proportion to that exercise? Why should not the flow of blood to the several organs exercised cause the deposit of those materials with which it is freighted, and so occasion their enlargement in proportion as they are exercised? At least, it is for the disputants of this doctrine to show that this law does NOT apply to the brain, since we know it does to all other portions of the body. It is, therefore, possible to enlarge and to diminish the size of the phrenological organs, both by the skull becoming thin, and by the actual protrusion of the skull itself.

That the skull RETIRES as the organs decrease may also be doubted; but let it be remembered that the pressure of the external atmosphere is sufficiently great to depress anything in the least flexible, and, of course, the skull, whenever the internal pressure is removed by the decline of the organs within.

Having shown the possibility of an enlargement of the organs, and also how it can take place, we next proceed to demonstrate this point by FACTS. In 1835, Mr. Balley, of Manchester, England, took from life a bust of the Rev. John Pierpont, of Boston. In 1841, we took from life a bust of the same head. The latter shows a decided increase of the whole intellectual lobe over the former. This increase an accurate eye detects instantly, because the latter is deeper, broader, higher, and every way more ample than the former. Benevolence and Combativeness are larger, while Cautiousness is smaller in the latter bust. The cause of this increase of some organs, and decrease of others, is to be found in the vigorous and almost continual EXERCISE of his intellectual faculties in the composition of poetry, for which he has become justly celebrated; in lectures in the cause of temperance, truth, and freedom; as well as in his severe and protracted intellectual and moral contest with the rumsellers of his congregation. When odes and poems are wanted on occasions like the death of Spurzheim, or Harrison, or any national or local jubilee, Rev. John Pierpont furnishes the best. His unremitted labours in the temperance cause; the number, power, and eloquence of his lectures on various subjects; the logical clearness and cogency of his letters to his vestry, evince a powerful and continuous exercise of his intellectual FACULTIES sufficient to cause and account for the increase of his intellectual ORGANS, as well as of Benevolence and Combativeness, and the decrease of Cautiousness.

This case establishes our position beyond a doubt. Both busts were taken when he was upwards of forty-five, and so taken that the manner of taking could cause none of this striking difference. This case is clear and unequivocal, and subject to the inspection of all who wish to examine copies.

J. G. Forman, a phrenologist, took a mask of a woman in Sing Sing prison, who, from a child, had seen with the right eye only, and whose perceptive organs on the left side were much larger than those on the right. My first glance at the mask disappointed me, for Calculation and Order were equal on both sides; but a second glance

actually electrified me with delight, because it revealed the fact that Individuality, Form, Size, and Locality, the functions of which are exercised mainly by means of the eye, were much larger on the side opposite the seeing eye than the same organs over the seeing eye; while the organs of Order, Calculation, and Weight, which can act as well without the aid of the eye as with it, or at least as well with one eye as both, were alike on both sides. This difference is most striking. Locality rises nearly half an inch on the left side, above the same organ on the right. Size, on the left side, has both elevated and protruded the inner portion of the left eyebrow about half an inch, while Language, Comparison, and Causality are equal in both. This mask can also be inspected. The principle of crossing involved in this case is established, by a great amount and variety of evidence, to be a physiological ordinance of nature, and might have been easily foretold.

In our collection may be seen two masks of Oldham, machinist to the Bank of England, taken by Spurzheim twenty years apart. The last, after he became celebrated throughout Europe for his mechanical and inventive powers, shows a breadth at Constructiveness greater than the first by nearly an inch, while the other organs remained nearly stationary. Spurzheim exhibited these masks in Boston to prove the possibility of enlarging the organs—a favourite doctrine with him. On this point this truly great man, in that most excellent work on “Education founded on the Nature of Man,” remarks as follows:—

“It may be asked whether exercising the affective and intellectual powers makes the respective organs increase. Each part of the body, being properly exercised, increases and acquires more strength. The fact is known to be so with respect to the muscles of woodcutters, smiths, runners, etc. Now, the brain and its parts are subject to all the laws of organization; they are nourished like the arms and legs. Cerebral activity, therefore, determines the blood toward the head, in the same way as the blood is carried to any other part when irritated, and this law of the organization may enable us to account for the development of certain parts of the brain of whole nations, and to explain national characters, if individual powers are cultivated during successive generations. I can speak with certainty from repeated observations. The changes of cerebral development, when the individual powers are exercised, or kept quiet, are astonishing. In the former case individual organs increase, and in the latter they not only stand still in growth, but sometimes become absolutely smaller.”

The bearing of these facts is positive and direct. They prove, beyond all dispute, the possibility of enlarging the size of organs by exercising their faculties, as well as of the required protrusion of the skull, and hence prepare the way for evidence less positive in its character, which, without this as an enduring wedge, would be comparatively valueless. They DEMONSTRATE the point now under consideration, which, once established, may now be illustrated and enforced by an order of evidence too low in itself satisfactorily to prove it.

Deville's cabinet in London contains about seventy busts which establish and illustrate this point. Caldwell brought over with him some fourteen of them, and says that this increase of organs is placed beyond a doubt by these and other specimens. Dr. Carpenter, of Pottsville, Pa., and Prof. Bryant, of Philadelphia, and many others who have seen these casts, bring a similar report of them. One of these changes occurred in the head of Herschel, the great astronomer. An engraved

likeness of him, said to be the best ever taken, shows enormous perceptive organs in the length and arching of his eyebrows, and bears evidence of its having been taken when he was about seventy; whereas a mask of him now in our collection, evidently taken when about forty, shows only a fair development of these organs.

Changes, similar to those already described, took place in the head of Franklin, except that his reflectives increased, but perceptive diminished. Most of the busts and engravings of this great philosopher found in shops, books, etc., represent him as old, and evince predominant reflective organs, but deficient perceptive.

Our next inquiry relates to the existence or absence of a corresponding change in his intellectual CHARACTER. Of this, all are allowed to judge for themselves; but was not young Franklin remarkable for observation, memory in general, desire to acquire knowledge, especially of an experimental character, and facility of communication; while OLD Franklin was all reason and philosophy, rich in ideas, full of pithy, sententious proverbs, which are only the condensation of Causality, and always tracing everything up to its causes and laws, but less inclined to observe and remember facts as such?

This conclusion is endorsed by the NATURAL LANGUAGE of his organs—an unfailing index of the true character. Young Franklin is represented as throwing the lower or PERCEPTIVE portion of his forehead forward, which evinces their predominance; while old Franklin throws the REFLECTIVE organs forward, as if in the attitude of deep THOUGHT. This shows young Franklin to have been what his portrait, taken when he was young, evinces, namely, a great observer; but old Franklin to have been a profound reasoner, a characteristic just shown to appertain to his later busts and portraits.

The likeness of Bonaparte, as stamped upon coins of different dates, show a decided enlargement of his forehead, especially of his reflective organs, as he advanced in years. This difference is very great; and if exercise enlarges the organs, surely those of no other man could be enlarged faster.

Let us now enter another field of inquiry, to see if we obtain similar results from another class of observations still more general. Stone-cutting, and especially lettering, requires a vigorous and intense exercise of Form, Size, and Locality; and, accordingly, stonecutters all have these organs large. For the correctness of these remarks appeal is made to observation.

Not one farmer, merchant, or business-man in fifty is found to possess Weight above moderate, while nearly all the seafaring men I have ever examined have had this organ fully developed, along with large form and Locality, and usually large Order and Calculation. The reason is obvious. This organ keeps the balance; and, since the perpetual motion of a ship is continually destroying this balance, Weight is kept unceasingly active to regain and preserve it, especially when in the rigging. Their Form is brought into frequent and vigorous action by looking for, and watching, ships, etc., in the distance; and Locality, by remembering the beds of rivers, the navigable parts of harbours, the localities of rocks, shoals, and the position of things, and by remembering the looks of various parts, as well as by practical geography in general. In machinists, engineers, and those who work about machinery, this organ is usually large, and also in billiard players,

expert marksmen, good riders, and the like, while ordinary mechanics, not connected with machinery, usually have it small, except those whose occupation requires climbing. In females, Weight is seldom developed; yet, in factory girls it is unusually large. Constructiveness is found to be large in nearly all weavers.

At Adams, Mass., in 1834, I was struck with the fact that all the weavers examined had large Continuity, an organ below par in ninety American females in every hundred. The same results have been observed in every factory I have since visited. At Young's factory, in Delaware, in 1839, I selected some fifty weavers from the employed in other occupations, with but a single failure, and that on a subject of thirty-five, who had been weaving only fifteen months—too short a period, at this age, fully to develop this organ. The reason is obvious; namely, that weaving keeps the whole mind exclusively occupied upon one and the same thing, day after day, and year after year. This will serve as a valuable hint to those who wish to improve this organ. Englishmen and Germans generally have this organ large, while it is small in most Americans, which correspond with their national habits. The former usually devote themselves exclusively to one study or occupation, and can make a living at no other, while the versatile talents of the latter enable them to turn their hands to almost any and every thing with success. So strongly marked is this national characteristic that it is a great national fault, and renders us as a class next to superficial; nor have I ever seen it as small in the heads of any other nation as in our own.

Inhabitiveness is almost universally large in those who have lived in one house till fifteen years old, but small in those who moved during childhood. In thousands of instances, when examining the heads of children, I have said to their parents, "I perceive you have moved since the birth of this child, or else it has lived from home;" and do not remember ever to have failed more than a few times, in which cases hereditary influences prevailed over the exercise of the organ. The reason is this: Inhabitiveness becomes attached to the homestead where one has lived—to the domicile in which we are reared, and the surrounding trees, stones, etc.; but removing disturbs this attachment, and weakens the organ.

I have examined many blind persons without finding one in whom Colour is even fairly developed. As this faculty is exercised by means of the eye, it is not surprising that its not being exercised keeps its organ small.

The deaf and dumb converse mainly by signs, or by ACTING OUT what they want, that is, by imitating. They are the best actors of pantomime, and the best mimics, to be found. This continual EXERCISE of Imitation doubtless causes this universal predominance of this organ in them.

In nearly every Scotchman Causality and Conscientiousness will be found to be large, which is in keeping with their reasoning so much upon moral and doctrinal subjects. For additional facts of this class see the chapter on this subject in "Fowler's Phrenology."

Probably not one New York city lady in twenty has Acquisitiveness above moderate; while a large proportion of Yankee women have this organ full or large. The latter are taught industry from the cradle; but whether this is true of the former we leave others to judge. In

southern ladies, also, this organ is usually small. Constructiveness is much smaller at the north than at the south, and in manufacturing towns than in those classes that are too good to work. After examining ten heads in any place I can usually tell the general character of its inhabitants—whether they are proud, secretive, acquisitive, moral, ingenious, or whatever other dominant characteristic they may possess. Every community has a distinctive character as much as every person. This is easily solved by supposing that their original founders had certain faculties predominant, which, by being continually exercised, excited the same in all new comers, and thus developed the corresponding organs, and thereby stamped the impress of their own minds upon all around them. Other causes, however, doubtless aid in bringing about this result.

This principle explains in part, and corresponds with, the fact that lawyers and politicians have large Language, Combativeness, and Comparison, namely, because their vocation brings these faculties into constant action; and also shows why the religious denominations have each a characteristic set of developments, etc., though this is doubtless caused in part by hereditary descent.

Granted that these and similar facts, if weighed by themselves in the scales of inductive reason, would be light, and might not even cause it to predominate in their favour, yet, thrown into the same balance with those drawn from the busts, they add much weight to a scale already weighed down with more conclusive proof.

But another class of facts, more unequivocal, is found in examinations of the same head, made at different periods. As the public have given the author credit for correct examinations, they will doubtless place some reliance upon the summary result of his observation, which is that every year's practice increases his astonishment at the number and extent of these changes—a few of which he will narrate.

In 1836 I examined a subject whose Veneration was only three, at the same time putting his finger into the marked depression between Firmness and Benevolence, and exhorting him to be more religious. He was examined again, unknown to me, in 1842, and his Veneration marked LARGE, the depression to which his attention was called in 1836 being entirely FILLED UP. He then stated that he became a praying man soon after his first examination, and had continued so ever since. He called mainly to inquire if becoming religious could have caused the change in the developments, which he had observed for the last two years.

In 1836 a young man of considerable intelligence stated that, when a boy, he had a schoolmate, exactly his age, size, and height, so that their clothes and hats perfectly fitted each other; that this young friend went to West Point, and he to a mechanical trade; that when his friend had graduated they met, and again changed hats; that his friend's hat, instead of fitting his head as before, was too large in the forehead, and too small over the temples, while his hat pinched the FOREHEAD of the cadet, but was loose over Constructiveness, which showed an increase of the intellectual organs, particularly of the reflective, in the cadet, whose studies called these faculties into powerful action, and an increase of Constructiveness in the head of the mechanic.

Eventuality is always very large in Jews, doubtless because they were required to tell the Lord's doings to their children and grand-children;

in doing which they powerfully exercise their Eventuality. The same is true of the North American Indians, who perpetuate their history in the memories of the rising race.

In the children of the rich, Acquisitiveness is almost invariably small. Having every want supplied, and therefore no occasion for the exercise of this faculty, its organ becomes small from mere disuse—a beautiful proviso, truly, against accumulating immense wealth in the hands of the few.

In nearly every soldier and inferior officer among hundreds examined in Canada, I found predominant Firmness, Self-esteem, Amativeness, and Alimentiveness, and large to very large Combativeness, Destructiveness, Hope, and perceptive faculties, with smaller Casualty, and deficient Conscientiousness and Acquisitiveness—the very organization which their occupation would produce if this law of increase by exercise, and decrease by inaction, be true. They cultivate a large, reckless, and daring spirit; drink and carouse daily; and have no occasion to exercise Acquisitiveness, because their food, raiment, etc., are furnished, and their pay is regular, with scarcely a possibility of being increased. All their associations blunt Conscientiousness, and excite their passions. Possibly men with this organization seek the army, yet more probably military associations enlarge and diminish the developments.

This argument for the increase of organs by exercise, derives additional force from its beautiful harmony with many analogous facts. In one of the examinations, reported in the Journal, a fact was related to show that the intense and continuous action of organs turned the hair above them gray. In confirmation of which, scores of similar ones could be adduced, accompanied with names and dates. Another article, written by a Canadian correspondent, showed that the excitement of any given faculties could always be detected by the sharpness of their organs, etc.

Any reader who will take the trouble to observe, will find, that when any of his faculties have been called into unusual activity, their organs feel as if crawling, or disturbed, or feverish, or heated, according to the kind and extent of the excitement. Observe your own mental exercises, in connection with your cerebral sensations, and you will daily be more and more surprised at the numerous and striking coincidences of this character. Those who think, write, study, lecture, etc., much, will frequently put their hands to their heads; while those who are fond of family, and much at home, when they sleep away from their families, will involuntarily put their hands upon the back of their heads where the social group is located.

President Makan, of Oberlin, to whom all must concede a highly excited state of the moral faculties, when he was preaching in New York, often put his hands on the TOP of his head. In short, this principle of the increase of organs by exercise, will be found to harmonize most strikingly with all the facts, and classes of facts, which bear upon it.

Again, we know that marked changes of CHARACTER often take place. If, therefore, this principle of a corresponding change of ORGANS did not obtain, Phrenology could not be true, because it would be at war with the known operations of nature; yet since character is known to change

this concurring capability of changing the developments furnishes a powerful argument in favour of its truth.

That the power of all the faculties can be astonishingly enhanced,—that every species of memory, judgment, and all the moral virtues are capable of being improved *ILLIMITABLY*—the main thing desired after all—is a matter of universal observation and experience; and that Phrenology proves the possibility of enlarging their organs, shows that it corresponds with nature, and is therefore true.

Let it not, however, be supposed that this increase in size is proportionate to the increased power of function. The increased *FACILITY OF ACTION*, as remarked by Spurzheim, is far greater than that of bulk. The organs become more and still more *SUPPLE, SPRIGHTLY, VIGOROUS, and FLEXIBLE*, as well as enduring and easily excited; and *THIS* is the great source of the increased power of function. The blood-vessels also become enlarged so that the blood flows through the organs, and thereby augments their power, action, and endurance.

And now, inquiring reader, after summing up the evidences in support of this capability of improving the organs and faculties, say, is it not only probable, but absolutely *CERTAIN*? Is it not of a character so conclusive that you may safely *REST* on this result? And since you can, how glorious the prospect it thus opens before you! Man naturally loves to effect improvements. How great the pleasure of clearing lands of forests and stones, of securing crops, and having fruit-trees grow, and bear abundant yields; of progressing in buildings, business, machinery, and whatever we undertake? But how utterly insignificant all this compared with the improvement of *INTELLECT*, and the building up a magnificent *SPIRITUAL* temple out of these godlike materials of which humanity is composed! I rejoice in all terrestrial and material improvement: it fulfils an ordinance of nature; but O with what inexpressible delight does progression—my own and that of others—in *TALENTS* and *GOODNESS*, fill my soul! To see *MAN* rise from the ashes of sloth and degradation, and soar on the wing of improvement toward heaven, and become more and more like angels and like God! O this is the most delightful sight mortals are permitted to behold—the most glorious work in which they can engage on earth or in heaven! To such a result, thank God, I am allowed to contribute. And what intense delight it affords me. To engage in obviating human weaknesses, maladies, and sufferings, and in exterminating those evils and vices which afflict my brother man, to administer a sovereign panacea for all the ills flesh is heir to, and help to build that magnificent human temple now in slow but sure process of erection, and to carry my race onward and upward toward that angelic destiny in store for it;—this, O this is the great desire of my soul, the great labour of my life. To subserve an end thus glorious—to tell those who would know, how to curb wayward passions and quench sinful desires, how to cultivate weak faculties, and live up to the exalted endowments and capabilities of their nature—were these pages written. Yes, my fellow-men, we *CAN* carry our improvement to a far greater pitch of perfection and power than any of us suppose. Shall we not sow that we may reap such a harvest? Or will we fold our arms and allow ourselves, sluggard-like, to wither and die of pure inanition? Shall not a prospect of self-improvement thus certain—thus glorious—inspire our hopes, and create the firm resolve to put forth

every effort within our power to progress as high in the scale of improvement as our natural capabilities will allow?—and this will be high, indeed. Then let us be up and doing.

But it is to PARENTS that this increase of organs holds out by far the brightest star of promise. To enlarge the deficient organs of children is comparatively easy, and the earlier culture is applied the greater the harvest of improvement it yields. O how should we literally exult in being allowed to accelerate the progress of our own dearly-beloved offspring? And shall we sleep over SUCH a work—a labour of love in which angels should be delighted to engage? O parents, we do not duly LOVE our children; we scarcely begin to do our duty to them. We strive and toil to leave them “well off in the world,” yet do we not most shamefully and wickedly neglect their highest good—the cultivation of their MORAL nature? We are ever ready to lavish time and money upon their persons, and spend, though scantily, upon their intellectual education, yet strangely and blindly neglect the proper regulation of their feelings.

The plain fact is, parents do not know where to BEGIN, or how to PROCEED. They stand ready to do, if they knew WHAT and HOW. They grope their way in dim twilight, yet the day-star has risen. Phrenology shines with noon-day lustre on the philosophy and laws of mind, and shows how to improve it. We proceed to investigate its directions to parents, and to all. Do you eagerly ask how this enlargement can be effected? How can so glorious a boon be secured? We unhesitatingly answer, by

THE PERSONAL EXERCISE OF THE FACULTIES.

The attainment of so great a good might be expected to be proportionally intricate and difficult. Not so. Like every other operation of nature it is simple and easy. Like eating and breathing, and looking, to acquire this greatest of treasures is itself a pleasure. We are required neither to wash in Abana, Pharpar, or Jordan, nor to go on a pilgrimage to Mecca, nor perform a crusade to Jerusalem, nor to waste our substance in sacrifice or on teachers. We are not obliged even to abridge a single pleasure, not even of a worldly nature, but in and by effecting this very progression, are allowed the largest normal gratification of all our various powers. The greater the right exercise of all our faculties the better. Indeed, such exercise is the great instrumentality of such improvement. ACTION is the great means of strengthening every power of our nature. True, a right system of diet will aid much, and a wrong system effectually retard. That certain kinds of food are constitutionally adapted to develop certain powers both of body and mind, was shown in “Physiology.” We should, therefore, take the right kinds and quantity of food, and keep our bodies in the best possible condition for mental action. Thus it only remains for us to EXERCISE the faculties we would strengthen. All other means without this will be futile. The sluggard can never improve; he must necessarily deteriorate. Inaction always weakens. Swing up your arm and foot for months, and they become feeble in consequence. The less we do, the less we are inclined to attempt; whereas the more we do the more we can accomplish. True, we may overdo. The brain, like every other portion of the body, can be overtaxed, and thereby exhausted. Fitful action is liable to produce

this effect. So is powerful cerebral action, when other portions of the system, especially the stomach, are overloaded, and the brain robbed of energy to help to discharge the load. Powerful mental action along with over-eating or working, or deficient sleep, or disease, is most injurious. Yet in all such cases the evil is caused, not by extra mental application, but by the other excess, but for which even far greater cerebral action would not only not injure, but would actually benefit.

So also fitful cerebral action, like exercise after long-continued confinement, is very injurious; yet, that the evil is not caused by over-action is evident from the fact that a far greater amount of moderate diffused action could have been endured with profit and pleasure. Nor does fitful action ever effect much. Success in all pursuits requires long-continued, stable, persevering action. All nature's operations are gradual. The sun does not burst suddenly upon our earth, nor go down instantaneously, but rises and sets GRADUALLY, besides being preceded and succeeded by slowly-increasing and diminishing twilight. Vegetation does not spring up and mature in a day, but requires time. As the physical and mental powers are developed by slow gradations, from infancy to maturity, so progression in knowledge and goodness must be effected by patient and continued application. Unlike Jonah's gourd, all our virtues, all our powers, are brought to complete maturity only by effort, begun with the beginning of life, and continued unintermittingly through adolescence, maturity, and old age, up to its final termination in a natural death. Not, however, that we must sow a lifetime in order to reap, but we reap as we sow. Unlike spending the prime of life in amassing wealth in order to retire in the afternoon of our days to enjoy it, we here enjoy AS WE GO ALONG. The very effort to improve ourselves is the most delightful pleasure in which we can engage, besides all the happiness consequent on the improvement effected. Nor can self-improvement possibly be effected without bringing along with it this double reward; for it consists in obeying the laws of our being, and this always causes happiness. The normal action of every function of our nature is pleasurable. This is nature's universal economy. Hence that very action which secures improvement also causes enjoyment. In and by the very act, therefore, of rendering ourselves better, we promote, in the most effectual manner possible, that happiness for which alone we were created, and alone should live. Nor need we fear of doing too much, so that we do right, any more than of being too happy. On the other hand, as normal action gives pleasure, and as all enjoyment consists in such action, therefore the more we exercise our faculties the better, because the greater our progress and happiness. We often overdo relatively, yet rarely absolutely. We often overwork one particular part of the system because we fail to exercise the others proportionally. We often bring on disease and premature death by exercising one organ or class of organs so much more than the others. Thus, sedentaries may induce nervousness by over mental application in conjunction with muscular inaction, and perhaps over-eating added; whereas, if they ate and exercised right, they could have put forth ten times as much mental action, not only with impunity, but with benefit; so that the evil was caused, not by overdoing, but by DIS-PROPORTIONATE action. Yet INACTION, not overaction, produced the evil.

Not, however, to dwell longer on these and kindred qualifications, the great instrumentality of all improvement is assiduous, powerful, and well-directed action. Fear not about overdoing. Thrust iron after iron into the fire—the more the better; and then hammer away so resolutely and faithfully as to let none burn. Exercise this faculty, and that, and the other as powerfully and as continuously as possible. Idleness clothes mind in rags as well as body, whereas vigorous effort alone can array it in the robes of happiness and heaven; and he who does most and best enjoys most.

The reason why the exercise of the faculties enlarges their organs and strengthens their powers is, that it causes an increased flow of blood to them, just as that of the arm or foot does. The same law by which the exercise of the lungs, muscles, and physical organs augments their volume and energy, as shown in "Physiology," applies equally to the brain as a whole, and to each of its organs, and is, in fact, a law of things.

The inference, then, is obvious, that self-improvement can be effected only by personal exertion. A pearl of so great a price cannot be bought. Nor can it be obtained by proxy, nor yet inherited, except in its rudiments; but it must be CULTIVATED, and by every one FOR HIMSELF. As no one can eat, live, breathe, or die for another, but as all must move, see, exist, etc., in their own appropriate persons, so all must exercise their faculties, and effect this improvement for their own selves, and not for another. Teachers cannot learn for their scholars, but can only show them how to learn. Parents cannot become good or great for their children any more than die in their stead. All they can do is to provide these children with the requisite facilities and incentives—to place stimulants before their minds just as they place food before them. It remains for the latter to partake of the mental as of the physical banquet thus spread before them.

And how many, mistaking the provision for the partaking, relying on the possession of books and advantages, instead of the study of the one and the improvement of the other, neglect both and starve, mentally, surrounded by a perfect glut of the means of improvement. In fact, parents often commit a great error in doing TOO MUCH for their children. How many slavish mothers have spoiled their children by extra tenderness and doing everything for them, when they should be compelled to do for themselves, or else to go without. But we shall expatiate upon kindred points under the heads of Combaticiveness and Self-Esteem.

MEANS OF EXCITING THE FACULTIES.

The personal exercise of the various faculties being thus indispensable to their improvement, by what means can both be effected and promoted? As follows.

Every faculty has its own proper aliment or stimulant, the presentation of which naturally induces spontaneous action. Thus, Alimentiveness is stimulated, not by gold or goods, but by food, its natural stimulant. Hence the sight of food, not seeing others eat, or even the taste or smell of food, excites hunger; whereas, without these natural stimulants, Alimentiveness would have remained quiescent. Acquisitiveness is provoked to action by property and the possession of things, but not by laws, distress, or danger. Causality is excited to action

by bringing causes to its cognizance. To excite, and thereby strengthen, this faculty, think, reason, inquire into the principle of things, and trace out the relations between causes and effects—that is, bring this faculty to bear upon the causes and laws of things. Combative-ness is excited by opposition, not by beef-steak, or money, or a fact in philosophy. Approbateness is excited by praise or reproach; Benevolence by suffering; Reverence by thoughts of God; Conscientiousness by right and wrong; Ideality by the beautiful, exquisite, and perfect; Mirthfulness by the laughable or ridiculous; Locality by travelling; Combativeness by opposition; and thus of all the other faculties.

But mark: no one faculty can either perform the function of any other, or supply its place. Though they who have Acquisitiveness small may desire money to leave their children rich, or to show off, or to aid the poor, or to furnish means of acquiring knowledge; yet these motives neither excite this faculty nor enlarge its organ; because the first is an exercise of Philoprogenitiveness; the second of Approbateness; the third, of Benevolence; and the fourth, of Intellect. To exercise Acquisitiveness, therefore, they must make and love money to POSSESS and HOARD—must love property to lay up, and for its own SAKE. To eat, not because you relish it, but because a certain time is come, is an exercise of Time, not of Alimentiveness. Fighting desperately from motives of honour, and not from a love of fighting, is no more an exercise of Combativeness or Destructiveness than the apparent fondness, in company, of husbands and wives who cordially hate each other, is an exercise of pure connubial love.

Those, therefore, who would improve or exercise their respective faculties, must do two things—must first learn the PRECISE FUNCTION, and thereby the constitutional stimulant of every faculty, and then bring and keep this stimulant before the faculty to be improved. Force of will may render some aid, yet the required action, to effect the desired enlargement, must be SPONTANEOUS—must “whistle ITSELF.” Forced action is no action. To goad a faculty by strenuous effort is of little account. This action must be normal, which is always pleasurable. That pleasure, already shown to appertain to the action and improvement of the faculties, is no chance concomitant, but a constitutional attendant—a provision as beautiful in itself as promotive of such improvement.

Thus much of the means of stimulating and developing our own faculties. Next, the means of stimulating those of children, and others around us. Their various faculties can also be stimulated, and thus developed, by setting the appropriate food of each faculty before them, and thus causing spontaneous action. Another powerful instrumentality of securing the required action can also be brought into requisition. It is this. All the faculties are catching. Or, thus, the action of any faculty in one naturally awakens that same faculty in those around; and excites them pleurably or painfully, normally or viciously in the latter, according as they are exercised in the former. Thus, Combativeness in one kindles Combativeness in others; while Benevolence excites Benevolence, Causality, Causality, etc. When kindness does you a favour, you are anxious to return it, and are rendered more obliging to all, because Benevolence in one excites kindly feelings in all around; whereas, being addressed in an angry, imperative

tone, kindles anger in return, and excites a spirit of resistance and resentment.

Mr. Sharp said, angrily, to a lad, "Go along, and bring me that basket yonder. Be quick, or I'll flog you!" The boy went tardily and frowningly, muttering as he went. "Why don't you hurry there, you idle vagabond, you? Come, be quick, or I'll whip your lazy hide off your back, you saucy, impudent rascal, you," re-echoed Mr Sharp, still more imperatively. The boy went still more slowly, and made up a face still more scornful, for which Mr. Sharp flogged him; and in return the boy conceived and cherished eternal hatred to Mr. Sharp, and eventually sought and obtained the long-desired revenge. But Mr. Benign said kindly to the same boy—"John, will you please run and fetch me that basket?" "Yes, sir," said John, and off he started on the run, glad to do the man a favour.

All the neighbours of Mr. Contentious cordially hate him because he is continually contending with, and blaming, and sueing them. His Combativeness manifested toward them has excited their enmity toward him, so as to cause a perpetual warfare. Hence, they all cherish ill-will against him, and most of them watch every opportunity to injure him, and he seeks to be revenged on them.

But every neighbour of Mr. Obliging gladly improves every opportunity to serve him. His neighbourly feelings toward them have excited their better feelings, not only toward him, but even toward each other.

Mr. Justice deals fairly with all, asking and offering but one price, so that Mr. Banter never offers to beat him down, nor thinks of making or receiving a second offer, but deals fairly with him. But when Mr. Panter deals with Mr. Close, he stands more upon sixpence than it is worth, or than he does for a dollar when dealing with Mr. Justice, and will neither sell as cheap, nor give as much for the same article to Mr. Close as to Mr. Justice, because the Acquisitiveness of Mr. Close and Mr. Banter each excites that of the other, while the higher faculties of Mr. Justice restrain the action of this jewing spirit in all who deal with him.

As Parson Reverence enters the sanctuary, clothed with the spirit of devotion, and in the air and attitude of sanctity, instantly a solemn feeling prevades the whole assembly, so that even the playing boys in the gallery catch the pervading spirit of solemnity, and drop their sports. But when parson Gaiety enters the church, a gay, volatile feeling preads throughout the congregation, and the boys laugh aloud. The former is a successful preacher of righteousness, and has been instrumental in promoting true religion, while Parson Gaiety has a worldly, fashionable congregation.

Mr. Elegant enters into the company of Messrs. Useful and Misses Plain, and at once a feeling of refinement and elegance infuses every breast, chastens every remark, and polishes every action and feeling; but when Mr. Homespun enters the company of Messrs. Wellbred and Misses Genteel, the elevated tone of feeling which before pervaded the company is lowered as effectually and perceptibly as when a mass of ice is introduced into a heated atmosphere; and he is not well received, simply because he interrupts the exercise of refinement and good taste.

Mr. Self-Esteem swells and struts past you in the natural expression

of pride and scorn, and instantly your own self-sufficiency is excited, you straighten up, and feel that you are as good as he is; whereas, but for this manifestation of pride on his part, you would not once have thought of yourself—pride and scorn in others exciting the same feelings in you.

Mr. Reason began to discuss and expound certain important philosophical principles to Mr. Business, who, though he had been too busy before to take time to think or investigate, saw their force, and immediately exclaimed—"How true that is, though I never thought of it before!" and then proceeded to show how perfectly the principle brought to view explained what he had often seen, but never before understood. It also set him to thinking upon other subjects, and investigating other causes.

Miss Display came up in splendid, new-fashioned attire, and all the ladies in town were set on fire by a spirit of emulation, and would not let their husbands and fathers rest till they too could dress like her; although, unless Miss Display had indulged her own Approbation, that of the other milliner-made ladies would not have been excited.

Mr. Witty threw off a joke, and this excited the risibles of Mr. Serious, who, in return, manufactured another; whereas, but for Mr. Witty's influence, the face of Mr. S. would have remained as long as ever.

In 1836, Mr. Hope embarked in speculation in stock, real estate, mulberry trees, etc., and counted his thousands in prospect, which inspired confidence in the breasts of thousands of the Messrs. Doubtful, who were excited by his spirit, and followed his example.

Mr. Appetite commenced eating his breakfast greedily, when in came his boy, who soon bawled for a piece, which he probably would not have thought of for hours if he had not seen his father eating so greedily.

Is not this feeling of SYMPATHY—this feeling as others feel—this spreading of the emotions from soul to soul—a law of human nature, as well as a doctrine of Phrenology? Is it not as universal and as uniform as the nature of man, and as powerful as it is universal? What mind so adamant as not to experience its power, and be swayed by its influence?

The great practical inference is, that we should habitually exercise towards our children those feelings we would have them exercise towards others—a principle which we shall have frequent occasion to apply as we proceed.

One other thing we require to do in order successfully both to prosecute self-improvement, and to render our children what we would have them. We must

"KNOW OUR OWN SELVES."

"KNOW THYSELF," was written in golden capitals upon the splendid temple of Delphos, as the most important maxim which the wise men of Greece could hand down to unborn generations. The Scriptures require us to "search our own hearts, and try ourselves;" and the entire experience of mankind bears testimony that SELF-knowledge is the most important of all knowledge. A thorough knowledge of our own selves—of our good properties, and how to make the most of them; of our defects, and how to guard against the evils growing

out of them ; of our predispositions to, and sources of, temptations to excess and error, and the means of keeping these desires quiescent ; of what we are capable of doing and becoming, and what not and wherein we are liable to err in judgment and conduct,—is more intimately associated with our virtue, happiness, and success through life than all other knowledge united.

Wise, then, is he, however little else he may know, who understands HIMSELF ; but ignorant and foolish they, however much they may know besides, who do not understand their OWN CHARACTER, their capabilities and deficiencies, their excesses and weaknesses, their faults and virtues.

Self-knowledge will show us just what we ARE ; and the principle of balance already explained what we should become ; and that of the increase of organs how to become what we should be. As, before we can repair a watch, we must ascertain what portion of it is out of order ; so, before we can do the first correct thing towards self-improvement, except by accident, we must know exactly wherein we depart from the true standard of mental and moral perfection. Before we can correct any defect, we must know exactly in what that defect consists, must know the precise faculty which is too strong, or too weak, or wrongly exercised.

Now, this very knowledge Phrenology furnishes, with all the certainty attendant on physical DEMONSTRATION. It enables every individual to place his own fingers upon every element of his character ; and in case his predominant Self-esteem renders him proud and self-conceited, or his deficiency leads him to underrate his capabilities or moral worth, and produces diffidence, it will tell him how to correct these false estimates, and teach all men precisely what they really are. It tells those whose Self-esteem predominates over their other faculties, as by a voice from heaven, that their high notions about themselves are not caused by the fact of any actual superiority in them more than in others, but by their overweening self-conceit that this organ would make them think themselves such, even if they were FOOLS, and even because of their folly, and the more the larger this organ ; and if this knowledge, uttered with all the function of scientific certainty, will not humble them, they must be soft indeed.

On the other hand, it will tell those whose intellectual and moral organization is good, but Self-esteem moderate, that their low estimate of themselves is caused, not by their actual inferiority, but by their want of this faculty ; that if it were stronger they would think much at themselves, even though their real merits should remain the same ; and if this will not enable a man to hold up his head, nothing will. It will tell us all when Hope is too active, and when too weak ; when Cautiousness is too large, and when deficient ; whether we are too pragmatistical or pusillanimous, too talkative or silent, too benevolent or selfish ; and thus of all other faculties.

Phrenology will also tell us when any of the faculties are wrongly exercised. By giving us clearly the NORMAL function of all the faculties, it of course points out all departures therefrom, and shows just how to exercise every faculty in harmony with its primitive constitution, already shown to be virtuous and happy.

But some will here object that they cannot afford the time to prosecute this study sufficiently able to apply it. Not to dwell here upon

the importance of making its study a subject of PARAMOUNT BUSINESS of life because we can engage in nothing equally profitable, not to enlarge upon the utter insignificance of business, money, and those numerous things which now engross our time in comparison with the far greater happiness conferred by a knowledge of this science, and shall we not do the first which will render us most happy? If you do not understand this science sufficiently to obtain from it the required knowledge of your own characters, apply to a skilful and experienced practical phrenologist, who will be able to furnish the requisite information already at your hands. Do not go from motives of curiosity, nor to test the truth of the science, as much as to KNOW YOUR OWN SELVES, and especially your FAILING. Tell him frankly your object, and tell him frankly on those points calculated to aid him in forming a correct judgment; such as your education, habits, parentage, occupations, the state of your health, and the like, the latter more especially, if you wish PHYSIOLOGICAL as well as PHRENOLOGICAL advice. Place yourself under his hands as you would those of a physician or teacher, and if additional compensation be required for this extra labour, money can never be spent to better advantage, or where so little will yield so much good. By combining your own practical experience with his scientific examinations, you will be able to learn with absolute certainty, not only all your leading excesses and deficiencies, but also even most of your minor flaws and weaknesses: their remedy will be pointed out in these pages.

These examinations, as applied to CHILDREN, are especially serviceable and important, because they show just what organs are too large* and what are too small, what are most liable to be perverted, and wherever their characters can be improved—or, in other words, just where to commence the GREAT LABOUR of their EDUCATION and IMPROVEMENT; and this work will then show how to prosecute it.

A correct phrenological examination of a child's head will also disclose his natural CAPABILITIES and TALENTS, and thereby show what occupations and spheres in life he is best calculated to fill with honour, profit, and personal enjoyment, and in what kinds of business he must either fail or else drag along behind his competitors—a species of knowledge almost infinitely valuable. Change is difficult, and this living along between “hawk and buzzard” is worse; so that their whole lives, which in the right business would have been one gala-day, are now those of barrenness and darkness. Who can duly estimate the advantages of Phrenology in these and kindred applications?

Such application will also teach those who have occasion to employ domestics, apprentices, and the like, who will best suit their respective purposes.

Above all, these examinations furnish the very best opportunity in

* Strictly speaking, however, no organ can be too large if duly balanced and rightly exercised. The great danger is, not too much power or action, but PERVERSION. The faculties need right direction rather than restraint. The larger an organ the better, provided it is RIGHTLY EXERCISED; yet, since it is easier sometimes to restore balance by bringing down large organs than by bringing small ones all the way up to them, and since the extra large organs are proportionally more liable to such perversion than small ones, we use the phrase “too large” to cover the whole ground of perversion and wrong direction, so that we use “diminution of the organs” to signify their proper guarding, direction, and subjugation, rather than actual reduction of their power.

the world for telling children, adults, friends—everybody—their faults. To have their errors reiterated a hundred times, and often in a blowing, fault-finding manner, is apt to vex and anger them, and render them worse. Not so when pointed out by a phrenologist. They feel that he has no prepossessions or prejudices either way, but follows the DEVELOPMENTS—that their heads show they have this deficiency, that excess, and the other fault, and, therefore, that it must indeed be so. Take those whom you would convince of their faults to a thorough phrenologist. He will be sure to detect and disclose the error, and thus drive and clench the nail of conviction—the first great step towards reform.

Formerly, professional applicants sought to test the truth of the science, or were actuated by novelty or curiosity. But a most gratifying change is now transpiring in the public mind. Most of those who now apply, already convinced of its truth, wish to derive benefit therefrom. I therefore make it a professional duty to specify their FAULTS—to tell them what organs are too small, and what are most liable to become perverted, and especially to administer physiological advice, and give health prescriptions; and thousands are testifying their gratitude for the good they have derived therefrom. Indeed, I propagate and practise this science mainly in order to DO GOOD through it—to turn that tremendous power it gives to improving mankind, and especially the young. Hence, in making out charts of character, I always strike semicircular strokes OVER those organs which are too small and require to be more especially developed by culture, and UNDER those which require to be watched, guarded, or restrained.

One word, in this connection, touching the practical utility of this science of sciences. Since its practical application can effect all this good—and this is but one among many other advantages—this “examining heads” is not so inferior a calling, after all. Indeed, what other is equally important or exalted? What can be turned to of such momentous and practical advantage? If to tell them their physical disorders, and prescribe medicines, be honourable, because useful, how much more to point out their MENTAL maladies, and prescribe MORAL remedies? Quite long enough has this professional application been frowned upon, even by phrenologists. The author—the first to reduce this matter to a distinct profession—has been obliged to fight a desperate battle, not merely against anti-phrenologists, but a worse one against its PHILOSOPHIZING advocates. But the day is now ours. The application of this science to the discernment of character, preparatory to its improvement, is beginning to be duly appreciated and respected, and will soon become the most honourable professional practice, because the most useful. Phrenologists by scores—good men and true—are fitting themselves for this arduous work. Nor of such can there well be too many. They should be stationed in every town, should be more numerous than physicians, and universally consulted. Especially are female phrenologists required, to prescribe for children. Whether it is or is not proper for them to deliver public lectures, is not now up for discussion; but the propriety of their examining and prescribing at least for children is undoubted. For this, their greater development of Philo-progenitiveness than males possess, fits them. Hence, I cast my influence unequivocally in its favour.

But, after all, as every one should be his own doctor, so every one

should be his own phrenologist. Parents should understand and apply it in educating and choosing occupations for their own children, and also teach it to them. Indeed, it should be made a **PARAMOUNT STUDY** in all our schools. Our whole population should **GROW UP** phrenologists and physiologists; to facilitate which the author hopes soon to prepare, what he has long contemplated, a work on these subjects suitable for a school and academic manual.

Having learned our characters, and of course wherein they require to be improved, and what faculties require special cultivation as just seen, we next require to know how to excite them to that spontaneous action already shown to constitute the principal means of improving them—that is, we must ascertain how to feed these faculties with their appropriate stimulus, and thus develop them. This, the analysis of the faculties alone can teach. To that analysis we therefore now proceed. And in prosecuting it, we shall define instead of describe, and point out the adaptation of the faculties to their respective counterparts in nature. Thus, Parentiveness is adapted to the infantile condition of man; Alimentiveness, to our demand for nutrition; Constructiveness, to the existence of mechanical laws and man's requisition for things made; Ideality, to the beautiful and perfect in nature; Language, to our requisition for the communication of ideas; Causality, to the existence of cause and laws—and thus of all the other faculties. Nor does any other short-hand method equal this for impressing indelibly the specific functions of the respective faculties upon the mind; because to remember this adaptation of a faculty is comparatively easy, and this rivets its true function concisely yet completely.

CHAPTER II.

ANALYSIS AND MEANS OF STRENGTHENING THE FACULTIES.

1. AMATIVENESS.

DEFINITION, LOCATION, AND ADAPTATION.

CONNUBIAL love and attachment of the sexes for each other. Adapted to parentage, or the means ordained by nature for continuing the race, and all that propagates. **LOCATED** in the cerebellum, or back and lower portion of the head. Its primitive office is that tender connubial affection and reciprocal blending of soul which unite loving husbands and wives indissolubly together, induce marriage, and result in offspring. The larger it is, provided it is rightly exercised, the more cordial this union, and the greater the estimation in which each sex holds the other. For a full exposition of this faculty and its right direction, see the author's works, entitled "Amativeness," and "Love and Parentage."

PERVERSION AND RESTRAINT.

Its abuses are licentiousness and sodomy in all their forms and degrees. On this subject, and also for directions concerning its restraint, see "Amativeness." Suffice it here to say, that **RIGID CHASTITY** alone

can secure connubial or even general happiness. Nor chastity in act merely, but also in FEELING. The soul must be undefiled by carnal thoughts and desires, else corruption will enter and diffuse itself throughout the feelings, if not conduct. Nor can youth be charged with a more important counsel than to KEEP BOTH BODY AND SOUL PERFECTLY PURE AND HOLY from all the contaminations of this corrupting vice. Indulge this feeling only in pure love and virtuous wedlock.

2. PHILOPROGENITIVENESS.

DEFINITION, LOCATION—LARGE AND SMALL.

Parental love; attachment to our own children; interest in young children generally.

To find this organ, draw a line from the eye to the top of the ear, and continue on to the middle of the back part of the head, under which point it is located.

Large Philoprogenitiveness loves darling infancy and budding childhood with an intensity and fervour proportionate to its size and activity, and the more so if they are our own, and forbears with their faults. It loves the young and helpless as such, and delights to administer to their wants; loves to play with them, and see them play; and takes an interest in the young generally. It also loves to feed and tend stock, the young of animals, and succour the helpless.

Small Philoprogenitiveness does not love or take an interest in children, does not make due allowance for their errors, and is too austere, distant, and perhaps severe with them.

ADAPTATION AND CULTIVATION.

In case all mankind had been brought forth in the full possession of all their physical and mental powers, capable, from the first, of taking care of themselves, without requiring parents to supply a single want, this faculty would have been out of place; for then it would have had nothing to do. But the fact is far otherwise. Man enters the world in a condition utterly helpless. Infants require a great amount of care and nursing. Without its stimulus to provide for and watch over infancy, every child must inevitably perish, and our race become extinct. To this infantile condition of mankind, and consequent requisition for care and provision, this faculty is adapted. And who as well qualified to bestow these attentions as parents upon their own children? That provision by which all parents love their own children better than those of others, is most beautiful in itself, and perfectly calculated to nurse and educate the race. Parental love—attachment to our own children as ours—is, then, the distinctive office of this faculty. None but parents can ever experience the thrilling delights of parental love, or grieve like them over their loss. The thought that they are "bone of our bone, and flesh of our flesh," endears them to us by ties the most tender and powerful, which are still farther enhanced if begotten or born by a dearly beloved husband or wife.

This faculty is more especially adapted to the infantile state, and its helplessness and need of care; and the younger and more needy the

child, the stronger this faculty. Hence mothers always love their weakest and most sickly children most.

Nature therefore requires, in and by the very nature of this faculty, that we love and provide for our children. The existence of this faculty imposes an obligation upon all who become parents, to make all due exertion both for their physical wants and moral training. To usher immortals into existence, and then leave them to suffer for the necessities of life, and, above all, to let them grow up ignorant and depraved, is most wicked. And the higher we can carry those in the scale of improvement who owe their existence to us, the more perfectly we fulfil our duties to them, and obey the commands of God, uttered through the institutes of nature. But woe to those who disobey these injunctions.

DUTY, AND MODE OF ITS CULTIVATION.

It should, therefore, be cultivated. Parents are in duty bound to love their children as much as to eat or worship; because, being a primitive faculty of the mind, its vigorous natural exercise becomes an IMPERIOUS NATURAL DUTY. But are not most of us deficient in this respect? Would not our own happiness, both absolutely and in our children, be protected by its cultivation? Should not the most tender regard be manifested for them in all our conversation and intercourse with them? Should anything be allowed to interrupt or mar the most perfect intimacy and union of feeling between us and them? Are scolding and beating them in perfect accordance with the nature and powerful exercise of this faculty? Is even a distant, austere, harsh, and petulant manner of speaking and acting compatible with that perfect love which this faculty was created to secure? Should not parents even play with them, and be on terms of perfect familiarity? Should it not be our constant study to promote their happiness and advancement in all these little affairs of life which being so much with them facilitates? Should they not be indulged in whatever is for their good, and denied only what is injurious and beyond our means? This crabbed, fault-finding, authoritative manner of treating them, is in open violation of that law which this faculty was ordained to secure. "He that loveth not his own household is worse than an infidel."

Forbearance toward them is another natural product of this faculty. Most of those thousand things on account of which we scold them are childish sports, and perfectly innocent on their part. Perhaps it is for their incessant activity. This they can no more help than to breathe, and without it they would soon die. But we shall touch a kindred point hereafter. What we wish to impress is, the duty and importance of loving them devotedly.

To promote this love, parents and children should be separated as little as possible. None but parents can possibly fill the place of parents. Their guardianship and healthful influences should be perpetual. Hence, sending them from home to be educated violates this faculty, and is therefore wrong. It also immeasurably cuts off that controlling power of parents over their children which uninterrupted intercourse would strengthen. In short, nothing can be more clear than that, from the analysis of this faculty, parents should be the main educators and formers of the morals of their children, as, by common

consent, they are the providers for their physical wants—a principle often implied in these volumes, and now demonstrated.

One other motive, if possible still more potent, exists for cultivating this mutual good understanding and cordial love between parents and their children—namely, the influence it gives parents over their children. Love forms the most powerful incentive to obedience and servitude known to the human mind. As the organs of the social affections are located in the base of the brain, so these faculties exert an all-moving, all-controlling influence over character and conduct—an influence the power of which is perfectly surprising to those who have not closely observed its practical workings. Hence, men, women, children, all mankind, will do for love what neither money, nor force, nor any other motive whatever, could possibly induce them to do. A few illustrations. Let a minister get the LOVE of his people, and he can lead them whithersoever he will. They will swallow all he says, however absurd or ridiculous, and, spaniel-like, think the more of him the more he chastises them. This love is the great secret of clerical power and influence. But when a people hate their minister, he may preach with the eloquence and power almost of angels, but all in vain. They dislike what he says, however true and good, because they hate its source, and therefore turn a deaf ear on him. Attachment inspires confidence, and all know how much influence this gives those confided in over those who confide.

Politicians furnish another example equally in point. See how they go about insinuatingly and coaxingly from voter to voter, to gain their friendship, because they well know that personal attachment secures voters more effectually than any other means whatever. And to rivet this influence on father and son, so as to provide for another prospective vote, they pat the little son kindly on the shoulder, and say many a coaxing word to him. Nor can they adopt a course as politic as this of securing the personal friendship of father, son, and all concerned.

The influence of the speaker over his audiences furnishes another illustration of the power of the affections over the feelings, will, judgment, and morals of mankind. Let him awaken a prepossession in his favour, and he may say what he likes, and can make them cry and laugh alternately, because of his almost unlimited power over them. But let him begin by awakening their hatred, and how changed the effect of all he says!

How omnipotent the power wielded by a husband over the wife who loves him! When he is sick, all the gold of Ophir, all the regal power of Solomon, cannot secure the attentions and self-sacrifices she bestows, not grudgingly, but with her whole soul. What will not love prompt its subjects to do for those beloved? What are hireling services, forced services, and all other services, compared with those prompted by personal attachment, whether friendly, parental, filial, or connubial?

Another example more in point. See how children learn who like their teacher. See how tardy their progress when they go to a teacher, however good, whom they dislike. Make, then, your children LOVE you first. Till you do this, your moulding power over them is limited. Get their hatred, and you cannot do anything with them. If they obey, it is with reluctance, and as badly as possible.

Get their love, and what you say finds its way into their inmost souls, and exerts a moulding and controlling influence over their character and conduct. Your words now are clothed with unction and authority. Your voice is more potent in its influence over them than the mandate of kings. Their confidence in you is perfect. They yield themselves up willing slaves to whatever influence you choose to exert over them. Is not this a law of mind—a necessary consequence of affection?

Then apply its all-potent power to the government of children. Where else can it be exerted with equal advantage? By a law of things, the influence of parents over their children should be complete—almost despotic; but it should be the despotism of love, not of fear. Parents were ordained to love their children partly, if not mainly, to awaken the reciprocal love of their children in return, in order to give them this power over their yet plastic characters, so that they may mould them at pleasure. Children naturally love those who love them. They soon know who like them, and they cling around them, clamber on their knees, and make free to play with them, and surrender themselves voluntary subjects to their power. This all must have observed. And what unbounded influence such affection confers on those beloved over those who love! What could as effectually secure parental forbearance or obedience as parental love? This love makes parents perfect drudges, ay, even abject slaves, to their children. Then will not getting the affections of children make them as perfect slaves to you, as you to them? I repeat, **GET THEIR LOVE FIRST.** Till then, try to do nothing. However bad their conduct, say nothing—do nothing—to weaken their love. Say everything—do everything—to rivet that love first: govern afterward. And to do this, love them. Children like those who like them. Caress children. Cultivate good feeling with them. Above all things make them happy. That this happiness is the great basis of all love, is fully shown in the author's work on "Matrimony." To get a child's love is the most easy thing in the world. They have a faculty of filial affection, located by the side of Parental Love, which appreciates these blessings showered from the hand of parental love. Give a child its daily bread without unkindness, and that child will love you. It is natural for children to look up with a dutiful, affectionate eye to those who feed and clothe them. Much more so when you caress them. Children naturally love them who treat them kindly; much more their parents, who ought to treat them affectionately. Caress children, and gratify them as often as possible, by taking them out to ride or walk, by feeding their intellects, and making them presents of toys, garments, &c., and any child will feel spontaneous love and gratitude to its benefactor. Affection and gratitude are indigenous in the soil of the youthful heart, and they are virtues which should be cultivated. This those who have the care of children have every possible opportunity of doing. They are obliged to feed and clothe them, and in doing this—their duty and pleasure—they can implant a feeling of gratitude and love in the bosom of any child, however hardened or abandoned, which can never be erased, and will make those children the most faithful servants, and the most willing and obedient imaginable. Let children but see in you a disposition to gratify them as far as is proper, and because you love them, and to deny

them nothing except their own good requires it, and they will soon love you with a pathos and fervency which will make them bound with delight to fulfil your every wish. Your requests have but to be made known, and they experience the most heartfelt delight in gratifying their beloved benefactor. Pursue this course a single year, and the worst child that ever was will be subdued by it. There is no withstanding its power. Kindness will melt a heart of stone, and produce kindness in return.

And what facilities for gaining their affections, and of course exerting this power, at all to be compared to those enjoyed by parents? That very care which this faculty requires and induces parents to bestow upon their children, gives the former a constant succession of opportunities the most favourable for getting their love. And were these opportunities thrust upon them for nought? Were they not created to be improved! Does not the mere fact of their existence show that they should be exercised? Every garment we procure—every meal we provide for them—every constantly returning want we supply—furnishes a fresh opportunity for awakening in their susceptible souls new emotions of gratitude and love, by improving which it is possible to make them love us so tenderly and devotedly that they will almost lay down their lives for our sakes—will at least do anything we require of them, and avoid doing anything to displease us. This is the great rod parents should hold over their children—LOVE. O, parents, we do not duly love those little helpless innocents committed to our care. We do not forbear enough. We do not put in practice that “new commandment which superseded because it embodied, the whole decalogue, that we love our children. Incalculable good to them and happiness to our own souls would spring from fulfilling this blessed law.

Yet parents, especially mothers, are less deficient in the QUANTITY of their parental love than in its QUALITY. They often love their children enough, but not aright. Especially they too often fail to LOVE them INTELLECTUALLY and MORALLY. They often simply LOVE them, or else LOVE them as dolls, which they can dress or rig off in gaudy trappings, or to make a brilliant display in fashionable society. Such love is ruinous to parents and children. How many, O how many children, has overweening, parental love, unguided by the higher faculties, literally spoiled, worse than spoiled, rendered perfect PESTS to society, who might have been made great blessings.

MATERNAL LOVE AND DUTY.

To mothers these principles apply with redoubled force. By a law of their being this organ is much larger in them than in fathers. Hence a father's love bears no comparison with a mother's in intensity and fervour; and therefore her efforts for their good are and should be proportionally greater than his. Maternal yearnings, how powerful, how inexpressibly tender—almost infinitely more so than paternal. Nature ordains that this should be thus. She requires the mother to nurse her offspring, and, as accompaniments, that she dress and undress, feed and watch over them, and bestow all those little cares and attentions, far more, relatively, than fathers; and to fit her for her office as nurse, has conferred on her this extra endowment of parental love.

But this love does not end in merely feeding, clothing, and tending them. It caresses and yearns over them from before they see the light, all along up through adolescence, and thus wins upon their love in return, so that children generally love their mothers more than their fathers, and hence, when sick, forsake all others for their mother's arms. They even carry to her first, to her mainly, all their little joys and griefs, and aches, nor carry in vain, but receive her sympathy in return. This far greater love of children for their mothers than fathers, consequent on the greater love of mothers than fathers for their children, gives mothers a correspondingly greater influence over them than fathers. And this influence enables mothers to mould their plastic characters far more than fathers. And how admirably do woman's naturally fine susceptibilities and her exquisiteness of feeling qualify her to instil into their tender minds a love of purity and goodness, and a disgust and abhorrence of vice. Nor can any other being fill her place, or discharge the duties required by nature at maternal hands. These high and holy duties cannot possibly be filled by proxy. None can love them as their mothers can; and this love is indispensable to their proper nursing and education. All the nurses—all the teachers in creation—can do comparatively nothing. In consequence of, and in proportion to, this love, children drink in all their mother says and does. They give themselves up wholly to whatever influences she may exert over them. They are the clay—she the potter. She moulds them while yet plastic into this shape or that, or in accordance with the prevailing characteristic of her own mind, and time hardens and burns them in the shape she fashions. Her feelings they imbibe. Her disposition they assume. What she is, they become.

Again: HOME education, or no education. Unless children learn good manners at home they will be coarse and vulgar through life. Unless they learn refinement of sentiment and delicacy of feeling at home, and mainly from their mothers, they can never possess either, except in a lower degree. Unless their intellects receive an early maternal direction in the paths of study and thought—unless MOTHERS draw out their opening minds from day to day, and create in them a hungering and thirsting after knowledge, and mental progression—they can never be learned or great, and the opportunities mothers possess for developing their intellects, incomparably exceed those in the power of all others. Especially must mothers mould and fashion their moral characters. But we shall reach this point more effectually when we come to analyse the moral faculties. Suffice it to say, that families are the school-houses, and mothers the teachers of children. This is nature's inflexible ordinance. Behold, O mothers! and tremble in view of the momentous responsibilities imposed on you by this law of your being!

You plead a want of time. But should you not do that first which is most important? And what is—that can be more momentous—than to develop by cultivation their physical, intellectual, and moral powers—than to give them strong bodies, powerful minds, and high-toned moral characters? Happiness being the great end of life—and mind being the grand instrumentality of all enjoyment—since all our pleasures flow from its right exercise, all our pains from its abnormal action, of course nothing whatever can equal the paramount

importance of its proper training. This you, mothers, must do. You, therefore—not nurses—not teachers—but ye, MOTHERS, in and by becoming mothers, place yourselves under obligations the most solemn and imperious to cultivate all the higher powers of their being. Nor are mortals permitted to fill any relations at all to be compared with yours in their mighty influence on the weal and woe of man. How completely the virtue or vice, happiness or misery of your own dear children is determined by the training they receive at your hands—the power of hereditary influences over character—is fully admitted, but has been treated by the author in a separate work, entitled, “Hereditary Descent”—nor their destiny merely, but that of the world: because, as is the training of them, so are they, and as they are, so is the race! Ye mothers hold the keys of human weal and woe. O, think of it! The characters and destinies of your dear children under your control! Nay, you MUST wield them. Willing or unwilling, you are compelled by a law of your being to fashion them, or else leave them unfashioned. By a law of things, no nurse, no other human being can love, and, therefore, influence your children, as you can, and are compelled to. You cannot shift the responsibility.

An opportunity thus advantageous for achieving results thus glorious—for making your own dear children almost angels in sweetness, as well as mighty in intellect—should wake up all the energies of your souls, and prompt you to put forth every effort of which you are capable. The plastic clay lies in your hands; O, make the most of your power over it. You love your dear children; then live and labour for them—not for their outward, but inward adorning—not for their bodies, but their souls. Pray earnestly and daily for needed grace and wisdom, nor let an hour of this seed-time of life go unimproved.

Hark! Hear ye yonder long and loud blast of a trumpet? It is the angel of Truth summoning woman to a grand assemblage. And now, behold woman of all ages, ranks, occupations, colours, and nations stand before him. Hear what he sayeth:—“Lo? I come to prepare the way for the Millennium. Woman, my business is with you. As you are, so are your children, and so is the world. I come to regenerate your race, to ‘prepare the way of the Lord,’ to banish vice and misery, and establish happiness and peace on earth by reforming you. Your life is now a burden—a ‘fleeting show for man’s illusion given;’ I come to make it a reality and a pleasure.

“You now spend your precious existence in trifling. Turn ye—turn ye to your nature and our natural duties. Ye unmarried, what are ye doing? Young women, how do you spend your time? In changing the fashions of your dresses every few days, either for the convivial ball and party, or to profane the holy sanctuary of your God! Have you no other and more important duties to perform—duties to your race, not to your toilet? God has sent me with this mandate—Prepare yourselves to become wives and mothers. Strip off your gaudy attire, and array yourselves in the ornaments of nature’s loveliness. Be yourselves, as God created you, and no longer blaspheme your Maker by preferring artificial ornaments to the beauties and graces of nature. Be yourselves, and you will be infinitely more lovely and happy than now. Be yourselves, for now a part of you are parlour toys and puppet shows, and the rest are kitchen drudges or fashionable slaves. Be yourselves, for you will soon be called upon

to educate those sons who will guide and govern the future of the world. For your own sakes—for the sake of all coming ages—**BE YOURSELVES.**

“And ye mothers, pause and consider! Stop short! for ye are spoiling God’s works, whereas ye are placed here to burnish them. Now, ye are most unprofitable servants. O will ye not learn wisdom? O mothers! mothers! your race is imploring salvation at your hands! Ye can bestow it, and ye must. Go your way; first **LEARN** your duty, and then **DO** it.”

ITS CULTIVATION IN THE UNMARRIED AND CHILDREN.

Though the true way to exercise this faculty is to have and love children of our own, yet the unmarried, and those without offspring, should not remain destitute of those excellent influences diffused by this faculty over the soul. Those who have no children of their own are apt to be harsh and imperative toward children. How often they say—“Well, if I had children, I’d not let them run over and trample on me in this kind of style, and all because you indulge them so. I’d make them know their place, and keep it too; indeed I would.” Yet they prove quite as lenient to their children as those whom they before censured so unsparingly. The reason is this. Till Philoprogenitiveness is developed by having children of our own to love, it lies comparatively dormant, we may say comparatively useless, but becomes powerfully excited by the presentation of this its appropriate stimulant, so that they become not only indulgent towards their own children but lenient towards all others. Those who are not parents, are therefore no proper judges of the way children should be managed. They are not duly lenient. This faculty has not its due influence. It should therefore be cultivated. And this can be done by taking an interest in children, their gambols, and improvement, by playing with and noticing, petting and talking to them—in short, by exercising this faculty toward them. And such regard in a young man or woman for children, gives assurance that its possessors will be fond and indulgent parents, and live in and for their children alone.

It should also be cultivated in children. It forms part of their natures, and its due exercise is indispensable for softening and improving their characters, and especially in fitting them, as they grow up, to become affectionate parents. To do this, get them dolls, hobby horses, favourite toys, and playthings, and encourage them to tend and pet them. And, when old enough, let them have birds, or other live pets, to feed and caress. In short, place the stimuli of this faculty before it, and thus promote its exercise. Especially they should be furnished with playmates, and encouraged to play affectionately with other children.

3. ADHESIVENESS.

DEFINITION, LOCATION, AND ADAPTATION.

FRIENDSHIP; the **SOCIAL INSTINCT**; love of **SOCIETY**; desire and ability to **CONGREGATE**, **ASSOCIATE**, **VISIT**, form and reciprocate attachments, entertain friends, and seek company; **CORDIALITY**. Located

an inch and a half upward and outward from Parental Love. Or thus : Place one angle of an equilateral triangle, the sides of which are an inch and a half long, on Parental Love, and the other two angles will be on the two lobes of Adhesiveness. It joins Parentiveness.

LARGE AND SMALL.

LARGE Adhesiveness loves company, forms friends easily, and seeks their society often ; is confiding and cordial, and liable to be easily influenced by friends ; trusts in them, and will not believe wrong of them ; has many friends, and takes great pleasure in their society ; places friends before business, and feels lost when separated from them, and almost distracted at their death.

SMALL Friendship is cold, unsocial, averse to company, uncongenial, forms attachments slowly, and then breaks them for slight causes, and places business and the other faculties before friendship. Such have few friends, and usually many enemies.

ADAPTATION AND CULTIVATION.

ADAPTED to man's requisition for society, combination, and community of interest. Without this or a kindred faculty to bring mankind together into villages, companies, and families, every human being would have wandered up and down in the earth **ALONE**, alienated from all others, his hand, Ishmael-like, "against every man, and every man's hand against him," without any society, without any community of feeling or concert of action, and even without written or verbal language, and consequently destitute of all the pleasures and advantages now derived from conversation, newspapers, sermons, lectures, schools, and the institutions to which they have given rise. Nothing could have been done more than one could do alone—no companies formed for trade, mechanical, public, or other works ; no religious, political, scientific, or other societies would have been formed ; and no community of interest, or feeling, and concert of action, as well as direct pleasure in friendship, could have been experienced. And since each faculty in one constitutionally excites the same faculties in others, and thereby all the other faculties, without friendship to bring mankind together so that their faculties may mutually excite each other, half his faculties, having little or nothing to stimulate them, would have lain dormant, and the balance have been but feebly exercised. Without friendship to bring mankind together, ambition, imitation, mirth, kindness, justice, and many of his other faculties, would have had only an exceedingly limited arena for their exercise ; concert of action could not have been secured ; and green-eyed jealousy, burning animosity, and dire revenge, would have blotted out the pleasant smile of growing attachment, palsied the hand of friendship, suppressed the cordial greeting of old associates, and converted into rancorous hate that silent flow of perpetual happiness which springs from the exercise of this faculty.

The cultivation of an element thus beneficial in its influence is, therefore, most important. We were not created to live alone, nor can we close the door of warm-hearted friendship without shutting out the light and warmth of life, and locking ourselves up in the dark dungeon of exclusiveness. The recluse and the misanthrope violate a fundamental law of their being—this cardinal law of **LOVE**—and suffer the penalty in that desolation of soul which congeals all the

finer and sweeter emotions of life. The aristocrat is not human. He stifles an important element of his nature, and is therefore maimed and halt, destitute of this cardinal virtue. And are these money-made nabobs really so far above their fellow-men? Can standing on a paltry pile of shining dust make them men? Is the possession of wealth, indeed, so much above that of WORTH? Do not the human VIRTUES constitute NATURE'S noblemen? Who are her aristocracy and crowned heads? Shall THINGS be exalted above men? Shall money, the work of men's hands, be rated above intellectual greatness and moral worth—the highest works of GOD? And so MUCH above, that the holders of the former disdain to exchange the look of recognition?

This demand for friendship applies with redoubled force to members of the SAME FAMILY. Let parents cultivate affection for one another in their children, and let brothers and sisters separate as little as possible, correspond much, never allow a breach to be made in their attachments, and continually add new fuel to the old fire of family friendship. Let the right hand of hospitality be extended oftener than it now is, and let friends entertain around the family board as frequently as possible, instead of allowing them to eat their unsocial fare at the public hotel. We have too little of the good old custom of "cousining," and of English hospitality, and spend far too little time in making and receiving SOCIAL VISITS. Still these formal, polite calls, are perfect nonsense—are to friendship what smut is to grain—poisonous. True friendship knows no formality. Those who are so very polite to each other are strangers or enemies, not friends; for true friendship knows no ceremonious formality, but expires the moment it is shackled by the rules of modern politeness. We should all love society, and, as often as may be, relax from the more severe duties of life to indulge in it; but let not etiquette mar this perfect freedom of intercourse. True friendship unbosoms the heart cordially and freely, and pours forth the full tide of reciprocal feeling, without any barrier, any reserve. In short, seek every favourable opportunity to exercise this faculty. Choose your friends from among those whose feelings and opinions harmonise with your own—that is, in whose society you can enjoy yourself, and then frequently interchange friendly feelings with them. And do not break up your youthful associations if you can well avoid it. If you do, renew them as soon and often as possible. Nothing more effectually blunts, and therefore reduces, this faculty, than separation from friends, especially from those who have sat for years at the same table, and become cordially attached to each other.

Giving and receiving PRESENTS is also directly calculated to stimulate this faculty to increased action. They are its NATURAL food, with which let it be fed abundantly. I like the good old custom of thanksgivings, of making new year's and other presents, and thereby promoting good feeling between man and man, as well as kindling anew the old fires of friendship. Give and receive presents, and hold them as sacred tokens of that union of soul which it is the province of this faculty to create.

Though this friendship should be thus cultivated, yet great care should be taken to choose for intimates those only who will exert a GOOD influence even over us. In making others our friends, we

virtually surrender ourselves to whatever influences they may exert upon us. So that we cannot be too careful into what hands we intrust a power thus intimately affecting our weal and woe. And when an intimate, cordial friendship is once formed, let not trifles be allowed to break it up. This blunting and searing of its fine, glowing feelings, are certainly most unfortunate. Friendship should be regarded as **MOST SACRED**, and never to be trifled with. Do anything sooner than sunder its tender chords, and let friends bear and forbear much, at least until they are certain that a supposed injury was premeditated; and then, when friendship is thus violated, think no more of your former friend, not even to hate him. Dwell not upon the injuries done you, but banish him from your mind, and let him be to you as though you had never known him; for dwelling upon broken friendships only still farther lacerates and blunts this feeling, and more effectually sears and steels it against all mankind. Never form friendships where there is any danger of their being broken; and never break them unless the occasion is most aggravated: and let friends try to make up little differences as soon as possible.

ITS DUE REGULATION AND RESTRAINT.

This faculty is capable, when abused, of working evil, commensurate with its good. We are liable to form improper associations; and when we do, we should break them off as soon as convinced of their injurious tendency. The author once saw a young man who was rendered perfectly distracted by a sudden breach of friendship, or a supposed friend turning traitor. A breach between him and his spouse could not have afflicted him more severely. In such cases the faculty requires restraint. So also when friends are gaining an undue influence over us.

To effect such restraint, break up all association, all connection, all interchange of all ideas and feelings with them. Exchange no letters, reciprocate no looks, no thoughts. Banish, as far as possible, all ideas of the person loved. Busy yourself so effectually about other matters as to compel you to withdraw your feelings from this person, and above all, form other friendly relations. There is no cure for lacerated affection equal to its transfer.

These remarks will apply particularly to those who have fallen in love injudiciously, and wish to tear their affections from those on whom they have been improperly or unwisely placed. To such they will be found invaluable; as also to those who lose friends, children, or beloved companions. Let the dead be dead. To mourn over their decease does not benefit them, but it is ruinous to your health and mind, as well as injurious to the faculty thus lacerated. And the more you dwell on this loss, the more you sear this element of your nature. Beware of this laceration, and avoid it by banishing its cause from your mind, and diverting your attention upon other objects.

CULTIVATION IN CHILDREN.

The young form attachments much more readily than adults, because this social element has not yet been blasted and calloused by oft-repeated disappointments consequent on the treachery of supposed friends, or by long separation from the companions of youth.

O, I admire this innocent cordiality and gushing reciprocity of youth. They do not eye every candidate for their affections with a

suspicious "I'll watch you, my man." They do not consider "every one a rogue till they have proved him to be trusty," but confidently regard all as true friends till they prove traitors. Give me the cordiality of youth rather than this case-hardening of maturity, and especially of business scrutiny. Rather be burnt by the fire, time and again, than have no fire by which to warm the frigid soul. Let my children be true to their natures, not seared by the contracted maxims of the world. Let these delightful feelings be cultivated in them. Especially let this idea of CASTE not be instilled into their susceptible minds. Let them never be interdicted from associating with other children on the score of poverty. And let children be furnished with play-mates. The full development of their moral natures requires friends, as much as that of their bodies requires bread. Why not, since both are primitive instincts?

CHOOSING ASSOCIATES FOR CHILDREN.—SCHOOLS.

Yet the utmost pains should be taken by parents to choose play-mates of the RIGHT CHARACTER. Since the power of friendship over character is thus potent, let it be for good. No words can express the injury sustained by playing with improper associates. Take an example from our public schools. If one scholar swear, all become familiar with oaths and hardened by them. If one be vulgar, the whole school learn the language of coarse obscenity. And the propagation of vice by this means is unaccountably great. Parents, be warned; for you can hardly find a common school throughout the land to which, at least, one bad, vulgar scholar does not go. A hundred times have I been shocked at their bawdy ribaldry; and to see naturally innocent, modest girls play on equal terms with such boys, become corrupted by their manners, and familiar with their conversation and conduct, is really most sickening and heart-rending. Parents, do consider this matter.

"But what can we do? Our children must not stay from school and grow up ignoramuses," is the answer. Better this than that they become contaminated, perhaps corrupted, by those vices too prevalent in school—much more so than parents even imagine possible. But the remedy consists in that HOME education and MATERNAL instruction urged throughout these volumes as an unequivocal ordinance of nature.

UNION FOR LIFE.

DEFINITION, LOCATION, ADAPTATION, AND CULTIVATION.

DUALITY, or EXCLUSIVENESS and PERPETUITY of conjugal love. Its organ is located between Adhesiveness and Amativeness. A female friend of the author, who loves her husband most devotedly, experiences whenever she expects him to be absent a few days, a severe pain in this organ. That is, the painful action of this faculty causes tenderness and pain in its organ.

ADAPTATION.—Duality of love and wedlock is clearly an ordinance of nature. This point is established in the author's works "Matrimony," and "Love and Parentage," and the whole subject of love and marriage fully discussed, so that repetition here is not necessary. Conjugal affection is the distinctive function of this faculty. Those in

whom it is large, active, and reciprocally fastened upon each other, love to be always together; cannot endure to be separated from each other; experience that perfect blending and oneness of soul which constitutes pure love and the spirit and essence of marriage; regard any division or sharing of this love with any other object as perfectly abhorrent and sacrilegious; feel perfectly satisfied with and devoted to each other; and are so perfectly one, so wholly wrapped up in each other, as cordially to surrender and accept the rights of marriage. It is stronger in females than in males, which coincides with the far greater intensity and durability of woman's love than of man's.

This faculty suggests many most interesting and valuable truths to lovers and the married, for a full presentation of which the reader is referred to "Matrimony," and "Love and Parentage."

4. INHABITIVENESS.

DEFINITION, LOCATION, AND EFFECTS ON CHARACTER.

LOVE OF HOME, and the DOMICILE of childhood and after life, attachment to the PLACE where one lives or has lived, and unwillingness to change it; desire to locate and remain permanently in one habitation, and to own and improve a homestead; patriotism. LOCATED an inch above Philoprogenitiveness, or beneath the junction of the upper lamdoidal sutures and beneath the two lobes of Adhesiveness.

LARGE Inhabitiveness loves the old family homestead; the scenery, trees, shrubbery, forests, playgrounds, and even stones of childhood and youth; and often, through life, thinks on them with delightful sadness, and loves to revisit them; desires always to sleep in the same bed, occupy the same seat at table; feels lost and forsaken when away from home, and especially till a room or temporary "abiding place" is selected; and strives to render home as pleasant and happy as possible. It also loves country and desires to serve it. When very large, and thrown into an abnormal state by absence from home, it produces that terrible mental disease called the home sickness, so common in those who leave home for the first time, and said to be so prevalent among the Swiss.

SMALL Inhabitiveness cares little for home or its associations, improvement or pleasures; and is as well contented in one place as in another.

ADAPTATION AND CULTIVATION.

The advantages of having a permanent HOME, and the evils and losses consequent on changing it, are each very great. Proverbs say truly, "Three moves are as bad as a fire," and "A rolling stone gathers no moss." Those who have homes of their own, be they ever so homely, are comparatively rich. They feel that no crusty landlord can turn them homeless into the streets, or sell their furniture at an auction for rent. Every married man is bound by this inhabitive law of his nature, as well as in duty to his family, to own a house and garden spot; and every wife is bound, by the same law and duty, to render that home as happy as possible. A home of our own is also indispensable to the full enjoyment of the other domestic affections and the comfort of the family. The prevalent practice of renting houses violates this law and arrange

ment of man's domestic nature, and must necessarily produce evil to both owner and tenant.

Inhabitiveness can be cultivated by having a home, and staying much at home; by improving that home in setting out fruit-trees and shrubbery, multiplying conveniences about it, and indulging a love of home as our home. Moving often, by tearing us away from the place which has become endeared to us, interrupts and pains this faculty, and thus hardens, seers, and enfeebles it.

5. CONTINUITY; OR, CONCENTRATIVENESS.

DEFINITION, LOCATION, LARGE AND SMALL.

UNITY and CONTINUITY of thought and feeling; APPLICATION; ability and disposition to attend to ONE, and ONLY one, thing at a time, and to COMPLETE that before turning to another; FIXEDNESS of attention; a plodding, poring disposition; prolixity. Located above Adhesiveness and Inhabitiveness, and forming a semicircular arch—like a new moon, horns downward—over them.

LARGE Continuity engrosses the whole attention upon the one thing in hand till it is finished, and is confused if interrupted or diverted; cannot readily change from one business or subject to another, but loves to pursue the same regular and fixed train of operations; has the power of connected application to one and the same thing; is often prolix and tedious; takes some time, in speaking, to get to the point, and then dwells a good while upon it. This faculty does not CONCENTRATE the mental operations, but simply keeps them from wandering—does not secure INTENSITY in the mental operations, but rather expands and dilates them.

SMALL Continuity allows us to go rapidly, like the humming bird, from thing to thing, and from one kind of business to another; to learn and do a little of almost everything, yet not much of any one thing; to turn our hands to a variety of pursuits with success; gives a "NOW OR NEVER" cast of mind, together with versatility of talents; allows rapid transitions from one class of feelings to another, together with strong currents and counter-currents of emotion; with an active temperament, thinks and feels intensely on subjects, but not long on any one thing at a time; perceives and learns quickly, and does admirably what can be done on the spur of the moment, yet dislikes to con over things; may be brilliant, yet is not thorough; and does off-hand, or not at all.

ADAPTATION AND CULTIVATION.

Many of the operations of life, some kinds of business, and especially the acquisition of knowledge, require the continued, united, and patient application of the faculties to ONE THING AT A TIME. Firmness gives perseverance in our general plans, opinions, etc., while this organ is adapted to the minor operations of the mind for the time being. Without this faculty the mental operations would be extremely imperfect, deficient in thoroughness, and too vapid and flashy. Yet its absence may be advisable in some kinds of business, as in the mercantile, where so many little things are to be done, so many customers waited upon in a short time, and so much versatility of talent is required.

To diminish this faculty, fly from thing to thing. Read a paragraph here, and a scrap of news there. Get a mere smattering of one thing after another, but dwell on nothing. Pick up information here, there, everywhere, but let it be a little of everything, yet not much of any one thing. Go into a store, and engage where there is a great variety of things to be attended to in quick succession, each of which requires but an instant, to be followed by another. But to cultivate this faculty pursue the opposite course. Fix the mind, and keep it fixed, on one single subject for a length of time, and avoid interruption and transition.

These remarks also show how to cultivate it in children. Scholars, taught by teachers who have Continuity large, are apt to have it large also.

A. VITATIVENESS.

DEFINITION, LOCATION, AND ADAPTATION.

DESIRE to EXIST, love and tenacity of LIFE, and DREAD of death. Located very near the opening of the ears, or partly between or behind them, and between Combativeness and Destructiveness.

ADAPTATION.—Life is sweet. By a law of things, all that lives clings to existence with a tenacity far greater than to all else besides. Happiness being the one end of universal nature, and existence the cord on which all enjoyments are strung, its breach is their destruction, to prevent which, nature has wisely and most effectually guarded life by implanting in all that lives a love of it far surpassing all other loves combined.

Death is constitutionally dreadful. The same rationale which renders life thus sweet that it may be preserved, has also rendered death proportionally abhorrent, that it may be avoided. How terrified, how frantic, the docile ox is rendered by the sight of blood or apprehension of danger. The sluggish swine, in view of death, how resolute, how fierce! The hunted stag, when fleeing for his life, what swiftness, what mighty leaps, what desperate exertions—nor surrenders till all the resources of his nature are completely exhausted. Corner that placid, fireside puss, and attempt to kill before you bind or stun—what yells, how desperate, how terribly fierce, and what tremendous exertions.

Man, and even timid woman, threatened with death, yet retaining power to fight for life—what well-directed, mighty, and protracted exertions of body and mind, what superhuman sagacity, what terrible ferocity! What but impossibilities are not surmounted? What terrific looks! What agony of despair! What fiend more malignant! All produced by that fear of death which is only the love of life, and both the means of its preservation.

ITS CULTIVATION—DREAD OF DEATH.

This faculty should, then, by all means be cultivated. So important a means of warding off the fatal termination of disease should be cherished by all, so that, to cling to life with a tenacity however great, is not a sin but a VIRTUE. Indeed, the more we love it, the more we fulfil a paramount duty to ourselves and our God. This faculty, like every other, was given us to be exercised. Is not the pre-

servation of life one of our first and highest duties, and its wanton destruction, as in suicide, murder, and even the injury of health, most wicked? We should cling to life with the grasp of desperation, not hold it loosely or surrender it willingly. We should daily and habitually cherish a desire to live, not encourage a willingness, much less a desire to die—for such feelings do more to induce the death desired than can well be imagined, and are therefore suicidal, and hence most criminal.

"But shall we not hold ourselves in readiness to 'depart hence,' and be with God whenever he calls us? Is not this a paramount Christian duty?" God will never "call" you till you have so far outraged the laws of health as to prevent your enjoying life, or else till your worn-out bodily powers sink gradually down, under the weight of years into the rest of the grave. Those who die in adolescence and the prime of life, call THEMSELVES, or are called by their fellow-men, into premature graves, and called by violated physical law—not by God. This is a SUICIDAL, not a divine call, and involves great moral TURPITUDE, not a Christian virtue. True, after life has been spent by disease or old age, such resignation to death is well; yet for those in health to cherish a desire or even willingness to die, is most wicked, because it actually hastens death—and is virtually suicide. Premature death, or rather those diseases which cause it, are dreadfully painful. Their agonies are the climax of all agony, in order to compel us to avoid them, and so prolong life. Is it then a Christian virtue to "rush upon the thick bosses" of death's grim buckler? Is to seek what a primary instinct of our nature, for the wisest of purposes, so abhors, a merit? Does desiring to die, which is virtual suicide, fit us for heaven?

Yet, in one sense, death is desirable in itself and blessed in its effects. Those pains already described, as rendering death so dreadful, appertain, strictly speaking, not to death itself, but to its CAUSE—to those violations of the physical laws which INDUCE it. After life has been spent by age, or become so far impaired by disease as to preclude farther enjoyment, nature kindly sends death to deliver us from the consequences of broken law. Death itself, especially a natural death, so far from being painful, is a most benevolent institution. Living as we do under the action of physical and mental laws, every infraction of which occasions pain, without death to deliver us from the painful consequences of laws ignorantly or carelessly broken, we should in the course of a few centuries accumulate upon ourselves a number and aggravation of sufferings absolutely insupportable, from which this institution of death now kindly delivers us. Nor can we resist the conclusion that the very act of dying is pleasurable, not painful. Is every element of man, every arrangement of external and internal nature, promotive of enjoyment, and is death the only exception? The pains and horrors of death appertain only to a violent death, never to that which transpires in accordance with the institutes of nature, and then not to the act of dying, but to that violation of the physical laws which occasions death. VIOLENT death—rather those pains which cause it—alone is dreadful, and unexhausted life alone desirable—the former horrible, and the latter sweet, only because of, and in proportion to, the fund of life remaining. Let the vital powers become gradually and completely exhausted, in harmony with that principle

of gradual decay which constitutes nature's terminus of life, and death has lost its horrors—is even a most welcome visitor, in and of itself, to say nothing of those joys into which it is the constitutional usher. Hence, infantile life being always feeble, juvenile death is far less painful than adult, and those of weak constitutions than those in robust health. As the vital powers augment, they proportionally enhance the pleasures and consequent love of life, a dread of death, yet the same inflexible law of things which causes life, after it has attained its maximum, to wane and decline with age, also proportionally diminishes both the desirableness of life and the pains and fear of death, till, like the close of day, the sun of life sets, the tranquil twilight which introduces night supervenes, and life goes out gradually and almost unconsciously, just as twilight fades imperceptibly into night. This gradual decay and final termination of life cannot be painful. So far therefrom, its accompanying repose, like the grateful rest of evening after diurnal toil is ended, is far more pleasurable than all the joys of life combined. That very repose—so agreeable to the old man—is the usher of death, is death itself, and as this repose is sweet, so that death, of which it is a constituent part, is still more so. Death is to life exactly what retiring to sleep is to the day. The analogy between them is perfect, only that the repose of the grave is as much more agreeable than evening rest as the day and the twilight of life are longer and more eventful than of the natural day. Nor does death supervene until this grateful decline has consumed every remaining power to enjoy in life, and suffer in death, so that to die a natural death is simply to fall asleep “without a struggle or a groan.”

Yet mark: while we should not dread death itself, we should look with perfect horror upon all those violations of the laws of health which hasten it. Obey these laws, and you completely disarm death of all its horrors, and even clothe it in garments of loveliness. And this is the fatal error of mankind. They regard death with perfect abhorrence, yet disregard and perpetrate its CAUSE—these violations of law which hasten it.

THE DEAD AND THEIR INTERMENT: MOURNERS.

That repulsion with which most people look upon the dead, is weak and painful. The ravages and pains of disease generally stamp a most repulsive and ghastly impress upon the corpse, and this is the probable origin of the dread occasioned by the sight of them; yet, as just seen, this is the consequence of their disease, not of death itself. The dead will not hurt us; then why fear them? Besides, their bodies are not them. Their spirits are themselves—and these are gone. Their flesh and material form are only the ORGANS or tools by which they manifested their minds while alive—are the outer garments they wore, and should not therefore be an object of dread.

A single consolatory remark to those who shudder at the idea of being devoured by worms. This is palliated, if not obviated, by the fact that as our bodies are wholly insensible as well as useless, it will not matter in the least to us whether all alive with worms or eaten up by beast, and what becomes of them; and, secondly, nature is a perfect economist. She allows nothing to go to waste. The dead tree decays, enriches the land, and thus does good. All vegetable—

all animal offal is converted, by this all-pervading law of decay, into manure to re-enrich the earth, and re-enter into the formation of animal life. Shall, then, the human body be exempt from this law? After our bodies have become wholly useless to us, why not be even glad that they can be converted into food for other forms of life? Why not gladly let nature "save the fragments, that nothing be lost?"

And the modern suggestion of cemeteries—of rendering burying places agreeable—is unequivocally excellent. Let it be encouraged and universally adopted.

Nor should we grieve inconsolably over the loss of dear friends and children. Does our grief benefit them, or benefit ourselves, even? That their death is heart-rending, is admitted; yet, after they are dead, what remains for us but to derive all the good we can therefrom, and suffer as little evil? Pining over their loss is more directly calculated than anything else permanently to disorder the nervous system, and break down the health. Nor is it suspected how many hasten their own death by grieving over that of their friends. This, as already seen, is **WRONG**—is partial **SUICIDE**, and should never be allowed. Such a lesson should by no means be permitted to pass unheeded, yet it should inspire within us longings after a higher and holier state of moral excellence, as well as loosen our grasp on earth as such, not break down our health and weaken our minds.

6. COMBATIVENESS.

DEFINITION, LOCATION—LARGE AND SMALL.

Energy; Resistance; Self-protection; Defence in general; Personal Courage; Presence of Mind; Opposition; Determination; Boldness; Resolution; Resentment; Anger; a Threatening, Contrary Spirit.

Located an inch and a half behind the tips of the ears, on the line drawn to find Parentiveness.

Large Combativeness imparts resolution, determination, fearlessness, and a disposition to grapple with obstacles, and drive through whatever opposes our progress. Small Combativeness renders its possessors so amiable and good as to be good for nothing. The idea that this faculty renders those who have it large ill-natured, surly, contentious, contrary, fault-finding, pugnacious, and inclined to "knock down and drag out," is incorrect. That it often does all this, and much to the same effect, is readily admitted; yet these are its **PERVERSIONS**, not its legitimate functions. Its precise nature and office are disclosed by its

ADAPTATION AND CULTIVATION.

If man had been placed in a state of being in which not only everything he required had been furnished, paradise-like, at his hands, but also which required no tilling and no effort whatever in either the physical or moral world, this faculty would not have been needed, because it would have had nothing to do. But, so far therefrom, he is placed in a state of being which requires a perpetual struggling against the winds of opposition and the tides of difficulty. We were placed here to "till the earth and to keep it;" and in what does this consist but in removing a constant succession of opposing obstacles, and a constant coping with physical obstructions? Even at manual labour, those without Combativeness would not earn their salt, because

they take hold of everything, if they take hold at all, with an "O I can't if I try!" which prevents even their trying, and renders them inefficient and helpless. But large Combativeness creates an "I-CAN-AND-I-WILL," which lays hold of everything with a courage and determination which will not submit to be foiled—which jerks everything undertaken right straight along in double quick time, just as the steam-car does the train. Thus, if only a log is to be lifted or a stone removed, large Combativeness catches hold of it and hurls it out of the way, with "That's nothing; I can do more than that," while small Combativeness waits, and looks, and considers whether it can be done, and finally gives it up as impossible. This organ is intimately connected with the hands, whence those in whom it is large, when they do strike, strike much harder than they suppose, because of that might which this faculty imparts to the blow.

In the moral world, too, obstacles are to be overcome. Men are not angels. To accomplish or enjoy, we must push our projects straight through an almost unbroken series of obstacles, and urge our way along through life. The tame and passive can never do, enjoy, or become anything, but will be a burden to themselves, and to those on whom they depend. Those who want anything in this life must help themselves to it, or go without it; and those who require protection must protect their own interests. Other people have their hands full of their own affairs. Thus, a pusillanimous boy is imposed upon. He cowers down and snivels out—"I'll tell ma!" yet before "ma" can take his part the aggressor is off. But this organ gives that determined energy which says in act, and which all understand perfectly—"Take care how you invade my rights; know that I'm no chicken."

Its influence on the voice in conversation and public speaking is in keeping with and illustrates this, its general force imparting influence on the character. Large Combativeness is to words and their enunciation what a full charge of powder is to a ball, namely, it hits each word a propelling thump as it comes out, and expels it with such force as to strike the auditors, as it were, with unction and emphasis, so as to command attention, and make and leave a distinct impression; whereas small Combativeness lets the words drawl slowly and fall tamely at the speaker's, or rather whiner's, feet. Its influence on the style of writers is similar, and it causes both writer and speaker to use words of a harsher and more positive import. Much of that positiveness of manner and boldness of expression usually attributed to self-esteem is caused by this faculty.

Its influence in urging forward the truth, driving reforms, and exterminating existing evils may be inferred from its other influences on character as just explained. No man can be a reformer without it. Those in whom it is deficient are as tame and powerless in the intellectual and moral world as in the physical. In short, when large it infuses into all its possessor says, does, and is, a spirit of boldness, daring, resoluteness, courage, vigour, tone, efficiency, defence, unflinching determination, and defiance, which wards off all imposition, breaks through all opposition, and overcomes all obstacles.

A faculty thus indispensable to success should by all means be cultivated, for what can you accomplish or become without it? And to develop it, EXERCISE it. Never indulge an "I can't." Never allow yourself to be beaten, provided you are right—a point you should

determine on before you begin. Do not be so faint-hearted as not to try, but make a bold—though always judicious—push, and then follow up so energetically as to carry all before you. And speak out as fearlessly and emphatically as though you MEANT all you said, and intended to make others feel it. Not with impudence, but with force. And carry this state of mind throughout all you say, do, and are.

Especially to cultivate this faculty, strengthen the body, and tone up the general health, directions for which are given in "Physiology," because whatever strengthens it, thereby invigorates the brain. As to fever the body inflames and perverts the propensities, so as to improve the former strengthens but does not vitiate the animal organs.

Combateness often requires to be thus cultivated in children and youth. When a child breaks down under trifling obstacles or opposition, and cries when scolded or told to do different things, or considers molehills mountains, and gives up easily to difficulties, or when a young man waits and hesitates as to what kind of business to engage in, or, after he has chosen his profession, sits down and waits for business to come to him, or is disheartened, and always telling under how many disadvantages he labours, and how others impose on him, this organ in both requires to be cultivated. And to do this never break down upon them, or find fault, or tell them how much better if they had done thus or so, but encourage them in regard to the future. Keep them doing, and tell them they can if they only TRY. As long as you do it all for them, they will do nothing for themselves; but so manage as to COMPEL them to rely on THEMSELVES, and elbow their own way along through life. Even to provoke such will do them no damage, provided you do not carry it so far as to break down and subdue their spirit, but only just far enough to make them resent the imposition. Indeed, I have often seen people made much better by being maddened—seen their pains, headaches, and other physical and mental maladies dispelled by effectually rousing a combative, self-protecting spirit.

Though Combateness, in its normal function, should often be encouraged in children, fretfulness, temper, contention, wrangling, hating, and this whole class of mental operations are PERVERSIONS of this faculty, and therefore wrong. This brings us to discuss

ITS ABUSES AND DUE REGULATION.

When excessive, or perverted, or not governed by the higher faculties, it degenerates into pugnacity, gives a quick, fiery temper, and engenders contentious, ungovernable, fault-finding, cross, and ugly feelings and conduct, and sometimes leads to fighting and mobocracy, tumult, etc. From its excessive or perverted action spring most of the bickerings, contentions, law-suits, wranglings, threatenings, animosities, litigations, abusiveness, polemical discussions, wrath, ill-temper, etc., which prevail in society. This is also one of the faculties which curse and swear, of which, however, hereafter.

The contentious are necessarily unhappy, and quarrelsome children are a torment to themselves and to all around them; but "blessed are the peace-makers," for they shall enjoy life. Have readers never noticed how much more agreeable and happy their own feelings, and those of the whole family, when a child is mild, pleasant, sweet in looks and words, and good-humoured, than when the same child is cross, ugly, fretful, spiteful, disobedient, hateful, and crying half the

time? In other words, predominant Combativeness renders its possessor and all around unpleasant and unhappy.

The usual conduct of parents to their children is calculated to excite this faculty in the most direct and powerful manner, "and that continually, rather than allay it." Most parents fret, or scold, or blame, or punish their children daily and almost hourly, and that too for things either harmless in themselves, or else perfectly right. For example: children, as is perfectly natural, make a great noise, both with their tongues and feet. This is as it should be. Without action they die; and nothing contributes more to the development of the child's body, and thereby of the mind, than the noise and prattle of youth. And yet, fifty times in the day, all their innocent prattle and healthful play, are broken in upon by parents and teachers, in a combative spirit and tone—"Oh, do hush your eternal clatter!" "Stop that noise yonder, or I'll give you something to make a noise about;" or, "Do be still, children, you'll make me crazy;" or, "There, now sit down, and sit still!" If you stir, or make another bit of noise for an hour I'll punish you," or some similar threat or imperious command. As well punish them for breathing, as for talking and playing boisterously. They cannot avoid the latter, any more than they can stop the former. They should not stop. They are but yielding obedience to an irresistible law of their natures, and should be encouraged and facilitated rather than repressed. If they are in your way, let them go out of doors to romp and prattle there; but do not, I beseech you, continually irritate their tempers, by requiring of them what they cannot and should not perform, and then blame or punish them for disobedience.

A child takes hold of a table spread, and thoughtlessly pulls it along till a dish or two falls off, for which he is severely punished, though he intended no harm. Or it is told to bring a tumbler of water, or something else, in doing which it slips down and breaks a dish, or does some other damage. Your own Acquisitiveness is wounded by the loss, and your Combativeness excited, which makes you scold, whereas, you should pity. Thus it is that children are blamed for a thousand similar things constantly occurring, when entirely innocent or deserving commendation. This finding fault, just because they do not know how to do things exactly to suit you, or because it is not done exactly as you wish, excites their Combativeness, and reverses their Conscientiousness, hence they, too, grow up to find fault, and be ill-tempered.

Or, it may be, that a child hits its toe against a stick, stone, or chair, and falls down and hurts itself. The over-tender mother catches up that which caused the child to fall, and slaps and whips and scolds it for hurting "itty sissy." The next day, another child occasions pain to "itty sissy," and she, following the example set by her parent or nurse, of punishing what gives her pain, beats the other child, and gets beaten back again, and a regular quarrel ensues; whereas, if the parent had but taught lessons of forbearance and forgiveness rather than of revenge, the disposition of the child would have been sweet and amiable.

Some, whose Mirthfulness and Combativeness are active, take pleasure in teasing children, just to witness their angry and saucy retorts. This is most pernicious. Children should never be plagued. Parents, if you love your families, remonstrate with those who provoke your children, and if they do not desist, dismiss them. On no account should you suffer the tempers of your children to be permanently soured, and their

moral feelings lowered, by being tantalized. Children get much of their ill-temper from being plagued.

7.—DESTRUCTIVENESS OR EXECUTIVENESS.

DEFINITION, LOCATION—LARGE OR SMALL.

Force ; extermination ; indignation ; severity ; harshness ; sternness ; walk-right-through-ativeness ; disposition to destroy, tear, break down, cause pain, and crush whatever obstructs its path.

Located above the upper junction of the ear with the head, and extending about an inch above this junction. It runs from Combative-ness forward. The line drawn from the eyes to the tops of the ears passes through the centre of this organ.

Large Destructiveness imparts hardness, harshness, force, sternness, severity, and a disposition to break through or exterminate all obstacles—renders its possessor fearful when provoked ; and delights in destroying whatever requires destruction, as well as endures and inflicts pain : while small Destructiveness can do neither, but is pusillanimous and inefficient, and shrinks from the sight and endurance of pain. Its function will be rendered still more clear by its

ADAPTATION AND CULTIVATION.

Universal nature has one grand and perpetual process of destruction ; and to this process Destructiveness is adapted, and adapts man. Moreover, for the wisest of reasons, man is governed by laws. But without pain attached to their violation, to deter from repeated infraction, half their present sanction would be wanting. In this permission and existence of pain, Destructiveness has its counterpart, and to it adapts mankind. Many things also require to be destroyed. Thus, before we can till the earth and gather the comforts of life around us, trees must be felled, the land cleared, broken up, and subdued, and many noxious things exterminated. Without this faculty, even grain could not be gathered, or fruit plucked, or any important end of life attained. The requisition for its exercise in the moral world is still greater, as without it no evil could be exterminated—no good could be effected. Its improvement, therefore, becomes as important as this function is indispensable.

The legitimate office of this organ being to destroy nuisances and break through difficulties, it can be developed by cultivating force and executiveness—by breaking through obstacles, and throwing yourself into those situations where you are obliged to cope with difficulties. Take the rough-and-tumble of life with a zest, and put your plans straight through all that opposes them. Exercise it under Conscientiousness in moral indignation against the wrong, and in urging forward the right. Stand by the innocent. Brace yourselves against the guilty. Exercise this element in these and similar ways, and its tone and vigour will improve ; but never allow yourselves to indulge a weakly, inefficient spirit.

ITS DUE REGULATION AND RESTRAINT : SWEARING.

But this faculty is generally too large, relatively, and also abnormal in function, and therefore requires a hundred-fold more regulation and

restraint than cultivation. Most of mankind are too harsh, vituperative, bitter, sarcastic, and even cruel, revengeful, and malicious, and too many are warlike and murderous—all perversions of this faculty. Most of that animosity, rage, hatred, cursing, swearing, and the like, so prevalent among men, are begotten by this faculty. How can they be checked in ourselves and others?

First, by the principle of DIVERSION. When you find your wrath rising unduly in conversation or business, turn on your heel and banish the provocation, however great, by doing or thinking of something else—something which shall effectually withdraw your mind from the aggravation and consequent anger. This dwelling on them, while it seldom obviates any evil, only still farther sours the temper, and re-enlarges Destructiveness. Reflect, in addition, that the error may possibly be yours—that your enemy thinks himself wronged as much as you do, and justifies his course as much as you do yours; that to err is human; and that the cause of the dispute may possibly be on both sides; that even if he alone is in fault, yet that, as you hope to be forgiven, you must be willing to forgive; and that very likely the fault of which you justly complain may have been caused by an irritated state of his stomach and nervous system, and the consequent preternatural and abnormal action of his Destructiveness, or of yours, or perhaps that of both—that he and you may be more sick than intentionally depraved; that, even supposing the worst, to turn the other cheek is Christian, and to overcome evil with good is divine. This diversion, in connection with these and kindred reflections, will soon curb your temper, and restore a serene and happy frame of mind.

Especially never swear. What are oaths and curses but expressions of wrath and vengeance? The moral sentiments never swear. Nothing but animal propensity in its worst form, and ungoverned by the higher faculties, ever feel or utter imprecations. Reference is not now had to the sinfulness of oaths as blaspheming the name of God, but that gross animality of which cursing is the natural language. And the more effectually a man can swear, the more of an animal he is. Oaths and blasphemies are the emanations and barometers of Combaticiveness and Destructiveness, ungoverned by moral sentiment and intellect, and, therefore, the reverse of goodness.

Above all things, do not make so consummate a fool of yourself as to curse inanimate things or dumb brutes. As though sticks and stones were to blame! What fault there is is yours. What is more unreasonable and wicked than damning senseless things?

Still more ridiculous and wicked for children to swear, except when they do it from imitation. To see boys try to utter oaths, and bandy each other with curses and imprecations, is shocking in itself, and shows in what society they have mingled. Yet the way to stop children from swearing is to subdue that Combaticiveness and Destructiveness which begets this ridiculous, depraved habit.

To RESTRAIN the Destructiveness of children is probably the most difficult, as it certainly is the most important duty connected with their education. Even very young children, in whom this organ is large, as it generally is, instinctively break, burn, and destroy playthings, and whatever they can lay hold of, and older ones are rough, harsh, and boisterous at play, and too often evince much severity of temper with vindictiveness and violence of anger, perhaps throw themselves on

the floor, and bawl lustily, or even stamp, kick, bite, strike, and foam with rage.

One of the first and most effectual steps to stop this consists in employing that principle of **DIVERSION** already prescribed for adults. When your child becomes angry, talking to him, be it ever so kindly, only still farther enkindles his fierce wrath, and punishment, even though it ultimately subdues, only still farther re-excites, and thereby re-increases that Destructiveness which you wish to restrain. To say nothing till the fit subsides on its own accord also allows that exercise of this organ which enlarges it. But if some member of the family should set on foot some music or noise, or blow a horn, or beat a tin can, or do anything else calculated to divert attention, away he goes, forgetting alike his grievance and its cause, and this allows the inflamed organ to become quiescent sooner than any other method could do. To excite his Mirthfulness by playing with him will subserve the same important end. When the fit is over, talk to him; but of this hereafter.

NOT TO EXCITE Destructiveness should, however, be your great concern. Avoid provoking those whose Destructiveness you would reduce. Every provocation only re-inflames this organ, and the more quiet you can keep it, the less strength it will acquire.

"But," it is inquired, "shall we be so fearful of displeasing them as to indulge them in all their desires, and thus virtually surrender the reins of government to their caprices?" Just how far it is best to indulge them it may be difficult to say, or, rather, must be determined by the particular circumstances at the time, yet this general principle may be taken as a fundamental guide—to indulge them in all those little matters not positively wrong or injurious in themselves; because, by so doing, you awaken or augment that love already shown to be the great means of securing obedience. Yet we cannot profitably discuss the best mode of governing them, or, indeed, of curbing our own Destructiveness, till we have analysed those other and higher faculties which constitute the principal means of holding abnormal propensity in check. Meanwhile, we wish effectually to re-impress two cardinal points upon the minds of parents—the first, that the more this faculty is excited and exercised the more it becomes enlarged and re-invigorated, and therefore that children should be provoked as little as possible, and hence should be treated with mildness, leniency, and affection; and, secondly, that much of their ugliness is caused by the irritated state of their bodies, and of course propensities, so that the great means of subduing their temper, and exchanging their badness for goodness is by diet, regimen, and keeping their bodies in a normal and vigorous state by fulfilling the laws and conditions of health.

To one other point in this connection special attention is invited. Parents, especially mothers, often induce a feverish state of their own nervous systems, by confining themselves within doors day after day, and month after month, without exercise, except what is too partial to be of much service, without fresh air, and in heated rooms; eating unwholesome food, pouring down strong decoctions of tea and coffee, etc., till a chronic irritability of their nerves and brain, and perhaps a slow fever, supervene, which of course render them fretful. Ignorant of the fact that this irritability is induced by the disorder of their own nervous systems, they blame others, while they alone are blameable. They vent these sick and sour feelings on their children,

and find fault with every little thing. Being so very nervous, noise is especially painful to them, and they therefore pour out a continual dribbling of blame and anger upon their children because they are noisy, and for a thousand other things which the very nature of children compels them to do. Children feel that they are blamed without cause. This wounds and lowers their moral feelings. In harmony with a principle already presented, Combativeness in parents naturally excites the Combativeness of their children, and the consequence is, a permanent excitement and an undue development of these organs; and all because parents violate the laws of health.

8. ALIMENTIVENESS.

DEFINITION, LOCATION, LARGE AND SMALL.

Appetite; the Feeding Instinct; Desire for Nutrition; Hunger, or Craving for Food; a Hearty Relish for Edibles. Located half an inch forward of the junction of the fore and upper part of the ears with the head.

LARGE Alimentiveness gives a hearty relish for substantial, nourishing food, and, when nature requires sustenance, enjoys it more and more in proportion to the size and activity of this organ, and the need of nourishment; loves to eat, and takes a great deal of pleasure at the table, yet does not necessarily require great QUANTITIES of food or highly-seasoned dishes, but simply enjoys what nature requires for sustaining life and death, as to both quantity and quality. Gormandizing is often the result of its being too large, yet generally the product of its perversion, or of an inflamed condition of the stomach, or both, and these of eating highly-seasoned, indigestible, and injurious KINDS of diet. These inflame the stomach, and its inflammation causes those hankerings and cravings which accompany dyspepsia, and cause gluttony. Let men eat plain food, of the right kinds, as prescribed in "Physiology," and if they have dyspeptic tendencies, obviate them by following the prescriptions there laid down, and the danger of over-eating is comparatively small; yet that, as it is, nearly all now eat twice or thrice as much as nature requires, and every way very badly, was there abundantly shown.

SMALL Alimentiveness cares little about food; experiences little hunger during protracted fasting; and is comparatively regardless alike of what it eats, or whether it eats or not. Those who are so fond of nice things, and so very particular that they must have their food cooked just to their liking or they cannot eat, are generally rendered so by large or small Alimentiveness than by stomatic disorder, or by a finely organized temperament and consequent fastidiousness in regard to everything; that is, by the STATE of this organ rather than by its size. But its precise function will be rendered more apparent by its

ADAPTATION AND MEANS OF CULTIVATION.

Man is an eating animal. By a law of his physical constitution, every exercise of every muscle, nerve, and organ—every function of mind and body—expends both organic material and vital energy. These must of course be re-supplied, or complete exhaustion must ensue, which would

soon destroy life. This re-supply is effected in part by the stomach. Man requires food, and is furnished with a digestive apparatus for converting it into blood, flesh, organ, etc., whereby life is prolonged. But without some innate faculty to create a love of food, or occasion hunger, we should become so deeply engaged in our various avocations as to forget to eat, or to be unwilling to spare the requisite time—even now too many do this—and thus not only forego the pleasures of the palate, but actually starve; to prevent which nature kindly implants in every human being this feeding instinct, and has so related it to the stomach, that the latter, when it requires a re-supply of nourishment, excites the former to crave food. This craving becomes louder and more imperious in proportion to the urgency with which the system requires nutrition, until finally it becomes a master passion, and renders its starving subject so desperate as to devour even his own flesh and drink his own blood, when he can obtain nothing else to satisfy its rapacious cravings. Of all forms of death, starvation is probably the most terrible, and of all other appetites and passions, that for food, when fasting has been injuriously protracted, is probably the most desperate. Does not this law of nature give all mankind in a starving condition an “inalienable right” to food wherever they can find it? Are not those who have abundance solemnly bound to feed those who, after having done their best to procure an honest maintenance, are unable to do so?

To cultivate this faculty, indulge it by enjoying food and eating with a relish. Food was made to taste good and be enjoyed. Gustatory pleasure is as lawful as the pleasures of doing good, and he who cuts it short by eating too fast, or not duly indulging it, commits as much sin as he who denies any other faculty its primitive gratification. Nor should it be forgotten that when we so eat as to gratify this faculty in the most effectual manner possible, we thereby eat so as to feed the body in the best manner possible; and, by converse, that all injurious kinds and quantities of food curtail gustatory pleasure as well as physical and mental capabilities.

ITS RESTRAINT AND RIGHT DIRECTION.

Few faculties are more generally perverted than this; and only one, Amativeness, stands in greater need of right direction. Both physiology and fact attest that perverted appetite, or the enormous gormandizing of rich and stimulating kinds of food, in connection with alcoholic and other noxious drinks, cause a great proportion of the depravity of mankind. Paul meant something when he commanded, “Be ye TEMPERATE IN ALL things;” nor does the Bible condemn gluttony and wine-bibbing, from first to last, for naught. Indeed, I construe its narrative of the eating of the forbidden fruit as introducing into our world “death and all our woes,” to mean that perverted appetite, or wrong eating, caused the fall of man and most of his subsequent depravity and subsequent suffering. But, be this as it may, one thing is certain, that the starting point of human reformation and restoration is the stomach. Its influence in inflaming the system, and the irritated state of the body as inflaming and perverting the animal propensities, has already been so effectually demonstrated as completely to establish this point. The due regulation of Alimentiveness, then, is the great instrumentality of all self-improvement.

The proper feeding of children is of course one of the most important matters connected with their education. That much of their waywardness and depravity, over which their parents mourn so piteously, is caused by unsuitable diet, is a legitimate conclusion established by many laws already demonstrated. Nature's food for infants is exceedingly simple and easily digested. This teaches us that all children and youth should be brought up on plain fare, and on what is rich in nutrition, yet easily digested. Mothers cram their children from the very cradle, and, besides this stuffing, necessarily pervert their appetites by feeding them with rich food, pastry, and condiments. These, children generally reject at first, and greatly prefer simple food. Do not pervert their tastes IN THE START. Consult their natural relish. Do not give them cake which they do not love at first, and eat only because hungry, and thus form an artificial appetite for it; and so of other things. If your child be hungry, good bread will relish, and when it does not like this, let it wait till it does. We give children the same strong, hearty, highly-seasoned food which we ourselves cannot eat with impunity, whereas their stomachs are yet too weak to master them. This disorders both stomach and system, and engenders all sorts of depraved mental manifestations.

Still, children should eat at table with the family, for two reasons: the one to cement their affections for their parents—than which few things are equally effectual—and, secondly, that they may learn to eat decently; for if they are kept away from the first table, they rush to the second like hungry wolves, and wrangle for the best pieces left like so many starved pigs—and thus grow up piggish at table; whereas if they sit down with grown people, such swinish gormandizing is restrained. Yet parents who object to this course on the score of trouble while eating, need have no care in waiting on them, provided they dish out to each child its portion in the start, as the Scotch do, and let it be understood that this must suffice. The Scotch manner of feeding their children—giving them a fixed allowance of oatmeal gruel for breakfast and supper, and vegetable soup for dinner, and only one plain dish at each meal—cannot be too strongly recommended, or, rather, commends itself in that noble race which this regimen has been the chief instrument in producing. Mothers require, more than any other preparation for training children, a practical knowledge of DIETETICS, or the best manner of feeding children, so as the most fully to develop all their physical and mental powers.

One of the best means of punishing children, if punishment is deemed advisable, is to deny them some luxury of the palate, or keep them on short allowance. Thus, if a boy becomes angry at table, because he cannot have whatever he wants, and throws down his knife and fork, declaring that he will not eat any more unless he can get what is desired, take him at his word. Let him leave the table, and see to it that he gets nothing more till the next meal. Fasting, or living on bread and water, will soon subdue the propensities when nothing else will; first, because, since most people eat too much, it clears out the system, and thus improves the body, and thereby the base of the brain; and, secondly, because it is about as severe a punishment as can well be inflicted.

AQUATIVENESS, OR BIBATIVENESS.

DEFINITION, LOCATION, ADAPTATION, AND CULTIVATION.

LOVE of WATER; desire to DRINK, WASH, SWIM, etc. LOCATED half an inch forward of Alimentiveness. ADAPTED to the existence and usefulness of water. Two-thirds of the earth's surface are covered with this element, and about four-fifths of every human being are composed of it. Nor can animal or vegetable life be preserved without it. Hence man is constituted a DRINKING animal. Water, taken internally, and applied externally, is delightful to both taste and touch, as well as every way promotive of health. To this demand and utility of water this faculty is adapted.

It should, therefore, be cultivated. We should drink freely, yet only at proper times, and wash and bathe much. Water prospects are also delightful, nor are steam-boat excursions and sailing voyages unpleasant or unprofitable, provided the stomach is in the right state, and the weather and other things are favourable. Nearly all children love to play in water. Let them. They are indulging a primary element of their nature, and, of course, will be benefitted thereby. They should also be washed often.

9. ACQUISITIVENESS.

DEFINITION, LOCATION, LARGE AND SMALL.

ECONOMY; FRUGALITY; the ACQUIRING, SAVING, and HOARDING instinct; taking care of the SURPLUS, so that nothing shall go to WASTE; THRIFT; desire to POSSESS and OWN; the feeling of MINE and THINE, or of rightful CLAIM and possession; love of TRADING and amassing PROPERTY.

LOCATED about half an inch above Alimentiveness. It widens the head at the back of the temples, or as you pass from the eyebrows backward to the top of the ears. It is very large in Teller, a thief, robber, and counterfeiter, who was executed at Hartford for killing his jailor (see Am. Phren. Jour. vol. viii., pp. 223 and 368), but small in Goose, who gave away two fortunes without judgment to whoever solicited alms, and on inheriting a third, had a guardian appointed over him to prevent his giving it also away, though unusually strong-minded in other respects.

LARGE Acquisitiveness saves for future use whatever is of any value; is pained by the waste or destruction of anything which can be turned to a good account; loves to lay up the means of procuring subsequent comforts and luxuries; desires to acquire and possess property; and is industrious and frugal.

SMALL Acquisitiveness allows many things to go to waste; lives in the present, and spends as it goes, instead of laying up for a rainy day; may make money as a means, yet cares little for it as an end, or merely to lay up.

ADAPTATION AND CULTIVATION.

Economy is nature's universal motto. Waste she perfectly abhors, and never permits. What she cannot use to the best advantage at one time she lays by in store till she can thus use it. Even the very mountains and bowels of the earth are deposits for the materials of

re-fertilizing the earth throughout illimitable ages? But for these store-houses her soil would become barren; now it is destined to become rich and deeper as time rolls on for ever. And, by a most beautiful provision, she prevents the decay of whatever is buried deep, yet compels, by the destroying action of the atmosphere, that of whatever is near her surface. Behold this double contrivance for perpetually re-enriching the earth, yet preserving for use millions of ages hence what is not wanted sooner.

Nor is anything lost which decays, but its very resolution back to dust, only re-fertilizes the earth, so that the very materials which composed the decayed body re-enter into the formation of other and still other species of organic life. In harmony with this law, offal vegetation returns to its mother earth, to be again re-constructed into vegetable organisms; and even that which is consumed by animals, so far from being destroyed, is thereby converted into fertilizing materials for re-nourishing the soil which gave it life. The dead tree of the deep forest is not wasted, but from its mouldering remains spring other trees, and from these others again, each of which re-enrich the earth, till man employs this accumulated fertility in the production of human sustenance and mentality. How beautiful this provision, how glorious the result.

But even after it has been converted into flesh and blood, it is not cast aside as useless, but as the body "returns again to dust," by a law of nature as wise as unalterable, it becomes food for other sentient beings, and the carcasses of these for others still, "from everlasting to everlasting." And recent philosophical experiments have rendered it altogether probable that animalcules inhabit not only all parts of man and animals, but also all parts of organized bodies, throng air and water in countless myriads, and fill every portion of illimitable space! Look steadily through an open window, especially at the snow, and you can see the shades made by these animalcules in perpetual motion, within the aqueous humours of the eyes, flitting before the vision, evincing that the very eye itself is thronged with sentient beings.

One of the most beautiful instances of this economical principle of nature, is found in the principle stated in "Physiology," that animals imbibe oxygen from the atmosphere, and return carbonic acid to it, and that vegetables imbibe carbon and give off oxygen; so that the more animal life there is, the greater the supply of the chief ingredient of vegetable life; and the greater the growth of vegetable, the more oxygen—the most essential element of animal life—is therefore evolved—a principle the action and re-action of which will render vegetables more and more prolific in proportion as animals become multiplied—an end which the ever re-increasing fertility of the earth helps to attain. Thus it is that this very increase of animal life which requires an increased amount of vegetables supplies them in proportion to the demand.

Nor is it by any means certain that this self-acting law of husbanding everything till it is wanted, and "making one hand wash the other," does not extend to universal matter. That gigantic motive power which hurls the earth and the entire universe of planets around their respective cycles, "from eternity to eternity," is doubtless generated by a kindred self-acting principle. Thus it is that universal nature

is as economical as prolific, and as saving of her means as bountiful in her products !

Shall we not, then, imitate her ever present examples? Shall we be prodigal while she is thus frugal? Shall we waste by inattention or "in riotous living" what nothing but the most rigid economy on her part could have provided? Extravagance is a sin. That admirable parable of the prodigal son was undoubtedly designed to illustrate, secondarily, the "woful want" consequent on "wilful waste." Economy is a virtue even in the rich. Since the Deity steadily pursues the husbanding principle throughout all his works, shall not also those who abound in this world's goods? If the rich do not require to save on their own account, let them bestow on the poor the avails of their frugality. How many poor, miserable human beings, who are now dying of want, would be rendered inexpressibly happy by the "crumbs which fall from the rich men's tables!" How many fortunes are squandered by the affluent on trifling gratifications which do no one any good, and especially on those vices which injure all concerned; whereas the same means bestowed on the poor would make millions of wretched beings leap for joy! And let us all "gather up the fragments that nothing be lost," and spend nothing except to the best advantage.

We especially require to husband food. This the juxtalocation of Appetite and Acquisitiveness facilitates, and the nature of things imperiously demands. Man requires to store up sufficient of the bounties of the earth in harvest time to last till this period returns. To waste anything which is capable of sustaining animal or human life is wicked. Man also requires to keep on hand a supply of clothes, tools, houses, innumerable means of comfort, and commodities of all kinds, against a time of need. Exchanges of property can also be rendered most beneficial to both buyer and seller, as also the interchange of various products of different nations and climes. To this requisition for property and traffic, this faculty is adapted, and adapts man. But for this or a kindred instinct, though he might feast on the stalled ox—yet without this element he would not have stalled it—till its flesh spontaneously decayed, still he would not preserve any of it for future use; and though he might have picked the golden bounties of summer and autumn to satisfy the present hunger—still, without this faculty, he would not have planted or sowed—yet he would never lay up in harvest his winter's supply of edibles, and therefore have inevitably starved. In short, without this saving element, we should waste whatever was not wanted for present use, nor make any provision for the future. This faculty also restrains that profuseness and destruction which the other faculties would otherwise occasion, and prevents vice by securing industry and economy.

Its proper cultivation and regulation, therefore, becomes as important as its function is indispensable to human happiness. To promote its action, exercise it by saving the pennies, and everything useful which is not wanted now, against a time of need. Spend less, and for nothing not really beneficial. Add daily to your pecuniary resources by being industrious, and then fund the surplus by increasing your "stock in trade," or deposit it in a personal or public savings bank. Read and practice Franklin's admirable mottoes, many of which enjoin that industry and economy here urged.

Another effectual means of cultivating Acquisitiveness is by **TRADING**. The trafficking principle is clearly engrafted in the nature of man. As each individual cannot make his own clothes, tools, and whatever he wants, and in addition raise his own food—as manufactories and all other kinds of business, to be profitable, must be conducted on a large scale—of course trade, or the supply of commodities by retail, becomes indispensable. The southern planter grows all cotton or sugar—more than he alone wants—and the northerner raises or manufactures a surplus of something else, so that the mutual interchange among mankind of their surplus products benefits all concerned.

The attention of the poor, indeed of all, is especially invited to procuring by the **QUANTITY**, instead of in dribblets. To buy flour by the seven pounds, sugar by the single pound, molasses by the quart, oil by the pint, and the like, is the most extravagant as well as unwise of all modes of living. In this way it is that retailers fatten on the hard earnings of their customers. Instead of laying out your week's wages or your money in these dribblets, get a barrel of flour and the rest in molasses, and go without other things till another week's wages can be spent in some other article, and thus a third more be procured with them.

To cultivate it in children, get them a "savings bank," and encourage their dropping their pennies and shillings into it, instead of spending them for cakes and candies, and give them money for this purpose. After they have husbanded a sufficient sum, induce them to buy something to **KEEP**, or some kind of property which will bring them in something, or else to put their money out at interest, and encourage them to lay up for the future. When they have everything that heart can wish furnished at their hands, they have no occasion to cultivate the laying-up faculty, and hence this organ becomes small, and this results in their spending the property left them. A youth is richer without a cent, but but with industrious and economical habits, than with thousands in pocket but without economy. Do not leave children wealthy, unless you wish to curse and ruin them.

ITS DUE REGULATION AND RESTRAINT.

Yet this faculty is generally too active and requires restraint, or at least right **DIRECTION**, quite as often as cultivation. While Phrenology commends frugality and condemns the spendthrift, it scorns the miser. As nature never lays by for the future what is really needed to-day, so we should never hoard for the mere sake of hoarding. As we can enjoy only the present, we should spend—though always wisely—**AS WE GO**, so far as is actually necessary for present comfort, except that we should never eat what we should plant, or consume to-day the capital stock requisite for procuring the means of enjoying the future. The living solely to amass—this curtailing daily necessities in order to accumulate a fortune on which to retire, or to leave our children rich—is the worst form of robbery. An illustrative anecdote:—

While lecturing in Providence, R. I., in 1842, I sat at table near an eminent physician, who, besides being highly intelligent, and appearing to enjoy life exceedingly well, paid unusual attention to his little daughter, about thirteen years of age, as much as if she were the idol of his affections. Always making it a point to "draw out" such men, I started

conversation, during which he related the following anecdote. His aunt, on her dying bed, gave him this piece of advice :

"Do not do as I have done—put off enjoying your family till you get rich ; but enjoy it AS YOU GO ALONG. Take warning from me. I have made myself a perfect slave all my life to get rich, so that I could give up work, and enjoy myself in the bosom of my family. We got rich, and thought we would retire in a few years to enjoy home, but have kept putting it off from year to year till it became too late ; and here I am, bedridden with age and infirmities, unable to enjoy either my family, or the property I have laboured so hard to acquire. When I was capable of enjoyment I could not afford to take the time ; and after I had the means, I had lost my powers."

He said he had profited by her advice, and made it a settled rule, however pressing his business engagements, to spend a portion of each day in enjoying himself with his family. Yet his ideas of enjoyment seemed to be confined mainly to domestic pleasures.

Most men act as though riches constituted the highest good and "chief end" of man—as though nothing else could yield happiness—and hence, in its hot pursuit, forego the enjoyments proffered by most of their other faculties. They deny most of their other faculties the means of procuring gratification, and narrow down their "penny wise but pound foolish" souls to the limited range of the squirrel ! Is this human ? Must even moral sentiment be enslaved by love of filthy lucre, and intellect dance servile attendance on this rage for mammon ? Shall even the professed followers of Him who "had not where to lay his head," scramble after earthly treasures, while they vainly pretend to have "laid up treasures in heaven ?" And shall we, readers, tamely surrender soul and body to its tyrant sway ? Shall we not make it a servant to our other faculties, instead of making them its vassals ? We do not need our hundreds of thousands, and cannot use them if we amass them. "NATURE'S wants are few," and whoever accumulates more is foolish. We cannot carry this world's goods into another, nor would they be worth it if we could, but must leave all we do not use behind, to be grabbed and cheated for by "surviving heirs." Yet while we should "strive to enter into the kingdom of Heaven" rather than to amass more mammon than we can use to good advantage while alive, still we require far more practical wisdom in SPENDING than in making money. Fools often get rich, or at least often become so ; yet it takes a wise man to spend money so as to derive therefrom the greatest amount of good. Thus one man will so lay out a few dollars as to obtain a great amount of happiness—the only end of money or life—therefrom, while another will squander fortunes, and only enhance his sufferings the more he spends. This is the great error of mankind. They lavish their means on their palates, their vanity, and their artificial wants, yet rob intellect and starve their souls. They can afford to thrust both hands deep and often into their pockets for edibles, wearables, and glittering show, but are too poor to pay a dollar for intellectual food or moral cultivation.

This organ is usually too large in children, and hence they covet a great variety of things, and think all they desire is theirs, just because they want them, without appreciating the difference between what belongs to them and what to others. This difference should early be

taught them, and their Acquisitiveness subjected to their higher faculties.

To reduce this faculty, be more liberal. Let the small change slide. Remember that the sole use of money is to purchase the means of properly gratifying the other faculties. As long as you hoard it it will do you no good. Bear in mind that you are too penurious, that you bargain too closely, that you are disposed to claim more than your own, and that you are too close-fisted, selfish, and greedy after money. In other words, exercise this faculty less, proportionably, and the others more.

There are two, perhaps three, organs of Acquisitiveness—one for making money, another for keeping it. The former is located farthest back and lowest down, and within three-fourths of the ear; while that which saves occupies the fore part. The upper portion, also, probably creates a desire for co-partnership. The money-making part is generally large in American heads, hence their "compassing sea and land to make one dollar;" but their money-keeping organ is usually small—hence their extravagance and wastefulness.

10. SECRETIVENESS.

DEFINITION, LOCATION, LARGE AND SMALL.

SELF-RESTRAINT; POLICY; MANAGEMENT; FINESSE; RESERVE; EVASION; DISGUISE of opinions and purposes; **CUNNING;** "playing 'possum;" **LAY-LOW-AND-KEEP-DARK-ATIVENESS.** LOCATED over Destructiveness, or an inch above the tops of the ears.

LARGE Secretiveness imparts a politic, shrewd, managing, "humbugging" disposition; employs tact; obtains unsuspected ends by artful means; appears to aim at one thing when it is, in reality, accomplishing another; proceeds with adroitness and cunning; uses stratagem from love of it, even when there is no real occasion; and is oily, enigmatical, mysterious, guarded, foxy, and hard to be found out.

SMALL Secretiveness appears to be what it really is; hoists no false colours; pursues an open, straightforward, above-board course; disdains to work the wires; expresses its real purposes and sentiments; tells others all about self, even on a slight acquaintance; disguises and conceals nothing; does as is agreed; is truthful in feeling, expressions, and conduct; speaks its mind too freely; and lacks self-government.

ADAPTATION AND CULTIVATION.

SELF-GOVERNMENT is one of the most important pre-requisites of virtue and preventives of vice. To guard the premature expression of our feelings and exposition of our plans incalculably facilitates success and happiness. Those who let all their feelings burst out as they come up often say and do what occasions subsequent regret, making unnecessary enemies, and losing friends; while those who divulge all their plans are often anticipated or prevented in their accomplishment. Policy may also lawfully be employed, provided the cause be good. Paul says, "I caught you with guile." A due degree of management is even indispensable to success. To this demand or fact, and the restraint of our feelings, Secretiveness is adapted, and adapts mankind.

Man, as well as brute, also requires protection. Combativeness wards off threatening danger by fearlessly meeting and boldly defying it; and

Cautiousness by foreseeing evil and fleeing therefrom; while **Secretiveness** burrows under ground, employs stratagem, works behind the curtain, and suppresses the real character and purposes under an assumed exterior.

The fact deserves mention, that this organ is located in the centre of the animal group—the only faculties which require restraint. We never need to hide the free manifestation of Benevolence, reason, or any of the moral or intellectual faculties; and accordingly **Secretiveness** is not located among either of these groups. But we often require to suppress our animal passions, and hence the location of this faculty in the very midst of just those organs, and those alone, whose faculties require restraint.

To cultivate this faculty, exercise it. Keep your feelings to yourself till you have decided intellectually that their expression is proper. Be guarded, wise, politic, reserved, and not too communicative. Say less about your plans, develop your opinions less fully. Lawyerlike, let others do most of the talking, and commit themselves if they will, but keep yourself to yourself.

Still never practice deception in any form or degree. Subject **Secretiveness** to the rigid control of **Conscientiousness**. Lie not, yet leave others to find out as they best can. Tell the **TRUTH** as far as you say anything, yet you are not obliged to tell the **WHOLE** truth. Employ policy, not in deceiving others, but simply in protecting yourself—in **WITHHOLDING**, but never in misstating.

ITS RESTRAINT AND DUE REGULATION.

Yet in general this faculty is either too active or else perverted. Our world is full of deception. False appearances constitute the order of the day. What is fashionable life but one perpetual round of practical falsehood? In what does modern politeness consist more than in practically telling white and black lies, and by all parties pretending to be what they are not?

So in the business world. "The tricks of trade" constitute the "first lessons" of novices, and they are green who suppose merchants mean half they say. Lawyers live mainly by deception. But why particularize?

Especially, why deceive our fellow-men? If to appear to be thus and so be desirable, how much more to **BE** what we would have the name of being. Deception is weak and wicked. How mean **DISCOVERY** makes the mantled hypocrite feel! And false pretences are generally seen through. The asses' ears will stick out from under the lion's skin. Sincerity is policy. It has a directness and truthfulness which appeals powerfully to those around, and carries more sway than all the court diplomacy of a Talleyrand.

To diminish this faculty, unbosom your mind more freely. Be less equivocal. Do things more openly. Take less pains to disguise your opinions and plans, and do above-board what you do at all. Do nothing which you are ashamed should be known, and be less guarded and artful. Sail under true colours and practice sincerity.

The due regulation of this faculty in children is especially important. How many parents weep over this falsifying propensity in their children, and punish therefor without avail? Why this? To lie is not **natural**. On the contrary, man instinctively confides in his fellow-

man, even in spite of oft-repeated deceptions. So strong is this confiding principle in youth, that it must be the product of some undiscovered organ—probably in the moral group. Hence they naturally take their parents and others at their word. The sentiment of truth grows spontaneously in the soil of the human soul; and confidence in the declaration of others is one of its blessed fruits. As the law regards every man as honest until he is found to be a rascal, so man intuitively regards his fellow-men as sincere, till experience proves them to be rogues, and even then trusts on still. I envy not those who pride themselves on being suspicious and always on the alert. It is hard to be deceived, but more sorrowful and desolate is he who distrusts all around him. This suspicion should not be planted in the minds of the young, at least by deceiving them. Youth will never falsify till they LEARN to do so from precept or example. Parents do not properly guard themselves here, but teach them more practical lessons in lying than they suppose. They often threaten, "If you do that again I'll whip you;" yet when the offence is repeated, fail to administer the promised chastisement. This so weakens the child's confidence in the integrity of its parents that it disregards subsequent threats, and compels the former to despise the latter as a liar.

11. CAUTIOUSNESS.

DEFINITION, FUNCTION, AND LOCATION.

Watchfulness; Prudence; Carefulness; Precaution; Solicitude; Provision against Want, Danger, and a Rainy Day; Fleeing from Prospective Evils; Apprehension; Fear; Irresolution; Procrastination; Suspense.

LARGE Cautiousness is always on the look-out; takes ample time to get ready; shuns prospective dangers; makes everything safe; guards against losses and evils; incurs no risks; or meets with few accidents or losses.

SMALL Cautiousness is heedless, careless, thoughtless, and therefore perpetually in hot water; fears nothing; disregards consequences; is prudent, and hence unlucky; plans imperfectly; acts impromptu; and is liable to be reckless. To find it, draw a perpendicular line from the back parts of the ear up to where the head begins to round off to form the top; and the wider the head at this point the larger this organ.

ADAPTATION AND CULTIVATION.

All nature is as CAREFUL as economical. Her provisions against accidents, how numerous, how wise! Though everything has its destroyer, yet everything has also its means of self-protection. Man, too, is placed in a world full of dangers. Every step of his journey through life is beset with evils, so numerous, so appalling, as to threaten pain and death continually. Yet many of these impending dangers can be avoided; and, considering our liabilities to accidents, how few actually occur! If God had enveloped us in a danger-proof shield, which no evil could penetrate, the caring instinct would have been useless, and even injurious, by raising false alarms, and occasioning suspense; yet, destitute of both this shield and faculty, these dangers would soon blast all our pleasures, and destroy life itself. Man requires protection, yet, as this evil-excluding envelope must have prevented some

good, he is endowed with this watching instinct, which wards off most impending evils, intercepts no good, and even yields a great amount of happiness in providing against prospective accidents, making all safe, and taking CARE of everything.

Its vigilant action, therefore, becomes as essential as the evils it is adapted to avert are numerous and dreadful. Those in whom it is weak should remember that they are too careless, and that their thoughtlessness is the principal cause of their misfortunes, most of which carefulness would obviate. Such should put themselves upon their guard, and always keep a windward eye; should dwell on the dangers they have escaped; should often imagine the consequences in cases this and that evil, which they barely escaped, had befallen them—they had broken this limb and lost that good, etc.—and, by a variety of means, rouse it to increased action. Especially let such guard amply against unforeseen catastrophes, and practice the motto, "Sure bind sure find." And let all be wise, judicious, and provident.

Children, too, in whom it is small, should be shown that their carelessness occasioned this loss and that misfortune; that they must "look out next time," and have their attention often directed to the evils brought upon themselves and others by their imprudences.

Especially, never put careless boys to any dangerous trade or occupation. In 1835, I examined, in North Third Street, Philadelphia, the head of a lad in whom this organ was small, and enjoined its cultivation on both father and son. On leaving, I re-urged upon the father the danger perpetually pending over his careless son, and told him to put him in a safe business. Phrenology was not then believed, my advice was not heeded, and this boy was put to the tin-roofing business, and in 1836, while roofing a house, instead of going down the ladder generally used, nothing would do but he must walk around a block of unfinished brick buildings, in doing which he fell, and was taken up dead!

ITS RESTRAINT AND DUE REGULATION.

Yet this faculty is often too active, or at least frightened without cause, and requires right direction, if not restraint. Many fear evils purely imaginary; apprehend danger where there is none; regard trifling obstacles as insurmountable; procrastinate till they let slip many an excellent opportunity; and suffer as excessively as needlessly from false alarms. How can such conquer their fears, and substitute promptness for irresolution? By offsetting this faculty by Combativeness, judgment, decision, hope, and other faculties, and by exercising it less. Let such decide promptly, and then drive their projects, hit or miss; because they will be too careful, even though they try to be reckless. They should bear constantly in mind that their fears are excessive and usually groundless; that this organ, being too large, excites more solicitude, doubt, irresolution, and procrastination than is reasonable or best; that, therefore, they always over-rate difficulties, magnify dangers, and are therefore anxious without cause, and fearful where there is no danger. Impress this upon your mind, and extra Cautiousness can produce no alarm, any more than looking through green glass could make you believe that everything was green. This principle will tell you that you always look through glasses of fear, and that it is these fearing glasses which

alarm you, and not any danger—that, in short, your apprehensions are mostly groundless, and therefore not to be regarded or acted upon. Also deliberate less. Take less time to get ready. Be more off-hand and prompt. Above all, do not allow your imagination to conjure up objects of terror, or dwell on fictitious danger. Banish all such suppositions, and indulge the feeling of security and safety instead. Withdraw your mind as much as possible from all apprehension and contemplation of danger, and try to dismiss all anxiety, solicitude, and procrastination, and to feel contented.

But one of the most effectual causes of groundless fears and gloomy forebodings, is disordered nerves, and impaired digestion. When produced by either of these causes, they cannot be effectually overcome without removing those causes—that is, without restoring the bodily functions to health. If your fearfulness proceeds from nervousness, rectify your nervous system, or else expect to suffer all your life from groundless fears, and to be always miserable on account of this violation of the law of health. To indulge despondency only aggravates your sufferings. Get out into the open air. Forget your troubles, and keep doing. Especially, eat less and do more.

In children this organ is often so large as to fill them with groundless fears; on account of which many a poor child has been rendered miserable for life. This excess should never be still farther increased by telling them frightful stories, making them afraid to be in the dark, threatening them, and the like. Nor should youth ever be punished by being shut up in dark rooms, being told that they will see “raw heads and bloody bones,” or that you will throw them out of the window, or call a bear to come and catch them; because if Cautiousness is too large, this will re-increase it, but if small, they will only laugh at you, and your futile threats.

The young require even a greater development of this faculty than adults. Inexperienced, their muscles undisciplined, and minds engrossed in hilarity and mirth, unless spontaneously active Cautiousness instinctively warned and protected them perpetually, they would be exposed to one continued series of accidents—indeed, they often hurt themselves as it is—and soon destroy themselves. Even a mother's incessant watchfulness is insufficient protection. A careless child is continually burning, or cutting, or hurting itself, or falling, or meeting with accidents, which nothing but its own perpetual carefulness can possibly avert. Hence, nature has kindly endowed them with a large development of this organ—a provision as beautiful as necessary.

Many mothers have this organ too large; and hence, by transmitting it in excess to their children, live in perpetual, though groundless, fear lest they should fall or get into danger, and therefore caution them all the time, even when there is no possible danger. Timid children in particular require to be soothed instead of frightened, and presented with motives of safety instead of alarm. Especially do they require to have their Cautiousness offset by Combativeness.

12. APPROBATIVENESS.

DEFINITION, FUNCTION, AND LOCATION.

Love of Praise; Regard for Character; Sense of Honour; Desire for a Good Name; Love of Commendation and the Esteem of Others; Ambition;

Desire to attain Distinction, become Popular, attract Attention; Obtain Notoriety and Fame, and rise to Eminence; Pride of Character; Sensitiveness to the Speeches of People; Desire to be Thought and Spoken Well Of.

LARGE Approbativeness seeks commendation, and is cut by censure; is keenly alive to the smiles and frowns of public opinion; regards what people say; seeks to show off to advantage; gives affability and desire to please; loves to be in the fashion; stands on etiquette and ceremony; sets much by good appearances; and feels extremely mortified by reproach.

SMALL Approbativeness cares little for the opinions of people; is comparatively insensible to praise and censure; disregards style and fashion; despises etiquette and polite usages as such; and never stops to ask "what will folks think?"

It is located behind Cautiousness, back of Conscientiousness, and on the two sides of Self-Esteem. Its lobes are about an inch apart, and run up and down from Conscientiousness towards Adhesiveness.

ADAPTATION AND CULTIVATION.

Some things are constitutionally commendable, and others, in their very nature disgraceful. A child falls into the surging billows, but is rescued at the risk of life by a self-sacrificing lover of his race. "Noble, worthy of all praise," exclaim all who hear of the honourable deed. A son of shame casts this same child into this same stream, and though it is saved, "disgraceful, contemptible wretch," murmur all who know it. To this inherent praiseworthiness of some actions and characteristics, and disreputableness of others, this faculty is adapted, and adapts man.

Nor is its influence weak or range limited. On the contrary, it appertains to all we say, do, and are, and creates an insatiable desire to do and become what will secure praise. Indeed, when properly directed, it is a most powerful incentive to virtue and preventive of vice; but becomes, when perverted, as it too often is, an equally potent instrument of evil. Its cultivation and due regulation, therefore, become matters of the utmost importance. How, then, can they be effected?

By placing before it that commendation of mankind to which it is adapted. This element was not created for naught, and cannot lie dormant with impunity. As its absence deprives the mind of a powerful incentive to praiseworthy deeds, so its presence, duly regulated, renders us emulous to do and become what will secure commendation, and thus re-doubles every virtue, and restrains every vice, because the former excites praise while the latter is disgraceful.

Ambition, properly directed, should then be indulged. All should endeavour not only to stand fair in the eyes of their fellow-men as far as known, but to become known more and still more extensively. To despise the opinions of men is on a par with disdain food, or property, or children, and to love and seek it as essential to human perfection as to exercise any other primitive function of body or mind.

Approbativeness should therefore be CULTIVATED. And to do this, set motives of praise before it. Indulge a generous emulation to excel. Keep your character spotless, and say nothing, do nothing disgraceful. Assume those pleasant modes of action and expression, and agreeable manners and address calculated to elicit encomiums. Say agreeable

things as often and as far as consistent with the higher faculties, and avoid giving offence unless where they demand a sacrifice of popularity to duty. And when you must say unpopular things, couch them in as pleasing a manner as may be. Even reformers, by pursuing this course, would secure more friends and make fewer enemies to THEMSELVES, and therefore to their cause—a point of great practical importance, be our pursuits what they may—yet little appreciated.

We should especially desire to retain and enhance the estimation of our FRIENDS. We cannot long retain their attachment when we make them ashamed of us, but shall redouble their friendship by rendering them proud of us. Let me be an HONOUR, not a disgrace to my friends. Let me so write, speak, and conduct myself, that they shall glory in espousing my cause.

A faculty thus beneficial to adults should be cultivated in the young. Indeed, few appeals to any of their other faculties are as effective as to this. All know how powerfully praise stimulates them to do what we wish. They can be flattered into almost anything.

But this faculty is often excessive, compared with the others, and still more perverted. Few faculties require right direction more than this, and the wrong action of few occasions more evil, individual and public. How supremely ridiculous many are rendered by its excess and perversion! The whole world is in full chase after praise, but, unfortunately, for the wrong things. And, in general, mankind struggle to enter into the kingdom of commendation, less for what they are, than for what they POSSESS. Some pride themselves on their horses, dogs, and even canes and boots! In phrenological language, Approbativeness should not be governed by the propensities, but by the HIGHER faculties. Men should not take pride in eating the most oysters, or drinking the most grog; or in being the greatest fighters, whether in personal combat, the pugilistic ring, or battle array, but should seek praise for what they ARE—for what is IN them, not on them. We have already shown that the MORAL and INTELLECTUAL faculties should guide and govern all the others. Then let this indispensable condition of virtue and happiness be the supreme law of our Approbativeness.

13. SELF-ESTEEM.

DEFINITION, FUNCTION, AND LOCATION.

Magnanimity; Self-Valuation; Nobleness; Self-Reliance; Independence; Love of Liberty and Dominion; Self-Complacency; Dignity; Self-Satisfaction; Desire for Power; the Aspiring, Self-Elevating, Ruling Instinct; that high-toned Pride of Character and Manliness which commands respect, despises meanness and self-degradation, and creates lofty aspirations to do something great and worthy. Will, Self-Government, or Volition, is also a function of this faculty.

LARGE Self-Esteem puts a high estimate upon itself, its doings, sayings, and capabilities; falls back upon its own unaided resources; assumes responsibilities which it feels abundantly able to sustain; will not endure restraint or take advice, but insists on being its own man and master; is high-minded, and feels above stooping to demean or degrade itself; comports and expresses itself with dignity, and is perfectly satisfied with self.

SMALL Self-Esteem lacks self-confidence and weight of character; feels

unworthy, inferior, and as if in the way; distrusts its own capabilities, and shrinks from assuming responsible stations and undertaking great things, on the score of incompetence; cannot command; is apt to say and do trifling things; lacks self-reliance and independence; underrates its own capabilities and worth, and is therefore liable to be underrated by others.

To find this organ, draw a perpendicular line, when the head is erect, from the opening of the ear to the top of the head. This conducts you to the fore part of Firmness. Self-Esteem lies two inches, or a little less, directly backward.

ADAPTATION AND CULTIVATION.

Man is the veritable "LORD OF CREATION"—the greatest terrestrial work of God. Magnificent—yonder towering mountain. Stupendous Niagara's awe-inspiring cataract. Inconceivably vast planets, suns, and the countless worlds which float in the azure sky. In view of the wonderful works of God, one involuntarily exclaims, "What is man!" Greater than they all! What is Niagara beheld only by brute? What *Ætna's* volcanic eruption, or the whole earth's gigantic bulk—what even the material heavens and their myriads of worlds—in comparison with man? Can inorganic matter, however huge, surpass man's divinely-contrived system of bones, muscles, organs, and nerves, all redolent with life and teeming with enjoyment.

But the creation of MIND—this is the greatest work of God! Compared therewith, all else is "dust and ashes." The domestic affections, the resisting, feeding, economical, provident, emulous, and other instincts, how infinitely wise in constitution and efficient in function! Yet it is his moral and intellectual elements which form his CROWNING endowments. These render man near akin to angels, and constitute us "the sons and daughters of the Lord Almighty!" They even array him in the robes of immortality, and confer on those who fulfil its conditions, capabilities of becoming eternally and inconceivably holy and happy! Have we not, then, a perfect RIGHT to place a most exalted estimate upon ourselves? We may, indeed, value ourselves wrongfully—even on account of our deformities—but not too much. This faculty may take a wrong direction, but cannot well be too large. Then why hang our heads or sink back into the corner of insignificance? Are the children of God such inferior, unworthy, degraded "worms of the dust?" All that should humble us is what we have DONE, not what we are by nature. Away with this idea of man's nothingness and inferiority—Phrenology arraigns it as false. All that even a god could do to exalt and endow humanity, God has done.

A secondary adaptation of this faculty is to that law of mind by which to confide in our own strength promotes success, and appreciating our capabilities augments efficiency. Tell that boy he "can't if he tries," and he will either not attempt, or only feebly; but telling him "You CAN," contributes wonderfully to success. Encouraging Self-Esteem enhances effort and excellence quite as much as exciting Approbateness; while discouraged, Self-Esteem, like mortified Approbateness, palsies the entire man.

The cultivation of a faculty thus ennobling is commensurate with those exalted ends it was created to subserve. All should, therefore, exercise it. We should study that we may appreciate our own SELVES,

and when we have learned what sphere nature has adapted us to fill, should do our utmost to rise therein higher and still higher. Let our motto be, "Excelsior, EXCELSIOR." Nor should we even indulge distrust of our own capabilities, but rather say in actions, with Col. Miller, when asked, "Can you storm that fort?" "I can TRY!" Nor should we envy others because they are more highly gifted by nature than we, but strive to make the most of our one or two talents; for what they possess was not taken from us. We should rather make up by extra culture what we lack by nature. Do any of us enjoy half our present capabilities? Then why complain because we have no more? To use what is already possessed will confer more.

To cultivate this faculty in children, throw them on their own resources. Do not humble, but rather exalt them in their own estimation. Let them feel that they are embryo men and women, and are created for something noble, and hence should fit themselves to fill some important station. This sentiment, so far from inflating, will rather humble them. When they have perpetrated any mean act, talk to them as if they should feel themselves above such self-abasing things. In short, develop this faculty by calling it into action. Especially never crush them by sternness and severity, or look down upon them so as to make them feel menial, or cheap. Raise, not depress.

To one other adaptation and functional phase of Self-Esteem special attention is invited. Man is a VOLUNTARY being, endowed with that self-determining power which enables him to choose or refuse the evil or the good. The iron WILL, which takes the reins into its own hands, and does according to its own pleasure, is the product in part of this faculty, aided by Secretiveness, Firmness, and some other faculties. Metaphysicians may speculate on this point for and against, yet the ever-present consciousness of every human being assures us all that we are endowed with power of choice. We are not machines, impelled wither soever we go by circumstances and our organization, but can resist this besetting sin, and do that virtuous deed. A power thus important should by all means be assiduously cultivated, from infancy to old age. When, or in what situation in life, after we leave the cradle till we descend into the grave, are we not exposed to temptations? Sometimes we are "drawn away by our own lusts, and enticed," and sometimes by others. All, therefore, require that of safety which this self-governing power alone can furnish. Then let it be EXERCISED. Let us place it at the helm of all we say and do. WILL to do this and not to do that, and then do it. Never yield—no, not for once—to the syren voice of temptation, because the more you do the more you may.

RESTRAINT AND DUE REGULATION OF SELF-ESTEEM.

The perversion and predominance of this faculty render its possessor proud, egotistical, conceited, forward, pompous, supercilious, arbitrary, self-willed, and dogmatical, if not domineering, and should therefore be checked. Those whose Self-Esteem thus predominates should remember that their self-conceit often renders them ridiculous, yet they do not see it. Such should attribute their exalted notions of themselves to their inordinate self-esteem, not to real merit. They should bear in mind that, be their talents great or small, they over-rate them, and hence, that if they are ten, they rate them at fifteen or twenty; that others

were not made to be their lackeys; and that they must suppress this swaggering manner and feeling.

14. FIRMNESS.

DEFINITION, FUNCTION, AND LOCATION.

DECISION of character; PERSEVERANCE; STABILITY; FIXEDNESS of purpose; TENACITY of opinion; AVERSION to change. Its name is perfectly expressive of its function.

LARGE Firmness is set in its own way; sticks to and carries out what it commences; holds on long and hard; and continues to the end.

SMALL Firmness yields to difficulties; is easily changed; vacillating, fickle-minded, and cannot be depended upon.

ADAPTATION AND CULTIVATION.

IMMUTABILITY is written upon every law of nature. God is unchangeable. Can the everlasting mountains be removed, the sun stayed, or any of nature's ordinances be arrested? Man, too, requires stability and perseverance. After he has sown, he must wait patiently for the products of his labour to mature. Many ends can be effected only by long-continued application, and many obstacles overcome only by the labour of a LIFETIME. "Perseverance conquers all things," while fickleness accomplishes nothing, but undoes to-day what it did yesterday. Intellectual acquirements are not the growth of a day, or even a year, but of an age; and great moral excellence, unlike Jonah's gourd, does not spring up or wither in a night, but is produced by the HABITUAL practice of virtue from youth to death. Many kinds of business can be rendered profitable only by spending years of patient toil in building them up. Indeed, scarcely any truly valuable end can be brought about in a hurry; and, in general, the greater the good the longer the toil requisite to effect it. To this element of stability in nature, and this demand for steady perseverance in man, Firmness is adapted. Without it little good can be effected, little evil successfully resisted; but before its iron tread, difficulties, otherwise insurmountable, vanish, and temptations flee abashed. Nor can any man become distinguished for anything great or good without it.

To increase it, consider the inducements held out as rewards to perseverance. Give up nothing till it is completed. Let no obstacles turn you from your proposed course. Have a mind and will of your own, and never allow yourself to be persuaded contrary to your better judgment. Steadily resist temptation, and remember that those who hold out unto the END alone are crowned. Especially never yield in the least where RIGHT is concerned. MORAL decision is a virtue of the highest order. Firmness and Conscientiousness are located side by side, and should always support each other in character. Hope is also located upon the two sides of the fore part of Firmness, so as to work in conjunction with it; and certainly nothing is calculated to excite Firmness more than confident hopes of success, and the two combined form one of the strongest elements of efficiency and success.

To cultivate it in youth, be careful not to require them to leave anything unfinished. Let them be taught to accomplish all they begin. Making children servile, and requiring strict obedience, is apt to weaken this faculty.

ITS RESTRAINT AND RIGHT DIRECTION.

But some persons are mulishly stubborn. They will not see their errors, or, seeing, change. Such, indeed all, should be especially careful not to decide till they are sure they are RIGHT, nor ever commence anything not best. They should then hold themselves open to conviction and correction, and remember that their excessive Firmness is liable to so blind their intellects that they cannot perceive the full force of evidence brought against them, that they are too hard to be convinced, too inflexible, etc. In short, they should subject their Firmness to their reason, prudence, justice, and other faculties. Still, of well-directed Firmness no one can have too much.

15. CONSCIENTIOUSNESS.

DEFINITION, FUNCTION, AND LOCATION.

Perception and Love of Right; Moral Principle; Innate Sense of Accountability and Obligation; Integrity; Love of Justice and Truth; Regard for Duty, Promises, etc.; Desire for Moral Purity and Excellence; that internal monitor which Approves the Right and Condemns the Wrong; Sense of Guilt; Desire to Reform; Contrition; Forgiveness.

LARGE Conscientiousness loves the right as right, and hates the wrong because wrong; is honest, faithful, upright in motive, and means well; consults duty before expediency; feels guilty when conscious of having done wrong; and desire to reform and be forgiven.

SMALL Conscientiousness sometimes sacrifices duty on the altar of indulgence, and temporizes with moral principle; justifies itself; and is not particularly penitent or forgiving. LOCATED on the two sides of the back part of Firmness.

ADAPTATION AND CULTIVATION.

There is a RIGHT, and its violation constitutes a WRONG. These elements are founded in the primitive constitution of things, and form an integral part of nature, as much as bulk or beauty. But for this arrangement, no action or feeling could possess any moral character whatever, nor could any conception of right or wrong exist. Man, also, is endowed with a moral eye for perceiving the existence of laws, and form, for taking cognizance of shape. This moral sense phrenologists call Conscientiousness. Its existence in man, therefore, renders him a MORAL BEING, and, in consequence, accountable, rewardable, and punishable. This moral constitution is inwrought into the very texture of his mind, and interwoven with most which he says, does, and is. Nor can he escape out of its rightful dominion. The commonly received idea that a great many of our actions and feelings, especially those which appertain to the body, are neither right nor wrong, is therefore erroneous. Every motion we make, every breath we draw—ALL our thoughts and feelings from first to last—fulfil or violate those laws which govern their constitution, and are therefore right or wrong, and hence fit subjects for rewards and punishments—in fact, actually do reward and punish themselves.

Every human being should, therefore, cultivate so powerful an auxiliary to success—so heavenly an attendant. We should inquire touching everything we say, and do, and feel, "Is this RIGHT? is that WRONG?"

and utterly refuse all participation in what is not right. In other words, all should see to it as a cardinal pre-requisition that all thoughts, feelings, and actions are in accordance with their primitive constitution, and that every faculty and function of mind and body is always exercised in strict conformity with its creation and normal end. Then will they all be right, and our happiness complete.

Young man in search of business, first choose an HONEST one. Ask not "Is it lucrative," or "respectable," or "easy," or even "lawful;" but "Is it JUST?" And shrink with horror from whatever is not, be its prospects or its emoluments what they may. "Seek first" RIGHTEOUSNESS, and all else "shall be added unto you." Next prosecute it, in all its relations with rigid justice. Let no consideration whatever induce you to deviate in the least therefrom, and besides an improving conscience—itsself a treasure infinitely richer than all worldly possessions—temporal prosperity is guaranteed to you by the fiat of nature.

Those in whom this organ is small, should remember that, therefore, they are comparatively blind to their faults; that, especially if Self-Esteem be large, they generally carry the bag containing their errors behind them, rarely see it, and when they do, are apt to smooth them over by forming flimsy excuses, and justify themselves unduly; that they are self-righteous, and hence more guilty than they suppose, because Self-Esteem parries the feeble thrusts of Conscientiousness, and throws the mantle of extenuating circumstances over much which should occasion self-condemnation. Bear in mind, that your not FEELING guilty is no sign that you are not; because, other things being equal, the smaller this faculty the feebler its compunctions, yet the greater the occasion for them.

This faculty is blunted by whatever pains it—by BEING imposed upon, as well as by our doing unjustly. Dwelling upon wrongs done us, is very apt to make us feel that, since others are so wicked, we may as well be like them. Many a one has been thus case-hardened, and rendered dishonest by being abused.

The assiduity with which this faculty should be cultivated in youth, is commensurate with the exalted blessings it confers. I have found this organ large in nearly every child's head I have ever examined. Yet it is often small in adults—declines in consequence of sheer inaction—an astounding, an awful fact? Nature bestows enough of this element on every human being, to render him scrupulously moral and just. Its existing woeful deficiency is OUR fault, not hers. It does not average half, if a quarter as large in adults as the young. Nor is there any other solution of this said fact, palpable to all observers, than its NON-EXERCISE. Children, seeing others do wrong, themselves commence to tamper with this heavenly gift, and gradually yet effectually wear it away. O parents, be entreated to arrest this downward tendency. It should "grow with their growth, and strengthen with their strength," and would if duly called into requisition. Mothers, in particular, should be ever on the watch, while their children are at play about them, to check any encroachment of one upon the rights of the others, every instance of deception in word and deed, all in any way wrong, not so much by the whip as by this "rod of the Almighty" thus put into their hands. Press their CONSCIENCES, not merely with accusations when they do wrong, but especially its flattering unction to their souls when they do right. Call

attention to the exquisite pleasure they feel in having done their duty, and they will do right again. Show how miserable doing wrong renders them, and they will avoid it in future, for the same reason that "a burnt child dreads the fire."*

16. HOPE.

DEFINITION, LOCATION, AND FUNCTION.

EXPECTATION; ANTICIPATION of success and happiness; OVER-RATING prospective good, and UNDER-RATING or overlooking obstacles and evils; contemplating the BRIGHTER shades of the picture. LOCATED on the two sides of the fore part of Firmness, and back part of Veneration. The line drawn to find Firmness passes through it.

LARGE Hope calculates on more than the nature of the case will warrant; and then attempts a great deal; is sanguine and cheerful; rises above present trouble by hoping for better times; though disappointed, hopes on still; builds some air castles, and lives in the future.

SMALL Hope is easily discouraged; and attempts too little; lacks enterprise; sees lions in the way; magnifies obstacles; and calculates only on what other faculties see how it will be brought about.

ADAPTATION AND CULTIVATION.

Man is not the creature of an instant, but is related to the past by memory, to the present by experience, and to the future by anticipation. He is also ADAPTED to the future as well as the present; because what he does at one time affects him always afterwards. He can also appoint future times and seasons for doing particular things, and by a law of his being is compelled to wait for the future in order to enjoy the full fruition of their labours. This organ spurs him on to EFFORT, and this contributes to success. Those who expect but little, attempt and accomplish little; while sanguine anticipations enlarge all our plans, and redouble all our exertions.

It should not, then, be allowed to flag, but be cultivated. Discouragement constitutes no part of man's primitive constitution. So far therefrom we should "hope on, hope ever." If we fall, we should not supinely lie there, but should bestir ourselves and search out some other "peg to hang our hopes upon." "Never give up the ship." If it storms to-day, to-morrow is the more likely to be fair. And when trouble lowers and difficulties thicken, the true man will outride the storm by remembering that "the darkest hour is just before day," and that his lot, compared with that of many others, is quite comfortable!

An anecdote to illustrate: A rich and prosperous man helped his friends till he failed, when, shutting himself up, he abandoned himself to gloom and discouragement. Of course, his family soon came to want, when a poor widow woman brought them three loaves of bread. The thought that this widow woman, beside supporting by her own industry herself and little son, should earn bread for his hungry children, roused him to effort. He bestirred himself, found employment, and is now comfortable, and bids fair to recover his lost fortunes.

* For a more full and complete exposition of this and kindred organs, see the author's work entitled "Natural Religion."

ITS DUE REGULATION AND RESTRAINT.

Yet it may be, relatively, too active, so as to render its possessor visionary, chimerical, speculative, and liable to lose all by attempting more than can be accomplished. Such spread themselves too much. Their splendid prospects have no solid foundation, but are caused by the magnifying influence of Hope. Dock off half or two-thirds from what you really expect to obtain. Bear in mind that you are constitutionally inclined to over-rate every prospect, and to under-rate every difficulty.

17. SPIRITUALITY—MARVELLOUSNESS.

DEFINITION, LOCATION, AND FUNCTION.

INTUITION; FAITH; PRESCIENCE; spiritual perception of TRUTH, what is BEST, what is about to TRANSPIRE, etc.; the "inner LIGHT;" perception and feeling of the SPIRITUAL; CREDULITY; belief in the SUPERHUMAN; and trust in divine GUIDINGS. Located on the two sides of Veneration.

LARGE Spirituality perceives and knows things independently of the senses or intellectual faculties, or, as it were, by "spiritual intuition;" experiences an internal consciousness of what is best, and that spiritual communion with God which constitutes the essence of true piety; loves to meditate; bestows a species of waking clairvoyance; and is, as it were, "forewarned of God."

SMALL Spirituality experiences little of this state of mind, and believes only on actual evidence; is incredulous—a doubting Thomas; and not favoured with this intuition and premonition.

ADAPTATION AND CULTIVATION.

That there exists a spiritual state of being, and that "God is a SPIRIT," are matters of belief; and that man is endowed with an immaterial principle—an undying soul—which sees and knows by intuition, irrespective of material eyes or reason, is to many an experimental FACT. But for some such faculty man could form no more conception or idea of anything not material, or of anything spiritual, than the blind of colours. But for it the idea of God as a Spirit, of the immortality of the soul, or of an immaterial, disembodied spirit, would have been absolutely impossible. But man has these ideas. The fact has also recently been philosophically demonstrated in Germany, that in certain states of the nervous system subjects do see by a kind of spiritual sense, independently of vision. Clairvoyance also establishes the same conclusion by another method of proofs; and in almost every community will be found those who are forewarned of coming events, and who arrive at correct conclusions independently of reason, and often in its very teeth, without knowledge, and, contrary to all appearances, by impressions better felt than described, yet in strict accordance with what subsequently occurs. Believers in the Bible will at least admit the existence of this spiritual guide in the teachings of the "Holy Spirit," the prescience of the prophets, plenary inspiration, the existence of spirits, of the soul after it leaves the body, and much more to the same effect.

Man, moreover, REQUIRES some such faculty to teach him things which reason can never know, because they depend on contingencies yet untranspired, and which this spiritual vision alone can disclose. And with this vision, which the sun cannot enlighten nor thick darkness intercept—

which sees with the optics of angels, and gathers pearls from the ocean of illimitable existence, which distance intercepts not, and which reads the book of fate before time breaks its seal, which reveals to man what shall be hereafter, when the earth has become old and the sun gone out—man is endowed. But our purpose being simply to show how this faculty can be cultivated, we will not dwell upon the proofs of its existence, but refer the reader to our work on "Natural Religion," both for such proof and a full elucidation of its function. Suffice it to add, that no mental faculty was created in vain; that the cultivation and right exercise of each one confers a great amount of happiness; that the moral in particular require such exercise, in order that they may maintain that supremacy so indispensable to human happiness and virtue; and that therefore Spirituality should, in a special manner, be developed by culture.

18. VENERATION.

DEFINITION, LOCATION, AND FUNCTION.

Devotion, Adoration of a Supreme Being; Reverence for Religion and Things Sacred; Disposition to Pray, and Observe Religious Rights. Located in middle of the top of the head.

LARGE Veneration experiences a great reverence for things sacred; loves to adore the Supreme Being, gives true devotion, fervent piety, and love of divine things; and takes great delight in religious exercises.

SMALL Veneration sets lightly by religious creeds and observances; places religion in other things, such as charity, honesty, etc., and is not serious or particularly devout.

ADAPTATION AND CULTIVATION.

That there is a Supreme Being, all nations and ages have believed, all nature attests, and Phrenology demonstrates, by pointing out the existence of a primary faculty of the human soul adapted to his worship. As the existence of the eye and its adaptation to light pre-supposes and proves the existence of light; of Causality that of laws; of Language that of words; and thus of all man's other primitive powers—as the adaptation of one thing in nature to another pre-supposes and implies the existence, past or present, of that to which it is adapted—so the existence of this primitive element of mind implies and completely demonstrates the existence of a God adapted to receive the homage this faculty is constituted to experience. Nor can this proof be invalidated. It is ABSOLUTE. It has but two conditions—the existence of this worshiping faculty, which Phrenology establishes—see "Natural Religion"—and the other that the adaptation of one thing to another implies the existence of the latter—an indisputable ordinance of nature.

Veneration powerfully restrains abnormal propensity, and aids Spirituality in securing that elevated tone of all the animal, intellectual, and moral powers, so promotive of enjoyment. What more effectually checks boiling passion than the thought "Thou, God, seest me?" What can stimulate to self-improvement equally with the love for that bountiful benefactor who bestowed all these transcendent gifts? Who can love God supremely, yet cheat, lie, hate his neighbour, swear, gormandize, debauch, or commit any gross sin? And when temptations entice, and resistance fails, what overcomes "easily besetting sins" equally with

fervent prayer? An abiding sense of the Divine presence is the natural antagonist and antidote of depravity; nor till the propensities have warped or else stifled Veneration, can they who truly love God deliberately sin.

Veneration also opens the mind to the reception of universal truth. The passage—"If any man lack wisdom, let him ask of God, who giveth liberally"—MEANS something—means that prayer cultivates an intuitive perception of truth. This joint product of Veneration and spirituality is facilitated by their juxtaposition. That we should unite charity with worship, is taught by the juxtaposition of Veneration with Benevolence, and that we should consider such worship a solemn duty, by the near residence of Conscientiousness.

Veneration is also located nearer than any other organ to that "SEAT OF THE SOUL," or grand centre of the nervous system which receives all impressions and issues all edicts. This organ lies directly above this "holy of holies," so that its delightful action may maintain the most perfect inter-relation with the inner temple of mind. Hence love and worship diffuse throughout the entire brain and nervous system a holy spell, which sanctifies them all, and sheds an indescribable exquisiteness throughout mind and body.

How, then, can a faculty thus freighted with enjoyment be cultivated? By its EXERCISE. And how exercised? By contemplating and adoring God. As food excites Appetite, property Acquisitiveness, danger Cautiousness, and thus of all the other faculties, so loving God for his infinite perfections, and thanking him for his loving kindness, excite and of course enlarge this faculty, as do also "keeping the fear of God ALWAYS before your eyes," and "whether we eat or drink, or whatever we do, doing all to his glory." We should contemplate him as our FATHER, not as an austere autocrat; "for God is LOVE." His goodness is INFINITE. His loveliness what terrestrial words, what celestial, even, can express?

The fore part of this organ probably respects man, reveres antiquity, and produces conservatism. Superiors should therefore be respected, and reformations should be gradual, not violent.

A faculty thus promotive of human virtue and happiness should by all means be cultivated in children. The most effectual means of doing this is to BE devout before them. This family devotion, if sincere instead of formal, and rendered inviting instead of repulsive, facilitates. Yet it should be so conducted to make them LOVE the family altar—by no means a difficult matter. If they hate it, it injures them by searing Veneration. Religion cannot be crammed down them by force. Render it delightful, and you thereby gain unlimited power over them, and most effectually develope all their moral faculties.

19. BENEVOLENCE.

DEFINITION, LOCATION, AND FUNCTION.

Kindness; Humanity; Desire to Make Others Happy; an Accommodating, Neighbourly Spirit; Sympathy for Distress; a Self-Sacrificing Disposition; Philanthropy; Generosity. Located between Veneration and Human Nature.

LARGE Benevolence delights to do good, and gladly makes personal sacrifices to render others happy; cannot witness pain or distress; and

does all it can to relieve them ; counteract selfishness, and manifests a perpetual flow of disinterested GOODNESS.

SMALL Benevolence allows the other faculties to trespass upon the rights of others ; is callous to the woes of others ; does few acts of kindness, and those grudgingly ; and allows selfishness.

ADAPTATION AND CULTIVATION.

Without benevolence man would be perfectly callous to the sufferings of others, and hence comparatively unrestrained from causing pain, and even taking life, which Combateness and Destructiveness would prompt him to do, whereas this faculty would make him shudder to cause suffering or death. Without it, our world would be one vast Golgotha of anguish. Not one good Samaritan would be found in all its borders ; but this humane element dresses wounds caused by violated law, and pours the oil of consolation into the troubled soul. Nor can words express the amount of human happiness which flows from the exercise of this faculty. From no other fountain of human nature more. Great as are the moral virtues—justice, faith, hope, and devotion—the greatest of all is “CHARITY.” It is to the human character what the benevolence of God is to the divine—the final goal to which all the others tend.

It also blesses GIVER “even more” than receiver. The exercise of our various powers confers all the happiness we can experience, and none more than this faculty. Its exercise, in the very nature of things, renders its possessor happy, while selfishness interdicts one of the most exalted enjoyments of our being.

Special pains should of course be taken to develope, by constant cultivation, so important a faculty as this in the young. It is small till about the second year, because nature will not spend her energies in devoting it till they are old enough to do good with it ; but from two years old and upward it becomes one of their most prominent organs. Hence they should be pleasantly requested to do those numberless little errands and favours which so effectually promote the happiness of all around them, and in the doing of which they take so much pleasure. They delight in action, and love to oblige, and these little runs gratify both. Their natural pleasantness and good nature, and that gushing fountain of disinterested Benevolence which flows forth in every action and feature of lovely childhood, and shed so much happiness on all around, should by all means be encouraged, both for their own sakes and that, when grown up, they may bless all around by their goodness, instead of curse by their selfishness. To secure so desirable a result, various simple yet efficacious expedients may be devised, among which kindness TO THEM stands first. Benevolence excites Benevolence, so that every favour you do them, provided your manner is also kind, awakens this divine sentiment in them. Evince a deep and permanent interest in their welfare, and a disposition to gratify them whenever to do so is proper, and, depend upon it, they too will always be good to you and to all around them.

RESTRAINT AND REGULATION.

Though this faculty cannot be too powerful, provided it is rightly directed, yet it is often exercised most injudiciously, so as to do much more harm than good. How many have failed, ruined their creditors, and beggared dependent families, by lending, endorsing, and yielding to sympathy, in opposition to judgment ? How much more good they could have done by spending their money otherwise ! Those who solicit help

most urgently, too often deserve it least. Give, but let it be judiciously. But never endorse. If you have a surplus, give it outright, and lend only what you can afford to lose. Rather give to the needy than lend or endorse, except in extreme cases. Govern this faculty by intellect, and be just before being generous.

20. CONSTRUCTIVENESS.

DEFINITION, LOCATION, LARGE AND SMALL.

The Making Instinct and Talent; Manual Dexterity in Using Tools; Ingenuity; Sleight of Hand in Constructing Things, and Turning Off Work, or whatever is done with the Hands; Disposition and Ability to Tinker, Mend, Fix Up, Make, Build, Manufacture, Employ Machinery, and the like.

LARGE Constructiveness loves to make, and gives an excellent practical idea of the best mode of constructing things, as well as manual skill and dexterity in executing all kinds of work, writing, drawing, sewing, folding, managing machinery, packings, and whatever we do with our hands. It also relates to the construction of ideas in sentences, discourses, and works.

SMALL Constructiveness is deficient in these respects, awkward in manual exertion, fails in understanding and working machinery, writes and uses tools bunglingly, and lacks mental as well as physical construction. Located two inches forward, and one upward of Acquisitiveness.

ADAPTATION AND CULTIVATION.

Everything which is, is MADE. All nature is one vast workshop, and all things in and on earth are the manufactured wares of the great MAKER of the universe. And the skill and ingenuity displayed in every work of his hands are indeed infinite! Everything constructed in the best possible manner to subserve the great end of its creation. Every organ perfect in formation and function, and located just where it can execute its mission to the best advantage! Behold the infinite mechanical perfection of the eye, ear, lungs, heart! How infinitely minute yet perfect the capillary ramifications of blood-vessels, glands, nerves, muscles, fibres, etc.! How inimitably perfect in invention and execution the mechanism of the human body! Nothing superfluous. Nothing wanted but is supplied. Its functions, how numerous, how complicated, how efficient! Yet every one of them effected by some INSTRUMENTALITY, for nature never works without tools. Though we do not understand a hundredth part of those contrivances employed throughout the human body, yet what we do understand is worthy of all admiration.

The Infinite Mechanist of the universe has also stamped upon all his works certain mechanical laws, which are generally SELF-ACTING. Of this the heart, lungs, stomach, and all physical functions furnish examples. They "whistle themselves" in their growth, their various functions, and their decline.

This self-acting principle doubtless moves the earth, sun, and stars through their immense cycles, and both generates and applies the power required to propel such huge masses with such mighty velocity and precision. The Newtonian theory is probably incorrect. The true one will doubtless be found to proceed on certain simple yet efficient mechanical principles—to embrace a self-moving and self-regulating law of perpetual motion. That principle undoubtedly exists in nature, and will yet be discovered and applied by man—not by any arrangement of

machinery, but by the generation and combination probably of some application of those two forces—self-attracting and repelling—which constitute magnetism, light, heat, galvanism—all the same—and which produce growth, and probably constitute the motive power of universal nature.

Man, too, is endowed with this making instinct and capability. Constituted so as to require houses, garments, tools, agricultural, mechanical, and other implements, as well as machinery, without this faculty adapted to such requisition, he could never make a single article, nor do anything whatever with his hands. But with it the farmer, mechanic, and labourer execute every stroke with the hammer, saw, axe, scythe, and every other tool used by man; the builder constructs houses and palaces; the machinist invents and constructs labour-saving machinery of all kinds, and therewith makes all sorts of fabrics and articles of comfort and luxury; and even compels water, wind, and steam to become his workmen. Behold that floating palace! See her plough the mighty deep, perform her prescribed voyages, and even outride that terrific gale! Every breeze, from whatever quarter, propels her forward. See the innumerable machines all over the land executing all sorts of labour for the comfort of man. Behold the human face divine transferred to canvass and the Daguerrian disc! How beautiful, how necessary, the possession of this faculty of man; and how innumerable and great the good it confers!

A faculty thus promotive of human happiness should, of course, be cultivated. The idea that none but mechanics require this element is a great mistake. Every human being uses it in all to which he puts his hands. All farmers and workers in any and all sorts of manual occupations; all merchants in putting up, taking down, cutting, packing, folding, and wrapping their goods; all who frame books, essays, paragraphs, or sentences; all who speak in public or converse in private, or even think or feel; all who do anything, in whatever they do, as well as mechanics proper—all mankind, rich and poor, wise and foolish, old and young—require and use this constructing instinct and capability.

This faculty should, of course, be cultivated in children. In them this organ is usually large, and faculty active, and hence their fondness for hammers, nails, knives, and tools. This tool-using propensity should be indulged, and they encouraged to make and use kites, wind-mills, mill-dams, water-wheels, bows and arrows, cross-guns, miniature sleds, boats, railroads, steam-engines, etc. Instead of this, when boys draw pictures on slates, in place of ciphering, they are scolded or chastised. **LET DRAWING BE ENCOURAGED.** I would give a handsome portion of all I am worth to be able to draw accurately, so that I could sketch and draw, exactly to suit me, such phrenological heads and illustrations as I often meet in real life; whereas now I am compelled to obtain but few, and then to trust to artists who do not understand phrenology. Furnish children with tools. Let them have knives, and be encouraged to whittle, carve, make sleds, waggon, etc., and even have a shop of their own, supplied with tools with which to tinker.

RESTRAINT AND DUE REGULATION.

Whenever this faculty encroaches unduly on our time or other duties it should not be indulged. Many have spent their all in fruitless endeavours to invent perpetual motion, and many others rendered them-

selves wretched by spending time and money on inventions which never amount to anything. Large Hope, combined with large Constructiveness, still farther enhances the evil by promising great success without any solid foundation.

21. IDEALITY.

DEFINITION, FUNCTION. AND LOCATION.

PERCEPTION and admiration of BEAUTY and PERFECTION ; good TASTE ; REFINEMENT ; PURITY of feeling ; PROPRIETY of conduct and expression ; ELEGANCE ; GENTILITY and POLISH of manners ; IMAGINATION ; the IDEAL of poetry, ELOQUENCE, and romance ; pure and elevated ASPIRATIONS ; longing after PERFECTION of character, and desire to obviate blemishes, especially moral.

LARGE Ideality appreciates and enjoys beauty and perfection wherever they are seen ; especially admires these qualities as found in nature ; is characterized by purity and propriety of expression and conduct ; gracefulness and polish of manners and good taste in all its departments ; and has a perception and manifestation of beauty and perfection throughout all the actions and mental operations. It is to man what the beauty of the flower is to the flower, or the perfection of anything is to the thing itself ; and adds a charm, beauty, and exquisiteness to the entire human being as much superior to that with which it crowns the flower as humanity is superior to inanimate nature. It "finishes off" its possessor, completes and perfects humanity, smooths down the rougher points of character, and beautifies and adorns all he does and says. It gives general consistency, propriety, perfection, correctness, and naturalness, or normality, to all the feelings, actions, opinions, and mentality.

SMALL Ideality is plain in feeling and manners ; home-spun ; inelegant ; wanting in propriety ; and the converse of Ideality large.

Located over the temples, and an inch above Constructiveness.

ADAPTATION AND CULTIVATION.

God has graciously endowed man with a perfecting sentiment in the invention and creation of Ideality. He has first arrayed all nature — our own natures included — in one grand halo of exquisite beauty and infinite perfection, and then adapted man thereto, by having implanted in his soul this power to recognize and enjoy these qualities. Ideality confers this capacity ? and unspeakable are the pleasures it is capable of bestowing. It purifies, refines, and elevates the soul — creates a longing after perfection, intellectual and moral, and a disgust of sin, because debasing and corrupting, and thus inspires us to labour and strive for moral excellence, and eschewing the polluting touch of depravity.

Its location upon the borders of the moral group, indicates that it was designed to exert an important moral influence on character. It does. In criminals, confined for gross offences, it is usually small. It so chastens Combaticiveness as to take away its harshness and roughness, and smooth off the resistance it offers. Thus, let it be small in one of two debaters, and large in the other, the former will come out roughshod upon his opponent, and be grating, denunciatory, harsh, perhaps vulgar in his tirades — in short, will be the coarse blackguard — while the latter will be keen, caustic, and cut to the quick, yet do it all up genteely,

and thus come off victor. Similar remarks apply to its influence over the affections, which large Ideality polishes and refines, and thus prevents impropriety, while small Ideality allows Amativeness to assume a more gross and sensual character; and thus of all the faculties.

Few things chasten the grosser manifestations of the passions, or elevate the soul, more than the study of nature. How perfect, beautiful exquisite, throughout! And yet her beauties are comparatively a sealed book to most of her children, because they have no eyes to read, no time to contemplate them. Above all, the society of refined and pure-minded woman, beautiful in form, charming in manner, and accomplished in conversation, is calculated to excite and develope this purifying faculty.

To cultivate this important element in youth, do not allow them to go shabbily clad, but keep them as nice and clean as may be. Call their attention frequently to the beauties of nature, and discourage all kinds of coarseness and vulgarity, but encourage gentility and refinement.

ITS DUE REGULATION.

This faculty is often perverted; and when so, causes much mischief. That most pernicious passion for novel-reading, which diseases the tastes and perverts the feelings of so many youths, in part springs from abnormal Ideality. Against such reading, Phrenology protests. Their characters are not natural, but distorted. They do not teach human nature a tithe as well as observation of men and things, or the study of Phrenology. Above all, they unduly excite and pervert the social affection, and kindle fires of love which should be allowed to slumber till preparation for their legitimate exercise in marriage is made. Youth, especially those of warm feelings and ardent imaginations, are warned against this nerve-destroying and passion-perverting practice. To young females it is especially injurious. Besides, these love-stories are not exactly proper subjects with which to imbue their minds.

B. SUBLIMITY.

DEFINITION, LOCATION, AND FUNCTION.

Perception and Love of the Grand, Splendid, Awful, Vast, Endless, Magnificent, Illimitable, and Infinite. Located between Ideality and Cautiousness.

LARGE Sublimity fills the soul with sublime emotions on beholding rugged, towering mountains, foaming, dashing, roaring cataracts, a storm at sea, lightning's vivid flash, accompanied by loud peals of thunder, the commotion of the elements, the star-spangled canopy of heaven, or any other manifestation of Almighty power.

SMALL Sublimity is comparatively unaffected by these and kindred phenomena.

ADAPTATION AND CULTIVATION.

To the infinitude of the Almighty and his works, Sublimity is adapted, and adapts man. And certainly its exercise, beside filling the soul with the most delightful emotions, imparts an expansiveness of views, a grandeur of conception, a range and sweep of idea, a compass and volume to thought and expression, without which no adequate conception of truth, nature, or God, can be formed. It should, therefore, be assiduously cultivated by the exercise of those emotions with which it inspires us.

22. IMITATION.

DEFINITION, LOCATION, LARGE AND SMALL.

Ability and Disposition to Imitate, Copy, Take Pattern, Do what we See Done, Mimic, etc. Located on the two sides of Benevolence.

LARGE Imitation evinces strong propensity and ability to copy, and do things after any pattern set by others.

SMALL Imitation fails in these respects; does not conform to the manners and customs of others; is original; and adopts his own way instead of patterning after others.

ADAPTATION AND CULTIVATION.

But for this copying instinct, man could neither talk nor write, both of which consist in IMITATING one common mode of articulating and forming letters and words; and all learn to speak their mother-tongue, because they COPY the manner of speaking from those around them. We should therefore IMITATE whatever, in others, will make us better.

In children this organ is especially large, and hence they copy almost everything they do and become from those around them.

23. MIRTHFULNESS.

DEFINITION, LOCATION, LARGE AND SMALL.

Intuitive Perception of the Absurd and Ridiculous; Disposition and Ability to Joke, Make Fun, and Laugh at the Improper, Ill-timed, Unbecoming, etc.; Humour; Pleasantry; Facetiousness. Located backward from Causality, and forward of Ideality.

LARGE Mirthfulness enjoys a hearty laugh at the imperfections and absurdities of others exceedingly, and excels as well as delights in holding them up to merited ridicule; makes fun out of everything not exactly proper or in good taste; and is always ready to give as good a joke as it gets.

SMALL Mirthfulness fails to perceive its own exposures to ridicule, or those of others, and neither enjoys nor can return a joke, but is out down if laughed at.

P R E F A C E.

MAN has power to understand and appreciate whatever is essential to his welfare. The Reproductive Element is that to which the author of the following pages looks as the heaven-appointed means, not only to perpetuate, but to refine, to elevate, and perfect the race. To ascertain the nature of that element, its action on the body and soul, when retained in the system ; the only natural and justifiable object of its expenditure ; the natural laws that are designed to govern it ; how it can be made most conducive to the improvement of the organisation, character, and destiny of man, and most helpful to his individual progress : these are subjects which must ere long command the attention and respect of every true man and woman.

The author has considered this element but solely as an instrumentality through which Human Nature may be redeemed from its diseases and its miseries. To those who regard and use it as a means of mere sensual pleasure, he can only say, they have their reward. Nature will be true to herself, and, in due time, vindicate her violated laws. There is no peace to those who disregard her behests ; there can be none. But to those who seek to know her laws, especially in regard to the government of their sexual nature, and who conscientiously aim to obey them, she will manifest her richest favours and her purest delights.

To create a conscience in men and women, as to the use of their sexual nature and relations, is the great end at which the ensuing work aims. This is **THE** want in every class of society. Men and women have tender consciences about the use of other organs and elements of their natures. In the family, in the school, and from the pulpit, the appeal is ever being made to the child, the youth, and the man, to bring them under the control of reason and conscience. But what is done by these sources of instruction to bring the sexual element under the government of an enlightened reason and a tender conscience ? No other element in our nature has so much to do in deciding our birthright conditions of soul and body, and in forming our character and shaping our destiny ; yet in regard to no one are children and youth, and men and women, left in such bewildering ignorance as in reference to this, or so much at the mercy of blind, reckless, animal passion.

In the first part of the following work the author has endeavoured to give the scientific facts in regard to the function of Reproduction in the human being, and to show that parents alone are responsible for their existence and the organisation and constitutional tendencies of the bodies and souls of their children.

The second part—the Correspondence between a Husband and Wife—considers the law by which the sexual element should be governed by the marriage relation, and how it may be made subservient to life, health, and happiness, or productive of disease and wretchedness to parents and children.

This work must speak for itself. So far as it belongs to the present, it will be found on the tables, in the hands, and in the hearts of all who are able to appreciate and to obtain it: so far as it belongs to the ages of the future, it will be found on the tables, in the hands, and in the hearts of all those who, in the "good time coming," shall be able rightly to value and use it. Calmly it goes forth, earnestly to do its work, without anxiety as to its ultimate effect.

HENRY C. WRIGHT.

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PART I.

INTRODUCTION.

WHAT SHALL WE DO TO BE SAVED? The past has given one answer to this question; the future will give another. I will endeavour to anticipate the answer which the future of this world will give to this important question. What can we do to raise the entire human being to the highest point of perfection which it is capable of attaining? Man has certain capabilities. He is designed to be, and should be, as wise, good, beautiful, and happy as he is capable of being. What can we do to make him what he was designed to be?—to enable him to work out for himself perfect salvation?

I speak not of happiness in the next state, but in this. When we enter the next state, then it will be our business to inquire into the conditions of life, health, and happiness there, and to comply with them. But while we are here, our sole business is to acquaint ourselves with the laws or conditions of present life and health, and to comply with them. Then shall we be, now, all we are capable of being. Fidelity to ourselves, in this world, is the only true preparation for the next. A religion that promises all things in the future, but does nothing to improve and elevate our nature and condition in the present, is not adapted to our present necessities. To know the fixed, natural conditions of present life and health, to our whole nature, and to be true to them, is the "chief end of man," while in this state. Our prayer to the great Father should be, 'Thy kingdom come'—now, not in the indefinite future; 'Thy will be done'—on earth, not in some unknown future state. This prayer is truly answered only in those who understand and obey the laws of being under which they now exist. The kingdom of heaven is within those, and only those, who understand and comply with the conditions of present life and health to body and soul. This is salvation; nothing else is.

To save our bodies from being victimised by disease, it is thought to be essential that doctors should have a certain knowledge of the human physical organism, and of the laws and conditions of its life and health. So, to save the soul, it is deemed important that priests should have a certain amount of knowledge of the laws and conditions of life and health under which it exists. Whatever knowledge is necessary to enable a man to be a doctor or a priest, is necessary for each and every human being, to enable them to be healthy and true men and women. If a man needs a certain amount of knowledge concerning the physical organism, to enable him to cure disease, much more does each one need that same knowledge to enable him to prevent disease. Whatever it is necessary for the priest to know to cure crime, each one should know to enable him to prevent crime. The prevention of disease and crime is more important to human welfare than their cure. Violations of Nature's laws constitute man's only disease of body and soul. Where there is no violation of natural law, there is no disease, no sin. It is, therefore, as necessary that each human being should have a perfect knowledge of the anatomy and physiology of the human system, and all the laws and conditions of physical life and health, as it is that a few should have it to enable them to be doctors. It is as necessary that each one should perfectly understand the laws and

conditions of health and happiness to the soul, as it is that a few should understand them to qualify them to be priests. Those who attain to a knowledge of the laws of life and health to body and soul, and live accordingly, have become reconciled to themselves, have found the true comforter, and entered into rest. They are saved.

We live for the race in all coming time. We cannot live only for ourselves, or for the present state, nation, or age. The principles we adopt, and the practices we pursue, must bear on the race, for good or evil, while man exists. There is no isolation for an individual man or woman. Our nature identifies our existence and happiness with that of the human family. Whatever principle or maxim of life it would benefit the race to adopt and carry out, it is the duty of each individual to adopt and carry out as soon as he understands it. Whatever would be injurious to the race, if all were to adopt and practice it, it is the duty of each to shun. Would it be for the security and happiness of the whole human family, if all were Non-Resistants in spirit and practice? Then is each one bound, at once, to cease from all violence, to put away wrath, revenge, and all deadly weapons, and to be gentle, kind, loving, and forgiving, and learn war no more. Would it be better for the race if alcohol, as a beverage, were never more to be used? Then should each and every one abstain, at once and for ever, from its use. Would it have been better for the human family had there never been a slave? Then it is the duty of each and every one to be Abolitionists, and to seek the immediate overthrow of slavery, and of whatever, in Church or State, sanctions or sustains it. In all things, the true man will regard himself as the representative of the race, and will be sternly just and true to himself, because only in so doing can he be just and true to all of human kind.

It is certain that all human improvement must result from human effort. This maxim is recognised and acted on by all, in reference to our outward surrounding; but as to internal, organic soundness and vigour, men think but little of. Practically, it is denied that man has any control over his constitutional tendencies of body or soul, and affirmed that these are determined by a power with which he has no strength to contend, and which is beyond the reach of all human agency.

Man recognises his power to beautify, strengthen, and improve the nature and quality of all animated and vegetable beings and things beneath himself. There is not a grass, a flower, or a fruit whose nature he cannot elevate when he attempts to do so. There is not a domestic animal whose nature and qualities he does not successfully attempt to improve. Man alone is neglected. Human nature, it is thought, can be regenerated by God alone. Human efforts are thought to be unavailing when directed to develop and strengthen the tendencies of the human body and soul to perfection of health and happiness, and to assimilate the human to the divine.

It is admitted that the conduct, character, and destiny of the human being depend on his organisation and development. A healthy organisation may be placed in a situation in which it cannot be perfectly developed. A diseased organisation, on the contrary, may be placed in circumstances in which the organic or constitutional imperfection may be, in a measure, remedied by circumstantial influences. But how can this world ever be peopled by true and perfect men and women, so long as the organisation and the development are both wrong?

A perfect organisation and a perfect development are the right of every child. This is what future generations have a right to demand of the present. This right of the child, of all other natural rights of their children, parents are bound most sacredly to respect. This demand of the future, the present is bound to heed, as the most sacred and imperative.

What can we do to secure to future generations a more perfect organization and a more perfect development? All systems of philosophy, morals and

religion, thus far, have given essentially the same answer to this question. They have directed man to a power outside of himself. They have failed to acquaint man with the laws of life and health, and to induce him to obey them. Another, and a more appropriate and potent remedy, must be had. It is the work of the present age to discover and apply it.

My appeal is to those who are born in behalf of the unborn. Those who now exist are beyond the reach of the power to which I would call attention, as the means through which the human being is to be redeemed. They have their birthright inheritance, be it for weal or woe. So far as it can be directly influenced by the conditions of the parents, their organization is accomplished. All that can be done for them, is to give them as fair a chance for healthful growth as may be, and to do what can be done to remedy the evils of a bad organization by a healthful development. But the present can do much for the future; the living, for those who are to live. There are many ways in which they can do it. Every generation is more or less affected by the external conditions entailed upon it by its predecessors. The sun, the atmosphere, the earth, water and electricity, are the common inheritance of each successive age; but in skill to apply these to the use of man, generations differ. Great improvements have been made, in making these physical elements conducive to human welfare. We shall bequeath to those who succeed us, all our improvements in the use of water, in the shape of steam, to propel machinery in the manufacture of food and clothing, and in transporting ourselves and goods on railways and steam ships. Our improvements in erecting houses, and in education, in short, all that gives us control over the elements in and on which we live, we shall transmit to the future. In this respect, our relation to them is very important, inasmuch as human happiness, in every respect, is so materially affected by outward surroundings. Every improvement of each age, in agriculture, in mechanics, in manufactures, in the arts, in facilities for procuring the necessities, comforts and elegancies of life, is so much gain to the next age.

But the present sustains a more direct and powerful relation to the future, than that which is felt through these external arrangements. Children inherit not only the farms, the roads, the houses and barns, the orchards and gardens, the flowers and fruits, the social, political and religious maxims and institutions of their parents, but also their bodies and souls. It is certainly for this generation to say what kind of outward conditions the next shall receive from them. It is as certain that this age must determine what conditions of body and soul are to be the birthright portion of the next. What power have parents over the organization of their child? What influence have organization and constitutional tendencies on the character and destiny? In proportion as character or destiny are affected by organization, and in proportion as organization is affected by parental conditions, so is the control of parents over the destiny of their child, so is the power of the present over the happiness of the future. This power, and the responsibility involved in its use, cannot be over-estimated. It is direct, it is intimate, it is absolute, and all but omnipotent.

This direct and intimate connection between the conditions of the bodies and souls of the father and mother, and the health, character, and destiny of their child, in all its future being, is little understood, and, of course, not appreciated. The child is born, and if its conditions of body and soul are deformed and unnatural, the parents have no thought of looking to themselves as the cause, but attribute it to some mysterious providence, or agency beyond their control. I would take up these deformed, suffering specimens of Humanity, lay them in the arms of their parents, and say to them, "Behold, this is your work! These deformities, and the sufferings that must ensue, are all to be traced to you." The cry of anguish comes up from the future of this world, from billions of the deceased and suffering sons and

daughters of men, earnestly appealing to the present, saying, "Give us healthy, vigorous bodies and souls; give us perfect, harmonious organizations and constitutional tendencies, and we will take care of all external arrangements."

What kind of bodies shall the present give to the future? Healthy or diseased, symmetrical or deformed, harmonious or discordant? What kind of souls shall the present give to the future? True or false, loving or hating, forgiving or revengeful, noble or ignoble? In a word, shall their organization be healthful or diseased? It seems impossible that this question can be overlooked, or merged into those of minor importance. But it often is; and it is more frequently asked by parents—What property, what social position, what title or station shall I leave to my children? This, too, when they know, by the experience of every day and hour how utterly worthless are these to give beauty to deformity, health to the diseased body, or purity and elevation to an impure and grovelling soul.

But the practical question is—By what agency is this advancement to be effected? It is certain, no medical prescriptions can give to the body health for disease, strength for weakness, beauty for deformity; nor can theological prescriptions give to the soul high and holy thoughts, and noble aims, for thoughts that are low and vicious, and aims that are ignoble. These means have been tried long and faithfully. The human body and soul have been but little improved under this regimen. Means more natural and more efficient and available are at hand.

To the law of reproduction will human beings, in the future of this world, look as the one great means to expel disease from the body and soul. It needs no direct communication from heaven to inform us that human nature is fearfully diseased. The fact is stamped on nearly every human being that lives and moves around us. We see it in the countenance, in the gait, in the whole body; we hear it in the voice; in every form in which human nature can express itself, its diseases are made manifest. To relieve our nature of its deformities, to regenerate and exalt it, will be the object of all who respect themselves or wish well to the race.

Much is said about a reorganization of society. Society must ever express the individuals that compose it. It can rise no higher, and sink no lower. Social manifestations are but the manifestations of its individual members. To improve society, individuals must be improved. The reorganization of man and woman must precede the reorganization of society. A new type of manhood and womanhood must precede the new type of society. How can health, beauty, and strength of body, be substituted for disease, feebleness and deformity? How can the love-nature be substituted for the wrath-nature, nobleness for meanness, truth for falsehood, in the human soul? I will proceed to give what seems to me the true answer.

CHAPTER II.

DISTINCTION OF SEX:

IN WHAT IT CONSISTS—ITS EXTENT—ITS OBJECT.

To secure to man a more perfect organisation is the first object to be sought; to secure to that organisation a more natural and healthful development is the second. The former stands connected with marriage and parentage, and all that pertain to those relations; the latter, with all the outward physical, social, literary, governmental and religious surroundings that bear upon human life and happiness.

My object now is to consider organisation, and those functions and relations of human beings that bear most directly upon it. This must lead to a consideration of the distinction of sex, and of the rights, privileges, relations, and duties that are based upon it. To no one who knows how directly they bear on human character and destiny, is an apology needed. I shall make none to any one, except to say to all readers of these pages, distinctly understand and appreciate the one great object which the writer has in view, and then judge his thoughts and words in the light of that object, and I have no fear of being greatly misunderstood, or that any reader will be greatly shocked.

Distinction of sex. In what does it consist? It is not pertinent to my purpose to go into a detail of all the distinctions. It is sufficient to notice the one great distinctive feature. The human family is divided into two parts. What constitutes the dividing line? What makes a man a man, and a woman a woman? In the number, nature and uses of the bones, muscles, veins, arteries and nerves, they are alike. In the number, nature and use of the intellectual, social and moral powers, they are alike. Both are qualified to perform each their respective parts in the perpetuation of the race. But they differ essentially in the part each is to perform. The distinctive characteristic of a man is that which qualifies him to be a father; that of woman, the qualification to be a mother. The male organism, including body and soul, is adapted to elaborate, secrete and impart the primary element, or germ, of a new being; the female is adapted to receive, nourish and develop that germ into a living human form. In the masculine organism, the seed is formed; in the feminine, it must be nourished. The office of each is distinct, yet both are essential. Neither can produce without the other: and the physical, social, intellectual and passional organization of each, perfectly fits them for the parts they are to perform in the economy of human life. Though perfectly distinct, neither can be perfected without the other. In the continuance of the race, one is just as necessary as the other. They differ, yet one has no superiority over the other; and the part assigned by Nature to one is no more important than that which she assigns to the other. Man is just as dependent on woman as woman is on man. Man, by himself, is powerless; so is woman; but, united, both are perfected, and alike potent.

Universality of this distinction. It extends to the animal and vegetable kingdoms. Every animal and every vegetable that reproduces is marked by it, having two elements, which correspond to the male and female principles in the human species. Every flower, fruit, grain, tree, weed and grass, as well as every animated existence, is produced by the commingling of the male and female elements. Take away the fecundating power of the one, or the nutritive power of the other, in species of animal or vegetable, and that species must perish.

The distinction, as it seems to me, exists not merely in the body, but also in the soul; and the bodily forms are but organs, through which the souls of each sex express their sexual peculiarities. This distinction extends also to

the great primeval intelligence or life-principle of the universe. In God, the union of the two is complete. He is feminine as well as masculine. It is as true and natural to pray to the God-Mother as to the God-Father; to say "Our Mother," as well as "Our Father which art in heaven." A woman is the female element of the Divine Being manifested in human form; a man is the male element of the same Being manifested in human form. The perfect combination of these two make the true God visible and tangible, so far as it can be. The more perfect the oneness of the husband and wife, the more like God. That which constitutes the distinction between male and female, and divides all animals and vegetables into two classes, is also the bond that binds all things together, that gives to every being a companion, leaving nothing to solitude and isolation. It is the harmonizing principle of the universe, to bring each man and woman into harmony with self and with God.

The objects of the distinction. They are two: the continuation of the race, and its perfection. That the perpetuation of the race is the one great object, needs no argument to prove. Blot out the distinction, and the human race ceases. So of every other species of animal and vegetable existence. Or, blot out either sex, and the same result follows. Neither can reproduce by itself. The union of the two elements, alone, constitutes the creative power. Or, let both sexes exist, if there were no sexual union between them, the extinction of the race would follow.

So far as the human race is concerned, the object of the sexual distinction is to reproduce human beings, with all the physical, intellectual, social and moral attributes natural to that class of existences. Whatever qualities and condition are natural to men and women were designed to be perpetuated. It is a violation of the law of sex to perpetuate any others. How it may be made to conduce to the perfection of our nature or to its degradation, will in due time be fully considered.

The question naturally arises, What is it that makes man a man, and woman a woman? Can any one attribute be pointed out that constitutes the dividing line? Whatever it be, it is that which gives to man a power over woman, and to woman a power over man, which neither has over their own sex. Man is attracted to woman as he is not to man, and woman is attracted to man as she is not to woman. The fact exists, as every man and woman knows by experience. The feeling is different; its effects are different, on the entire being; and this difference extends to every department of life. Wherever, and under whatever circumstances, the sexes meet, a different spirit pervades the heart of each, and a different tone and air are manifest in their deportment, from that which is felt and witnessed when man meets man, or woman meets woman. This difference cannot be the result of an educational process, for it appears in all classes and conditions of society. The world over, where men are associated, and the female element is entirely excluded, there a degenerating process goes on; roughness and brutality of manner ensue, and depravity of heart. Men degenerate in every particular, when left for a long time without the refining and elevating influence of females. If the character of the latter be such as to make their influence bad, the degradation becomes complete. A woman, whether her influence be good or evil, always has more control over men than man has. So with man in regard to woman. The reciprocal influence of the sexes must be direct and powerful, and one of life unto life or of death unto death to each.

That which marks the distinction of sex is not only the secret of the great power each has over the other, but it is, also, the unseen, yet ever-present, bond which binds them together. It constitutes the attractive force of each over the other; the power by which each attracts and is attracted to the other. Take away this sexual element, and a woman is no more drawn to man than she is to woman. In the general economy of human existence, this reciprocal tendency of the sexes each to the other, is the basis of our most

perfect and exalted relations, without which complete isolation might be tolerable. Now, it is neither tolerable nor possible, without certain ruin. A man and woman may be happy together, and completely satisfy each other's social wants. Isolated pairs may exist and be perfected in happiness, but individuals cannot be; neither can pairs of the same sex be.

Parentage, then, and a preparation for parentage, constitute the great objects of the sexual distinction. This element is not only essential to parentage, but it is as essential to qualify men and women for this high relation. This alone can bring them into that state of oneness which is essential rightly to give existence to new beings in human likeness.

CHAPTER III.

THE REPRODUCTIVE SYSTEM:

OFFICE OF THE MALE—OFFICE OF THE FEMALE—SPERMATIC SECRETION,
SPERMATOZOA, OVARIES, &c.

I have remarked that in the economy of Nature in the distinction of sex, the organism of each is adapted to perform the part assigned to it in the continuance of the race. To prepare the germ of a new man or woman, is the noblest function of the male; to provide it sustenance and develop it into human form, is the most perfect work of the female.

As I shall have frequent occasions to refer to "Principles of Human Physiology," by Wm. B. Carpenter, I shall, as I quote him, only refer to the section, without quoting the title at each time.

The life-germ of the human being is, with other ingredients, contained in what is called the spermatic fluid. This is secreted in the appropriate organs. Thence it is transmitted to the female. Of the process of reproduction, Carpenter thus speaks:—

"The mysterious process of reproduction evidently consists, in flowering plants, of nothing else than the implantation of a cell-germ, prepared by male organs, in a nidus, or receptacle, adapted to aid its early development; which nidus constitutes the essential part of the female system.

"There is now good reason to believe that, in no animals, is the reproductive apparatus less simple than it is in the higher plants—that is to say, in every instance, two sets of organs, a germ-preparing and a germ-nourishing, are present. These organs differ much in form and complexity of structure in the various tribes of animals; but their essential function is the same in all. Those which are termed male organs, prepare and set free certain bodies, which, having an inherent power of motion, have been supposed to be independent animalcules, and have been termed spermatozoa; there is but little reason, however, to regard them in this light, since ciliated, epithelium-cells may exhibit as much activity; and there is no evidence that their function is any higher than that of the pollen-tube of plants, which conveys into the ovulum the germ of the first cells of embryo. This view of the character of the spermatozoa rests alike upon the nature of their movements and the mode of their production. Dr. Barry's observations on the history of the ovum, and on the nature of the act of fecundation, have left scarcely any doubt that this act consists in the introduction of some new element in the ovule, through the medium of the spermatozoa; the arrival of which at the surface of the ovary had been more than once previously seen, and the penetration of which to the ovum there was good reason to suspect; and these have been confirmed by the observations of Dr. A. Farre on the ovum of the earth-worm, which he has distinctly seen to be penetrated by spermatozoa. The act of fecundation is evidently analogous, therefore, in animals, to the process which is described as taking place in flowering plants." (Secs. 899, 900.)

Thus, the origin of the human being, as the offspring of human beings, is similar to that of all other existences. The reproductive system consists of two sets of organs, whose functions are entirely independent of the other. Fully to understand how the organisation and consequent character and destiny of the child are to be affected by the condition of the parents, it is important to know what part each performs in the act of reproduction. Is the part performed by each such that the condition of the different organisms must, of necessity, affect the child for good or evil?

Office of the male organism. It is to prepare from the various substances taken into it, the life-germ of a new creation in human form. On the "action of the male" in reproduction, Carpenter says:—

"The spermatie fluid secreted by the testes of the male, differs from all other secretions, in containing a large number of very minute bodies, only discernible with a high power of microscope, and these, in ordinary cases, remain in active motion for some time after they have quitted the living body. The human spermatozoon consists of a little oval flattened body, from the 1'600th to 1'800th of a line in length, from which proceeds a long filiform tale, gradually tapering to the finest point, of one-fiftieth, or, at most, one-fortieth of a line in length. The whole is perfectly transparent, and nothing that can be termed structure can be satisfactorily distinguished within it. The movements are principally executed by the tail, which has a kind of vibratile, undulating motion. . . . Their presence may be readily detected by a microscope of sufficient power, even when they have long ceased to move, and are broken into fragments. . . . That the spermatozoa are the essential elements of the spermatie fluid, has been reasonably inferred from several circumstances, such as their absence or imperfect development in hybrid animals, which are nearly or entirely sterile; and the fact that fecundation essentially consists in the direct communication of one of them with a certain point in the ovum, appears too well established to admit of further doubt. Regarding the uses of the other constituents of the semen, no sufficient account can be given." (Secs. 901, 902.)

At what time of life does he begin to prepare and secrete the spermatozoa, or life-germ of human beings? The period during which his nature is capable of this office is limited. His system may secrete an element that is called the spermatie fluid, but the living germs, the spermatozoa, may be wanting. As to the time when the human male begins to be capable of reproduction, and when he loses that power, by a natural process, Carpenter says:—

"The power of procreation does not usually exist in the human male until the age of from fourteen to sixteen years; and it may be considered probable that no spermatozoa are produced until that period, although a fluid is secreted by the testes. At this epoch, which is ordinarily designated as that of puberty, a considerable change takes place in the bodily constitution. . . . Instances, however, are by no means rare in which these changes take place at a much earlier period; the full development of the generative organs, with manifestations of the sexual passion, having been observed in children of but a few years old.* The procreative power may last, if not abused, during a very prolonged period. Undoubted instances of virility at the age of more than one hundred years are on record; but in these cases, the general bodily vigour was preserved in a very remarkable degree. The ordinary rule seems to be that sexual power is not retained by the male, in any considerable degree, after the age of sixty or sixty-five years." (Sec. 903.)

Office of the human female in continuing and perfecting the race. My sole object being to show how, and to what extent, the organisation and subsequent character and destiny of the child are directly influenced by the mother, it would not be pertinent to notice her connection with the germ till it comes into the position in which its existence and growth depend on nourishment derived through her system. This period commences when the spermatozoa enters the germ-receiving cell, or vessel. The male, having prepared and

* This is ever a certain indication of a diseased state, and that the child's nature has been outraged by its parents, before birth, or afterwards.—H. C. W.

imparted the living germ, can have no more direct influence over it, for good or evil, till it is developed into the living child and born. A knowledge of two or three sciences seems to be important, and connected with my purpose. I quote from those whose profession leads them into such researches. I would remark, however, that every man and woman should have this knowledge, as well as the physician or physiologist. Embryology, and the science of Reproduction, should be known to every human being. The entire process by which the germ is prepared and imparted by the male, and by which it is received and nourished and developed by the female, and all the organs, and their functions in this most responsible of human acts, should be perfectly understood by every human being, as far as possible. This knowledge belongs not merely to the surgeon, the doctor, or the midwife, but to all who take part in the perpetuation of the human race. Without it, they cannot comprehend and appreciate the power which the conditions of the parents exercise over the character and destiny of their children. I say to every man and woman entering into marriage relations, by all that is pure and noble in manhood and womanhood, let nothing deter you from a familiar knowledge of all the organs and facts connected with reproduction.

"Ovaries. These are two oval-shaped bodies, about the size of an almond nut, placed on each side, nearly in the groin. They contain a number of small, round grains, or granules, called ovæ, or eggs; which are the germs of future human beings, as the eggs of birds are of their particular kind. They are connected with the uterus by two short arms, or prolongations, and are enclosed in the folds of the broad ligaments."

"Fallopian tubes. These are two tubes, one on each side, beneath the ovaries, and extending further. Each of them has a small passage, which opens into the uterus at one end, and opposite the ovaries at the other. Their use is to convey the impregnating principle to the ovaries at the time of conception, and to convey the ovæ, when impregnated, to the interior of the womb."

"The uterus, or womb. This is a hollow organ, placed between the bladder, which is in front, and the rectum, which is behind. It is connected with the vagina, and opens into it by the small orifice, called the mouth of the womb. The uterus is the organ which receives the impregnated ovum, and in which it is developed into the human being. It is connected with the ovaries by the fallopian tubes, and with the vagina by the os tincæ, and is retained in its situation partly by its connections with other organs, and partly by the round and broad ligaments."—*Hollick*.

Carpenter says:—

"The essential part of the female generative system is that in which the ova is prepared; the other organs are merely accessory, and are not to be found in a large proportion of the animal kingdom. . . . In the lower animals, the ovarium consists of a loose tissue, containing many cells, in which the ova are formed, and from which they escape by the rupture of the cell walls; in the higher animals, as in the human female, the tissue of the ovarium is more compact, forming what is known as the stroma, and the ova, except when they are approaching maturity, can only be distinguished in the interstices of this by the aid of a high magnifying power." (Sec. 905.) "According to the most valuable inquiries of Dr. Ritchie, it appears that even during childhood, there is a continual rupture of ovisacs, and discharge of ova, at the surface of the ovarium. . . . At the period of puberty, the stroma (or tissue) of the ovarium is crowded with ovisacs, which are still so minute that in the ox (according to Dr. Barry's computation) a cubic inch would contain two hundred millions of them." (Sec. 907.)

Reproductive period of the female. This commences at about the age of thirteen years, and extend to the forty-fifth year, but it is sometimes extended ten or fifteen years longer; but the cases are rare in which women above fifty years of age have borne children. Carpenter says:—

"In the human female, the period of puberty, or of commencing aptitude for procreation, is usually between the 13th and 16th year; it is earlier in warm climates

than in cold ; and in densely populated manufacturing towns, than in thinly peopled agricultural districts. The mental and bodily habits of the individual have also a considerable influence upon the time of its occurrence ; girls brought up in the midst of luxury or sensual indulgence, undergoing this change earlier than those reared in hardihood and self-denial. The changes in which puberty consists are for the most part connected with the reproductive system. The external and internal organs of generation undergo considerable increase of size : the mammary glands enlarge ; and a deposition of fat takes place in the mammae and on the pubes, as well as over the whole surface of the body, giving to the person that roundness and fulness which are so attractive to the opposite sex, at the period of commencing womanhood." (Sec. 908.)

As to the conditions of the female organism, during its periodical functions, Carpenter says :—

"The state of the female generative system, during its continuance," is such that "there is good reason to believe that, in women, the sexual feeling becomes stronger at that epoch ; and it is quite certain that there is a greater aptitude for conception, immediately before and after menstruation, than there is at any intermediate period. Observations to this effect were made by Hippocrates, and were confirmed by Boerhaave and Haller ; indeed, immediately after menstruation, coitus appears to have been frequently recommended as a cure for sterility, and to have proved successful." (Sec. 909.)

It is to this periodical function of her system—which, by some strange hallucination, females often regard with shame, or sadness—that woman owes health, life, and all that can make her attractive, as woman, to the opposite sex. It cannot be that it was designed to be a period of suffering. It is as essential a function of her organism, as is breathing. On the regular, healthful occurrence of no function of her nature do her beauty, her energy, her health and happiness more essentially depend. Yet, feebly organised and developed as women, in civilized life, now are, it is generally a period of physical and mental prostration, and often of deepest suffering to the body and anguish to the soul. It is then her nature calls for the tenderest love and sympathy from the opposite sex ; but it is the very time when, often, from him who holds to her the relation of husband, she gets the least. But if men were taught in early life to understand this function of the female system, and its relations to her beauty, health and happiness, and to all the dearest relations of life, they would accord to her, during this period, their purest, tenderest, and manliest sympathy. Do men consider that this is essential, to qualify woman for the relation of wife and mother ? Do they know how her health, her character, her joy, her very life, as a wife, a mother, a sister and daughter, from the fourteenth to the forty-fifth year of her life, depend on the healthful, regular recurrence of this period ! Every husband, father, son, brother and lover should know it ; and, if they did, I believe that women would seldom, at such times, be without the tenderest, holiest, and most efficient sympathy of those of the opposite sex who stand in intimate relations to them. Such knowledge would add grace and dignity to manhood and womanhood ; it would beautify and elevate the relation and intercourse of the sexes ; it would bind man to woman in a tenderer and holier union ; it would consecrate woman in the estimate of man, and endear man to woman as a truer, nobler being, in all relations. Every man, as well as every woman, should, therefore, be early taught to honour and respect this function of the female organism, in all its causes and purposes, as far as possible. Let there be light ! There will then be life.

Function of the female in the reproductive act. Of this, Carpenter says :—

"The function of the female, during coitus, is entirely of a passive character. It is a fact well established, that fruitful intercourse may take place when the female is in a state of narcotism, of somnambulism, or even of profound ordinary sleep. . .

The introduction of a small quantity of the fluid just within the vagina, appears to be all that is absolutely necessary for conception. . . . That the spermatazoa make their way towards the ovarium, and fecundate the ovum either before it entirely quits the ovisac or very shortly afterwards, appears to be the general rule in regard to the mammalia." (Sec. 911.)

The following extract from Carpenter, (Sec. 936,) gives his views of the distinct function of the male and female in reproduction, and, also, of the influence of the kind of nourishment taken by the mother, and of the mental condition of the mother, during pregnancy, on the health and character of the child. He says :

"The most important of all the facts that have come under our review, is, that which has been stated as in the highest degree probable, if not yet absolutely proved, in regard to the relative offices of the male and female in this hitherto mysterious process. According to the view here given, the male furnishes the germ, and the female supplies it with nutriment, during the whole period of its early development. There is no difficulty in reconciling such a doctrine with the well-known fact, that the offspring commonly bears a resemblance to both parents (of which the production of a hybrid between distinct species is the most striking example); since numerous phenomena prove that, in this earliest and simplest condition of the organism, the form it will ultimately assume very much depends upon circumstances external to it; among which circumstances, the kind of nutriment supplied will be one of the most important. Upon the same principle we may account for the influence of the mental condition of the mother upon her offspring, during a later period of pregnancy. That such influence may occur there can be no reasonable doubt. 'We have demonstrative evidence,' says Dr. A. Combe, 'that a fit of passion in a nurse vitiates the quality of the milk to such a degree as to cause cholic and indigestion (and even death) in the suckling infant. If in the child already born, and in so far independent of its parent, the relation between the two is thus strong, is it unreasonable to suppose that it should be yet stronger, when the infant lies in its mother's womb, is nourished indirectly by its mother's blood, and is, to all intents and purposes, a part of her own body? If a sudden and powerful emotion of her own mind exerts such an influence upon her stomach as to excite immediate vomiting, and upon her heart as almost to arrest its motion and induce fainting, can we believe that it will have no effect on her womb and the fragile being contained within it? Facts and reason, then, alike demonstrate the reality of the influence; and much practical advantage would result to both parent and child, were the conditions and extent of its operations better understood.' Among facts of this class, there is, perhaps, none more striking than that quoted by the same author from Baron Percy, as having occurred after the siege of Landau, in 1793. In addition to a violent cannonading, which kept the women for some time in a constant state of alarm, the arsenal blew up with a terrific explosion, which few could hear with unshaken nerves. Out of 92 children born in that district, within a few months afterwards, Baron Percy states that 16 died at the instant of birth; 33 languished for 8 or 10 months, and then died; 8 became idiotic, and died before the age of five years; and 2 came into the world with numerous fractures of the bones of the limbs, caused by the cannonading and explosion. Here, then, is a total of 59 children out of 92, or within a trifle of 2 out of every 3, actually killed through the medium of the mother's alarm, and the natural consequences upon her own organization—an experiment (for such it is to the physiologist) upon too large a scale for its results to be set down as mere 'coincidences.' No soundly-judging physiologist of the present day is likely to fall into the popular error of supposing that marks upon the infant are to be referred to some transient, though strong impression upon the imagination of the mother; but there appears to be a sufficient number of facts on record, to prove that habitual mental conditions on the part of the mother may have influence enough, at any early period of gestation, to produce evident bodily deformity, or peculiar tendencies of the mind. But whatever be the nature and degree of the influence thus transmitted, it must be such as can act by modifying the character of the nutritive materials supplied by the mother to the fetus; since there is no other channel by which any influence can be propagated. The absurdity of the vulgar notion just alluded to, is sufficiently evident from this fact alone; as it is impossible to suppose that a sudden fright, speedily forgotten,

can exert such a continued influence on the nutrition of the embryo, as to occasion any personal peculiarity. The view here stated is one which ought to have great weight, in making manifest the importance of careful management of the health of the mother, both corporeal and mental, during the period of pregnancy ; since the constitution of the offspring so much depends upon the impressions then made upon its most impressible structure."

Of all knowledge, that which pertains to the nature and functions of the redroductive organs, to the diseases to which they are liable, to what constitutes an abuse of them, to their relations to the general physical system, and how they are affected by the general health, is the most important, but yet, the least regarded. Indeed, a thorough knowledge among the people, of the scientific facts connected with the origin, fetal-development, and birth of children, it is generally supposed, would be dangerous to their morals. Especially it is thought that it would be dangerous to communicate this knowledge to youth and children. Hence parents and teachers suppress all inquiries on this subject ; and school-books on physiology carefully avoid all allusions to it. This is a mistake, alike fatal to the physical and spiritual development of sons and daughters. Ignorance on no subject has caused so much pollution, crime, and wretchedness, as on this. The children of the present are to be the fathers and mothers of the children of the future. How can they nobly fill the office to which they are born, if ignorant of its nature and duties ? Again, I say, let there be light !

CHAPTER IV.

DEVELOPMENT OF THE FETUS :

NUTRITION BEFORE BIRTH—FETAL CIRCULATION—CONNECTION BETWEEN NUTRITION AND REPRODUCTION.

To the facts and statements in the following chapter, I would call particular attention, as they are closely connected with all rational hopes of improving the organization of the human being. The present is the offspring of the past and the parent of the future.

The impregnated ovum, being transmitted into the womb, is there placed in its natural position for development. There being nourished, by appropriate means, it is, within the space of nine months, developed into a human being, with all the organs, physical and mental, in an embryo state, of a man or a woman. With a good degree of accuracy, the appearance, size, and weight of the fetus, can be determined, at various stages of its growth.

The following description of the process of fetal development is taken from "*Midwifery Illustrated*," by J. G. Naygrier, M.D.—a French work, translated by A. Sydney Doane, A.M., M.D."

"DEVELOPMENT OF THE FETUS.

"We see nothing in the uterus, previous to the seventh day to indicate the existence of a new being.

"At the eighth day, there is a mucilaginous film, and some transparent filaments.

"At the tenth day, a grayish semi-transparent floccula, the form of which cannot be determined.

"From the twelfth to the thirteenth day there is a vesicle as large as a pea, containing a thick fluid, in the midst of which swims an opaque point (*punctum saleens*.) It is thought that the heart alone exists at this period, and this also is the first lineament development of the child, which is now termed the embryo. It is enveloped by the chorion and the amnios. Its weight is estimated at one grain.

"At the twenty-first day, the embryo appears in the form of a large ant (Aristotle), of a grain of wheat (Burton), of the malleus (Beaudeoque); it weighs from three to four grains, and is from four to five lines long. At this time the different portions of the embryo are rather more consistent; and those parts which afterwards become bones, now pass to the state of cartilage.

"At the thirtieth day, the embryo resembles a worm which is curled up. We observe at this period some very faint traces of the principal organs, and of the upper extremities. It weighs from nine to ten grains, and its length is from ten to twelve lines.

"At the forty-fifth day, the form of the child is very distinct, and it is now termed a fetus. The clavicles and the scapulae, hitherto cartilaginous, now begin to ossify; the limbs appear in the form of tubercles, resembling the sprouts of vegetables. The body lengthens, but preserves its oval figure; the head, which is larger, constitutes one of its extremities; the base of the trunk, which is pointed and elongated, forms the other. The eyes, mouth, and nose are marked by blackish points and lines. Similar and parallel points correspond to the places of the vertebrae. Its weight is one drachm, its length two inches.

"At two months, all the parts of the fetus are present; the dark points, which represent the eyes, enlarge; the eyelids may be traced, and appear very transparent; the nose begins to be prominent; the mouth enlarges and opens; the brain is soft and pulpy; the neck shows itself; the heart is very much developed, and opaque lines are seen to proceed from it, which are the first traces of the large vessels. The fingers and toes are distinct. Its weight is five drachms, and its length four inches.

"At ninety days (three months), all the essential parts of the fetus are perfectly formed and developed. The eyelids, although enlarged, are exactly closed; a small hole shows the place of the external ear; the back and alae of the nose are prominent; the lips are very distinct, and are in close contact, and the mouth is shut. The genital organs of both sexes, also, are now very much increased in size; the penis is very long, the scrotum empty; sometimes, however, it is filled and distended with a little water. The vulva is very apparent, and the clitoris is prominent. The brain, although pulpy, is very much developed, as is also the spinal marrow. The heart pulsates strongly, and the principal vessels carry red blood. The lungs are empty, and hardly visible; the liver is very large, but soft and pulpy; it secretes but little bile. The whole of the upper and lower extremities are developed; the long bones of these limbs are evidently ossified, as are also the ribs and flat bones of the skull; finally, the muscular system begins to be marked. Weight, two and a half ounces; length, six inches. Intellectual functions undeveloped.

"At one hundred and twenty days (four months). This period is remarkable for the great development, and the marked character of all the parts of the fetus. The head and liver alone increase no longer, and constantly become less and less in proportion to the other parts. The brain and the spinal marrow become more consistent; a little meconium collects in the commencement of the intestinal canal; the muscular system is distinct, and the fetus moves slightly, but almost imperceptibly. We here and there find some cellular tissue. Length, eight inches; weight, from seven to eight ounces. Intellectual functions undeveloped.

"At one hundred and fifty days (five months). The development of all the parts of the fetus is not only greater, but, at this period, individual differences appear; the muscular system is very well marked, and the motions of the child are no longer equivocal; the lungs increase, and are capable of being dilated to a certain extent. The envelope of the skin, although existing for a long time, becomes, especially at this period, very consistent; the epidermis is stronger and thicker; the meconium is more abundant, and descends in the intestinal canal; the places for the nails are marked out. Length, ten inches; weight, one pound. Intellectual functions, none.

"At one hundred and eighty days (six months). At this period, the child may be strictly said to be in a measure viable; the nails may be distinguished; a little of down, the first indication of the hair, is seen on the head; the thymus gland exists, the meconium passes through a great portion of the intestinal canal, the testicles appear in the abdomen, and begin to move towards the inguinal ring; the cellular tissue is abundant, and a little adipose tissue is deposited in its cellules; the form of the whole child is distinct. Length, twelve inches; weight, two pounds. Intellectual functions undeveloped.

"At two hundred and ten days (seven months). Every part of the fetus is enlarged ; the child is perfectly viable ; the nails are formed ; the hairs of the head appear ; the testicles descend into the scrotum. The child, if born at this period, can breathe, cry, and suck. The meconium descends into the large intestine, and the whole osseous system of the skull, the ribs, and the limbs, is complete ; the extremities of the long bones alone remain as epiphyses ; the arterial canal enlarges ; the pulmonary arteries, on the contrary, remain small. Length, fourteen inches ; weight, three pounds. Intellectual functions undeveloped ; the senses are alone susceptible of some impressions.

"At two hundred and forty days (eight months). Viability, growth of the fetus nearly terminated ; each part assuming separately its strength and volume ; the muscular system is very well marked. Length, sixteen inches ; weight, four pounds. Intellectual functions undeveloped ; the senses susceptible of impressions.

"At two hundred and seventy days (nine months). The common and natural period of the birth of the child ; the organs have then acquired all that is necessary to support life.

"The whole osseous system rapidly gains that degree of solidity proper for the functions which devolve upon it. The muscular system is very well marked, and the motions of the child are lively and quick : the heart pulsates rapidly, the circulation is very active, the blood is abundant and rich in nutritious principles, the nervous system is very apparent ; the lungs perform their functions, and respiration is established ; great changes take place in the circulation ; the whole alimentary canal, which hitherto had no special action, can immediately become active ; the intestinal canal contracts upon the meconium, which tends to escape through the anus ; the urine is excreted, the arterial capabilities of the skin become very active, the skin is coloured, and transpiration is established. Length, eighteen to twenty inches ; weight, five to six pounds. Intellectual functions are undeveloped, but the senses (particularly the taste) are very much so. The child is sensible to pain, it cries from hunger and cold, it is appeased by warmth and nursing, and gentle rocking puts it to sleep."

Thus, the embryo man or woman, which, when twelve days old, weighed only one grain, is, within the space of nine months, increased in weight more than twenty-eight thousand times. In this organisation and development, there are no privileged classes. So far as the mere physical nature is concerned, all come into being by exactly the same process.

There is, however, as great a difference in the condition of the maternal organisms in which we are developed, as there is in the soil in which the seed is cast. Some are developed in a healthy organism ; others suffer, and must ever suffer, in this life, the horrors of a living martyrdom, as the unhappy victims of an unhealthy maternal organism. When suffering from an inherited disease, their bitter reflection is upon the parents, in whose diseased systems they originated, and who, recklessly and wantonly, it may be, disqualified themselves to bestow on their child the blessing of a healthy constitution. How will such parents feel, when their children shall come to understand this matter, and sternly upbraid them for sacrificing the happiness of the entire lives of their offspring to their vanity, their ambition, their ignorance, their love of pleasure, or their unnatural and excessive toil ?

Of all man's birthright treasures, to be born of healthy parents is the richest. An heir to a perfect organisation of body and soul is richer in all that makes life a blessing than the heir of millions of gold and silver.

Whence does the fetus derive its nourishment ? A constant and regular succession of new materials, from a source without itself, is essential to its development. Accordingly, the living germ, from the moment it arrives in the womb, has the power of attracting and assimilating to itself, from the substances surrounding it, those particles of matter which are adapted and essential to its healthful development. But the fetus is surrounded by, and enclosed within, the organism of another being, and all that reaches it, as nourishment, must come through that organism, and must, of necessity,

partake of the conditions of the medium through which it comes, be they healthful or diseased. Speaking of the nutrition of the fetus, Maygrier says:—

“Nutrition. It is an incontestible fact, that the fetus is nourished by the fluids derived from the mother; but it is not equally easy to demonstrate by what mode it is nourished, and in what manner these fluids come to it. Physicians differ much upon this great physiological question. In fact, some assert that the infant is nourished by sucking the waters in which it is enclosed, and that these fluids, on entering the stomach, are subjected to the common laws of digestion, and thus become the elements of the nutrition of the fetus. But experiments made on the waters of the amnios have demonstrated that they contain but little, or rather no nutritious substance; that at the end of pregnancy, particularly, they are often turbid, blackish, purulent, &c.; it has also been observed, that the membranes are sometimes ruptured for several days, a month, even, before the commencement of real labour, which would necessarily cause the premature discharge of the waters of the amnios, long before that of the child; finally, it is certain that some children have been born with the mouth imperforate, and consequently, it was physically impossible for them to receive any of the amniotic fluid.

“The reasons adduced in support of the opinion we have mentioned, also deserve to be answered. It is asserted, that the child, by sucking the waters of the amnios, prepares for the more complex and difficult operation of sucking the mother. We must admit that this propensity of the new-born child, and the power of exercising it at birth, are phenomena as astonishing as they are inexplicable; but how is it that the young duck, when hatched out by a hen, as soon as it emerges from the shell plunges into the water, regardless of the cries of its mother, while the chicken of the same brood avoids this element? Besides, there is nothing on the inside of the amnios resembling the nipple, which might be sucked by the fetus, and therefore its propensity at the moment of birth is innate, and not an acquired faculty.

“On the other hand, the opinion that the fetus is nourished by intussusception or by absorption, cannot be admitted. The cutaneous system of the fetus is inactive so long as it continues in the uterus, and the waters have neither the properties nor the qualities proper for absorption.

“Those physiologists who have attempted to explain the nutrition of the fetus, may have erred by confounding the nutrition with proper digestion, wishing to establish an analogy between the imaginary digestion of the fetus and that of the adult; they have maintained that the nutritious juices should follow the same course, and pass through the same passages in both, not thinking that one lives in a light, elastic, aëriiform fluid, that fully enjoys an active respiration, and all the advantages of a rich and abundant circulation, while the other rests in the midst of the uterus, surrounded by a thick and incompressible liquid, has no respiration, and only as it were a vegetative life and an imperfect existence. All these reasons, and as many more, which are superfluous, should lead us to reject both the theory of deglutition and that of absorption as the only modes in which the fetus is nourished. The fetus, then, must be considered, during the whole of pregnancy, as a new part, added for a time to the female, which part is nourished through the common and known medium of the circulation. The child then receives the fluids necessary for its growth through the umbilical cord, and does not subsist upon the waters of the amnios.”

Fetal circulation. Materials for nutrition are carried to every part of the system in the blood. Every particle of nourishment received by the child, which goes to make its growth, from the moment the germ enters the womb till the time of birth, must be conveyed to it through the blood of the mother. The manner in which the maternal blood reaches the fetus, conveying to it the means of growth, and how the nutrition is distributed to various parts of the fetus, is thus described by Maygrier:—

“Circulation of the fetus. If the circulation in the fetus were the same as in the adult, we should omit it; but it differs in several respects, and therefore requires a particular description.

“As the fetus has no organs to perform the hematoses, since the lungs are inactive till the moment of birth, it is necessary for the mother to furnish, already prepared, the fluids, which, as soon even as they are carried into the circulation, become the elements of its nutrition. This function belongs to the umbilical vein.

This vein arises in the placenta, goes towards the umbilicus of the child, and, without communicating with the umbilical arteries, penetrates into the abdomen. Being sustained by a fold of the peritoneum, it is directed from before backward, and from below upward, toward the upper part of the great fissure of the liver. There it gives off a large and short twig, a kind of sinus destined for the liver, into which it penetrates after dividing into two branches, one for the right lobe, the other for the left.

"The umbilical vein then becomes very small, and goes, under the name of the venous canal, towards the right auricle of the heart, into which it penetrates, blending with the ascending vena-cava. The blood which comes to the heart through this latter, is separated by the Eustachian valve from the current formed by the descending vena-cava. Being sent forth in a different direction, it strikes against the septum of the auricles, passes through the foramen ovale or the foramen of Botall, and raises its valve, which, being on the the side of the left auricle, does not permit the blood to re-pass into the right auricle.

"Arrived in the left auricle, the blood is transmitted into the left ventricle, and from thence into the ascending aorta, at least, in great part; after passing through the head and the thoracic extremities, it is carried by the descending vena-cava into the right auricle, which sends it into the right ventricle, and from thence it passes into the trunk of the pulmonary artery. A small portion of the blood which is transmitted through this artery goes to the lungs, which, being collapsed and inactive, cannot receive more of it. Most of it passes into the descending aorta, by the arterial canal, and after proceeding through the whole extent of this latter, returns to the mother through the umbilical arteries."

The connection between nutrition and reproduction. This connection is most intimate. Nothing is more certain than the fact that the kind and quantity of the food on which the mother lives, during gestation, deeply affect the organic condition of the child's body and soul, and, of course, its future character and destiny. The materials which are conveyed to the fetus, through the maternal blood, and which must be attracted and assimilated to it to produce its growth, must be affected, not only by the physical diseases of the mother, but also by her mental conditions. Any powerful excitement of anger, revenge, or any unpleasant emotion, must injuriously affect the materials that are passing through her blood to nourish the child. Carpenter gives the following account of the connection between nutrition and reproduction:—

"The process of reproduction, like that of nutrition, has been, until recently, involved in great obscurity; and although it cannot be said to be yet fully elucidated, it has been brought, by late investigations, far more within our comprehension than was formerly deemed possible. The close connection between the reproductive and nutritive operations, both as regards their respective characters and their dependence upon one another, has long been recognised; and it is now rendered still more evident. Nutrition has been not inaptly designated 'a perpetual reproduction;' and the expression is strictly correct. In the fully-formed organism, the supply of alimentary material to every part of the fabric, enables it to produce a tissue resembling itself; thus, we only find true bone produced in continuity with bone, nerve with nerve, muscle with muscle, and so on. Hence it would appear that, when a group of cells has once taken on a particular kind of development, it continues to reproduce itself on the same plan. But in the reproductive process it is different. A single cell is generated by certain preliminary actions—from which single cell all those which subsequently compose the embryonic structures take their origin; and it is not until a later period that any distinction of parts can be traced in the mass of vesicles which spring from it. Hence, the essential character of the process of reproduction consists in the formation of a cell, which can give origin to others, from which again others spring; and, in the capability of these last to undergo several kinds of transformation, so as ultimately to produce a fabric, in which the number of different parts is equal to that of the functions to be performed, every separate part having a purpose distinct from that of the rest. Such a fabric is considered as a very heterogeneous one; and is eminently distinguished from those homogeneous organisms, in which every part is but a repetition of the rest. Of all animals, man possesses, as already

shown, the greatest variety of endowments—the greatest number of distinct organs ; and yet man, in common with the simplest animal or plant, takes his origin in a single cell. It is in the almost homogeneous fabrics of the cellular plants, that we find the closest connection between the function of nutrition and that of reproduction ; for every one of the vesicles which compose their fabric, is endowed with the power of generating others similar to itself ; and these may either extend the parent structure, or separate into new and distinct organisms. Hence it is scarcely possible to draw a line, in these cases, between the nutrition of the individual and the reproduction of the species.

“ But, it will be inquired, how and where in the human body (and in the higher animals in general) is this embryonic vesicle produced, and what are the relative offices of the two sexes in its formation ? This is a question which must still be answered with some degree of doubt ; and yet, observed phenomena, if explained by the aid of analogy, seem to lead to a very direct conclusion. The embryonic vesicle itself, like other cells, must arise from a germ ; and reasons will be hereafter given for the belief that the germ is supplied by the male parent, and that the female supplies only the materials for its development. Here, as in the nutritive process, we find that the operations immediately concerned in this function—namely, the act of fecundation and the development of the ovum—are not directly influenced in any way by the nervous system ; and that the functions of animal life are called into play, only in the preliminary and concluding steps of the process. In many of the lower animals there is no sexual congress, even where the concurrence of two sets of organs (as in the phanerogamic plants) is necessary for the process ; the ova are liberated by one, and the spermatozoa by the other ; and the accidental meeting of the two produces the desired result. In many animals higher in the scale, the impulse which brings the sexes together is of a purely instinctive kind. But in man, it is of a very compound nature. The instinctive propensity, unless unduly strong, is controlled and guided by the will, and serves (like the feelings of hunger and thirst) as a stimulus to the reasoning processes, by which the means of gratifying it are obtained ; and a moral sentiment or affection of a much higher kind is closely connected with it, which acts as an additional incitement. Those movements, however, which are most closely connected with the essential part of the process, are, like those of deglutition, respiration, &c., simply reflex and involuntary in their character ; and thus we have another proof of the constancy of the principle, that, where the action of the apparatus of animal life is brought into near connection with the organic functions, it is not such as requires the operation of the purely animal powers—sensation and volition. Thus, then, as it has been lucidly remarked, ‘ the nervous system lives and grows within an animal, as a parasitic plant does in a vegetable ; with its life and growth, certain sensations and mental acts, varying in the different classes of animals, are connected by nature in a manner altogether inscrutable to man ; but the objects of the existence of animals require that these mental acts should exert a powerful controlling influence over all the textures and organs of which they are composed.’ ” (Secs. 281, 282.)

CHAPTER V.

THE HUMAN SOUL

ITS ORIGIN, NATURE, AND RELATIONS TO THE BODY—SCIENCE OF SOCIETY—
COMMUNION OF SOUL WITH SOUL.

Fully to understand the influence of parents over the organization and destiny of the child, it is important to show whence the soul, as well as the body, originates. It is well understood that the latter is derived directly from the mother. The germ—whatever that mysterious essence or substance may be—has, in itself, a power to attract and assimilate to itself the particles of matter conveyed from the maternal blood to the fetus, necessary for its physical development into a human body. The process by which the body is

formed seems very plain and simple. The operation is one which, to a good extent, can be made visible, and the connection of the parent with this process is direct and certain. But, whence is the soul, the vital force, or life principle? Does the germ, before it is received into the female organism, contain the elements of a human soul, as well as of a human body? Is the soul, or vital force, derived from the parents, as is the body? What part does the father take in forming the soul, and what part does the mother take? Is the soul, in its nature and constitutional tendencies, directly or indirectly under the control of the will of either parent, or of both.

These questions cannot be satisfactorily answered at present. The science of reproduction is, as yet, in an imperfect state; especially as it relates to the nature and origin of the life principle. The following seems the most rational and philosophical account of the origin of the soul of the child.

The soul is a substance as well as the body, so refined as to be susceptible of thought and feeling, and all the phenomena of mind. If our sense of seeing were sufficiently refined, might not electricity, air, or magnetism, be visible? So, to the eye of the soul, might not the soul be visible, as iron now is to the eye of the body? This vital force or soul, is under the same law of attraction that governs all other substances.

It seems most rational to conclude, that all the mineral, vegetable, and animal existences that are on this globe originate in forces that are innate in the earth and its surroundings. There is, inherent in the earth and its surroundings, a soul-substance—a substance of which souls are made, as well as a substance of which rocks, earth, trees, flowers, fruits, and human bodies are made. It matters not what name is given to that substance; whether it be soul-substance, life principle, or vital force. Let it be understood that it is this essence, or substance, that goes to form the living, thinking, feeling, motive power of human existence.

In the germ, there is a power to attract and assimilate to itself, not only the substance necessary to make a body, but also a soul. Whence that substance is derived, we know not, as we know not whence comes the substance that forms the body. We know there is a substance connected with the earth, of which the body is made. May we not know, as certainly, that there is a substance or element connected with this planet, from which the life-principle of all animated beings on it is derived, and from which the human soul originates? To conclude that there is, seems natural and reasonable. From the moment the germ is received into the womb, this process of absorption and assimilation of the materials necessary to form the human soul, as well as the human body, begins, and goes on, till the child is prepared to commence an existence independent of the mother. The substance necessary to form the soul of the child, must come to it through the blood and life of the mother, as well as the material necessary to form the body.

The arguments adduced to prove that the body of the child originates with the parents, proves also that the soul does. The intellectual, social and spiritual conditions of the parents descend to the children, as well as the physical. Functional derangements of souls, as well as of bodies, are transmitted. It is true of the soul, as well as of the body, that parents reproduce in their own likeness.

If these facts be so, it follows that souls are formed by nutrition, by absorption and assimilation, as well as bodies. That the soul will exist after the dissolution of the body, I do not doubt. As little do I doubt that, as a thinking, feeling, conscious being or substance in human form, its existence will be eternal. And this idea of the soul's immortality, with all its present attributes of will, thought, feeling, volition, &c., seem consistent with the fact that it is derived from forces in and around the earth, through the parental organisms.

It may not be amiss to quote the remarks of Carpenter on the vital forces

and functions. They go to show that there is a power, a vital force or soul, in man, whose existence depends not on any such physical or chemical forces as are observed in the body. They also show that all acts of the mind depend upon material changes in the nervous system; that the action of the soul is essentially and necessarily affected by the bodily conditions; that every physical derangement produces a corresponding derangement in the soul, or vital force. He says (Sec. 254), "The idea of Life, in its simplest and most correct acceptation, is that of vital action, and obviously, therefore, involves that of change. We do not consider any being as alive which is not undergoing some continued alteration that may be rendered perceptible to the senses. Carpenter thus continues:—

"There can be no doubt whatever, that, of the many changes which take place during the life, or state of vital activity, of an organised being, and which intervene between its first development and its final decay, a large proportion are affected by the direct agency of those forces which operate in the inorganic world; and there is no necessity whatever for the supposition that these forces have any other operation in the living body, than they would have out of it under similar circumstances. But, after every possible allowance has been made for the operation of physical and chemical forces in the living organism, there still remain a large number of phenomena which cannot be in the least explained by them, and which we can only investigate with success when we regard them as resulting from the agency of forces, as distinct from those of physics and chemistry, as these are from each other. It is to such phenomena that the name of Vital is properly restricted; the forces from whose operation we assume them to result, are termed vital forces; and the properties which we must attribute to the substances exerting those forces, are termed vital properties. Thus we say that the contraction of muscle is a vital phenomenon, because its character and conditions appear to be totally distinct from those of chemical or physical phenomena. The act is the manifestation of a certain force, the possession of which is peculiar to the muscular structure, and which is named the contractile force. Further, that force may remain dormant (as it were) in the muscular structure, not manifesting itself for a great length of time, and yet resting capable of being called into operation at any moment. This dormant force is termed a property; thus we regard it as the essential peculiarity of living muscular tissue, that it possesses the vital property of contractility. Or, to reverse the order, the muscle is said to possess the property of contractility; the property, called into operation by the appropriate stimulus, gives rise to the contractile force; and the force produces, if its operation be unopposed, the act of contraction.

"These distinctions, though apparently verbal only, are of importance in leading us to the correct method of investigating vital phenomena, and of comparing them with those of the inorganic world. It is now almost universally admitted by intelligent physiologists that we gain nothing by the assumption of some general controlling agency, or vital principle, distinct from the organised structure itself; and that the laws of life are nothing else than general expressions of the conditions under which vital operations take place—expressions analogous to those which constitute the laws of physics or chemistry, and to be arrived at in the same manner, namely, by the collection and comparison of phenomena. The difficulty of thus generalising in physiology results merely from the complex nature of the phenomena, and the consequent difficulty of precisely determining their conditions. We have as much ground for believing in the fixity and constancy of physiological phenomena, when the causes and conditions are the same, as we have in those of any other department of science; and the apparent uncertainty of the actions of the living body, results merely from the influence of differences in those conditions, so trivial in appearance as frequently to elude observation, and yet sufficiently powerful in reality to produce an entire change in the result.

"All vital phenomena are dependent upon at least two sets of conditions—An organised structure, possessed of peculiar properties; and certain stimuli, by which these properties are called into action. Thus, to revert to the example just cited, the contraction of a muscle is due to the inherent contractility of the muscular tissue, called into operation by the stimulus of innervation—other conditions, as a certain elevated temperature, a supply of oxygen, &c., being at the same time requisite. The

microscopical and chemical researches of recent years have given increased stability to the position, that the peculiar properties, which we term vital, are dependent upon those peculiar modes of combination and aggregation of the elementary particles which are characteristic of organised structures. We have no evidence of the existence of vital properties in any other form of matter than that which we term organised; whilst, on the other hand, we have no reason to believe that organised matter can possess its normal constitution, and be placed in the requisite conditions without exhibiting vital actions. The advance of pathological science renders it every day more probable (indeed, the probability may now be said to amount almost to positive certainty) that derangement in function—in other words, an imperfect or irregular action—always results, either from change of structure or composition in the tissue itself, or from some corresponding change in the external conditions, under which the properties of the organ are called into action." (Secs. 256, 257, 258.)

Then again, he says:—

"By the study of the various forms of elementary tissue, of which the human fabric (or any of similar complexity) is made up, we are led to the very same conclusion with that which we should derive from the observation of the simplest forms of organised being, or from the scrutiny into the earliest condition of the most complex; namely, that the simple cell may be regarded as the type of organisation, and that its actions constitute the simplest idea of life." (Sec. 259.)

It is easy to see why a constant and liberal supply of nutriment should be required for the development of the human being, before and after birth, till full growth is attained; for, during that period, a process of integration, as well as of disintegration, is ever going on; the human organism is constantly receiving accessions that continue as permanent parts of it. It receives more than it throws off. But after the full growth is attained, why is so large an amount of food still necessary? What necessity for the continued activity of the organic functions in obtaining and taking food into the system, and in converting it into blood, and distributing it to every part of the body? To this question, Carpenter answers:—

"The answer to this question lies in the fact that the exercise of the animal functions is essentially destructive of their instruments, every operation of the nervous and muscular systems requiring, as its necessary condition, a disintegration of a certain part of their tissues, probably by their elements being caused to unite with oxygen. The duration of the existence of those tissues varies inversely to the use that is made of them; being less as their functional activity is greater. Hence, when an animal is very inactive, it requires but little nutrition; if in moderate activity, there is a moderate demand for food; but if its nervous and muscular energy be frequently and powerfully aroused, the supply must be increased, in order to maintain the vigour of the system. In like manner, the amount of certain products of excretion, which result from the disintegration of the nervous and muscular tissues, increases with their activity, and diminishes in proportion to their freedom from exertion. We are not to measure the activity of the nervous system however, like that of the muscular, only by the amount of movement to which it gives origin. For there is equal evidence that the demand for blood in the brain, the amount of nutrition it receives, and the degree of disintegration it undergoes, are proportional likewise to the energy of the purely psychical operations; so that the vigorous exercise of the intellectual powers, or a long-continued state of agitation of the feelings, produces as great a waste of nervous matter, as is occasioned by active bodily exercise. From this and other considerations, we are almost irresistibly led to the belief that every act of mind is inseparably connected, in our present state of being, with material changes in the nervous system; a doctrine not in the least inconsistent with the belief in the separate immaterial existence of the mind itself, nor with the expectation of a future state, in which the communion of mind with mind shall be more direct and unfettered." (Sec. 263.)

As to the comparative influence of organic life and animal life in the economy of human existence and happiness; as to the dependence of the soul on the nervous condition for its intellectual and affectional action; and as to

the manner in which soul generally communicates with soul in the present state, and probably in the future, Carpenter says :—

“So far from his organic life exhibiting a predominance, it appears entirely subordinate to his animal functions, and seems destined only to afford the conditions for their performance. If we could imagine his nervous and muscular systems to be isolated from the remainder of his corporeal structure, and endowed in themselves with the power of retaining their integrity and activity, we should have all that is essential to our idea of man. But as at present constituted, these organs are dependent, for the maintenance of their integrity and functional activity, upon the nutritive apparatus ; and the whole object of the latter appears to be the supply of those conditions which are necessary to the exercise of the peculiarly animal functions. That his mental activity should be thus made dependent upon the due supply of his bodily wants, is a part of the general scheme of his probationary existence ; and the first excitement of his intellectual powers is in a degree dependent upon this arrangement.

“The ministration of the nervous system to purely animal life, obviously consists in its rendering the mind cognisant of that which is taking place around, and enabling it to act upon the material world, by the instruments with which the body is provided for the purpose. It is important to observe, that every method at present known, by which mind can act upon mind, requires muscular contraction as its medium, and sensation as its recipient. This is the case, for example, not only in that communication which takes place by language, whether written or spoken ; but in the look, the touch, the gesture, which are so frequently more expressive than any words can be ; and thus we trace the limitation which, even in communication that appears so far removed from the material world, constantly bounds the operations of the most powerful intellect, and the highest flights of the imagination. That in a future state of being, the communion of mind with mind will be more intimate, and that man will be admitted into more immediate converse with his Maker, appears to be alike the teachings of the most comprehensive philosophical inquiries, and of the most direct revelation of the Divinity.” (Secs. 284, 285.)

The science of society, of the action of soul upon soul, is, as yet, but little understood. Does this require “muscular contraction as its medium, and sensation as its recipient ?” May not mind act upon mind, intellectually, affectionately, and sympathetically, by direct contact, and independent of the bodily senses, muscles or nerves ? The facts of clairvoyance seem to show that it can and does. Words, written and spoken do, indeed, transfer the action of mind to mind, in this state. By this action, especially the affectional, when transmitted from soul to soul by the look, the touch, the gesture, is much more expressive, vitalizing, endearing and controlling, in the more intimate relations of life, than when communicated in words. But may not soul commune with soul without any of these means ? Facts demonstrate that each human being gives out himself into the atmosphere, and stamps his own individuality on the material objects around him. May not that essence or substance, thus emanating from him, as it comes in contact with the nervous system of others, transmit to their souls a consciousness of his presence and identity ? There is reason to think it may and does ; and that the individual aura by which each human being is surrounded, will ere long form a direct medium of the most intimate communion of soul with soul. To some extent it is already actualized ; it will be far more so, when the human being shall have become more perfectly and harmoniously organised and developed.

In what sense are the social and moral feelings, the intellectual powers, volition, love, sympathy, &c., functions of the nervous system ? Has the soul itself any existence, independent of the material organism ? The question is thus often proposed and earnestly discussed ; but that it has, seems as self-evident a truth as conscious existence. Immortality seems as fixed and naturally a want or necessity of the soul, as air or food is of the body. The soul itself, it seems most rational to conclude, is a material organism, so

refined in its texture as to be susceptible of the phenomena of thought and feeling ; its present action, to some extent, dependent on the grosser material organism of the body, yet distinct from and independent of it, and destined to live and be susceptible of unending improvement and enjoyment. Referring to this, Carpenter says :—

“It is well to explain, that though the physiologist speaks of the intellectual powers, moral feelings, &c., as functions of the nervous system, they are not so in the sense in which the term is employed in regard to other operations of the bodily frame. In general, by the function of an organ, we understand some change which may be made evident to the senses ; as well in our own system, as in the body of another. Sensation, thought, emotion, and volition, however, are changes imperceptible to our senses, by any means of observation we at present possess. We are cognisant of them in ourselves, without the intervention of those processes by which we observe material changes external to our minds ; but we judge of them in others, only by inferences founded on the actions to which they give rise, when compared with our own. When we speak of sensation, thought, emotion, or volition, therefore, as functions of the nervous system, we mean only, that this system furnishes the conditions under which they take place in the living body ; and we leave the question entirely open, whether the soul has or has not an existence independent of that of the material organism, by which it operates in man, as he is at present constituted.” (Sec. 308.)

The fact is obvious that the manifestations of the soul are, in this state, dependent on the conditions of the nervous system. As are those conditions, so will the demonstrations of the soul be perfect or imperfect. Whatever tends to derange that system must necessarily tend to distort the soul in all its operations. The soul cannot manifest itself purely and truthfully through a diseased medium. True and loving souls would fain give to one another a true and loving utterance ; but they cannot, by reason of the distorted conditions of the nerves through which they must speak.

Who controls the organisation and development of the nervous system previous to birth ? The parents absolutely ; the mother directly, the father indirectly. The manifestations of the soul and the nervous conditions must correspond. Religions which, ignoring this fact, seek to beautify and adorn the soul, have proved, and must prove, failures. The first business of all religions should be to secure to the human being healthy nervous conditions. This can never be done while existing abuses of the sexual nature remain, and till men and women better understand, and more perfectly obey, the laws which should govern the sexual relations.

CHAPTER VI.

TRANSMISSION OF DISEASE.

HEREDITARY CONDITIONS—ACQUIRED CONDITIONS—TRANSIENT CONDITIONS—
CONDITIONS OF MOTHER DURING GESTATION AND LACTATION—ILLUSTRATIVE FACTS.

In the preceding chapters, I have endeavoured to give the leading scientific facts respecting the process of reproduction, the part performed by each parent in this mysterious act, and the relations of each to the organisation, character, and destiny of the child. It is conceded that the influence of parents is great after birth. If it is so direct and potent after, how much more so before ? In preparing the germ, the physical, intellectual, and moral conditions of the father must necessarily affect more or less its conditions in similar directions ;

and in nourishing and developing that germ, the mother must necessarily impart to it her conditions. A healthy mother might, before birth, impart to a diseased and deformed germ of a weak and sickly father, some degree of health, strength, and beauty; or a weak and sickly mother may impart disease and deformity to a healthy germ of a healthy father.

Man may easily trace his history back to the period of his birth. With much accuracy, he may trace himself to the period when, in the germ state, he was received into the womb of his mother. Still further, he may trace himself, a living substance, secreted, as a spermatozoon, in the paternal organ. Further, he finds no distinct trace of his existence; yet he knows that the life-germ of his body and soul, in some form, had an existence before it was secreted there. He knows it was elaborated in the paternal system from substances taken into it from without, in the form of food, air, and other elements. But the great question we are most concerned to solve is—Does the father, in preparing the germ, so impress on it his own conditions of body and soul, that these must necessarily be developed in the future child, so as essentially to affect his character and destiny? That he does, is certain. Whatever diseases affect the father, must also affect the secretions of his system, and none more so than the germs of future human beings. What an obligation, then, rests on every man to see to it, so far as he can, that the system in which the life-germs of human existence are prepared, should be replete with manly beauty, tenderness, and power!

No less important is the maternal relation to the child before birth! She consents to receive the germ into her organism. It is placed in its only proper position for growth. It has an inherent power to attract to itself, from the liquid in which it floats in the womb, materials for growth to body and soul. These elements, which constitute that growth, are prepared in her system, from the various substances received into it from without. That nourishment must be affected by the conditions of the organism in which it is prepared and administered. The energies of her nature are taxed to prepare and administer to the growth of the new being, and should be left as free as possible to do well the work assigned them. She has taken into herself the germ of a new life, in human form, gladly and thankfully, it may be (would it were never otherwise!), and by so doing, has pledged herself to the future man or woman to confer on him or her, health, strength, and beauty to body and soul.

Does that woman know the intimacy and power of the relation which she, voluntarily, it is to be hoped, assumes to that germ, which, under her forming hand, is soon to appear in the form of a man or a woman? Does she know that, from all she takes into her system in the shape of food, drink, air, &c., the living germ is to extract the substances that must go to form the body and soul of the future living being? When she consented to receive that life-germ of an immortal spirit into herself, did she ask herself the question whether she was prepared to forego all practices and indulgences that could conflict with the health and perfection of her new charge? Did she ask whether her own organism, including body and soul, was in a fit state to receive such a charge, and perform to it the services of a just and loving mother? What woman ever thinks of these things when she consents to receive into herself the elements of a new existence!

Every child, as early as it can be taught anything, should be taught to know and respect the part which he or she is to perform in the deep, mysterious process of perpetuating and perfecting the human race. How can parents excuse themselves for allowing their children to grow up in ignorance on this subject? They can comprehend their relations to the future existence of the race, and the duties growing out of those relations. Every male child should be taught to know himself as a germ-preparing being; and the meaning of these terms should be made plain to them, that they may be prepared to discharge naturally and truly the duties of the office assigned to them,

respectively, for the highest interest of those who may derive existence from them. No appetites, no pleasures, no occupations should be allowed to interfere to disqualify them to prepare and to develop the most perfect germs of the most perfect men and women.

Inherited conditions of parents. That these enter into the organic structure and constitutional tendencies of children, facts abundantly prove; and that, too, often in most marked and extraordinary ways. Bad conditions are no less likely to be transmitted than good tendencies. Scrofula, consumption, insanity, and idiocy are everywhere recognised as capable of being transmitted. This fact is acted upon, the world over, by all who are interested in improving the quality and elevating the conditions of all animated existences beneath man, and no pains are spared to get healthy progenitors. Encouragements are given by religions and governments to improve the lower animals. But what encouragement do they offer for the production of the most beautiful, healthy, and perfect specimen of the human being? What religion or government offers a bounty for the most healthy and perfect child? Why should they not? Men have certainly more control over the beauty and health of their own offspring than over the offspring of the lower animals. The subject is of infinitely more importance to mankind than the improvement of the lower animals. Prizes are liberally offered for the best plough, cart, or machine of any kind. Religions offer prizes for the best tracts, pamphlets, and books. Why should they not, by similar encouragements, seek to perfect the human being in health, beauty, and strength? What tract, pamphlet, or book can be so important as that written upon the body and soul of a perfect child? The child is the true family bible, in which every parent should read a chapter every hour. Why should not religion offer a premium for the highest and noblest type of a human being? Would it not do more to regenerate and redeem the race than it could by expending all its energies in efforts to strengthen inherited weakness, to beautify inherited deformity, or to regenerate that which had been badly generated? Had the money that is now spent in war, in government, in ritual God-worship, and in sustaining penal establishments, been used to induce husbands and wives to prepare and present to the world more healthy, beautiful, and perfect specimens of human beings, how different had been the result! What object more deserving the attention of government and religion than that of offering appropriate inducements to men and women living in marriage to give existence to children that shall be healthy in body and soul? * The reward should not be to those who have the greatest number of children, but to those who give existence to children that are, physically and spiritually, most healthy and perfect.

If man were rightly and truly born of woman, he would not need afterwards to be born of God; for to be rightly born of woman is, in the truest and highest sense, to be born of God. Those who receive a healthy and noble creation at first, need no second creation, provided that the first be not deformed by abuse. Society, religion, Government, and all individuals who would improve and elevate human nature, should aim to procure for every human being, as the richest and most valuable of all boons, a pure and perfect creation of body and soul, at the beginning of life. If religion would bend her energies to procure for future generations a pure, healthy, natural birth, it would do more to save human kind from torment to body and soul, than it could by spending its energies, as it now does, to heal those who are born diseased. Man should not be "conceived in sin," nor "shapen in iniquity,"

* The idea of offering rewards for such a purpose seems to us most outrageous, tending to make the highest functions of human beings more brutal and grovelling than they are at the present day. Let parents, and all those who may become parents, be taught that attention to those laws which will give health of mind and body to themselves, will also give health and vigour to their offspring, and all that is required is accomplished. Such parents have in their blooming, healthy, vigorous, and intellectual children a greater reward than all the governments in the world could bestow upon them.—*Editor to the English Edition.*—[G. T.]

and then he would not "go astray from the womb, speaking lies." It is well for Church and State, and all reformers, to do all that can be done to redeem those thus conceived and thus born from straying into wild and devious paths and transgressions; but it would be a much more wisely directed effort which would seek to procure for every child a just and healthy conception, and a true and propitious birth.

Ponder the following fact. A woman, known in the circle of my friends as healthy, beautiful, and highly accomplished, married a man entirely diseased. She had four children. One died in infancy, a mass of disease; one at seven, and one at eleven, each a mass of disease from birth, and having known no cessation from suffering during their brief existence. The one that died at seven, had more the countenance of one of seventy, caused solely by intense sufferings. One is now living, but her appearance bears the marks of the diseased state that swept away the others. The father died fearfully diseased; the health of the wife and mother was nearly ruined by the diseases of her husband being communicated to her. What greater outrage against nature could a woman commit, than to consent to become a mother by such a man? None. Let every man and every woman, as they would live in the love and respect of their offspring, consider well the physical, mental, and moral conditions of those with whom they unite, to become the fathers or mothers of their children. It is computed that more human beings die from diseased tendencies, inherited from parents, who, themselves, had inherited them, than from war, intemperance, slavery, cholera, fevers, and all contagious, adventitious diseases put together.*

Acquired diseases and tendencies. Many diseases of body and soul are acquired, and inherited diseases are made more malignant by abuse. Those whose organisations were originally quite sound, acquire by unnatural indulgences, diseased conditions. There are few whose natural tastes do not reject tobacco, alcohol, tea, opium, and various other articles of common use, but of great injury, when first they are taken. These acquired conditions, both of body and soul, are transmitted.

Illustrations. I know of a man and woman who, as to wealth, move in the wealthiest ranks of fashion. The woman, exceedingly passionate, and addicted to strong drinks, had four children; the eldest greatly deformed by a fall of her mother, in a fit of intoxication, previous to birth. She died of consumption at eighteen. The second, a dwarf, a mild and gentle one, died at twenty, of consumption. The third was deaf and dumb, and of a malignant temper. The fourth, a demon in temper, and a drunkard. The mother's conditions were transmitted to her children. She had several miscarriages, caused by her intemperate habits.

I am acquainted with the following facts. A man and woman, both healthy at marriage, became diseased by abuse of their sexual nature after marriage, he in the lungs, she became deranged in the nervous system and by scrofula. Had five births. The first an abortion, produced by sexual abuse during pregnancy. The living children all diseased with scrofula, or consumption, or both. The parents go on reproducing, in their own likeness, scrofula and consumption.

The following came under my observation. A woman, who had given birth to several children, became hopelessly insane, through the constant abuse of her nature, by her husband. The children were most of them puny and sickly. During her insanity, she became the mother of a living child. It was developed previous to birth, and nursed under the influences of an insanity in the mother so deep, that she seems to have had no consciousness of the period through which she had passed, and had no recognition of the

* For a more full and complete exposition of this point, see "Fowler on Hereditary Descent;" a new and improved edition is just out. Price 1s.

child as hers. The child betrayed the evidence of insanity from its birth. What should be said of such a man? Can man perpetrate a deeper wrong against humanity, and against parentage and marriage? Yet he is counted a Christian, is a member of a church, and in good repute in the community in which he lives!

Conditions at the time of sexual intercourse. These, too, may, and often do, have a marked influence on the child. The soul should be in its happiest and most perfect state, free from care; the love element in the entire ascendant; every element in the soul of each concentrated in love upon the other, and penetrated with a pure, intense desire for offspring. The body, in all its powers and functions, should be in full vigour, free from all weariness or lassitude, not excited by artificial stimulants of any kind. Conjugal love when true, is attracted to purity, to beauty, to all that is sweet, tender, pure, delicate. It can have no affinity to coarseness, vulgarity, uncleanness, or meanness. Marriage love can do nothing but refine, elevate, beautify, and adorn all who come under its influence. Passion, existing and seeking indulgence without love, as it generally does, is coarse, selfish, polluted, and necessarily tends to degrade and profane both body and soul. No woman, instigated by pure love, can be attracted to a man of filthy disgusting habits, such as essentially belong to those who use tobacco, alcoholic drinks, opium eaters, and those who live under the influence of any artificial stimulants. No man, influenced by pure love, can be attracted to a woman, as a husband, who lives on artificial excitements. All such, whether men or women, become impure, ugly, and necessarily repulsive to true love. The sexual elements in all such cases become diseased, utterly corrupt and debased, and totally unfitted for the sacred function of reproduction.

How can a woman consent to become a mother by a man physically and spiritually polluted by tobacco, alcohol, or any foul, unnatural appetite and practice? How can a man receive as a wife, and become a father by a woman whose body and soul are filled with enfeebling, polluting disease? Passion, gross sensualism, may bring such together to propagate; but pure, chaste, saving love, never. Pure, chaste love, cannot be attracted to uncleanness and meanness, of body or soul. The offspring of impure, unclean souls and bodies, must, of necessity, be defiled. Insanity, idiocy, anger, revenge, and diseases of various kinds and degrees, appear in the children born of such unions.

The following case illustrates the influence of parental conditions at the time of sexual congress, on the offspring. The wife was a healthy woman, in body and soul—refined and accomplished in heart and intellect, and of great personal grace and beauty. Her husband was a sober, respectable man when she married. He became a sot. Under the influence and excitement of intoxicating drinks, he sought and obtained personal intercourse with his wife. An idiotic child was the result—hopelessly and helplessly idiotic. The mother attributed the idiocy to the drunkenness of the father; and justly, without doubt.

No woman, who respects herself or her child, will ever yield to sexual intercourse with a man when he is excited by alcohol, or who habitually or occasionally comes under its influence. She may entail disease and deformity on its body, and idiocy or insanity on its soul, if she does. Drunkenness, in any degree, should exclude a man or woman from marriage and parental relations. The use of alcoholic drinks should be a sufficient cause of divorce. Drunkenness, of necessity, dissolves the marriage relation; for no man or woman can love a drunkard as a husband or wife. Tea and coffee, alcohol, tobacco, opium, and all artificial stimulants, necessarily derange the sexual secretions; and the day will come, when men and women will so respect the function of reproduction, that they will shun all food, drink and pursuits, of gain or pleasure, that tend to injure it, and disqualify them to be healthy parents of healthy children.

I know two young sisters, opposite as the poles in their tendencies ; one being fretful, impatient, revengeful, and seldom satisfied or in harmony with anything or person around her ; the other is exactly the reverse. Both have the same father and mother. What makes the difference ? The difference in the conditions of the parents at the time of reproduction. The union from which the former derived existence was had when the parents were labouring under pecuniary anxieties and trials, that kept them in a constant irritation and impatience, and suffering under a sense of wrongs received ; that from which the other sprang occurred under circumstances directly the reverse. One will suffer, and the other be happy, as the result of the different conditions of their parents at the time of their conception.

The following is the testimony of the mother of five children. A stranger asked her one day how it happened that her children manifested such marked differences in their characters. She replied, "I am aware of the difference. It has existed from their birth. They are as different as so many nations. But I know the cause. I can see and feel in each my own mental, affectional, and physical conditions at the time of their conception and their birth."

Men are often advised by doctors to marry, as a cure for solitary indulgence. Woe to that woman and to her children who marries a man to cure him of such vice ! If he would not control his sexual passion before marriage, he will not after it. He gets a wife, not to restrain him from pollution, but that he may indulge his sensuality under legalized and social sanctions. In solitary indulgence, he ruined only himself ; now, he victimises wife and children to his passion. Death to a pure-minded woman were preferable to such a doom. Yet multitudes are sought, in legal marriage, by men whose aim is to save themselves from what they have come to consider an indulgence which they must and will have alone, if they cannot get legal control over the person of a woman. Such men had better be left to die as solitary sensualists, than to enter into relations by which others must be destroyed with them.

Let the following extract from a letter illustrates the effects of sexual abuse on the entire man :—

"Sir,—Having noticed that you are in Boston for a few weeks, I have concluded to address you, to get some advice from you. I am suffering as the victim of a solitary abuse of my sexual nature. My anguish is often great. The vice has gained upon me for several years, and has worn out my vital powers of body and mind. The essence of life has left me. I live only in name. My spiritual life has left me. I have spent a great deal on doctors. Their prescriptions have done me no good. Can you restore me to life ? Can you rouse up the dormant energies of my mind ? I have a soul to save from this lowest hell. My digestive organs are out of order ; my memory is very bad ; I cannot keep my mind on what I read ; I am incapable of studying ; I have no relish for society, or for any of the charms of the world. My age is twenty-one. If there is any medicine that will raise my mind from this low condition, and make me myself again, you shall be well rewarded if you will point it out to me.

"Yours truly, _____."

Here is a living picture of the natural and necessary results of sexual abuse, whether perpetrated socially or in solitude. The laws of Nature heed not the existence of human enactments, or conventional usages. They are self-executing ; ever true in their decisions, and inflexible in their penalties. Those who expend the reproductive element of their nature for sensual gratification, whether in solitude or otherwise, must receive their reward. Human laws and customs may and do authorise men to do so ; but outraged Nature, sooner or later, vindicates herself, and metes out to the transgressor a righteous retribution. And men and women who thus prostitute themselves till they are utterly diseased in body and soul, become fathers and mothers ! How idiotic, insane, or imbecile must be their children ! The

only cure for such persons is, "Cease to do evil, learn to do well." God cannot serve them in any other way.

The following extract illustrates the abuse often practiced by men upon women, under legal and conventional sanctions, and the consequence of such abuses :—

"DEAR FRIEND:

"I send you the following fact; use it as you please. I knew a young woman, who was healthy and bright when she married. She had one child, two years old, and another a few months. While she was developing this child, previous to birth, her husband forced her to yield to his passion very often, regardless of her tears and entreaties to spare her for her own sake and her child's. Her distress would be so great under his abuse of her during gestation, that she could with difficulty suppress her screams. He would threaten to remove her living child from her, if she did not submit. Within a week after her child was born, he insisted on his legal right to sexual intercourse, and threatened to abandon her and take her children from her if she refused him. The child lived a few months, and died. The man soon died of consumption. The woman soon after fell a victim to the same disease, brought on, or hastened, by the abuse of the man, under the sanctions of law and religion.

"These things were told me by the woman, who often sought refuge with neighbours, to free herself, for a brief space, from legalised and consecrated sensuality.

"Your friend and well-wisher, ———."

Lactation. Facts show that nursing infants are not unfrequently greatly injured, and exposed to the keenest sufferings, and sometimes to death, through the effects produced on the mammary secretions by the mental and physical conditions of the mother.

A woman of a reckless, ungovernable temper had a child six months old. She was excited to anger by some unguarded words from her husband. She rushed to her chamber, where the child was sleeping, others being present. She was so vociferous and boisterous as to awaken the child. It began to scream in terror at the mother's furious and angry manner. The mother took it up and nursed it to still its crying, and then laid it on the bed again. In a short time it was in convulsions. A physician was called, who at once concluded that the convulsions resulted from some hurtful substance in the stomach. The mother told him of the child's nursing, and of her own mental condition at the time. The convulsions were attributed by the doctor to the effect of the mother's anger on the mammary secretions. She was directed not to nurse the child at the breast again for twelve hours, and never to do it when she was angry, or in any unnatural excitement.

The following was told me by the mother of a child with whom I am intimate. The child is now twelve years old, and from infancy had a kind of instinctive longing for tea. Her nervous excitability and restlessness have been a source of great suffering to the child from its birth, and of anxiety and weariness to all who have had charge of her, and have made her an object of dislike to her playmates. The mother assigns as the cause of this derangement of her daughter's nervous system the fact that she (the mother) during the period of lactation, and a part of gestation, drank strong tea, by direction of her medical adviser, in order to increase the quantity of mammary secretions. The result was a diseased nervous system, which must entail a life of bodily and mental suffering on the daughter. She will be repelled from the companionship of those whose society will be most essential to her development and happiness.

The above facts, and the following extract from Carpenter (Sec. 627, and the note) should be deeply pondered by every mother and father :—

"No secretion so evidently exhibits the influence of the depressing emotions as that of the mammæ; but this may be partly due to the fact that the digestive system of the infant is a more delicate apparatus for testing the qualities of that secretion than any which the chemist can devise, affording proof, by disorder of its functions, of

changes in the character of the milk which no examination of its physical properties could detect. The following remarks on this subject are abridged from Sir A. Cooper's valuable work on the breast. 'The secretion of milk proceeds best in a tranquil state of mind, and with a cheerful temper; then the milk is regularly abundant, and agrees well with the child. On the contrary, a fretful temper lessens the quantity of milk, makes it thin and serous, and causes it to disturb the child's bowels, producing intestinal fever and much griping. Fits of anger produce a very irritating milk, followed by griping in the infant, with green stools. Grief has a great influence on lactation, and consequently upon the child. The loss of a near and dear relation, or a change of fortune, will often so much diminish the secretion of milk, as to render adventitious aid necessary for the support of the child. Anxiety of mind diminishes the quantity and alters the quality of the milk. The reception of a letter which leaves the mind in anxious suspense lessens the draught, and the breast becomes empty. If the child be ill, and the mother is anxious respecting it, she complains to her medical attendant that she has little milk, and that her infant is griped, and has frequent green and frothy motions. Fear has a powerful influence on the secretion of milk. I am informed by a medical man, who practices much among the poor, that the apprehension of the brutal conduct of a drunken husband will put a stop, for a time, to the secretion of milk. When this happens, the breast feels knotted and hard—flaccid from the absence of milk—and that which is secreted is highly irritating, and some time elapses before a healthy secretion returns. Terror, which is sudden and great fear, instantly stops this secretion.' Of this, two striking instances, in which the secretion, although previously abundant, was completely arrested by this emotion, are detailed by Sir A. C. 'Those passions which are generally sources of pleasure, and which, when moderately indulged, are conducive to health, will, when carried to excess, alter, and even entirely check, the secretion of milk.'

"The following is perhaps the most remarkable instance on record of the effect of strong mental excitement on the mammary secretion. 'A carpenter fell into a quarrel with a soldier billeted in his house, and was set upon by the latter with his drawn sword. The wife of the carpenter at first trembled from fear and terror, and then suddenly threw herself furiously between the combatants, wrested the sword from the soldier's hand, broke it in pieces, and threw it away. During the tumult, some neighbours came in and separated the men. While in this state of strong excitement, the mother took up her child from the cradle, where it lay playing, and in the most perfect health, never having had a moment's illness; she gave it the breast, and in so doing sealed its fate. In a few minutes, the infant left off sucking, became restless, panted, and sank dead upon its mother's bosom. The physician, who was instantly called in, found the child lying in the cradle, as if asleep, and with its features undisturbed; but all his resources were fruitless. It was irrecoverably gone.' In this interesting case, the milk must have undergone a change which gave it a powerful sedative action upon the susceptible nervous system of the infant.

"The following, which occurred within the author's own knowledge, is perhaps equally valuable to the physiologist, as an example of the similarly fatal influence of undue emotion of a different character; and both should serve as a salutary warning to mothers, not to indulge in the exciting or depressing passions. A lady having several children, of whom none had manifested any particular tendency to cerebral disease, and of which the youngest was a healthy infant of a few months old, heard of the death (from acute hydrocephalus) of the infant child of a friend residing at a distance, with whom she had been on terms of close intimacy, and whose family had increased almost contemporaneously with her own. The circumstance naturally made a strong impression on her mind; and she dwelt upon it the more, perhaps, as she happened, at that period, to be separated from the rest of her family, and to be much alone with her babe. One morning, shortly after having nursed it, she laid the infant in its cradle, asleep and apparently in perfect health; her attention was shortly attracted to it by a noise; and, on going to the cradle, she found her infant in a convulsion, which lasted for a few minutes, and then left it dead.

"Another instance, in which the maternal influence was less certain, but in which it was not improbably the immediate cause of the fatal termination, occurred in a family nearly related to the author's. The mother had lost several children in early infancy from a convulsive disorder; one infant, however, survived the usually fatal period, but whilst nursing him, one morning, she had been strongly dwelling on the fear of

losing him also, although he appeared a very healthy child. In a few minutes after the infant had been transferred to the arms of the nurse, and whilst she was urging her mistress to take a more cheerful view, directing her attention to his thriving appearance, he was seized with a convulsion fit and died almost instantly. This case offers a valuable suggestion—which, indeed, would be afforded by other considerations—that an infant, under such circumstances, should not be nursed by its mother, but by another woman, of placid temperament, who had reared healthy children of her own."

To the above facts, I would add the following extract from a letter, to show that a tendency to suicide, as well as insanity, may be transmitted from parents to children :—

"Dear Friend,—It is now several years since I became acquainted with Mrs. ——. She was young and beautiful, possessing a fine intellect, which was well cultivated. She, with one sister, were the only surviving members of her family. Her father, brother, and I think one sister, had been afflicted with partial insanity, and had terminated their lives by committing suicide. A few years after, Mrs. —'s health began to decline, and her intimate friends saw indications of aberration of mind. She was put under the care of a skilful hydropathic physician. While under his care, I spent a few days with her, and helped to administer the treatment; and had I not been well acquainted with her, I should have seen no jar in her mind. Soon after I left she attempted to jump from a two-storied window, and thus to take her life; and again, by jumping into a deep pond. Her husband's life was hazarded in rescuing her. Having thus twice eluded the strict watch that was kept over her, her husband thought best to carry her to another water cure establishment. On their way they stopped at a friend's, to make a short visit, and while there she made a third attempt to destroy her life, and succeeded. Thus ended the life of the third, and I think of the fourth, member of that family by suicide."

"I also knew of a family in ———, where the father and two sons, in good circumstances, took their own lives, through fear that they should come to want."

"If the above facts will help you in demonstrating the truth, that mental, as well as physical qualities, are transmissible, they are at your service."

Conditions during gestation. The following extract illustrates the power of the mental and affectional conditions of the mother over the child previous to birth :—

"I know a child, ten years old, who has a great fondness and faculty for telling stories. I have been often surprised at her talent and propensity, they are so marked. The mother informed me that, previous to her birth, she very often gathered round her a group of children, and amused them and herself by telling them stories, which she usually made up as she went along. She became exceedingly interested in her own stories, and excited by her own creations of fancy, and by the absorbed attention of the children. Her daughter has, from the earliest development of her intellectual and affectional nature, shown a decided propensity and talent for reading and telling stories. I have often heard her when she has lost all consciousness of her surroundings, in her wrapt interest in her own stories."

CHAPTER VII.

EXISTENCE OF CHILDREN:

TO WHOSE AGENCY IS IT TO BE ATTRIBUTED?—WHO IS RESPONSIBLE FOR IT?

A FATAL POPULAR ERROR.

Three topics present themselves in all inquiries into human life and destiny, *i.e.*, Existence, Organisation, Development. Whose agency controls these in regard to children? The preceding pages show that the responsibility for their organisation and development, previous to birth, rests on the parents. The question arises, Who is responsible for the child's existence? To ask the question, is to answer it. The agency that gives existence to a child is as obvious as that which ploughs the field, plants the seed, tends the crop, and gathers in the harvest. We know the child is the result of an act of parents.

Yet, through some strange perversion of their moral nature, parents feel no more responsibility for the existence of their children than for that of the sun. The first earnest inquiry of the child is, "Who made me?" Over nothing do children ponder with more seriousness and wonderment. The answer is generally evasive and untrue. A direct answer is given in children's catechisms. The first question is, "Child, who made you?" "God," is the answer.

This is usually regarded as the first element of a religious education. Those who have not been taught this, are counted heathen and atheists. Why? Not because they have not been taught to tell the truth, to be sincere, honest, faithful, loving, and kind, but because they are not taught to utter what every man and woman may know to be untrue. Parents who have not taught their children this untruth, are considered cruel to their offspring. Many an exclamation of surprise and pity have I heard over children who, when asked who made them have answered, "I don't know."

I heard a little boy hold the following conversation with his school teacher:—

Teacher. Do you know anything about God?

Child. No. Who is he?

T. Did your father and mother never tell you about God?

C. No; they don't know him. I never saw him at our house.

T. Poor child! Did they never tell you who made you?

C. Yes, many times. They say I grew in the garden, and that they found me there.

T. I must tell you that God made you.

The child was puzzled at this solution of the mystery of his being, no less than that of his parents, and asked—

Child. Who is God? Where is he? I want to see him, if he made me.

Teacher. What do you want to see him for?

C. Did God make little sister, too?

T. Yes; God made all children. Why do you want to see him?

C. I want to ask him why he did not give her eyes like mine. She never could see anything. Did God make her blind?

T. Yes; God never gave her eyes, as he did you, to see all the pretty things.

C. Then I don't like him. Where is he? I want to see him, and tell him I don't like him.

T. Poor, lost child! How neglected!

In the same school was a little girl, some three years old, of whom the teacher asked—"Jane, who made you?"

Child. I grew on a rose bush.

Teacher. No, my child, you did not grow on a rose bush. Rose bushes bear roses, not children.

C. Yes, I did ; for mother calls me her rose bud, and says she found me on a rose bush.

T. Poor child ! God made you.

C. No, he didn't ; mother says I grew on a rose bush.

T. Dreadful ! Shocking cruelty !

"Why," said the visitor, "what have they done?"

T. Nothing ; not even taught her who made her.

Visitor. They feed and clothe her well, and evidently inculcate kind and loving feelings and principles ; and the child looks very happy and contented.

T. But they have not even taught her that God made her ! She has no idea whence she came.

V. But she has ; she thinks she came from a rose bush.

T. But all know that is not true.

V. What would you tell her ?

T. The truth, at once ; that God made her.

V. But do you know that this is not the truth, and that God had no more to do in the creation of that child than he would have in its death, if its parents were to give it poison ?

T. I admit that what you say is according to the facts of Reproduction. Children do derive existence from their parents.

V. Why not tell them so ? When you say to that child, "God made you," your words would convey to her mind an untruth, as really as do the words of the mother, when she says she grew on a rose bush.

Thus, in the first step of what is called a religious education, children, instead of being directed to known facts, are led off into the regions of romance ; and a fiction is presented to them as a fact. Instead of directing their mind to realities, which would at once satisfy their curiosity, and set them at rest on the rock of truth, they are sent off into the world of fancy, in search of one to whom they owe existence. From this false starting point they are led on, step by step, into the dark, intricate ways of an infinite romance, until they lose sight of the facts of their being, and are prepared to receive as literal truth the most absurd and monstrous fictions. It is cruel thus to abuse the minds of children, when they so much more readily apprehend facts than fiction, and appreciate truth than falsehood. An untruth is ever hurtful to the human soul.

The following conversation took place, in my presence, between a minister and a layman :—

Layman. What do you regard as the essential element of a pious education ?

Minister. To know whence we came, what we are, and whither we go.

Layman. I like that. But a child asks you, "Who made me?" What would you say ?

M. That God made him, of course.

L. A friend of mine had a child three months' old. It had some pain in the stomach. The mother gave it some paregoric. It went to sleep, and never awoke. Who killed that child ?

M. The mother.

L. True ; but what difference in the agency of God in the creation of that child and its death ? God established a law, by which life resulted, in one case, by an act on the part of both parents ; and death, in the other, by an act of the mother.

M. True ; but God did not give the poison.

L. Nor was the act of God from which that child originated. Are men and women responsible for the intended results of their own acts ?

M. Certainly. If a man strikes another, intending the result to be death, he is responsible for that result, and ought to be so regarded and treated.

L. Is not the existence of this child the result of a human act, as truly as the death of him who was struck on the head?

M. It is.

L. Why then deceive the child, by teaching him to hold God responsible for his existence? Why not refer him to the visible authors of his being, and teach him to hold his father and mother responsible? In all common things you refer natural results to natural causes; but here you introduce an unseen, fictitious cause, to account for a most common phenomenon, the result of human agency.

M. But God connected the existence of the child with an act on the part of the parents.

L. In the same sense has he connected death with the use of poison; yet, you say the mother killed the child—ignorantly, to be sure, but she killed it. When you teach a child to cast on God the consequence of a human act, your teachings are untrue and most injurious. Better teach nothing than a falsehood. There is more piety in leaving a child in ignorance of the authors of his being, till his own soul shall render the true answer, than to tell him God is responsible for his existence.

M. But would you have parents explain to their children the laws of reproduction?

L. If you tell them anything, tell them the truth.

M. But would they understand it?

L. As well as they do the laws of reproduction among animals and flowers; as well as adults can.

M. But adults can understand the distinction of sex, and its use.

L. Children can understand this as soon and as well as they can any facts respecting their physical nature. The process of reproduction is ever going on in their presence. It is much more satisfactory and beneficial to children to be instructed in the facts of this process, than to cast a mist about this most important but most common of human functions, and attempt to satisfy their curiosity by falsehood.

M. But, in doing this, we must call their attention to the distinction of male and female, and its object.

L. True. What then? The distinction is known to children early in life. All animated nature teaches them on this subject. Unconscious of impropriety, they freely and innocently speak of it, till chided by parents and others, and made to feel and think this most common of all Nature's works, and more intimately connected with the elevation or destruction of the human race than any other, must never be spoken of by parents, or by brothers and sisters, except in secret, and then only in a whisper; and even then, only by males to males, and females to females. They are told it is something to be ashamed of, to be able to think, speak, or write about it, as they do about other natural phenomena. So the distinction of sex, with its uses and abuses, must be wrapt in mystery, whose deep secrets it were a shame to disclose. On no subject might children more easily be taught to feel and think with purity and respect than this, were true and elevating influences brought to bear upon them. But now, the manner in which parents, and others, generally think and speak on this subject, is so false and debasing, that it seems a miracle that any child can escape the wreck of his moral nature in reference to this distinction and its natural and ennobling use. Of all relations, this is the most absorbing, and designed to be the most happy and ennobling; yet, it is looked upon as almost the only forbidden topic between parents and children. How many children are taught by parents to know the nature of the sexual distinction and its object? Not one in a hundred.

M. But would it not tend to excite the passions of children, and to ruin the moral purity of their hearts and lives? Even without such instruction, we see how soon they take to practices, both solitary and social, and ruin their bodies as well as their minds. How ruinous, then, to teach them on these matters!

L. Precisely in proportion to their ignorance on this matter will be their sensualism. It is certain they will, early in life, have their attention called to this distinction, and they will ask what it means. They will, generally, from some source, early learn how to make this distinction a source of sensual indulgence. The question is not, then, shall they know of it? but, from whom shall they get their knowledge—from those who would keep their hearts pure, and have them associate the distinction of sex and its great purposes with all that is pure and noble in manhood, or from those who will teach them to associate it with all that is mean, shameful and degrading? There is no other alternative. The knowledge they will have. Shall it be of that kind which shall purify and elevate, or pollute and degrade them? The only way to save human beings from solitary and social abuses of the sexual nature is, to instruct them as early and fully as possible, as soon as they are capable of learning anything respecting their physical and social nature, what is the nature and true design of this distinction of sex. Let them be taught openly and promiscuously, in a way that shall beget in them a feeling of respect for a distinction so identified with the perpetuity and perfection of the race, and with all reasonable hopes of the triumph of truth over error, of right over wrong. My only hope of salvation from the physical, mental and moral diseases and pollutions that now are afflicting human beings, is in the distinction of sex, and the endearing relations, the purifying and elevating influences, that grow out of them. From the outset of life, let children be taught, in the family, in the school, in the church, and through the press, to regard the marriage and parental relations that are based on this distinction as the most sacred, potential and enduring of all human relations. Let them be taught to reverence the natural laws that govern it, as the most sacred and binding of all the laws of God, inasmuch as on obedience to them depend the organisation, character and destiny of man now, and in the great future. Let boys and girls understand their natures, as males and females, and the relations which, by reason of the distinction, they are in after life, to assume to each other, as husbands and wives, and to all future generations, as fathers and mothers. Then their curiosity ceases. They will understand the process by which they are created, so far as it can be known.

Their thoughts will not dwell upon it anxiously; they will feel no excitement about it; they will be accustomed to hear it spoken of openly, and as associated with truth, with purity and delicacy, with all manly and womanly feeling, and never with shame and pollution. Then, when prompted by Nature to become husbands and wives, fathers and mothers, they will do so naturally, knowing and appreciating the beauty and sublimity of these relations, and prepared lovingly and nobly to meet the responsibilities and discharge the duties imposed by them. Ignorance in regard to the sexual element in human nature, and its great objects and abuses, has been the source of more crime and misery, and a greater hindrance to the progress and elevation of mankind, than ignorance on any other subject.

No act of human life is replete with consequences so important as that which gives existence to a human being. No act is vested with so much from which we should suppose the human soul would naturally shrink: the exercise of creative power, not to give existence to a flower, or a plant, without the capacity to enjoy or suffer, nor yet to an insect to live a few days and then go into unconscious dust, but to a human being, capable of happiness and misery, and with a soul destined to conscious, eternal existence. The embryo immortal, once started in its process of development, cannot be

arrested in its career, but by a crime against Nature. On it must go, in a journey of unending duration, subjected to all the known and unknown vicissitudes of this state and the next. It is a fearful act, and fearful and eternal must be the consequences, for good or evil, to all who do it, and to all who result from it.

Parents ! look on your children. See their nature, and all their boundless relations and liabilities. Look on all they have to do and suffer—on all they have to struggle with as they pass from their birth onward, in eternal progression. Look on them and contemplate all the certainties and probabilities that are before them, and then fold them to your bosoms, as if to shelter them from all possible harm ; and remember they are your own work, and that existence, with all its relations and duties, and the organisation that must, in a degree, control their character and destiny, must be traced to your agency.

How can men and women help regarding reproductive intercourse between them but with profound respect ? How can they resort to it for purposes of mere sensual gratification ? As a divine act, they speak of the creation of human beings with reverence ; as a human act, it is spoken of as what may be done without a thought of the consequences, but as a momentary gratification of a mere animal instinct. In all the round of human life, I do not believe that any one act is more unnaturally and more thoughtlessly done than this, the most important of all. Of none do men and women generally feel more ashamed : in doing none, do they more often feel the consciousness of degradation and a loss of self-respect. No wonder ; for in nothing do they more abuse and debase their nature. The momentary gratification of a mere sensual appetite is their sole object in seeking sexual intercourse, and they sink below the brutes. Carpenter says—

“The instinct, when once aroused (even though very obscurely felt), acts upon the mental faculties and moral feelings, and thus becomes the source, though almost unconsciously so to the individual, of the tendency to form that kind of attachment towards one of the opposite sex, which is known as love. This tendency cannot be regarded as a simple passion or emotion, since it is the result of the combined operations of the reason, the imagination, and the moral feelings ; and it is in the engraftment, so to speak, of the psychical attachment, upon the mere corporeal instinct, that a difference exists between the sexual relations of man and those of the lower animals. In proportion as the human being makes the temporary gratification of the mere sexual appetite his chief object, and overlooks the happiness arising from spiritual communion, which is not only purer but more permanent, and of which a renewal may be anticipated in another world, does he degrade himself to the level of the brutes that perish. Yet how lamentably frequent is this degradation !”

The question arises, Is it right for parents to bring into existence more than they can rightly care for ? The answer is obvious. It is a flagrant violation of the law of parentage for a man and woman to give existence to children whom they cannot or will not care for, and leave them to the care of strangers and asylums. All such parents deserve and will ere long receive the reprobation of their neglected children and of all who respect humanity. A house full of children is counted as the poor man's blessing ; but it oftener proves a curse to the children, for the poor man and woman have given existence to more than they can sustain and educate properly. They have brought them into being, only that they may live and die neglected, ignorant, and outcasts, to prey upon society. They are born and reared in a state antagonistic to the wealth, comfort, and happiness that surround them. They are made criminal by their parents, to be punished by society.

Nature directs each pair to nurse and provide for their own offspring ; and it is clearly a violation of Nature for them to create more than they can properly nurse and care for. But most people think they may rightfully have all they have power to create, and then leave them to be cared for by others, or by no one. To a mother of eight children, it was said, “You have enough—

all you can rightly care for ; it is time to stop." "Oh !" said she with resignation, "I must have all God sends." "But your husband, not God, is the father of your children, and it rests solely with you and him, and not with God, to say whether you have any more." No more children were born in that family. The husband and wife were sensible people. But suppose a man or woman, through imbecility of body or mind, or of both, to be incapable of rightly rearing any—is it right for them to become parents? The desire for children exists where there is no ability to rear them after they are born. What ought such to do? My answer is, each pair should be held responsible for the nursing and rearing of their own children. What greater crime can a man commit than to give existence to a child that he cannot or will not care for? If any act should consign a man to infamy, this should. Yet men who become parents, abandon their offspring to starvation and wretchedness, and to the doom of slavery, are received into religious and political society, and made welcome to domestic circles, and their company and alliance courted, as though they were true and honourable men. They are often counted the highest ornaments of the church and of society, and elevated to the highest offices; while their children, and the mothers that bore them, are suffering in poverty and neglect. Of all earthly criminals such are the most deserving condemnation.

Who can help but approve the conduct of the woman in the following instance? The account came from the woman, who, for a time, was an object of general censure:—

"A leading man in a church married, and had one child. He was greatly diseased with erysipelas and salt rheum, all inclined to concentrate in a cancer. The mother was healthy, and knew not of his diseases when she married him. The diseases of the father appeared in the child in about one year after birth. The man wished for more children; the woman objected. He insisted; she refused. He threatened a divorce, and to get another woman; she was firm. Finally, he called a council of his fellow church members. He told his story; she hers, pleading as her reason for refusing to comply the fact that he would entail diseases on her children; that she owed it to herself and children not to inflict on them such suffering. She presented her living child as a specimen of what, in all probability, future children from such a parentage must be. His plea to the council was, that 'she violated a command of the Bible, which requires wives to "submit to their husbands in all things."' 'But,' said she, does this require me to aid you to inflict on my children your diseases? My maternal nature teaches me a different lesson, and my living child is an ever present remonstrance against my having any more.' 'But,' said one of the councillors, 'we are commanded to multiply and fill the earth.' 'Does that require me to aid in multiplying diseases, and to fill the earth with suffering? I have aided to multiply cancers, and my innocent child must ever suffer for my act. As the mother of children of healthy bodies and minds I should feel proud and happy, for thus should I help to fill the earth with beauty, health, and happiness; but I cannot aid further to fill it with disease and suffering.' The man left her and her child, went to a distant settlement, took a new name, and found a woman who was willing to submit to him in all things, and aid him to 'multiply cancers and fill the earth with suffering.'"

That woman had been saved from much sorrow had she known the physical condition of the man who sought her as his wife before she consented to live with him as such. No man or woman should ever enter into the conjugal relation till they are acquainted with the mental as well as the physical conditions of the person with whom he or she is to be united. Let the man ask respecting the woman he seeks as a wife, Is hers a soul such as I would wish to be blended with mine in my child?—for the souls of both parents, as a general thing in their leading constitutional tendencies, will pass into the souls of their children. Why, then, shut our eyes to the constitutional bias of those chosen to mingle their spirits with ours in our children? Men often seek those in marriage whose souls cannot mingle with theirs in their children, because they cannot mingle with them in their own persons. They might

have known that spirits which are at war with theirs, in their own persons, cannot harmonise with them in their children.

What do men and women know of the mental, social, moral, or physical conditions of those whom they are selecting as husbands or wives, and to be the fathers and mothers of those who are, in all coming time, to represent them in the race? Nothing, absolutely nothing, often. Nor dare they seek to know. It would be counted an insult to inquire into this matter. Man, does your nature prompt you to enter into the relations of marriage and parentage? Shun the society of women whose souls are deformed with selfish, envious, revengeful passion; shun the company of the vain, the gossiping, the envious souls, though dwelling in forms of apparent grace and beauty; shun women of poor souls, though they have purses of untold wealth, and faces and forms of surpassing beauty; shun such spirits as you would some fatal malady, lest your posterity have cause to curse your memory. If your own soul be pure in its tastes and instincts, it will shrink away from intimacy with such souls. You could not be drawn even into a law alliance with them, for purposes of reproduction. The silent, but all-powerful monitions of your own hearts, combined with the voice that would come up to you out of the future, would save you from such a connection. To woman I would say, if your nature seeks the love and companionship of a man, as a husband, beware how you ally yourself to one whose soul is sordid, mean, cowardly, ambitious, avaricious, and whose appetites are unnatural, and whose aspirations extend only to the gratification of all animal nature. Such a man, as a husband, will crush your heart, will crucify your moral nature, and will entail on your children souls which it will take an eternity to cleanse and save. But, alas! for the generation to come! in marrying and given in marriage, little or no account is taken of the constitutional tendencies, the tastes, appetites, or instincts of the soul, or of bodily diseases. There is one continued effort, on the part of men and women, to conceal from each other all mental and social, as well as physical defects, till, by law, the alliance is made, and the bargain sealed; then, when the law has put it out of their power to repent, all cause for concealment is removed, and the soul to which they are tied comes out in all its deformity! Now, woe to your memory, in the estimation of your posterity! The world is full of facts to warn all against such alliances. The human family, itself, is but one great remonstrance against them.

Of all the periods of our existence, probably none is so important in giving tone and direction to our character and destiny, as that which precedes our birth in this state. It is brief; but its every moment leaves its indelible impress for good or evil. Then and there, the elements of the human being are developed, and prepared to enter upon an independent existence in this state. There the question of organic laws, of constitutional and natural tendencies, as to body and soul, is settled, and these must be the supreme laws of life to all. The great future of our being is wrapped up in that brief period. Yet this is the very period of which no account is taken in estimating the causes of human character. The child is little thought of, or cared for, till after its birth. It is thought that human agency begins to act on it after birth, and not before. Governments and religions do little or nothing for the child in the first stage of its being; whereas, that is the very time when it needs all possible care and attention. True, the child can be influenced only through the mother; but through her, its character and destiny may be materially affected by the action of society and its institutions. Let all be taught the facts relating to the child's development during that period, and the direct influence of the mother on it. Let all know how much whatever the mother drinks or eats affects the child; how much everything which affects the mother's feelings, or mental and bodily conditions, influences the child; and let all mothers be placed in situations where their unborn

children may have as good a chance as possible for natural and healthful development, and an auspicious start in life.

Numerous are cases in which children struggle into life against the wishes of their parents. The moment the mother is assured that she is about to give birth to a child, for various reasons, her soul rebels against it, and she hesitates not to use any means by which she may destroy it, without injury to herself. To prevent, not to promote, the development of her child, to mutilate, not to perfect it, to kill, not to warm and cherish it into life, is her intent and effort. At every step of its progress, the unconscious babe encounters the spirit of murder; and that, too, in the person of its mother. Innumerable would be the cases of abortion, or, in other words, of child-murder, before birth, were it not attended with danger to the mother. Doctors, instead of urging men to control their passions, direct their attention to discover means to prevent conception and procure abortion. To kill a babe, the mother endangers herself, and she resorts to medical advisers to help her to destroy her children, with safety to herself. Disguise it as we may, to kill a child before it is born, to prevent its birth, even though it can be done without injury to the mother, is no less a violation of the laws of life, than to kill it after it is born. Those doctors who aid women to destroy their unborn children, instead of urging men to control their sensuality, ought to be treated as among the vilest of men. Can a state of mind be conceived more utterly devoid of self-respect than that which leads a woman to seek the destruction of her unborn child, and which prompts others to assist her?

What must necessarily be the character and disposition of that child, whose pathway into life is beset by a lurking enemy, ever watching to extinguish the first glimmering of the spark of life? He must be, in spirit, what his mother was, and inclined to inflict on her, and on all around, the doom she sought to inflict on him.

It was designed that love, and only love, should watch over the child in every stage; but especially in that preceding birth. Nature provides that every step of its progress, from the first act, should be hailed with joy, hope and faith; that it should be welcomed to, and cherished in, the heart of humanity, the moment it enters this state; and fondly and reverently cherished, as the sweetest and most beautiful flower of the earth—as God manifest in the flesh. To every child thus born, it may be said, by parents, and by all, "He comes to us a Saviour, and we will call his name Jesus." But, wasting and destruction are stamped on the brows of many, before they enter into this life. How different the spirit, the character and destiny of that child, whose every step of development, previous to birth, was welcomed with tender love in the mother, compared with that whose steps were watched by deadly hate and murderous resistance! What a step of society is that which prompts woman to hate her unborn babe, and to seek its destruction! Most unnatural and brutal, though called Christian and civilised.

A perfectly healthy, beautiful Love-Child is a joy unspeakable and full of glory to the parents. It is a consummation of our being earnestly to be desired and eagerly and resolutely sought. Who would not be in earnest to perfect his or her nature, if thereby such a priceless boon might be theirs? What a Saviour is such a child to the parents! What a God manifest in the flesh to their hearts! In the face of their child, as in a bright mirror, they see a reflection of all that is lovely and great in themselves. If the hope of becoming parents of such children cannot restrain men and women from mean and wicked feelings and acts, and incite them to all that is pure and ennobling, then can no theological motives move them. It is vain to lay before them heaven and hell in the next state: they will not be true to their nature to gain a heaven here. What is heaven, here or there, if it be not one for a man

and woman, united by love, to press a child to their hearts, seeing in it all that is good and noble in themselves, and hearing it say, "My father—my mother?" How must such a child regard its parents! By suppressing all evil and cherishing all good, in themselves, they were prepared to transmit to their child an inheritance of health, of love, of truth, of justice, of true nobility; an inheritance above all riches, and which not all the treasures of the earth could purchase for him. What a relation is this! How exalting, how divine! And such are the parents and children whom God designed to inhabit this earth.

But how many men and women not only pay no heed to themselves, for the sake of their posterity, but, to gain a little wealth for them, sacrifice all that is healthy and beautiful in their bodies, all that is pure and noble in their souls; and thus, while preparing riches for their children, prepare for them all that is deformed, mean, low, and execrable, in body and spirit. No amount of gold and silver can compensate for the inheritance of such a poor soul. If future generations could speak, one deep, earnest voice would come up from the future to the present, saying, "Give us health and beauty of body; give us rich souls; endow us with all noble, generous, intellectual social, and moral qualities, and we will take care of the rest!"

How infinitely is a love-origin to be desired! How above all price is a love ancestry! Talk not of an ancestry of princely titles, of knightly deeds of war and slaughter! Talk not of a parentage of wealth, of station and dignity, in Church and State! More to be valued is a lineage of love, than an ancestry of untold wealth, or of the most honourable titles and standing. This love lineage is a foundation on which the soul may build for eternity!

PART II.

LETTER I.

FIDELITY TO OUR NATURE.

NINA,—Thou art my wife ; I am thy husband. That the relation may work out for us and our children perfection and happiness, we must know ourselves, and, knowing, be true to ourselves. In accordance with the demands of our nature, and strengthened and exalted by the relation in which we stand to each other, we meet and hold communion daily and hourly ; not in words only, but in language much more expressive. Yet I wish to record, in the form of letters to thee, my views of marriage ; and I ask thy views on the same subject, in a series of letters addressed to me.

Love for thee, and the desire to secure the highest welfare and happiness of my wife and children, prompt my request. I would record my present views and feelings in reference to thee. I ask thee to do the same in reference to me and to our relation, that in the future of our being we may be able to call to mind what we were to each other in the commencement of our united existence. We know what each is to the other now ; of the future, we are ignorant. I am thy husband ; thou art my wife, now. This is all we know at present. It is enough. Sweetest hopes and holiest aspirations spring up in my heart, from the ever-present consciousness that we hold this relation to each other.

I am not about to record my feelings, wants, and intentions, as a human being, a citizen, or a religionist ; but as a husband. I would record what, in my opinion, I, as thy husband, owe to thee ; and what thou, as my wife, owest to me. Wilt thou not respond to my call ? It is the call of Love ; and love must respond to love.

As preliminary to what we have to say on the subject of our relation as husband and wife, I have this request to make of thee : That, in thy answers, thou wilt not be influenced by any reluctance to differ from me. If in anything thy views and feelings differ from mine, be simply true to thyself. I can ask no more conclusive evidence of thy love and devotion to me than perfect fidelity to thyself. No wife can be true to her husband who is false to herself. I cannot appear before thee in conscious innocence, if I stand a condemned culprit before the tribunal of my own manhood.

Unfaltering fidelity to our own souls. Let this, dear wife, be the basis of our future intercourse and happiness. Even the fear of wounding thee shall not tempt me to be untrue to myself. So let it be with thee. On this foundation let all our hopes of the future rest, and then they never will be doomed to disappointment

THY HUSBAND.

A N S W E R.

ERNEST,—Thou hast called me thy wife ; thyself, my husband. There are no other words by which we can express the fact that two separate existences are henceforth merged in one ; that a tie stronger than that of kindred blood has bound two souls together ; and that this bond is inseparable, not from the force of human laws and enactments, but from its very essence.

It is not the work of human hands or tongues which has made us husband and wife, but a law of attraction superior to our wills, and which we have no power to create or destroy. When we first met, I did not at once recognise in thee the consummation of my happiness. I met thee with indifference, and gave out sparingly the thoughts which lie deepest in my heart. A chance word, which struck upon an answering chord in thee—which I perceived with surprise and curiosity—led me on to test still further the points in common between us. The result of this investigation is all told in that I am now writing to thee as my husband, on questions which can only be truly presented by those who sustain a relation to each other for which there is no other comprehensive word but marriage—a relation which those who sustain truly, nobly, fearlessly, will grant is the only one in which the whole nature of man and woman can find a full development.

Some women find their life in intellectual culture ; but in such it is almost a universal fact that they have powerful natures, which demand an all-engrossing object, and they turn to books for the development which is denied them in the actual relations of life. Their standard of manly excellence is high. They do not meet the fulfilment of their demands. They are too noble to stoop for marriage, too courageous to fear the stigma of leading a single life ; and they give to the silent heroes of the past, the heart-worship which might bring sunshine to the domestic circle of any who could truly estimate its worth. And I say nothing against marriage when I say that they do well. Nothing in heaven or earth can equal a true marriage as a means of growth and happiness ; nothing in the region of despair can compare with the effects of the legal bond, wherein the heart has no part, for cramping and crushing the noblest powers of the human soul.

From this dark picture how joyfully does my whole nature recur to the sense of life, freedom and peace that flows from my relations with thee, my chosen one ! I cannot but be true to thee, for if I differ from thee, I know that thou dost accord to my whole nature the right to its independent thought and action ; and, therefore, I fear not the loss of thy love even in a difference of opinion.

How much more am I bound to fidelity to myself, when I know that by this alone can I retain thy respect and love ! Thou hast placed before me the highest of womanly excellence. Thou hast said, strive for that ; not for my approbation, though that follows of its own accord. Thus it is between us, as it is between all who place the truth higher than the individual that in striving for my own highest development, I secure thy noblest affection, and in my attainments are the reflections of thy nobility of soul.

I am,

THY LOVING WIFE.

LETTER II.

WHAT IS MARRIAGE?

MY WIFE,—What is marriage ? In what consists the relation of husband and wife, in which we now stand to each other ? It is not in the fact that we have a licence from the Church or State to live in this relation, for no such licence has ever been asked or desired, and by our mutual understanding of the matter, never will be ; nor in the fact that a priest or magistrate, as the mouth-piece of society, has assured us before others, that God hath joined us together, and that we must remain so, till death or divorce makes us otherwise, for no such ceremony has been performed on us, and never will be.

Nor does our marriage consist in the fact that we live together as husband and wife ; for all these things are done by men and women between whom no true marriage exists. It is not in the power of Church or State, priest or magistrate, to make thee a wife ; that can be done only by a power infinitely above all these. And yet, how many, with and without a license, are living together as husband and wife, between whom there is no marriage ! No human law, or licence, or authority, or social custom, can make that right which would otherwise be wrong, nor that wrong which would otherwise be right.

What, then, is marriage, as defined by our hearts ? for the heart, alone, can truly define it. Words are nothing ; marriage may express all that is good—it often stands for all that is evil. It may be the most vitalizing ; improving, happy relation into which human beings can be attracted ; and it is often the most debasing and blighting. What, then, are the facts, with regard to this relation ; I must speak for myself ; yet, I am assured that, in speaking for myself, I speak for thee ; and that thou, in like manner, wilt speak for me.

These, then, are the facts touching my relation to thee. My nature has a certain want, and the power to attract and assimilate to itself a natural and healthful supply. It has selected thee, and that want has ceased to exist. The want pertains to my physical, social, intellectual, and spiritual nature, and it is complete in thee. A restless and even-present longing pervaded my entire being. That deep void has been filled ; that restlessness has given place to absolute repose ; that intense longing has given place to a satisfaction still more intense. My ideal of beauty, purity, truth, justice, and love, I longed to see embodied ; I found them so in thee. I longed to find my highest object of love and adoration, my God, incarnate in a living, visible, tangible, actualized relation. That incarnation I found in thee, my wife.

My heart renders this definition of wife :—The incarnation of God to her husband. The great invisible and intangible made visible and tangible in the deepest and most intense and potent living relation. I speak calmly, knowing the full import of the words I use. No phrase so fully expresses what thou art to me as this : The incarnate of God. My heart is often oppressed in its efforts to utter itself to thee ; and no words so completely express my feelings as these.

In thee, God is manifest in the flesh to me, as He is in no other being of the past or the present. I go no more in spirit into the regions of abstraction, to wander, in thought, through the boundless void, to find an object on which to expend the energies of my soul in love and devotion. I find that object in thee, my wife. My love for thee will be accepted as my supreme love for God.

Worship is a necessity of my being. I must worship something ; so must every man and every woman. My soul cannot stoop to worship times and places, stations, titles. I see no God in them. They are all the work of men's hands. But I worship thee, without one shrinking doubt as to my right to do so, or as to whether God will accept his devotion to the embodiment of my highest conception of His attributes, as being paid to him.

Our souls, I believe, are substance, as truly as are air, light, electricity, and magnetism. The same law of attraction governs souls that governs all other material bodies. Human souls are attracted to one another in four distinct relations. There may be others, but these are marked. The broadest relation is that which exists between human beings, in contradistinction from the brute creation. This I would call the human attraction. This attraction individualizes itself in particular friendships, in a dearer and stronger sense than the human. Then man is attracted to woman by a force stronger and dearer than that which draws him to his own sex. This I would call the sexual attraction. This attractive force individualizes itself in marriage ; and this is the connubial attraction. A masculine soul and a feminine soul, in marriage, are absorbed each into the other. The essence of each enters into

the other, permeates, fills, and thrills it, leaving to neither a separate existence. Thought responds to thought, will to will, heart to heart. The advent of man and woman to each other, as husband and wife, is the advent of the true and natural saviour to the soul of each. The entrance of two souls, each into the other, thus making of two one perfect being—this is marriage, as my heart defines it.

This is true of our relation. I cannot feel that I have an existence apart from thee. Without thee I can do nothing, I am nothing. In thee I live, move, and have my being. To dwell in thee is to dwell in love in God. I have no hopes, no longing, no inspirations, no life, apart from thee. To me, thou art the way, the truth, and the life. I have no God, no heaven, no eternity, disconnected from thee.

Such are my present feelings towards thee. So near and dear, so priceless and vast, so beautiful and gracious, so infinite art thou now to me. Wilt thou ever be thus to me? My soul turns to thee, now, as necessarily as the needle to the pole. Other forces may draw it away for a moment, but they have no permanent influence. Their power is soon exhausted, and then my soul turns to its great central attraction, and sternly true to itself, looks to thee, and finds absolute repose.

Of the future, I cannot speak; of the present, I have spoken; and these are the expressions of one who is proudly conscious of perfect fidelity to truth and justice in all he has written.

With true love and devotion, with conscious dignity and elevation of soul, I subscribe myself,

Thy husband, ERNEST.

ANSWER.

ERNEST,—In thy last letter, thou hast given many suggestive topics of thought and feeling. Thou hast well said that in entering upon the relation of marriage, we asked not of Church or State the sanction which they have no power to bestow. The only sanction, in the sight of God, is the fact that love, pure and undefiled, has drawn us to each other, has made us willing to renounce every worldly treasure, to live in accordance with its high demands. Fortune, friends, kindred, or country fail to compare with the mighty influence which has made us one.

Society could not effect this union; yet we have not slighted its demands. We have accorded to it all it has the right to claim. We have announced the fact that we are living in the marriage relation. We would not be mistaken for the poor and grovelling natures that seek, by evading social regulations, a stealthy gratification of the senses. We have nothing to be ashamed of, nothing to conceal.

Marriage is holy in the sight of God; and if the heart's deepest, purest worship and affection are elements in the true marriage, then are we married. We have recorded that fact in the public register; we have chosen each other as husband and wife; and more than this the world has no right to claim. Thou hast given the deepest depths of thy nature in giving thy ideal of marriage. Nothing less is due from me; and when I speak for myself, I know that I utter the voice of my sex; for allowing for the difference produced by circumstance, the wants of the human heart are undoubtedly the same in all. Passing over the ideal of the dreaming girl, who, without knowledge of herself, knows not in what character her own will find its counterpart, I give thee what the woman asks for.

It is a necessity of her nature to rest in strength and wisdom superior to her own. She may not be weak, but she must realise strength and reliable energy of will and action, as the first element of confidence. With this, she

demands a large and loving nature, requiring and granting unlimited freedom of expression and action. She dreads the idea of bowing under a yoke, whether self-imposed or not. The very sense of yielding up her personal independence is a heavy trial to a noble nature, and a trial which should never be imposed.

With these general elements—leaving out the minor particulars, wherein individuals may differ—with these wants fully met, and with that powerful mutual attraction which endears each to the other personally, which we call love, the growth and perfection of each nature may be insured in marriage. When these wants are met, the real treasures of the heart burst out in uncontrolled affluence. The rock is smitten by the man of God, and the waters of life must flow out. Then there is no demand, and no surrender; each acts out his or her own nature in its fullest perfection. Love identifies each with that which is most beneficial to the other in an unexpressed and inexpressible harmony of will and purpose. They live in and for each other, neither fearing to accept a freedom which each is willing to grant.

The great mistakes, so often made in what are called marriages, result from a thousand causes; but chiefly, that persons do not understand their own wants; and secondly, that they are not true to their own natures when they do not understand them. A young woman must know her own temper and disposition; she must think what qualities of mind and character command her highest respect, and seek in marriage such, and only such, as she can fully and entirely respect; for, without that bias, where and what is love? It is no longer a noble tribute of homage to her heart's highest ideal of goodness, but a personal attraction, which must end in *ennui*, if nothing worse.

I have thought young people, both men and women, often mistake their own wants in marrying their friends. As they grow up, they naturally seek each other's society, and find a sympathy and understanding which they cannot find in those of their own sex. This goes on till some circumstance occurs to separate them; and to avoid that apparent calamity they marry. If they would have the courage to go apart, and rest each in themselves, time would reveal what and how deep was the real attraction between them. So true it is, that those who might spend their lives in harmony as friends, hate each other when they assume a more intimate relation.

I would, then, ask every young man and woman to consider well whether, in choosing a companion for life, they find in the object of their present choice the deepest wants of their hearts satisfied. If they do not, let them beware of the fatal step, which, according to the regulations of society, is irrevocable: for, as truly as the heart lives, those deepest wants will assert themselves. They will demand satisfaction under circumstances of pain and suffering which will rend the very fibres of the soul. It is a law of God, written upon the soul, that its laws shall be observed, and a bitter and fearful penalty is the price of their violation.

The lower considerations of worldly wisdom—such as fortune, family, social position, &c.—I cannot mention in this connection, for these considerations have no place among those who seek only for a true development of themselves in marriage. Of those who can profane the sanctuary, I have nothing to say.

Here, then, I have given some idea of what marriage should be. The husband is the ideal actualised. No other man is like him, or ever can be. He is stronger, nobler, truer, more tender, more perfectly adapted to the wife's delicate intuitions than any or all other men. She does not question whether she loves him; she loves him before she knows it, and her answer to his yearning heart is not "I will be thine," but, "I am thine, already." To his voice, his step, his touch, his glance, her pulse bounds, and, in heart, soul, and senses, she is her own no more. With the power of attraction between them, with the noble strength and tenderness of manhood, and the no less noble

trust in her husband, which her own strength and tenderness enable her to appreciate, does not marriage show itself to be ordained of God? Does not every heart yearn for it, as its only true satisfaction? Does not every single life seem poor and lonely compared with it? And if it can bring joy to one manly heart to know that to his own chosen one he embodies all these wants of her heart, that to her nature he is the complete fulfilment, then that satisfaction is due to thee, my noble husband.

From thy loving wife, NINA.

LETTER III.

PERPETUITY OF MARRIAGE.

NINA,—We are one. My hope, my heaven, my God, are associated with thee. The very essence of our souls has entered each into that of the other, as a life principle, to fill us with the consciousness of perfect repose. Into this dwelling-place distrust and unrest can never enter. We are one in love, as God is one.

How long is this oneness to be continued? For ever, is the emphatic response of our hearts; and to raise the question of its perpetuity seems but an insult to our love—a cruel outrage upon the deep and sacred tenderness that each feels for the other. But we have undertaken to discuss the question of marriage between us, that, if possible, we may ascertain the fixed natural laws by which this relation should be governed, and by these regulate our conjugal life.

I believe that marriage was intended to be an enduring relation between two individuals, from the facts daily presented to our notice, even if there were no internal evidence on the subject.

It is true, there are manifold instances wherein the Church requires the solemn vow, before God and man, which the heart does not ratify—that two, who claim the name of husband and wife, shall remain true in heart and life, till death shall part them; or, perhaps, unconscious of this want of true union, they choose each other for a specific external advantage, and learn their mistake too late; or, perhaps, a love, which was in embryo at first, is crushed by neglect and abuse. Domestic life is full of the victims of ignorance, worldliness, or an insane curiosity and sensuality.

But is it the law of our nature, that the union of one man with one woman should last while both remain in this state of existence? I believe it is. My faith rests on the nature of the union itself. As defined by us, marriage is the actual blending of two distinct souls, attracted to each other by a power over which neither has control so long as they remain within the sphere of each other's attractive force. They know not how nor why they are so blended, since it came by no will or effort of their own. As they did not will themselves into this union, they cannot will themselves out of it. Therefore, the relative conditions of their souls, under which the union was formed, remaining the same, the union itself must remain.

But may not these relative conditions change, and thus the union be destroyed? Through ignorance or carelessness this may be. These two souls were attracted by love to each other, under certain harmonious relative conditions. The conditions of one are changed, for better or worse, without a corresponding change on the part of the other, and thus the harmony is lost; the oneness ceases; the marriage is null and void, as a heart relation. But this only goes to establish the fact, that perpetuity is the law of nature. These are the exceptional cases which we mark, when some counteracting influence has interfered to disturb the harmony which first made the twain one, and should keep them one and inseparable. The law of love, of

harmony, would preserve each from deterioration, from all unkind suspicions, feelings, thoughts, words and acts, and carry both together onward and upward ; for, in true marriage, both souls are involved in one destiny.

Each desires the union to be perpetual. Of all the harmonies the universe can furnish, or the mind conceive, none is so perfect, so purifying and ennobling, as that made by the blending of two souls in marriage. Its sweetness never cloy ; its oft-repeated strains never weary ; but the more often repeated, the more the soul of each longs for and enjoys them. The human heart can never weary of loving and being loved ; nor can it weary of the presence of the beloved object, for it is to each the visible presence of that for which each most earnestly longs—the presence of love, of God. If either wishes separation, there is no longer true marriage in the heart. Where there is true marriage, universal experience testifies that it longs for an endless perpetuity ; and the very existence of this desire demonstrates to me the fact that Nature designed the union to be perpetual. The want is natural, and Nature creates no want for which she does not create a supply.

I cannot entertain the thought that the oneness now existing between us can ever be destroyed. Such a thought would disturb my soul's deep repose, and hang around my future the canopy of death. The present joy of my relation to thee is in the security that it will not be disturbed. So long as we wish our marriage union to remain, it will remain. But its perpetuity depends upon ourselves. If we wish for its continuance, we shall use the means to secure that end. What some of these are will be stated in due time.

It will suffice to say here, that a relation so tender, so delicate, so intense, so absorbing, may easily be disturbed. The power that attracted each to the other must be perpetuated and constantly renewed or the oneness will cease. To thee, I embody the ideal of the man whom thy nature craves as a husband. Thou hast described what constitutes that ideal. If I am truly thy husband, and wish our union to be perpetuated, I shall never relax in my efforts to be all thou hast judged me to be.

By the power with which thou hast invested me, I have drawn thee to myself to be the life-principle of my manhood. If I would hold thee in this relation, and call out thy deep and tender love towards me, I must continually exert this attractive force, as the sun pours its light on the earth, to develop its hidden powers in sweetest flowers and richest fruits.

Thou canst not continue to love me, if I become unlovable. No matter what promises thou hast made, if the man to whom thy love was given ceases to be worthy of it—if thou canst no longer find in me the husband thou hast once loved—if I fail to concentrate the deep heart's love which once enriched and ennobled my life—that moment our marriage is cancelled, and thou hast ceased to be my wife.

Be it mine, then, to incarnate thy ideal of a husband, and thus to retain thee within the influence of that love which first attracted thee. In thus fulfilling my relation, thou wilt likewise fulfil thine to me ; and thus we shall accomplish the one great desire of our hearts, the perpetuity of our present oneness.

From thy husband, ERNEST.

A N S W E R.

ERNEST,—In thy last letter, upon the perpetuity or the marriage bond, thou hast so truly interpreted the sentiments of my wedded heart, that I find hardly anything to say in answer but amen ! Yet I will try to forget what thou hast written, and state my own views upon this subject, if for no other purpose than to show how fully they coincide with thy own.

In former letters, we have defined the wants of the soul that crave fulfilment in marriage. In the fact that these wants do find, in true marriage, their entire satisfaction, lies the answer to the question proposed in your last. We strive to attain, through marriage, a more perfect development of the elements of our being than we can attain without it. A relation which fails to meet this want is either defective or altogether spurious.

But when we realise our ideal of marriage, we find, to the whole being, a larger activity, higher objects of aspirations, and the infinitely exacting consciousness of losing our separate, independent existence in that of another; not by the sacrifice of independent thought and action, but by a unity of will which turns all conflicting forces into one harmonious effort.

To speak from my own experience, marriage has revealed to me the perfect embodiment of those qualities constituting my ideal of manhood. What those are is known to thee full well. And does not every strong and tender-hearted woman ask for strength and tenderness combined, wherein to find her rest? A world of meaning is conveyed in that one phrase, to "find her rest." She needs an intellect, strong by natural endowment, and enriched by knowledge of men and books; a moral nature inflexible and incorruptible; a heart of large philanthropy, yet capable of a single, intense affection. In such a nature she will have freedom of thought and life; her heart will find its wildest dream of happiness fulfilled.

Such has marriage proved to me. How, strange, then, sound the questions, Dost thou wish this happiness prolonged?—Art thou willing to cast all this aside, and set forth again, an adventurer, to find new treasures? We would laugh at the gold hunter who should leave an unwrought mine of wealth beneath his hand in search of other gain; and shall one expect the possessor of more than a thousand Californias to neglect the unwrought wealth which God has showered on her life? When the flower asks no more for rain and sun, then will I tear from my heart the life thou hast infused therein. It were an unutterable sorrow, if our paths in life were separated; but only insupportable under the thought our union of heart is at an end.

We pray that the ties which make us one may never be broken, and in this very prayer is the pledge of its fulfilment. We pray, and we act in accordance with it. Our love for each other is a love for the attributes of God embodied. By this love we are pledged to every effort for self-development. Our aim is not for the approbation of each other, but for the abstract right, and true, and just, and lovely. While we embody these attributes, we do our highest duty to God, to ourselves, and to each other, and for this happy, glorious result, we find our own hearts drawn into even closer bonds of love.

This, to my mind, is all that marriage can effect for the individual; and such an influence is one that time and place and death can never mar. There is but one response from heart and mind, one cry for the endless continuance of our marriage bond, as we hope for infinite progress in all the attributes of the Divine; and as we hope for a happiness for which there is no other name but Heaven.

Thy wife, NINA.

LETTER IV.

VARIETY IN LOVE, OR POLYGAMY.

NINA,—It is settled between us that our oneness will be eternal, if our present desires and wants are truly answered; also, that the perpetuity of our oneness depends on our knowledge of and fidelity to the natural laws by which marriage is designed to be governed. The question arises—Is exclusiveness a fixed law of marriage? I ask not, Should either marry after the death of the

other? but, Can a woman be the wife of more than one man, and can the relation of husband be truly sustained to more than one woman, at the same time? To this, my heart and my head give a negative answer. Reason and affection assure me that polygamy is unnatural, and therefore wrong.

What says the heart? Is there a husband whose love is concentrated on one woman as a wife, who can willingly allow another man to be to his wife what he is? He loves her—her alone—above all others, and he earnestly desires that she should return his affection. The very fact that another can claim her interest or win her affection, enough to make marriage attractive, strikes a death-blow to a true lover's peace. It is equally true of a woman's heart. Hence the origin of that expression of feeling commonly designated jealousy. As a husband, my nature is complete in thee. My capacity for happiness is full; and as that capacity enlarges, thou, nurtured by the love I bear thee, will grow with its growth. If we are true to ourselves and to each other, neither can outgrow the other. I can never seek an enlargement of soul that cannot be shared by thee. The first object of our lives must be to perfect the harmony between us. In every step of my course, the wife of my soul must stand by my side. I can desire no honour, no station, no heaven, apart from thee. If thou art delayed, I must be delayed with thee. We are one in love, in will, in purpose, in destiny. Be it ours to eternise this oneness. We will stand, go back, or go forward together.

With this fullness of satisfaction in thee, how can I desire another, as a wife? There is no room for another in my nature; it finds in thee all that it can receive from any woman in marriage, and it repels the thought of any other in this relation. The existence of the desire for a second person in the marriage union, while the first one lives, proves that the first relation has ceased, if it ever existed. It seems to me that marriage-love is, in its very essence, exclusive. Men and women have a nature that can be shared by every other man and woman, in the ties of friendship, in perfect accordance with the law that binds men and women together as such. But in marriage, this general tendency of each to the opposite sex concentrates itself on one, and therefore excludes all others from the privileges and endearments of marriage. The glory of marriage is its exclusiveness. The soul, conscious of refinement, purity and dignity, will shrink from sharing the relation with more than one.

Much is said about variety in love. It is said that the passional nature of man needs a fuller satisfaction than a single object can afford; that some men must suffer, unless they live with more than one woman as a wife. But the history of polygamy, under whatever name, and by whatever, or by whomsoever sanctioned, demonstrates that it is unnatural, since its consequences are evil, and only evil. It renders men imbecile in body and soul, and tends to a disproportion of the sexes. Woman can never attain nor keep her true position in a state of polygamy.

The only marriage that commends itself to the instinct, the reason, and the heart, is exclusive; and, therefore, this alone will elevate and purify man or woman. Tell me if thy reason and heart respond to these sentiments of

Thy husband, ERNEST.

A N S W E R.

ERNEST,—The question of "variety in love," as presented in thy last letter, can be settled by referring to the point from which the discussion first started, *i.e.*, the definition of marriage, and its natural and legitimate modes of manifestation. We have described the attractions which find their fulfilment in marriage. But there is another element, the natural result of the former attraction, pertaining to the physical nature, which claims attention, inasmuch as its demands have a powerful controlling influence over the whole marriage relation.

The ideal of love and marriage in every young heart is with one—never with more than one. Social discord and wrong may introduce other notions ; but I understand a deep significance in the old story, that for Adam there was but one Eve created. The idea of a truly married pair seeking for a third party in their happiness is absurd. In this view of marriage, I take for granted that the spiritual element predominates. In every marriage this must be the case, and it is false to speak otherwise on the subject.

True love finds in one beloved object the embodiment of its ideal. The whole nature—intellectual, affectional, and physical—willingly accepts, in this embodiment of the ideal, a true marriage. And from this willing, mutual, self-surrender, flows the confidence which gives and takes without reserve.

Is the marriage tie capable of extension ! If a man finds in half a dozen women equally powerful attractions to marriage ; if each exercises an equally deep, vitalizing, elevating influence on his life ; if the union with either one would be enough to bless his life were all the others exterminated, then he has a right, if all equally desire it, to be the husband of them all. But what does experience prove in this matter ? The case is not even supposable. It is absurd in the statement.

The sentiment of love finds satisfaction in one object. The passional element, which borrows the holy name of love, may crave a wider range. When men say they "need variety," they say, in other words, that in them the passion has the ascendancy over the sentiment. The man in whom the need exists, should not take the high social rank implied by the desire for a true marriage, but descend to that level in creation where animal passion makes no discrimination in its objects, and finds equal satisfaction in them all. Men who advocate "variety" know that true, pure marriage love cannot be felt to more than one ; but they wish to find, in their various attractions to woman, a sanction for what were otherwise unqualified brutality.

Woman never entertains the idea of the personal relations of marriage, except as a secondary experience, if I may so speak. Her love must be won through the bestowal of her confidence in the character of the man she honours. Her spiritual wants must first be met ; then follows the growing personal attachment, which, at last, places her a willing gift, soul and body, in the keeping of the husband. Marriage is to her eminently a spiritual experience—so profound, so peculiar, so exclusive, that it rarely finds but one realization in life. Now, imagine the experience repeated with perhaps a dozen individuals, and we turn with disgust from the picture. How much worse then when a man seeks the gratification of his passion among various objects, for whom he never experiences the love which distinguishes man from the animal, in the relations of the sexes ! Nothing can save him or them from an overflowing degradation.

I am told there are women who seek such relations themselves. If this be true, and I do not doubt it, I can only class them with those other unfortunates whom society has so deeply wronged, and who have so cruelly wronged their own souls, that the idea of purity and dignity is lost.

Those who advocate variety in love, are not the ones most anxious to elevate and develop woman to the highest limits of her nature ; and when they argue against her strongest instinct, that of personal sacredness, they rob her of that which is as essential an element in a pure nature as is the perfume in the flower.

In this protest against variety in love every voice of my nature joins. It is a deep injustice to the holy name of wife.

Ever thy loving wife, NINA.

LETTER V.

DIVORCE.

NINA,—Intimately connected with the perpetuity and exclusiveness of marriage between one man and one woman is the subject of divorce. This has ever been a perplexing question to statesmen and churchmen. In my opinion it is the simplest thing imaginable, and can be and is instantly settled by every pure and honest person.

Marriage, like the pulsations of the heart and contractions of the lungs, is the work of Nature. The same power that brings a man and woman into the relation can alone divorce them. The mental, moral, and physical conditions of a man and woman are harmonious when they are drawn into the relation of husband and wife. They are pure and healthful, and the union is a happy one. Love binds them together. But perhaps, by some great change in nature, the conditions of the man are changed. His moral nature may be wrecked in the conflict of life, or his social elements may enslave him to low and brutalizing appetites, so that his intellect becomes imbecile, and the whole type of the man is changed. Can the wife, who loved in him the embodiment of all high and manly qualities, which he once was, still love the man who, in all respects, fails to meet the ideal who first won her maiden heart? The man she loved is changed; he is no more. Her ideal is not changed, but the man to whom she gave herself as a wife has ceased to embody that ideal. Reason and nature answer at once, and say, "She cannot love him as she did!" But, without this love, is she before God, his wife? By all that is sacred she is not. The man in whom her soul found embodied her ideal of purity, nobleness, and manhood, has become a loathsome sensualist. Nature and God have divorced her soul from him. Love cannot attract her heart to what is not lovely, and he is no longer that. Now, what shall she do? Is her body to belong to the man who has no power to retain her affection? Not for one moment. She is not his wife; and the surrender of her person is but legalised prostitution, frowned upon by a just and holy God. Come what may, when love ceases between those who have been pronounced husband and wife, let the outward expression cease. Let every woman be fixed, as God is, never to live with a man as a wife whom she does not love. Let every man be equally true to the voices of his nature, and an untold amount of misery would be saved to both.

Human laws come in and dictate the grounds of divorce. What have they to do with the question? Just as much as they have to do with marriage, and no more—only to sanction what Nature and Nature's God have already accomplished. But they ought never to coerce those to keep together who require such bonds to unite them, for these are, by the laws of God, divorced. Love is departed, and with it marriage; and no human law can make them one. There is a twain that leads to oneness by a fixed law of human existence—the law of harmony, of marriage. If human enactments attempt too much, and seek to join together and blend in loving harmony what God has put asunder, men and women must set them all at nought, and obey the higher law written on their souls.

Human legislation may forbid them to marry again; but whence did men get this right to control the heart's deepest and purest wants? For, being divorced, each has the same wants and attributes as before. The fact that they have been once bewildered and mistaken cannot destroy this want of their being. They will attract and be attracted, involuntarily and oftentimes; the true marriage is the result of such attraction.

Human laws enter to say, "You shall not give your heart to this man, you shall give it to the first. You shall not give your person to the man you love

and honour and trust above all others, but you shall give it to him whom you loathe and despise ; or, at least, to him towards whom you are utterly indifferent." How does such an assumption, on the part of human law, appear in the light of truth and justice ? It usurps a tyrannical power, against which every pulse of true manhood and womanhood revolts.

But, if there are children, what must the parents do ? Live together, as friends, who have in those children, on whom they have entailed existence without love, a mutual care and responsibility. Be to them parents in the deepest and widest sense possible. Give them every attention and advantage which they have a right to claim from the authors of their being ; and in order to do this, keep your own souls free from degradation by a firm, unwavering fidelity to the highest impulses of the soul. Cease to be a wife to the man thou dost not love, but be a mother to the child for whose existence thou art responsible ; and cease to be the husband to the woman thou dost not love, but be a father to the child who has derived its being from thee.

It is asked, "Has not Jesus laid down the only true ground of divorce ? Has he not pronounced adultery the only sufficient cause of separation ?" But, I ask, what is adultery but the proof that marriage-love, that true, divine, exclusive element of the soul, is gone ? What loving husband ever seeks the gratification found in adultery ? Jesus has laid the true foundation of divorce to be the absence of love, and adultery was the form in which it manifested itself in the case before him. In this, Jesus taught according to nature. Adultery is a sufficient ground of divorce, because it proves the absence of love. Whatever demonstrates the cessation or absence of love between a man or woman, proves that the relation of husband and wife never existed, or that, if it ever did, it exists no longer—divorce hath done its work. There are many other proofs, less censured by human laws and customs, on which a true man or woman must rely, and by which they must govern their relations. There is but one true, God-given bill of divorce, and that is, absence of love.

But, to a true marriage, whose conditions are faithfully sustained, there will come no divorce. To maintain, strengthen, and eternise the love between us, we will live and die, and so cherish the divine oneness between us, that no coldness, no darkness, shall chill the warmth or dim the beauty and the brightness of our united hearts.

Thy husband, ERNEST.

ANSWER.

ERNEST,—In my last letter, I said that marriage between two was the law of Nature, and that this marriage must be consummated first in the spiritual union, and afterwards actualised in the personal relation ; and that the latter relation is only the natural consequence of the former.

Thou hast said that human law should sanction what Nature has accomplished. It consummates marriage between any two who stand up before a minister or magistrate, with a request to be made man and wife. It asks no questions whether love, or policy, or sensual passion, or ambition, or avarice, be the ground of the union. Clumsily and blindly, it puts the chain around the two, rivets the link, and solemnly pronounces them one.

How is it about divorce ? The law suddenly grows critical and particular. When these two come back, and ask the same power that bound them to set them free, the law says, "If you are guilty of any particular sin, so gross, so palpable, that human eye can see it, and human tongue can prove it, I will set you free ; but not otherwise. No matter how your hearts are changed towards each other, no matter what personal wrongs and outrages you have committed under the sanction of my name, if you have not committed the particular sin I specify, I have no redress, no relief for you."

There are those whose morals are fashioned by a higher model than human laws; and the omnipotence of the law of marriage, and the insufficiency of as to the grounds of divorce, have produced in men's minds a most distorted idea of their true positions. It is usually understood that by marriage—that is by the performance of a marriage ceremony—a wife passes over to the care, keeping, and protection of her husband; that the bestowal of her heart or person to any other, is a wrong to him to whom human law has assigned her.

Suppose two are married, under this impression, who think they love each other. As time rolls on, and each matures and develops, they diverge in sympathy; and perhaps the husband or the wife may be so constituted by nature, that the deepest wants of the heart cannot be filled by the other. Without abuse or outrage, love yields its place to friendship, respect, and kind feeling. If this takes place in the wife, her nature will not demand the personal endearments of marriage. She will promptly say to her husband, that such expressions belong to love, not to friendship; that they are disagreeable to her, and that only by restraining them can either be saved from degradation. He tells her that she is wrong; that when she married, she gave herself to be his lawful, wedded wife, and that his nature demands its fulfilment in all respects; that he has a right to such fulfilment, and her scruples are only foolish nonsense, which should not weigh against his gratification; that such scruples are useless obstacles in the way of his enjoyment; and that the world would agree with him that his demand was no more than just.

To such arguments the wife generally yields; not willingly, but by compulsion, for where is her refuge? She applies to her protector for protection against himself—and in vain. It were well if every husband realised that in thus removing obstacles, he has planted an enemy ruinous to himself. He has taken the first step towards turning respect into contempt, friendship into hatred, and liking into loathing.

If women dared to give their experience on this matter, as they one day will, they would agree with this statement. From the hour that a wife realises that her husband claims her person, when he knows he has not her heart, she is a slave, not less degraded than any ever bought or sold upon the auction-block; and she entertains to her master the feelings which such a relation must produce. Marriage, to her, becomes the name for all that is disgusting.

What, then, is she to do? Human law lent its sanction to ratify her marriage. Now, an equally clear and unmistakable voice within tells her that that marriage is null and void. She appeals to human law to annul it, but it is silent as the tomb. She has prayed in vain for mercy of him who has taken it upon himself to cherish and protect her, and what remains to her? Either to bow her soul to a pollution too deep for any name, or to disregard the power of the human law and a still more cruel public opinion, and leave the home where the shelter for her head must be purchased at the cost of her self-respect.

This is her last resort. But, before this, let her try every argument, every reason which manhood can comprehend or generosity feel, in behalf of her own rights. Let her show, by appeals to nature and reason, that it is a mistake that marriage takes from the wife the control of her own person. It is a natural, inalienable right, that was ordained of God before human law was made, and can be annulled by no enactments of men.

If there are children, let her plead to be their true and faithful mother. To this end, let her keep herself pure and undefiled; let her children be a mutual care, and let them have every attention and advantage which they have a right to claim from the authors of their being. A man must be less than human not to listen to this deep, agonising petition from the mother of his children.

But if he be less than a man, that wife is bound to fidelity to her own soul at every cost. She will stand guilty before God for the neglect of her instincts;

and if there is no alternative but separation or legalized prostitution, then I say, in the name of God and virtue, let her depart.

I have stated an extreme case, because there are men, or rather beings who have the name of men, so degraded as to demand a gratification of their passion without love, because the law has given them possession of the person of the individual who bears the name of wife. But, thank God, there are men who deserve the name—who ask not what the law allows, but who govern themselves by the one only law of the heart.

There are numberless other cases where affection on either side is wasted by neglect and indifference on the other; but they are all various manifestations of the one great cause—the absence of love; and they all point to one only remedy—separation, or, at least, suspension of the marriage relation.

There is no reason why those who have been disappointed in one choice, should be forbidden by human law to make a second. The heart may suffer under a false relation, but its power to love nobly, purely, and truly, is not thereby destroyed; and I should again utter my protest against the restriction put upon a true love-marriage.

Yet I am not so blind as to imagine that all the world is ready to act upon the law of spiritual attraction; for to nine-tenths of human beings these words have no significance. But in these letters we are not laying down laws for the nation, but defining our ideal of true marriage.

It is a bitter sorrow to find the hope of young love blighted; but that is light compared to the sting of finding our holiest instincts disregarded, a deaf ear turned to the agonizing cry of the soul for mercy, and the very core of our hearts wrung by a sense of wrong and outrage.

Ernest, I have written a long letter; but my soul is deeply moved, and I have not said half I might. I cannot imagine the sense of self-degradation I have here described as ever occurring in our relation, any more than the blue heaven could descend to stain its purity with the dust beneath my feet. But I speak from my knowledge of woman's nature—her instincts, her demands; and I have heard deep and heartrendering revelations from those the world considers happy. I know full well what depths of misery may lie behind a smile.

Thy true wife, NINA.

LETTER VI.

THE TRANSIENT AND PERMANENT IN MARRIAGE.

NINA.—That there is a transient and a permanent in the relation of husband and wife, as in all other relations, must be evident to the most superficial observer. We believe our relation is a true one. All true relations are as permanent as the wants and necessities on which they are based. Natural wants originate natural relations, and all natural relations are true. A natural want cannot lead us into a false relation. Ignorance in regard to such wants may, and does, lead human beings into relations that are false and ruinous. But all false and unnatural relations are transient, and must pass away; only the true and natural will endure. Of course, all hopes of happiness, based on false relations are doomed to disappointment. Only those which are based on true ones can be actualized.

What, then, are the transient elements of our relation, and what the permanent? Among the transient, one is wealth. As an ingredient in happiness, and a connecting link in that chain which binds us together, wealth is a nonentity. Our souls as they were merged by love each into the other, ignored the idea. Gold and silver we saw not. A power independent of

wealth and all that wealth can procure drew us together. Just so far as wealth is a basis of marriage, so far is that relation transient and uncertain; for that, at any hour, may take to itself wings, and leave only disappointed ambition and a bitter dissatisfaction in its place. I am far from indifferent to the advantages of wealth, both to ourselves and to the children in whose lives we hope to live, and in whose bliss we hope to be blessed. I rejoice to see thee, my wife, amid the artistic beauty and elegance with which wealth can surround thee. But such beauty and elegance are but artistic and external, and, of course, transient. They cannot satisfy the wants of thy deep and earnest soul. They would soon lose all power over thee, and thou wouldst yield them up as worthless to be clasped to the bosom of thy beloved. Thou wouldst see more beauty and elegance in the eyes of him who thus holds thee in his keeping—more to refine, exalt, and satisfy thy nature—than in them all. Thou wouldst rather behold thine image engraven deep in the manly heart of thy husband, than to see it reflected from the most dazzling mirror that wealth could purchase. There is a depth in our souls which neither wealth, nor anything that wealth can procure, can ever reach or fill. In that depth, not in bank vaults, nor in mines of gold and silver, are garnered our priceless stores.

How utterly powerless then is wealth to increase or diminish the strength and happiness of the marriage relation! How surely and how soon the loving heart grows weary of its glitter, and proudly and fondly turns to the answering love and sympathy of the loved one! Knowing this, let the desire of wealth never send me away from thee! May the wish to grow in oneness, till each shall have no life apart from the other, and thus to perfect our marriage relation, be the ruling motive of our hearts! The pursuit of wealth, when it separates or alienates a husband and wife, is a complete sacrifice of the permanent to the transient, the inner to the external life. Love is all that can insure happiness, and satisfy the soul in marriage. That will give us heaven, despite our outward surroundings. We will be rich in each other's love; we will glory in this vast possession. There is a wealth for which it is worthy to struggle, for it is a possession above the power of time and fate.

Is social position more permanent as an element of happiness than wealth? It is no less transient, and no more capable of giving repose than wealth. The struggle for social standing is often intense. Health of body and peace of mind are often sacrificed to attain it; and when attained, what is it? Nothing. We seek to be admitted to a particular circle in society. We are admitted on condition of compliance with the established rules of the order. What have they to do with the deepest wants and experiences of the heart? Absolutely nothing. The impulses of the heart must often be crushed and crucified, in order to our acceptance with those among whom we seek association. Should men or women, whose great aim is social position, dare to be true to the deepest and holiest instincts of their nature, they would forfeit their standing, for the simple reason that social position does not award its favours to fidelity, to truth, and justice, but to fidelity to its behests.

Men and women may be bewildered and dazzled by a brilliant position in society, and by the homage of admiring associates. Our superficial aspirations may be met by this, but there is a depth in every heart which this can never reach. If there be no answering voice to the deep, enduring, ever-present wants that are, life becomes a living death. Wealth and position, with all that glitters in their train, can never answer to those living wants. A husband or a wife must seek, above all other possessions, the entire heart of the wife or husband. When this pursuit is abandoned, or endangered, for even the most brilliant social position, the one who tries it is the destined victim of an enduring heart-desolation. To stand in conscious dignity and purity before his wife, will be the highest position to which the husband will aspire. So with the wife in regard to the husband.

Be thou my soul's eternal possession, and may I be thine, and this will be all my nature craves. May we each embody to the other all of the Divine which the nature of each demands, and thus will our souls find perfect repose.

Thy husband, ERNEST.

A N S W E R .

ERNEST,—In thy last letter thou hast fathomed the depths of life, and with a firm and fearless hand brought to light the true riches. Thou hast shown the difference between the real and the superficial with so just a discrimination, that hardly anything is left for me to say which can add force to thy thought.

As a true reformer, thou hast discriminated between abstract right and wrong, and then applied thy conclusions to the questions of daily life. Thou hast taken the standard of perfect manhood and womanhood, and by it measured every passer-by. This thou not only hast a right to do, but art bound to do, as a rational, independent being. Each one is bound to live up to his highest ideal. In society, manifold claims compel us to take the attitude of discrimination, in order to ascertain to what extent they are binding, and how far they should be resisted. The only rule by which to judge them is one's own ideal of truth and justice. I have entire respect and confidence in the result of such applications as thou hast made of thy standard to the practical questions of life. Social wrongs are everywhere about us; but I am not content with examining them and passing sentence on them as wrong. I would know what is the first cause from which these wrongs have sprung. For instance, in the illustrations thou hast adduced of the transient influences of wealth and social position on the happiness of marriage. Whence comes the undue weight which these considerations have at present in society? Was it a good or evil tendency in the human heart? Is the present bewilderment on these subjects an evidence of total depravity, or a perversion of a natural and worthy impulse?

To take thy last example last: What has made equality in social position so essential to marriage? It seems to me to arise from a very natural want. In marriage, we wish for a companion whose cultivation, tastes, and associations are so nearly equal to our own, that we shall not feel at a loss for society at home, or be shocked by associations disagreeable to our tastes. This is the broad, general reason for looking among our own accustomed associates for companionship. But perhaps we may be connected by ties of blood with those every way inferior to ourselves. Our own natures, tastes, aspirations, fit us for a nobler, more refined circle of friends. To this we turn, as to a native element. Here, by this very fact, we have a right to be; and here, if we are true to our strongest affections, will our permanent ties be formed. Thus far there is nothing to be blamed; but the moment we imagine that mere personal intimacy with this or that set of people, reputed to be genteel, is a test of individual merit, or can supply the want of it; the moment we seek society better than our own, from motives of personal advancement, or from any motive but an inward necessity, that moment we lose dignity and self-respect. People expect to attain an eminence by the aid of a neighbour's skirts to which they could never reach by their own feet.

Then, if in marriage this is a secret motive, the desired end may be gained, but what beside? If not fitted for it by nature and personal merit, it becomes a cold, cheerless, mighty mansion for a dwarf to dwell in. Long have we ceased to look for the great men and women among the "aristocracy." Let every true man and woman, in selecting companions for life, be governed by the simple and natural wants I first stated in this letter, and forego all the *eclat* which contains neither the promise nor the fulfilment of happiness.

How is it about wealth? To sober, high-minded people, wealth has this substantial value: It enlarges the field of benevolent action in a two-fold way—first, by direct gifts; and second, by leaving the possessor free from the necessity of engrossing occupation. A benevolent man, whose time is at his own command, has an unbounded sphere of usefulness; but if the claims of wife and children who are dependent on him for their daily bread, compel him to a single occupation, his action in other directions must of course be limited, however large the benevolence of his heart may be.

As a secondary consideration, wealth favours self-culture, by securing those advantages, and such external surroundings, as a cultivated taste selects. All this may be right, and may be used as a means of imparting happiness and knowledge to others less fortunate. These are the objects for which wealth is truly desirable.

The perversions which shallow natures make of these means of self-culture and usefulness, are too often illustrated to need enumeration here. Self-aggrandisement becomes the aim of life, and display, and the hollow admiration which that wins supplants the noble desire which buries self in the welfare of others.

A nature which can be satisfied with the latter possessions, to whom they become essential, so that true worth without them is unattractive, will often marry for wealth; and if an inscrutable Providence sees fit to let a life flow on in undisturbed possession of this phantom of happiness, the heart will grow poorer and smaller upon this insufficient food, till the realities of another life shall tear the scales from off those blinded eyes, and unfold the wrappings which have converted a being, once fresh and full of life, into an embalmed relic of antiquity. Thank God, that to us nothing external or superficial has lent a moment's fascination! Wert thou poor, friendless, and an outcast, thou wert all the same to me; for that which I love in thee is nothing that man has given or can take away.

Thy wife, NINA.

LETTER VII.

HARMONY OF DEVELOPMENT.

NINA,—The beauty and entireness of our relations, as husband and wife, depend upon ourselves. There are privileges belonging to this relation that can be accorded to none other without a profanation of the highest and holiest elements of our nature. The attraction of men and women to each other, as such, has its privileges, and its fixed, just laws to govern it. The marriage attraction is also designed to be regulated by just, immutable laws. In marriage, each earnestly seeks to be owned by the other. The husband and wife long to be claimed, each by the other, body and soul, and to have that claim asserted and maintained. The more absolute the claim and the possession of each over the other, the more entire is the satisfaction. Each ever longs to hear, in every possible form of expression—"I am thine, thou art mine." The entire abandonment of each to the other, in body and soul, is the source of the most intense enjoyment of connubial life, and of the most perfect happiness of which the soul can be capable, in the present state. But how often, through ignorance or other causes, is this confidence abused, especially on the part of the husband! This very abandonment, on the part of the wife, of body and soul to the tender love and care of her husband, which should make her more sacred in his eyes, and secure to her most tender and loving reverence, and thus make her heaven complete, is often made the source of her deepest degradation. Every fibre, organ and element of her being should be sacred to

him. She has consecrated her entire womanhood to his care and protection. This priceless wealth is eagerly and joyfully given and received. Shall he take and use it to the intellectual, moral, and physical ruin of the loving, trusting giver! It is a lamentable truth, that a husband often proves the most fatal influence to the wife's health and happiness—an influence from which there is no escape, except in death. Marriage, to both, should be the beginning of life and health. How often is it, to the wife, the first step to a lingering and painful death! Often, a short time, perhaps a single year, produces visible changes in her mental and physical conditions. Freshness, strength, and vigour have departed, and careworn brows, and langour, and ill-health, betray a great violation of some of Nature's laws. Perhaps the husband, perceiving the change, inquires the cause. She knows it full well, but she shrinks from wounding his pride, impeaching his knowledge, or chilling and alienating his affections, by telling him the truth. She suffers, in silence, the utter prostitution and ruin of her soul and body. He who should have been the Elixir of Life to her, has become her Death Potion, which is fast precipitating her into a premature, but longed-for grave.

Such is a picture which may be seen in any neighbourhood, among all classes. Why is it that woman so often dates the beginning of her downward course with marriage? Her intellect becomes enfeebled and bewildered; science and literature become less attractive; her social and moral nature becomes inactive, and she disappears from the social circle of which she was the life, not to give life to the still dearer home circle, for there too, clouds and darkness hang round about her. Proudly and fondly she gave to her husband all the treasures of her womanhood, and he has used them to her destruction.

But the wife cannot sink alone. The husband, who has cast her down, must fall with her: God has so decreed. Every abuse of her nature is as a great or a greater abuse of his own.

The essential element of the marriage relation is oneness, harmony—harmony in the intellectual, affectional and passionnal elements of their natures. If, in aptitude and opportunity for intellectual development, the husband excels the wife, and he takes no pains to extend his advantages to her, and make her his equal and companion, and thus maintain their oneness, he will soon find himself associated with one, in the most intimate, and important, and ever-present relations of life, who is incompetent to meet his constantly-growing wants in that direction. Her intellect he leaves to barrenness, while he sedulously and successfully cultivates his own. In this, he neglects and abuses his wife, whose right to intellectual development is equal to his own.

So in regard to her social and affectional nature. He cannot enlarge, refine, and elevate her social nature, while he leaves her to a limited and inferior circle, without wrong to her and to himself. The husband, if he is wise, will mingle in no society in which the wife cannot stand by his side. He will enter no circle where she may not enter; he will seek no social enjoyment where she may not participate. Just so far as he cultivates his social nature, and leaves hers to barrenness and desolation, he brings ruin on the home of his love and happiness. If necessary causes confine her at home, his love will keep him by her side. It is certain ruin to his soul's peace to leave her to isolation, anxiety, and ever-present longing for his sympathy and society, while he is away, mingling in the exciting scenes of general society, however intellectual and refined they may be. He that sacrifices the society of wife and children to general society, sacrifices the substance to the shadow, the pure diamond to the common pebble.

So of the passionnal element. If the husband enjoys this at the expense of the wife, all harmony of desire is outraged. His passionnal nature becomes monstrous and unnatural, and seeks its gratification at the expense of the wife's health and happiness. But in another letter I shall show how our harmony in this relation is to be preserved.

ERNEST.

ERNEST,—Since thou hast proposed, in thy last letter to treat more fully, in the succeeding letters, that part of the subject which pertains to the physical conditions of marriage I will limit myself in this reply to the ideas suggested in the latter part of your last communication, in which you describe the unhappy results of a neglect of the social and intellectual wants of woman.

In a former letter, I have said that love strikes its first roots in the spiritual nature. The maiden finds in her hero a wisdom to which her intellect does homage, while her heart is won by his attractive goodness. She looks forward to marriage as the blessed bond which shall insure to her his presence evermore. She will then have an ever-present counsellor and friend. His knowledge will supply her ignorance; his intellectual wealth will supply all her wants; and her growth and progress will be stimulated by his sympathy and encouragement. She foresees the time when domestic cares, or physical weakness, will limit her to the walls of her own house, and when the busy whirl of life would leave her entirely in the back ground, were it not for the influx of fresh life which Love daily lays before her. Visions of domestic happiness flit before her mind, of busy occupation for herself in preparing comfort for the beloved, while he will cheer her labours with social conversation or a book. To young or old, there is a charm in such a picture of home life. Full in the expectation of such happiness, the bride leaves the home of her youth, her early friends, the position in life where leisure, books, and every means of culture were at her command, and joyfully lays them all upon the altar of her love; rejoicing that she has, within herself, resources wherewith to render home attractive to him whose happiness is now her greatest object in life. As time wears on, her cares increase, and less time is left for self-culture. She tries to inform herself by conversation with her husband; but he finds her ill-informed, her reasoning unsound, in consequence of defective information and limited observation, and he, therefore, prefers other society, from whom he can gain something for himself. He talks with her about minor matters, of private and personal interest, but leaves for persons of greater knowledge, the discussion of the deep questions of life. Club-rooms become the scenes of his greatest intellectual activity and enjoyment, and he looks upon home as a place of refreshment for his body, of relaxation from mental activity; a place in which he has much to receive, and little to impart.

Thus, by slow degrees, the bond of true companionship are severed, and life presents to them no longer one aim, one destiny, and one hope, but separate paths, objects and satisfactions. According to the tendencies of her nature, the wife becomes a devotee of fashion, frivolous, worldly, and neglectful of the serious duties of life, seeking abroad what she fails to find at home; or perhaps the native energies of her soul assert themselves superior to such common-place attractions, and she leads her independent life of thought and action under that name which has always been a by-word of reproach, a "blue-stocking," and in the latter days implied in the epithet of "a strong minded woman." Perhaps the Church, and active works of benevolence, bear evidence of the disappointed hopes which seek an unselfish satisfaction; or perhaps, from want of inward force, she loses all hope, all inspiration, and all effort, and sinks into the mere household drudge and nursery-maid.

Who is to be held accountable for this wasted life? Not she who has brought her heart, mind, strength, high hopes, and noble aspirations to the home of her beloved; but he by whose neglect she has failed to become what her natural endowments and previous culture fitted her to be. In associating her life with that of her husband, she has yielded to such claims as must engross her time, occupy her thoughts, and enfeeble her physical powers. But shall such a free gift of herself be the wreck of all her deepest aspirations.

dependent as she is for their fulfilment in her new relation on the ties of social companionship?

Her duties in domestic life are well defined, and neglect of them meets unmerciful censure from the world's people. Has the husband, then, no domestic duties involving the happiness and development of his wife? Did he marry for a housekeeper and a mother to his children, or did he seek companionship for life? In some, a thoughtless neglect, in others, a low estimate of the capabilities of a woman's nature, lead to an entire separation of life and interest between man and wife.

He who loves wisely as well as deeply will as generously share with his wife the food of intellectual life as the daily bread. When he gives her his right hand in marriage, it should be a symbol of the fact to her whole nature, that he will be a guide, a comfort, and a strength, which shall never grow weary.

But again I must recur to my home in thee, to renew the assurance that I am speaking from experience in giving this ideal of what the true husband should be. I am a wife, in all the dignity, power, and purity which that name implies. Yet, withal, I have such a sense of rest in thy superior strength, such respect for thy judgment, and such faith in the love which makes my advancement thy first care, that I almost fancy myself a little child, whose education thou hast undertaken, and for whom thou dost feel a father's solicitude. I am indeed,

Thy "CHILD-WIFE," NINA.

LETTER VIII.

LOVE AND PASSION.

NINA,—In my last letter I spoke of the abuses practised by the husband, by disregarding the social and intellectual development of the wife, while he pays every attention to his own. I come now to speak of the passional, or purely sexual element of our nature, and of the necessity of perfect harmony in its action, in order to the perfection of marriage. If either demands that which the other has not the power joyfully to bestow, discord must ensue. For, if the husband demands the gratification of an unreciprocated want, it must tend to draw around a relation, intended to be bright and living, the shadow of death.

No human relation is under more fixed and certain laws and conditions of life and health than that of marriage. Unswerving fidelity to these laws is the only condition of happiness in this relation. The passional nature, as an element of marriage, comes under equally just and fixed laws, whose violation converts this source of buoyant life and health into a source of the keenest suffering.

But before proceeding to define these laws, I wish to say one word more touching the distinction between love and passion.

That there is in fact, such a distinction, is obvious. Marriage-love is the deepest, tenderest, most absorbing element of the human soul. The highest and holiest effort of the love-nature is seen in the blending of two souls in marriage. To this deep, tender, abiding element of the soul, the passional nature will ever be in abeyance.

Where marriage-love exists between two healthfully organised and developed beings, the desire for the expression of love through the passional nature, and the desire for offspring, is a natural result. It seems to me there must be defective organism where this is not the case. But, while connubial love may not exist without this desire, mere sexual passion may exist, in the most ungovernable degree, without love. In man, this desire or passion is designed to be

under the control of wisdom or reason. In a perfectly organised man or woman, the desire for sexual gratification would exist only as the effect of pure love; and parentage would result only from marriage. But men are fearfully diseased in this respect. They seek this enjoyment without love, they stimulate, in every possible way, this element of their nature, and thus enlarge the power and desire of gratification. Reason, conscience, love, justice, God, are all sacrificed to the sensual element.

The only limit to their indulgence is the capacity for enjoyment. Wife, children, health and life are all sacrificed to sensual desire. How large a portion of the children born among the most religious and civilised races are the offspring of mere animal passion! They are neither conceived nor devoted in love.

The passional nature should always be in entire subjection to true love, which is always in harmony with wisdom. Instead of this, the love is generally in subjection to the animal passion. In this case, the natural and inevitable consequence will be intellectual, physical, spiritual degradation to both, and an outrage to all who are born of it. Great and most hurtful mistakes are made in the discussion of this question, by calling animal passion by the name of love. The animal desire is often accepted as marriage-love, and if the union of two, for this purpose, is sanctioned by the Church, the demands are considered to be those of love.

This is the sort of love that demands "variety" for its satisfaction. Uncontrolled by wisdom, justice, purity, love, and therefore essentially gross, impure, and brutalising, this passion seeks its gratification with any and every one, to the fullest extent of its capacity.

But, that I may preserve sound and pure the health of mind and body so freely and generously confided to my care, I shall give thee more freely my idea of the true and imperative dominion which my love for thee asserts over the inferior elements of my nature.

Thy husband, ERNEST.

ANSWER.

ERNEST,—Thou hast shown the action of selfishness in the pursuit of the opportunities of improvement, and hast made it seem, as it really is, the most direct foe of connubial union. The same spirit, wherever it is displayed, is equally fatal to the peace of her who becomes the victim. But sometimes the sacrifice is active, sometimes passive. The wife may be called upon to renounce a cherished hope with less conflict than to obey a positive command. This is true in the personal relations of marriage. There are many ways in which "marriage is a lottery," according to the old saying. An affectionate husband may make so great demands upon his wife as to undermine her health, and destroy her capabilities of enjoyment or usefulness; or he who promises to love, cherish, and protect her, may have so low an idea of the nature and offices of love, as to understand no finer mode of expression than through the passional nature; or, after a little while, it may appear that there was no love at all, but only a fierce, imperative sense of personal possession, which acknowledges no law or limit superior to itself. Under all these forms of marriage woman is a hopeless victim, and helpless, also, except from her own resources. She may truly love her husband, yet the capacities of her nature for passional enjoyment may not allow her to respond to all his wants. It is the testimony of many wives that their husbands, under these circumstances, will not accept such reasons; and if the wives persist in obedience to the instincts of their nature, they show coldness and neglect, and sometimes threaten to leave their homes, and seek among strangers the sensual pleasures denied them by their wives. When once such words cross a husband's lips, his claim to the respect, love, and confidence of his wife is forfeited.

We have before classified, in its proper level, the animal passion which seeks indiscriminate gratification. In reply to such a threat, no woman who respects herself would hesitate a moment to assent to his proposition. But it should not end there. If he cannot govern himself according to the laws of reason, justice, self-respect, and the tender considerations which belong to the office of a husband, let him cease to be a husband. Never again should a wife receive him who can endeavour to frighten and manage her into subjection to his passions. Men say they cannot control these wants; that they are implanted by Nature, and it is intended that they should be gratified. In healthy organisations, when the natural laws are obeyed, they can control them, and all sound men know it. Women are taught that a part of their duty consists in sacrificing health and happiness to this sensual enjoyment in the husband. It is no more a duty than it is to supply intoxicating drinks to the sot. In either case, her whole power and influence should be used to aid him in gaining ascendancy over these lower elements of his nature. She should be gentle and affectionate, but firm and persevering in her course. If there be a spark of true manhood left, or even the memory of true love, it will thus be rekindled, not quenched.

If there were less reserve between those who intend marriage, there would be less difficulty afterwards. Young men and women should read and think, and have a standard of right and wrong upon this matter as fixed as upon any other moral question; for, surely, there is no one whose influence on themselves, and on future generations, is more direct or abiding. Those who are anxious to develop themselves rightly, will find no difficulty in presenting subjects pertaining to the most intimate relations with true delicacy and propriety. Now, men and women marry in utter ignorance of each other's views and expectations as to the very relation which will most speedily wreck their happiness, if it is abused. So long as they do this, the history of martyrs will continue to be written.

It is vitally essential that a young man should understand the action and reaction of his passional nature. If he be a true, high-minded, loving husband, he will wish to preserve, to the end of life, that perfect trust and confidence which will lead the wife to feel that she has no need of protection against her husband; that respect which often dies in the most intimate hours, while it remains undiminished in all external relations; that tender self-abandonment of first love, which bears in itself the germ of immortality, and can only be destroyed by neglect and outrage. The wife should never dread the coming of her husband, or be wearied with his presence. She should feel that the gentle assiduity with which the lover studied to anticipate and meet her wishes, is only exchanged for a nearer and dearer relationship, by which that tenderness can be expressed with tenfold significance. In marriage, under such influences, there is a dignity, self-respect, and an elevating power to the husband; and freedom, joy, and heavenly rest to the wife.

Are not its attractions enough to render those laws by which it can be secured to every pure and noble heart?

Thy wife, NINA.

LETTER IX.

THE REPRODUCTIVE ELEMENT.

ITS EXPENDITURE CONTROLLED BY FIXED LAWS.

NINA,—Our happiness, as husband and wife, must depend upon ourselves. Whether our marriage shall be a source of intellectual and spiritual growth, and a means of assimilating us more to the Divine, or of degradation to ourselves and our children, is for us to determine. That it may be only for good, we must know and obey the natural laws by which our relation is intended to be governed; especially as to the expenditure of that element which prompted us to enter into this relation. What is that element? It is to ask, in another form, what constitutes me a man, and thee a woman?

The distinctive difference of sex lies in the power of man to prepare the germ of a new existence; and in woman to receive, mature, and give life to that germ. Either sex, in which the power is wanting to fulfil the offices appropriately belonging to each, is defective in the essential elements of manhood and womanhood. It is certain that Nature designed the race to be perpetuated and perfected here. In the economy of our physical and social nature, arrangements that aim at this end constitute a marked feature of humanity. The distinction of sex, and all the endearing relations that grow out of it, look to this end. Indeed, it seems the sole object of this distinction. The power of reproduction is indeed shared by man with all other animals, and even vegetable existences; yet, it is none the less an essential and important element of our nature.

It is too evident to need proof, that the parental relation was provided for in our social and physical organization. Those who do not enter into the relations of marriage and parentage, cannot be said fully to answer the great end of their being. We may know that the power to reproduce constitutes an essential ingredient in our Human Nature, and that those who lack this power, are wanting in an essential element of manhood and womanhood, from the condition and character of those in whom, by violence or abuse, the power to elaborate and secrete, or to receive and nourish into life, the germs of Humanity is destroyed or paralyzed. This power in man to prepare and impart, and in woman to receive, cherish, and develop the germ of a new being, and thus to add new members to the great human brotherhood, makes each an object of sacred and abiding interest to the other. Each has a want, ever-present and ever-controlling, which can be met only by that which the other can impart. The husband would be represented in the race; he would hold to his heart one to call him father. In every truly organized or well-developed man, this is a deep and holy want; an earnest call, which can be answered only by a living child, the result of a union in the person of the wife, between that element which makes him a man, and that which makes her a woman. It is from this want, and the effort to fulfil it, that the attraction between the sexes has its origin. It gives magnetic power to each over the other.

No truly developed and well-organized man will seek a woman as a wife, whatever be her personal charms, or her intellectual endowments, if he knows her to be absolutely incapable of crowning him with the dignity of a father. He will seek such as a friend; but as she cannot fulfil this deep and holy want of his nature, she will not attract him into the relation of marriage. For the reproductive power is the only one that can bring us into the parental relation, which—marriage excepted—is the most important and exalted of which we are capable. On this rests our only hope of deliverance from the multiplied forms of disease and deformity, of body and soul to which the race is now a victim. The power of reproduction is the basis of the purest, most intense, and most permanent happiness of life.

This power to reproduce is a primary, essential attribute of the soul. The body, so far as it is adapted to this end, is but the physical symbol through which the soul manifests its creative power. This power is the basis of true manhood. Without its presence in the physical system, the soul is necessarily imbecile and deformed in all its manifestations. The expressions of intellect are feeble, dull, obscure, timid, and without energy; the outward demonstrations of affection are indelicate, repulsive, cold, and without life; the whole soul, in man and woman, is crushed and powerless, in all its intellectual, social, and moral expressions. Take from a man the power to elaborate, secrete, and impart the germs of new beings in human form, with all the attributes of perfect souls and bodies, and take from a woman the power to receive, nourish, and develop those germs, and who would look to them for physical, intellectual, social, or spiritual beauty, strength, nobleness, and efficiency? Their wills, their intellects, their judgments, their reasons, their consciences, their affections, their entire being, is stunted. The vitalising element of their manhood or womanhood is taken from them. Their souls, as well as their bodies, are mutilated by violence, or by an abuse of the sexual nature in mere sensual indulgence.

No man or woman can be truly great, intellectually, socially, or morally, in whose physical organism this reproductive power has been wanting during childhood and youth. That soul must, in all respects, necessarily be deficient in all the noble, generous, and highest qualities of manhood and womanhood, in whose development this power, in the bodily system, had no part. The man, who respects not the health and comfort of the symbols of womanhood in his wife, but sacrifices them on the altar of his sensuality, is sure, sooner or later, to receive his reward in a cheerless, sickly, lifeless home, and in the diseases and deformities of his children. Men and women will not always trifle, as they now do, with an element so essential to the healthful and noble development of the entire man or woman.

How sacredly, then, should such an element be regarded by all, especially by husbands and wives, fathers and mothers! With what solicitude should we seek to know the fixed laws of our being, by which it should be regulated! What scrupulous and unswerving fidelity should mark our obedience to them!

Nina, we must come to a true knowledge of ourselves, and maintain perfect loyalty to our natures in this respect, and then we need have no apprehension as to the harmony and perpetuity of our life-giving relation.

Thy husband, ERNEST.

A N S W E R.

ERNEST,—The thoughts expressed in thy last letter suggest to me the propriety of adding what is rarely acknowledged, even between those who are truly married. If I had heard expressions like thine on the difference of sex years ago, I should have been shocked and pained. I think women generally would now be equally so, should these letters of ours ever fall under the public eye; because we are taught to banish every thought or word which may remind of this distinction. The idea is general among women, that they are attractive to men only for social qualities which fit them to shine in general society or to adorn domestic life. Woman feels degraded by the thought that her physical organisation, as a woman, can add to or diminish the power of her attractions. I always felt this, and I know most women do. I believed that only the sensual eye considered those things, and only the meanest form of love took them into account. But, Ernest, thanks to thy true and manly heart, thou hast taught me a higher truth than that. By the power of a true and manly love, thou hast shown me that, to the lover's heart, every function every organ, every capability of my nature, intellectual, moral, social, and

physical, combine to make me what I am—the fulfilment of thy deepest wants, the satisfaction of thy wildest dreams of happiness. With the love I bear to thee, with the respect which no other man has inspired in me, with a trust which knows no limits, with the earnest striving to be to thee, in all respects, the wife of thy soul, can I for one moment resent the thought that one great cause of this deep and holy relation between us, is the fact that I am physically, as well as intellectually and spiritually, organised so as to meet the yearnings of thy heart for a full and perfect manifestation?

The ultimate design for which woman is constituted, mentally and physically, as she is, can be no other than to fulfil the relations of a wife and mother. If she were meant for an isolated, self-independent existence, she would have been differently organised, in all respects. Therefore, as the consummation of every created being is to fulfil the ends of its creation, every woman falls just so far short of the fulfilment of her destiny, as she fails in fitness for the relations of wife and mother.

The affections of a woman, her attractive forces, her susceptibility to the attractions of others, are all indicative of the same fact; and when, at last, the true husband is revealed to her, she has no choice but to own her sovereign. He, too, influenced by her love, walks with manly strength and dignity, for on his soul has dawned a vision of beauty and power. His soul pays homage to the loved one, as he claims her as the rightful owner of all he has to give and share.

Then comes the blending of their souls and bodies in the existence of a third soul and body, which must, in that case, bear the impress of the authors of its being. No wedded life can be perfect without this consummation; no life is complete, no future is full of promise, without this object for which to toil and expend the vital forces.

But no child of love will be dear for its own sake merely. Because it is, to the mother, the child of a beloved husband, and to the father, the image of a beloved wife—this makes the consecrating holiness of parentage. In fact, this is all that constitutes human parentage superior to the instinct of an animal that protects her young. It is the glory of our humanity, that all the relations in which we stand to each other are stamped by the soul. The animal, as such, belongs to the brutes. Human beings are designed to reproduce human beings, with all the attributes of soul that belong to them as such. In the reproduction of human beings, all the rational, affectional, and moral powers that belong to them must take part, or the offspring is not, in the truest sense, human. If only the animal instinct is concerned in it, mere animals, not human beings, must be the result.

I think, as you know, that no woman has a right to marry, knowing her incapacity to be a mother, without a full acknowledgment at least of the fact. Then, if her beloved chooses to sacrifice that part of his being to her, he can do so; but she has no right to compel him to such a sacrifice by concealment. It is a falsehood; and few women are courageous enough to tell the truth in this matter. So of a husband; though I think there are many women who would not be in any wise influenced by the knowledge of that defect in a husband.

It seems to me, that the element in a woman's nature which seeks to embody itself in a child, is not generally in a state of such strong and active development as it is in man. It lies dormant in every perfect nature, to be sure; but, as I have known woman, the desire to be a mother does not take a distinct form among the clamorous wants of her nature. I think a woman's love is always, at first, a pure element of the soul, and has no care nor thought for the body; and, oftentimes, the personal surrender costs an effort, even where the love is true and deep. This has been the testimony of all the women whose interior lives I have known. Well would it be for their happiness if husbands, when they first receive to their bosoms the loved ones their

hearts would sacredly cherish, would remember this fact, and not demand this personal surrender, until by other endearing expressions, such as love prompts to give, it shall be a cheerful, willing offering to their love, and this most intense, concentrated expression of it shall be desired by their wives.

For myself, I cannot assume the same peculiarities. To me, the love which is deep, pure and strong enough to attract me into the relation of a wife, obliterates all thought of person. Why stop to look at the settings which surround the jewel? When I yielded up my soul to thee, my husband—when I said, Into thy keeping I commend my spirit—the physical person, which is but the outward symbol of that soul, went with it. When love for thee cast out all fear for the safety of my deep spiritual life and health when placed in thy hands, it also cast out all fear for the safety of my physical life and health. My entire physical, as well as spiritual nature was entrusted to thy care. Nobly hast thou responded to my call! A faith on my part that has known no bounds, has been met on thy part by a power of self-control that is perfect. I have never felt the sacredness of my own nature, as a woman, in all its functions, till since I have realized that herein lay the very nucleus of my power over him whom I would call my own through all the ages of our future being.

I would that every woman might be comforted by this assurance, that love consecrates the entire being of its object. Passion does not, of itself; but the mother cares not for the personal comfort of her infant with a purer eye and heart than does the husband regard the wife who inspires in him a sentiment of absorbing, purifying affection. I rejoice that I am capable, by natural organization of soul and body, to meet all the wants of thy being; and that thus the yearning of my heart for thee, as a husband, may be fulfilled by my fitness to become thy wife, and the mother of thy child.

Thy wife, NINA.

LETTER X.

THE REPRODUCTIVE ELEMENT.

ITS EXPENDITURE TO BE GOVERNED BY MUTUAL LOVE.

NINA,—I cannot apologize to thee for particularizing and laying down rules that seem to me just and natural, for the regulation of my passioned nature: for what wife would not bless her husband for fixing such limits, that she may be assured that she will not be victimized to his sensual indulgence? It can but add strength and brightness to her hope of the complete fulfilment of her happiness in marriage, to know that she has committed herself to the care of one who has determined to hold his passioned nature in abeyance to his love; and his selfish gratification in absolute subjection to her health and happiness.

We have before stated, that the only sanction of the expenditure of the reproductive element in man, is marriage-love—a love which must not be mistaken for friendship, and which demands other modes of manifestation than friendship suggests; a love which can only find its full and perfect development in marriage. Church and State may sanction a union, and render its fruits legitimate, according to human law; but, before God, every child, not born of marriage-love, is illegitimate, whether human laws pronounce it so or not.

An expenditure of this element cannot be made, in any inferior relation, without serious and permanent injury; for then it is purely sensual—a mere waste of physical life and nervous energy, since the higher elements of the soul take no part in it. It is mere excitement of the physical organs, and a

drain upon animal life, which reason, conscience, and the moral nature repudiate as a waste of the most costly physical element of manhood, unsanctioned by love, and destructive of harmony between soul and body. The physical man seeks a gratification which the spiritual man condemns.

There is no form of disease so painful and so loathsome, and ruinous, to the vital energies of body and soul, as that resulting from the gratification of the sexual passion, unsanctioned by love; while the passion instigated and controlled by love, is productive of no evil. Intemperance, war, slavery, unsuitable food, dress and habitations, exposures to heat, cold, and excessive toil, have doubtless caused many diseases and much suffering; but the world has yet to learn the full extent of the injury done to body and soul by sexual intercourse, uncalled for and unwarranted by marriage-love.

It is idle to plead the sanction of Church and State, or any custom, book, or creed. Human nature, penetrated and sustained by the great Life-Principle of the universe, holds steadily on her course, sternly executing her laws, and punishing every infraction of them. And no law seems more obvious and just, than that the passional relation should be under the absolute dominion of marriage-love; that every expenditure of creative energy, not prompted and justified by harmony between man and wife, must, if persisted in, bring disease to the body, idiocy to the intellectual, and destruction to the moral nature.

But conception, and the existence of a new being, may result from passional intercourse, in which the woman is passive, or positively averse to it, and the man excited solely by sensual desire. How large a portion of human beings, even the most civilized and refined nations, are the offspring of sexual intercourse, without love! Ask that man or woman, are you the child of Love or Passion? Did you inherit a full measure of the love-nature from your parents, or only the sensual? If we trace human existence back to the embryo state of being, how seldom shall we find that pure love and harmony of soul sanctified the act in which it originated!

Is it to be wondered at, that there is so little of the deep, true love-nature among men? Can we wonder that the passional element is so strong and all-pervading in human nature, and the desire for its gratification so ungovernable? Deep, pure love that seeketh not her own, does not prompt to the intercourse from which the new existence sprung, but passion—mere sensual, selfish, loveless passion. With such a type of manhood and womanhood—a type so imbecile to love, yet so strong to propagate as mere animals—we need not wonder that the earth is filled with pollution and crime. Passionately, men are giants; affectionally, they are dwarfs. They may be strong in intellect, but they are idiotic in love. Earth can never be blessed with any higher type of Humanity, till the passional intercourse is brought into subjection to marriage-love—a love that ever acts in harmony with wisdom. What greater crime can a man commit, than to give existence to a child by an act in which love, on either side, has no part, and in which both are governed by mere passion? Such a child is, from the beginning, a victim to the sensuality of its parents. They withheld the bright inheritance of love, which, by right, was his, and in its stead, entailed on him the fearful legacy of fierce, insane, ungoverned, sensuality. The child had a claim to be formed in the image of God; they gave him the likeness of a brute.

“God is love;” and man should be love, and would be, if, from generation to generation, this were the controlling power that called him into being. To be born of love, is to be born of God; and the love-child is the only God-child. Those only who truly love can give existence to the children of God. There is another and deeper meaning to the phrase I use. The pure affectional and spiritual relation between man and the Father can exist in none with such power, depth, and beauty as in him, who, by the holy birthright of a strong love-nature, is fitted to perceive and fulfil all the relations arising from his near alliance with the Infinite. In him, love to God will be no abstract

principle, but a warm, life-giving, blessing power of generous action for his fellow-men.

God will be manifested to us in the living relations of life, especially in those of marriage and parentage. The husband and the wife will be, each in the other, the most vitalising, most endearing, and most potential, and useful manifestation of the Infinite. Each will be an ever-present, ever-speaking revelation of God to the other. The child will come as a divine revelation to both.

What a life had ours been if we all had begun it with a deep, rich love-nature! To commence an eternal existence, with souls all penetrated and guided by this element, were a parental inheritance in which any one might rejoice with joy unspeakable. Such a legacy would be the guarantee of a happy destiny—a birthright passport to the kingdom of heaven.

Thy husband, ERNEST.

ANSWER.

ERNEST,—One needs no better proof of the long distance which the race has wandered from the straightforward line of truth and purity, than to realise that such a statement as that in thy last letter could or need be made, in vindication of true love. It is lamentable, but true, that it has assumed, or rather humanity has put upon it, numberless masks and disguises; that this ministering angel has been driven from our door, wounded, grieved, and bleeding; and what was sent to be our high-born guest, has been compelled to the degrading, menial service of the brute.

True love is the same in all ages and all climes. Its works are ever recognised, under the greatest inequalities of outward position. Its wants, its hopes, its aims, its satisfactions are the same. It claims the possession of its chosen object; it asks no higher blessing, it acknowledges no worthier aim, it can have no deeper happiness. To such love, the mutual health, happiness, and development of each is the chief end of marriage. Must we not see the discord that enters at once into a relation where such love inspires but one? Is it not insane to enter upon such a relation, when no all-conquering power impels both alike to merge their being into one?

I say, whatever be the solicitations of family or friends, or whatever the worldly considerations that urge to such an ill-matched union, a woman will be guilty of less sin to commit suicide than to submit; for, wrong as this may be, she deals only with her own life. In marriage, without love, she exposes herself to become a mother to children whose birth will awaken no deeper thrill in her heart than gratitude for safety from her peril, and the maternal instinct which she shares with all the animal creation. Unless she can look her child in the face, and before God and her own heart, say that it is most dear to her, because it is the child of him who made her a mother, she has not the marriage-love which should have blessed her in its conception. The relation of a mother is holy and beautiful beyond the power of words to describe; but it is a relation into which a woman has no right to enter, except by the royal highway of love. It will be observed, in marriage, that those who become mothers under the only sanction of maternity, love their children as new representatives of the husband; while those who give birth to children without love, become selfish and narrow in their love for them as their own offspring. The husband becomes the father of the child, and he is the husband less than ever.

I can hardly imagine the emotions of a woman who finds herself about to become a mother, under the consciousness that no deep love in the heart of her husband has prompted to this holiest of all relations; or if she finds the tax upon her physical powers too great to make her willing to undertake it.

Against all the instincts of her soul, depressed, heart-sick and disconsolate, she gives, for the first supplies of the new being, silent tears. Nature, ever faithful to her trust, seizes from the passive tide of life the nutriment necessary to develope the young frame; but, through the minute nervous channels, flows an ever-strengthening tide of sadness, perhaps, at best, of resignation to her fate, which will infuse itself, and interpenetrate the very nerve-fibre of the young existence, preparing it, by a bad organization, for a fretful, joyless childhood, a nervous and uncomfortable maturity, and a stern and heartless old age. Have you never seen a young infant's eyes, that looked as old and sad as if they had been often closed by grief!—faces that haunt you with their prematurely sad and earnest gaze? To me these eyes tell of hours of solitary anguish, on the part of the mother, when Nature must give way, and yet there was no help, but still to bear on in silence.

Ernest! it is to the thoughtless sensualist and heartless father, that those pleading eyes will turn, when, in the future, the long catalogue of sin committed against the mother shall stand unrolled. For all the tendencies, born of these violations of the mother's instinct, neither she nor her child is responsible.

If this be so, there is but one way for those in whom true love gives no sanction for the marriage relation. They may live together as friends, but never pass over the limits assigned to friendship, as they value their own souls, and as they hope to stand acquitted before the highest tribunals, in this life or the next.

Thy wife, NINA.

LETTER XI.

THE REPRODUCTIVE ELEMENT.

ITS EXPENDITURE TO BE GOVERNED BY THE CONDITIONS OF THE WIFE.

NINA,—My advent to thee, as a husband, involved the entire and unconditional surrender of myself to thee, as thy exclusive possession. My manhood is now thine, joyfully bestowed, and as joyfully received. As a necessity of my being, I have put at thy disposal all the elements of my nature as a man; thou hast received them, and assumed the responsibility of disposing of them, to the best interests of our relation, to the perfection of our natures, and the development and happiness of our children.

The moment that witnessed this surrender of myself to thee, as a husband, beheld also in my heart, the feeling that I might not dispose of any element of my nature, except to develope and perfect thine, in thy relation to me as a wife, and the mother of my children. This feeling has grown and strengthened in me, till I can truly say, with all the deep earnestness of nature, that I am no more my own; I belong to my wife, in all the elements necessary to constitute me a man and a husband; and the more constantly she consecrates all I am and have to perfect and perpetuate the oneness of our hearts, our hopes, and our destiny, the more shall I be brought into harmony with the just and the good.

I cannot think of my union with thee in reference to my own sensual gratification. An essential ingredient of my happiness with thee is, that it is all shared fully by thee. The first great aim of our marriage, so far as I am concerned, is, to perfect the development and happiness of my wife; and only as that end is promoted, can it bring happiness to my heart. I love thee, Nina, with a love that can bring no satisfaction to me, except as it brings

purity, self-respect, and a higher life to thee, and as it imparts health and happiness to thy whole being. Mere sensual gratification forms no ingredient in a true marriage relation. True love merges self in the perfection and happiness of the loved one. So is it with me; so is it with thee. Progress, not pleasure, is our aim.

Is this condition of the soul an essential ingredient in marriage? Is this the feeling thou wouldst cherish and strengthen in the bosom of thy husband? "This and none other," is thy answer. What, then, is one of the laws by which the passional expression should be governed? If what I have said with regard to the surrender of the husband to the wife be true, then the answer is obvious:—The wife must decide how often, and under what circumstances, the husband may enjoy this passional expression of his love. This, it seem to me, is the natural law by which he should sacredly govern this demonstration of love. Only as she calls for it may he rightly respond. If her call is less frequent than he desires, then he should hold this sexual element in subjection to her wants and happiness, and seek the fulfilment of his love in the thousand other expressions which, as a husband, his nature prompts him to give. I repeat the call for this deepest expression of love should ever come from the wife. The right of response belongs to the husband. A woman may love her husband deeply and tenderly, and yet be unable, at all times, to respond to his passion. For a husband, under such circumstances, to insist, is to prostitute himself, and sacrifice her health and happiness.

Nor will a man, who truly respects himself, and who pays due homage to the nature and womanly feelings of his wife, ever urge upon her this expression of his love, when he knows that her only enjoyment is the consciousness that she is administering to his happiness. Is it just to herself and to her husband for a wife to wish to administer this to his wants? Ought she to consent to yield her person to gratify a passion which, for the time being, can have no claim upon her, because it is unanswered in her own nature, and which, if allowed, will tend to strengthen in him the feeling that a wife is bound to submit, under all circumstances, to his sensual demands? He should not, and he would not, if he were manly, and truly respected his wife, ever receive such enjoyment, knowing that her affection for him, and her desire to make him happy, in his own way, are the only motives for her self-surrender. He outrages her nature, and, if often repeated, she must sink under it. How many wives have ruined their own health, and brought desolation upon homes that otherwise had been full of life and beauty, by yielding to the solicitations of their husbands, without a similar answering call from their own natures?

It is a common and fatal mistake to suppose that, by such compliance with a husband's wishes, his love will be retained and strengthened. His passion may be cultivated and enlarged, but his love will find no food in the gratification of any such demand. A man of justice and honour, who is worthy to be the husband of a pure, trusting, noble-hearted woman, could never thus abuse the love and confidence of a wife.

What is the difference between this expenditure of the sexual element, and that caused by solitary indulgence? Is this solely for sensual gratification? So is that. Is this in its nature purely sensual? So is that. Is the one a solitary indulgence? So is the other; for the wife is passive, and has no more passional enjoyment than if she were a corpse. All who have attempted to establish a distinction between the two have failed. He who expends the life-principle of his manhood in solitude, does no greater violence to his nature than he who solicits and takes the same indulgence with his wife when she has no pleasure in it. In both cases he sinks himself below the brutes, which never practise the former, and never the latter, except in answer to the call of the female. Among animals, the female instinct is the controlling power. Is it granted to man alone, the most exalted type of animated existence, who boasts of reason and immortality, of being an intimate partaker of the Divine,

and in whom love is designed to act in harmony with wisdom, to ignore the wants and wishes of the female? I do not believe it. In the human species, the male should be at least as observant of the wishes and conditions of the female as he is in the lower orders of animals. But, unfortunately it is not so; and the unhappy consequences are visited upon the sinners and their offspring. If a man is to be considered pure, honest, noble, manly who thus demands sensual gratification against the wishes of his wife, then so is he to be considered who commits the crime of rape. If the one deserves the gallows or the dungeon, so does the other also, for the latter violates every sacred obligation binding on man, as a husband, a father, protector, and friend. Unreciprocated passionnal excitement is a solitary indulgence, and as God is just and true, it will be visited and punished as such. Passionnal indulgence, demanded as a right, is a rape upon the person whom the husband has promised, before God and man, to cherish, honour, and protect. This is committed under the sanction of legal marriage; but justice, though it waits, is sure to come at last. Ruined health, a cheerless home, and love turned to loathing, will be the reward for such violation of Nature's laws.

Woman's rights! True and earnest spirits are intent on discussing this subject. When it shall come to be fully understood what is involved in it, many, both men and women, who are now so anxious to bring it fully before the world, will shrink away. They will not have knowledge, nor strength, nor courage, to meet the great and final issue of this question. So long as it is confined to woman's political, pecuniary, and social rights, it will not conflict materially with the selfish passions and interests of the opposite sex.

But the discussion cannot stop here. It must enter the sanctuary of home, where man and woman dwell together as husband and wife. To perpetuate the race, combined with individual development and happiness, is the great object of marriage. In reproduction, the function of the husband is to prepare and impart the germs of new beings; that of the wife to receive, nourish, and develop them. But who shall determine for the wife when, how often, and under what circumstances she shall take charge of the germ of a new existence, and assume the office of a mother? Human law and custom give to the husband the power to settle this question. Society and government accord to the wife no voice in the matter. Both say to her, "In this, we consign your person to him whom we have empowered to control you as a husband. When he desires a child, or wishes for sexual intercourse with you, you must yield. We shall never protect you against the demands of his passion." It is to such a fearful power that woman surrenders her person in marriage! From the hour that she does so, how often is her course downward, with a crushed bleeding heart, to an early grave!

There is no tyranny on earth so crushing to soul and body, and so fearfully disastrous in its results to the physical, mental, and spiritual improvement of the race, as that often exercised by man over woman in legal marriage. In a true love-marriage, where love acts in harmony with wisdom, there can be no oppression. In regard to passionnal intercourse and to reproduction, the husband will say to the wife—"Thy will, not mine, be done." Passion will ever be in abeyance to all-controlling love; that will consecrate her person, and make her health, her happiness, and life dearer to him than they can be to her. He can never urge on her maternity till she calls for it. If he love her with a pure, self-forgetting, noble love, he can never intentionally, nor unintentionally, impart to her the germ of a new existence till she demands it, and is ready, cheerfully and joyfully, to receive, nourish, and develop it, and to return it to his grateful, manly bosom a living, healthy, perfect child. But, in what is now recognised by law, religion, and social custom, as marriage, the wife, as to rights, is too often considered a nonentity in the function of reproduction.

Just so far as man is ready to accord to woman the absolute right and control over her person as a wife, in regard to maternity, will he cheerfully accord

to her her rights in all other directions. Till woman has her rights here, it will be of small account, so far as her true growth and happiness are concerned, to secure to her her rights in minor matters of life; for all other rights are of minor consequence to her, so long as this one central right of womanhood is denied.

Nina, reveal all the depths of thy soul to me in relation to this question. Thou hast done it often, even before our union was consummated. But put thy thoughts on paper that they may descend as a legacy to our children, and that other men and women may be induced, in entering into the marriage relation, to have a perfect understanding that the conditions of the wife are ever to control the passional relation.

But I must close this letter, already too long. Let me, then, renew the assurance, made long before our union, that, as thou must bear in thine organism the result of our sexual intercourse, thou hast a right to control it in me. As God is my witness, I will be true to this promise, believing, as I do, that to violate it would be to disregard one of the fixed, unchanging laws of marriage intercourse, and to trifle with the holiest rights of a wife. Thou wilt help me to consecrate the energies of my manhood to all tender and healthful expressions of love—love, such as thy nature as a wife ever longs to receive, and mine, as a husband, ever longs to give.

Would it not be well for every woman, before she marries, to learn whether views like these will regulate her husband's relation to her; and if not, what advice dost thou give to her?

Thy husband, ERNEST.

ANSWER.

ERNEST,—In answer to thy questions, these thoughts suggest themselves: God, in making human beings, has given to each a power of self-government, which needs, which admits of no other rule—a conscience, to govern the movements of both soul and body. The body which enshrines each soul, is a direct gift from God, for which the possessor is accountable only to God. He says, "I give a fair, unsullied temple, wherein I place a spotless soul. Use and train the one and the other to the utmost of their high capacity. But thou, and thou alone, art responsible for the use or the abuse of it. Confide to others if thou wilt the keeping of thy treasures; but it is to thee alone I look for an account of thy stewardship." With this understanding of herself a woman comes to the experience of life we call love. She finds her ideal at last embodied. She says, "Here, accept all I have to give; take me to thyself, soul and body, for time and eternity. Thou art wiser, holier than I; do then for me what I cannot do for myself. Be my husband, my guide; and in this relation endow me with a power and glory I can never know but in being thy wife. Make my virgin soul into the wife; make the wife a mother."

He accepts the gift. The higher and the lower elements of his nature receive a new impulse. Intoxicated by the possession of this treasure, he pours out the fullness of his love in its intensest modes of expression. She finds less passion in her love than in his; and positive enjoyment ends in endurance, and fast approaches to repulsion. What must she do? She must gently and firmly confess the truth, and place the choice before him, of self-restraint on his part, or of disgust on hers. Love will waste no time in its decision.

Woman alone knows the limits of her nature in this respect. Woman alone is responsible for the voluntary functions of her nature. No man, though in the relation of husband, may exact that of her system which she is unwilling to accord. Man, in assuming power over his wife's body, not freely and cheerfully granted by her, assumes what God never gave to him; and in the wreck

of health and happiness which will have to be atoned for in future time, his guilt will be heavier in the sight of God than any worldly usurper of the power of nations—a loveless, cheerless home is his. The love of no woman, however pure, concentrated, and intense it may be, can possibly continue to beautify and adorn the life of that man, who can demand of her an unwilling surrender of her person to his sensual gratification. Her respect for such a man must cease; and when that is gone love goes with it. What then is left to the home of the miserable sensualist?

It is a woman's right, not her privilege, to control the surrender of her person. Thou hast truly said, that of all woman's rights this is the most sacred and inalienable. No language can truly express the injustice and cruelty of that man, whose selfishness could allow him to inflict on a woman a maternity for which her own soul did not yearn. Such an enforced maternity, no matter by whom or by what sanctioned, is the deepest wrong a man can possibly inflict on a woman. The first and most sacred right of woman is to decide under what conditions, at what times, and how often, she will accept the passionate expression of her husband's love, and to receive into herself the elements of a new existence. Love will lead every husband in whose heart it exists to recognise this right, and at all times scrupulously to regard it. And the wife, when once convinced of this fact on the part of her husband, will ever find her heaven in yielding up her person to his keeping; and with a faith and love that know no fear, will ever breathe into him the perfection of her self-surrender. The deep, earnest expression of each to the other will be, "Thy will, not mine, be done."

A man has no right to compel his wife to lie or murder. He has no more right to compel her to yield to his passion, and thus to lie against the instincts of her nature, and kill the yearnings of her soul for true companionship, by the forced hot-house growth of passion, which overgrows and swallows up all other forces of her nature. No matter whether the violence that enables the man, under the name of husband, to enforce upon her the conditions of maternity, be in his own superior energy, or in the shape of civil law or social and ecclesiastical sanction, the outrage upon her person is the same.

With these principles granted, she is accountable to God in her own soul for her fidelity to her nature in this respect. The man who respects not this fidelity is worse than a thief or a robber, for he tyrannises over the loving, trusting one, whose confidence he won but to betray. She shall say who shall be to her the guardian of life and honour. She shall be the interpreter of the demands of her own nature. Man can perpetrate no deeper wrong to himself, to his wife and child, and to his domestic peace, than to urge upon his wife maternity when he knows her nature rebels against it. Nor can woman commit a greater crime against herself and her child, than to consent to become a mother, when her nature not only does not call for it, but actively repudiates it.

The wife shall say to the husband, "Show me thy love in some gentler way; let my head repose upon thee as upon a rock of trust; let me feel thine arms around me, to defend me from all harm, not to bring it to me." She shall say, "I long to be the true, healthy mother of thy child. I am now ready to take into myself the elements of a being." And when again he makes the same request, and she cannot answer to it, she shall say, "Wait till I have force enough regained to embody a new soul as it ought to be embodied." Who but a ruffian would disregard such a request? Who but a being less than man would say, "No matter how you feel; I wish to be gratified." The wife should be the regulator of this marriage relation, for only in obedience to the laws of her nature can she hope to continue to be the loving, healthful, happy wife.

What elasticity would come to many a wife's heart could she be assured that he, who now denies to her all right of choice in this matter, would never

again claim what she could not freely grant ! Claim ! What a word ! Do we demand of God the perfume of the flower ? Can we snatch by violence the sunshine over our heads ? No more should a man claim of woman what love alone can rightfully bestow.

Freely to give, freely to receive, is what love requires. Else, with rash and sacrilegious hand, the flowers are plucked from the altar of God's inner temple. The sanctum of a wife's person is one of which she alone stands High Priestess. No hand but hers should ever raise the veil. If it is thus thrust aside by violence, no matter by whom or by what the deed is sanctioned, the accursed intruder were better dead at the portal !

I advise any woman, who knows before marriage that the man of her choice accepts no law for the government of his passions except his own will and pleasure, to trample her love under her feet, and bury the remembrance of it in the deepest oblivion, rather than bear the touch of unhallowed, sensual desire. These noble words of Consuelo, when she discovers and is convinced of Anzoletto's infidelity, are the words of every true woman. She flies from his embrace, and says, in the paroxysm of wounded feeling and conscious dignity, "Out of my sight, out of my house, out of my heart, for ever !"

Ernest ; thou hast said all that can be said in defence of the noble and pure instincts of woman. I have little to add to what I have already said. I have, in a former letter, appealed to the highest elements in manhood to preserve and cherish the freshness and beauty of young love. Manly passion is not in itself repulsive or unwelcome to the purest heart of woman, when it is the voice, as it ever should be, of a love unspeakable. When it is this, there will be no question as to who shall rule triumphant in the passional relation. In this, as in other expressions a quiet, delicate, unfailing intuition will be a constant and unerring guide, which if carefully obeyed, will never lead us into clumsy errors. In a union made of coarser elements, there is no hope of better things. Sorrow and suffering must ensue, and ever and ever must the turbid stream of life flow on, chafing its troubled waters against obstacles which are self-imposed.

There is a higher life for us here, even in the bonds of flesh. God meant us to be happy, beautiful and good, and it must be a faint heart, and a spirit of most earthly mould, that will not seek to know and obey the simplest as well as the most secret of Nature's laws.

You have truly said, that woman must regulate those relations in which her whole nature is put under such severe requisition. The pleasure of a moment may take a year out of her life ; and shall she have no voice, and never be consulted as to the functions of her body, the emotions of her soul, and the changes which may, by the birth of children, be made in her eternal destiny ? The lover, when his too ardent gaze is met by a look of pain or embarrassment, turns away, and drops the clasped hand, to reassure the maiden whom his impetuosity has repulsed. Let the husband, under all circumstances, be thus observant and thus tenderly considerate, and old age will find a love still young. Love will then be the memory of the present life, as it will be the joyful anticipation of the future.

Thy wife, NINA.

LETTER XII.

THE REPRODUCTIVE ELEMENT :

IS OFFSPRING THE ONLY JUSTIFIABLE END OF ITS EXPENDITURE ?

NINA,—I have noticed two laws, which seem to me fixed, for the government of the passional nature :—Mutual love, and the conditions of the wife. Of these I cannot speak doubtingly. They seem as obvious as those which require air, food, and society for the life and health of the body. I have shown that all that is noble in manhood points to the subjection of the passion to the sentiment of love. I would now call thy attention to another law, which, perhaps, would be equally plain, if we were prepared, by a healthy organization and development, to see and appreciate it ; but of which, bewildered as we now are in regard to the nature and objects of the sexual instinct, it is not easy to form a true estimate. In the future of this world, it may be that human beings will find as little difficulty in deciding this question, as they will in deciding by what laws any other human relation was designed to be governed. Their more refined and clearer intuitions may guide them, without the process of reasoning.

Is reproduction the only object for which the sexual element may be rightfully expended ? The question is one of vast import ; none can be more so. If the affirmative be true, most men must then be brought under condemnation, as guilty of a crime against Nature. But this should not deter us from impartial investigation. Let them be known ; let the facts of Nature be brought to light, and let us look them steadily in the face, however they may conflict with educational ideas or hereditary propensities.

Let God be true, though all men be proved to be false. Immutable principles of justice and equity can never be made to conform to us ; we must conform to them, or suffer. To know the laws of life and health, with regard to the passional nature, is essential to human welfare ; and inasmuch as on no other relation does the existence and improvement of the race so essentially depend, it must be of more importance to know and obey these laws than any other. It is certain that thus far in the history of the race, more suffering and anguish can be traced to violations of this relation, than to any other source. The question, then—Is it right to expend the most costly element in the system, except for reproduction ? is one of paramount importance, and will ere long be regarded and spoken of, by all who respect the nature they bear, or desire the progress of human kind.

Pleasure and reproduction are the two objects of sexual intercourse. The purest enjoyment is designed to be experienced in this intercourse, when prompted solely by love and a desire for offspring. But, unless such pleasure is mutual, the offspring of such a union must be imperfect and distorted in its constitutional tendencies. Mere sensual gratification is generally the sole object. No desire for offspring, no thought of such a result, no anxiety for the welfare of the child that may ensue, enters the minds of either party. Of all the connections between even those who live in the legal relations of marriage, and who are regarded as pure-minded, truthful men and women, and examples of fidelity to their passional nature, three-fourths are, probably, had for mere sensuous enjoyment. They would be disappointed, should offspring ensue ; and, sometimes, would willingly destroy it, if it could be done without injury to the wife and mother. The following considerations I submit to thee, determined to abide by the conclusions to which thy mind may be led. My enjoyment shall be laid on the altar of thy conscience. I can, rightfully, and without injury to thyself, control or forego this indulgence ; and, in this

matter, I prefer to be governed by thy more refined intuitions and truer sense of right. As God is my witness, thou shalt never be victimized to thy husband's pleasure.

Offspring is, undoubtedly, the great object of the reproductive element. Whatever other objects may be connected with it, they are but incidental. The primary object is the perpetuation and perfection of the race. Whatever be its uses, when retained in the system, (and they are many and most vital,) it can answer no other object, when once expended. Its presence in the system is essential to a perfect development of soul and body. The more perfect and healthful is this element, and the more vigorous its action in the system, and the more perfect and healthful will be the development of all the powers of body and mind. This influences men and women to enter into true and intimate relations. It divides the race into male and female. It gives to each a magnetic power over the other, the possession of which is a never-failing source of happiness, and to which each is happy to feel in subjection. In the highest relation into which they are impelled by this instinct—that of marriage—its operation is unlike all other elements of our nature; for the more absolute and unlimited this magnetic power of the wife over the husband, the more complete is his happiness. So of the power of the husband over the wife. But, to answer these ends, and to invest each with this enchantment in the eyes of the other, the element on which the sexual instinct is based must be retained in the system, or, if expended, must be replaced. The soul recognises the sexual distinction only through this element. This is the distinctive symbol of the soul's manhood. Take it away, and the soul of a man feels no more interest in the soul of a woman, than in one of his own sex. As the element, then, is useless when expended, except for reproduction, and is of essential use in the economy of life, when retained in the system, does it not seem that its expenditure for any other purpose must be unnatural, and therefore wrong?

Then, the cost to the life-principle of replacing it, when wasted for mere pleasure, must be taken into account. This secretion is composed of the most refined ingredients of our physical nature, the brain and the nerves not excepted. To form it is the highest function of the vital energies. At the period of puberty, it is elaborated and secreted in its natural organs, and the human being is prepared for reproduction. There it should be reserved, to impart life, energy and beauty to the entire man, till he is drawn into a relation in which it may be expended for its normal purpose. But if a man begins to expend this element for sensual gratification, before the brain, the muscles, the nerves, and other parts of the system, are matured, a heavy tax is laid upon the vital forces. The energies of the nervous system are called into requisition to supply the waste. The labour imposed on the passional nature is excessive and unnatural. Consequently, those parts of the system which are called into activity, to sustain the life and health of body and soul, are left to droop, and soon become too imbecile to perform their office; and thus the entire man is sacrificed, to repair the injuries caused by undue sensual gratification. The brain becomes exhausted. It is the organ through which the soul acts in every direction. If the mind is intent on sexual indulgence, the brain is ever active to exhaust its forces in that direction. It becomes dwarfed, and utterly imbecile, as an instrument of thought and affection, in any other direction. The results are, loss of memory, indecision, imbecility of reason and judgment, cowardliness, inactivity, idiocy, and insanity. When men will candidly observe the consequences of undue passional expenditure, they will be astounded to find how much idiocy and insanity result from it.

It is said, "If polygamy be wrong, and the expenditure must occur only in marriage, and then only for reproduction, what is man to do? He could have this enjoyment but a few times in his whole life." True, he can rarely have the expenditure, but the preservation of this element is an ever-present enjoyment, by the glow of life and energy which it inspires.

In all ages, men who have sought to perfect themselves in physical beauty, strength, and activity, have been the most abstemious in this respect. Witness the *athletæ* of Greece, the gladiators of Rome, the wrestlers, boxers, and runners of all ages. They knew full well that the life-energies required to supply the means of indulgence should be retained for the perfect development of the body in beauty, activity, and power.

In the animal kingdom, in all the orders below man, reproduction is the sole purpose for which the passion is called into action. Instinct leads to this result; and why should man, endowed with reason and conscience, as well as instinct, reverse the order, and unfit himself for reproduction, and bring disease and death to body and soul, by the frequency of his sensual indulgence? In man, the reason has become perverted, and instinct blinded, or such ruinous results as society now presents would never have occurred.

In domestic life, why is the wife pining for expressions of love she cannot get? As a wife, her nature ever calls for the presence, the caresses, the approving smiles and gentle tones of her husband. She has given herself to him, and she would have him assert and maintain his right of possession by ever folding her in his mantle of love and tenderness. She pines for this fulfilment of her nature, oftentimes in silence and desolation. Her husband did love her, tenderly and truly—perhaps he does. Why does he not express it in all the ways natural to love?

Time was when absence from his wife was a source of constant uneasiness to him, and nothing but absolute necessity could keep him away. Now, the most trivial reasons can prolong his absence. Time was when, after a short absence, he met her with eagerness, and folded her to his heart with rapture. Now, he can be away days and weeks, and yet return to her with measured step, and greet her with formality. She would fly to his bosom, to be folded and sheltered there; but in his altered manner, she meets no response to her outgushing heart. Once, when around the domestic circle, the husband's manner, air, and conversation were unconstrained, natural, joyous, imposing no restraint, but inviting to the utmost freedom and naturalness. Once, his wife was his home, and in her presence he had all his nature called for. Now, he is better satisfied when strangers are there. He is cheerful with them, but silent and moody with her alone. Formerly, he delighted to share her domestic cares, and surround her with all the comforts he could command. Now, his interest in domestic matters is diminished or dead. Formerly, he sought no society where she could not join him. Now, he can go forth and leave her to wait and watch for his return, in loneliness and anxiety. Why this cloud on the once bright heart of the wife? Ask that husband how he has treated her, in reference to passionial intercourse, and all is explained. The very life of his manhood, that which made him a tender, respectful lover, and at first a devoted husband, and which would have continued him so had he lived truly with his wife, has been expended in mere sensual indulgence, till as a husband he is imbecile, as a lover well-nigh an idiot.

Once, as a father, he was tender and fond, and never felt himself more truly noble and more worthy the esteem of his fellow-men than when folding in his arms the child of his love. Once, in the presence of his child and its mother no frown could darken his brow, no danger blanch his cheek, nor personal sacrifice or suffering appal his heart. That mother and that child were to him—heaven. All is changed. The smile and prattle of his child thrill his heart no longer. He seldom takes it to his arms, and reluctantly if he does. He can see it in the bosom of its mother with indifference. The child no longer watches at the window for his return. Ask for the secret record of that connubial life, and you will find that the life-element of his fatherhood has been expended in selfish indulgence. His paternal, as well as connubial instinct, has been sacrificed to sensual pleasure.

Once, that man was active, prompt, accurate, and successful in business.

His promise was sacred ; he was trusted and trustworthy. His wife and child were omnipotent in his heart, to prompt to all noble, manly deeds. Now, his qualities of mind fail to command the respect they once deserved. His blunted faculties do not deserve the confidence which his former activity and accuracy had won. The world wonders and speculates upon the gradual but thorough change which time has wrought ; but none, save the stricken wife, has power to reveal the true and secret cause.

It is so in every department of life. By an abuse of the sexual passion, man is disqualified to meet his responsibilities, to perform his duties, and wisely to share in the enjoyments of life. He must consecrate this element of his being to the one great natural object of reproduction, and true refinement and elevation ; and when not needed for that, it should be sacredly preserved, as an ever-present incitement to all true, gentle, and heroic thoughts, words and deeds, that he may fulfil and honour the relation of a husband and father.

There are many phenomena in the life of man which excite a momentary astonishment, and for which none can account, but which Religion and Public Opinion are content to refer to what is called a "wise and mysterious Providence." Failures in business, without any apparent cause ; imbecility and folly in plans and purposes, and indecision in execution, where strength, wisdom and promptitude were expected ; dyspepsia, rheumatism, gout, apoplexy, paralysis, consumption, and disease in various other forms, and a premature and agonizing death, where a healthy, vigorous youth gave promise of a long life free from suffering ; a morose, selfish, cruel, savage and brutal temper, where, in youth, a loving, kind, generous, manly spirit reigned ; domestic circles converted into scenes of discontent, strife, cruelty, and blood, where was once the promise of enduring peace and progress in all goodness ; women, whose girlhoods were seasons of health, beauty, and joyous life and activity, become prematurely nervous, fretful, sickly, helpless and deformed ; half of the children that are born alive die under five years of age, and half of the remainder die under fifteen ; a large portion of the conceptions that take place are prematurely born, and most of them abortions ; the sufferings and deaths in child-birth ; the inconceivable amount and variety of disease and suffering peculiar to the female organism ; idiots, born of intellectual parents ; insane, born of sane ; diseased and deformed, born of the healthy and beautiful ; hating, revengeful, and bloody spirits, born of the loving, the forgiving, and the gentle ;—these, and many other facts connected with human life, are ever marvellous. No visible, natural cause for them being known, they are attributed, generally, to a special Providence.

But there is a natural, though, as yet, hidden cause for this ever-deepening, ever-widening, ever-rolling river of human disease, suffering and pollution ; a cause that will ere long be known to all, and which it will engage the attention of all the true and the just to remove. That cause will be found in the unnatural and monstrous expenditure of the sexual element, for mere gratification. It will be seen that its retention in the system, except for offspring, is what adds health, energy, activity, and beauty to the body, and gentleness, power, generosity, courage, nobleness, to the soul ; that it is this which makes human beings, deep, earnest and constant in love, calm, self-possessed and strong to endure, wise and sagacious to plan, bold, prompt and indomitable to execute ; while its expenditure, for mere sexual pleasure, renders them imbecile and powerless in feeling, in thought, and in action.

The sexual element—the object of its presence in man—its action on the whole being, in perfecting the development of soul and body—its retention in the system, and the effect of such retention on the body and soul, in all their functions—its expenditure for offspring, and its effects when thus expended—its expenditure for mere sensual indulgence, and the effects of such an abuse of it, on men, women, and children, and on all human relations ;—a true, scientific investigation of these subjects, will, one day, command the attention of the good and the great of mankind.

Nina! since we first felt attracted to each other as husband and wife, on no subjects have we interchanged our thoughts and feelings so often, so freely, so fully, and so pleasantly, as on the nature, the object, and power of this element of our being. We have sought to know the fixed, natural laws by which our sexual intercourse was designed to be governed. The effects, on body and soul—on the beauty, the comfort, the power, the sweet repose and satisfaction of our relation—of its retention in my organism, except for offspring, have been deep, vitalizing, ennobling, and intensely joyous and elevating. Deeply and tenderly as we have loved each other, its expenditure for sensual pleasure would have changed entirely the tone of our connubial life.

Oft hast thou said to me—"Ernest! there is no lottery in marriage to me. I am sure, as of my own existence, of every manifestation of love, respect and tenderness." Oft have I asked thee to describe to me the effect, on thy soul, of thy husband's treatment of thy person. Thy answer, most grateful to my heart, has ever been—"It is the deep, abiding, inexpressible sense of the majesty, the purity, the nobleness, the dignity and manliness of thy love to me. In the government of the sexual element of thy nature, I constantly recognize that it is not thy will, but mine, that is accomplished; or, what is more true, that love has made our two wills into one, and nought but a deep, tender, respectful, grateful feeling pervades my heart when I think of it." This deep repose, trust and respect, this unconditional surrender of soul and body to the love and care of thy husband, could never have made thy home thy heaven, had sensual gratification been his object in the expenditure of the vital force of his manhood. Thou hast said—"Marriage, to me, is no romance, but an actualized fact. I have known its purest and most perfect joys; I have experienced its deepest satisfactions." Why? Solely because thy husband has made his sensuous, momentary pleasure, entirely subservient to thy health, thy wishes, and to thy true and perfect development of body and soul, and sacredly consecrated the most vital element of his nature to its true and natural use. Thus, and only thus, can the husband make his home an Eden of Love to his wife, and to himself and his children, into which no subtle foe can ever enter.

But, is it an abuse of the sexual element to expend it merely for sexual enjoyment? This is a question which human beings should be deeply concerned to settle. A wise observer of human nature has said that it is a well-known fact, that "the highest development of the individual, or the highest degree of bodily vigour, is inconsistent with more than a very moderate indulgence in sexual intercourse; while nothing is more certain to reduce the powers of body and mind, than excess in this respect. These principles, which are of great importance in the regulation of health, are but results of the general law which prevails equally in the animal and vegetable kingdom, viz.: that the development of the individual, and the reproduction of the species, stand in an inverse ratio to each other."

Is this the fact? Does this expenditure, even for offspring, tend to hinder the most perfect development of the individual? If so, then the question is settled. It is an abuse of the sexual nature to expend its vital energies for any purpose but that of reproduction; for the excitement of mere sensual indulgence is then an excess, which surely tends to undermine the soundness of both mind and body. It is an excess, as much as the unnatural appetite which leads a man to overload his stomach, for the prolonged pleasure of his palate. A diseased and inactive stomach will soon betray the wrong committed.

Nina! since I was first conscious of marriage attraction to thee, on no subject have I pondered so deeply as on this. What is true of ourselves is true of many others, at the commencement of their married life. Both have great life and vigour, both are sound in health, both have strong natures, with the elements of long life and enduring happiness. Both have, in the conditions of

soul and body, an inheritance worth more to them than would be all the wealth of earth beside. A deep responsibility rests upon both, to their children and to each other. The true husband is called upon, for his own sake, for his wife and children's sake, to renounce or resist all preconceived opinions and propensities, if, by acting upon them, he risks the happiness and health of wife and child. The happiness of home must be in proportion to the development of the individual. Whatever injuriously affects this, must mar the beauty of our home. I can neither affirm nor deny the proposition, that the development of the individual and the reproduction of the species stand in an inverse ratio, though this seems to be the conclusion to which the facts of life must lead. But a child is the want of our nature, and an essential element in the happiness of our home. This, Nature allows. We are authorised to do so, if we choose to sacrifice so much of our own development as is necessary for reproduction; for the loss is more than made up by the presence of the child. We stake, it may be, a trifle of individual growth, but we gain a crown of parental glory.

Can we, then, in justice to our individual development, waste, in mere sensual indulgence, the element on which our connubial and parental relations depend, when our only compensation is the momentary pleasure? In married life, there is a fulness of joy in the exercise of passion incited by the love of offspring. There is much harm, and less happiness, in the frequent indulgence for mere gratification. If, then, entire abstinence, as a sensual enjoyment, can do no injury, and may do much good, while when reserved solely for reproduction, it confers infinite benefits, is it not the plain duty of husbands and wives to abstain from this indulgence, and consecrate the strength of all their vital powers to purposes of reproduction?

Nina! help me to solve this question, and let us record our questionings upon this subject, that our offspring may know that their organization and happiness were objects of our deepest solicitude, and that we esteemed it the chief glory of our wedded life, to be the healthy parents of healthy children.

From the heart of thy husband, ERNEST.

A N S W E R.

ERNEST,—The point thou hast left for me to decide in our relations, is one that concerns equally every husband and every wife. There is no one question on which so much depends, as upon the rule of life which shall be adopted in respect to the personal relation. For thee, I cannot judge. Thou knowest the consequences to thy own body and soul of the exercise of animal passion. It is for the true man to abide by the results of his experience, and to use them in forming his ideas of right and wrong. According to thy statement of the consequences of undue excitement, the case is clear beyond a question. We all know that unbridled passion makes a total wreck of soul and body. Unbridled passion is not an attribute of man, as he was designed to be, nor yet of animals. It places him below the level of the brute, for there we never find it. The question becomes simply this: In man and woman, God has placed an instinct which has no natural activity till, through the action of the highest powers of the mind and heart, the two are led into the relation of marriage. Sympathy, respect, personal affection, and desire for perpetual companionship, are the true basis of this relation. The sexual magnetism slumbers, long after the heart and soul are thrilled with the rapture of mutual love. Passion is but the echo rendered by the flesh to the true marriage of the soul. The joy of personal intercourse is added, to fill up the measure of perfect oneness; yet it is but the effervescence, compared with the true nectar

of love. Hence, its enjoyment will never be made the basis of the true relation. It belongs only to the hour of highest spiritual communion, when heart and soul are merged in the consciousness of but one existence, one life, one eternity. Then, the whole being may and must thrill in unison with such harmony. Passional intercourse is meant to be an ecstatic expression of the soul. Take from it that significance, and you rob it of every attractive element. Such is the case when men degrade it from its high purpose, and subject the spirit to the flesh.

They tell of idol worship. Where will you find a more distorted perversion, than in the worship of the senses which society about us presents? The idol relics of olden time give us gigantic heads, and all the other member dwarfed. A symbol of the present day would give reversed proportions. It is for man to keep himself in the image in which he was made, a power to grasp and control, for the welfare of the race, every element of his own nature and of the external world. Every husband, then, must decide whether he needs to restrain his natural propensities, in order to perfect his own spiritual and physical nature. If he finds in himself inordinate desires, yet he must consider, that what may be natural to himself, may be unnatural to his wife. Her nature must not be outraged, any more than his. I have said, in a former letter, what I cannot too often repeat, that there are ten thousand other endearments in married life, more potent to express love, more powerful to win and keep affection, than passional intercourse. The steady sweetness of temper in a husband, which leads the wife to fear no frowns nor fretful repulse, the eye which always rests upon her with joy and satisfaction, the assurance that if she is but true to her womanly nature, she will be dear and lovely to her husband, the confidence and freedom from restraint which such assurance gives, are what the happiness of home is made of. Add to this, the certainty that no voice of passion or assumed authority will ever drown her gentlest intimations, that she is secure in the possession of him who loves her above all other created beings, and has consecrated himself to the full development of her being, in all its functions—this is what will make her a happy wife. Then, when, in the fulness of time, she meets the angel who shall whisper in her ear, "Blessed art thou among women," what a flood of joy rushes through her heart, to find that soul and body have harmoniously combined to give assurance of her love, which God alone could understand, and only he could fitly represent.

It is certainly true, that the offices of reproduction in the mother do interfere with the development of the physical system. If it is true of the father, it is ten times more so of the mother. Under any circumstances, she must give up months of life to physical suffering and disability, and at last come back to life and health through the gates of death. If she is prostrated at the commencement, by a previous outrage of her nature, how can she hopefully enter upon this new responsibility? She must inflict upon her unborn child the consequences of previous wrong.

For woman, I can say that married life would be a heaven, compared to what it is, if all passional expression were regulated according to the rules thou hast prescribed. Those are the only rules, an obedience to which, on the part of the husband, can elevate woman to the true equality with man which God intended. Here is the point wherein the movement for the rights of woman truly rests. Elevate her in this respect, save her from being victimised to sensuality in marriage, and her way is clear.

Ernest, thou hast appealed to my sense of right to decide a most important question; and, so far as I am able to discern the truth, with all the energy of purpose with which I seek to follow the highest principles of action, by all the regard I feel for thy most perfect development in manhood, I will aid thee to fidelity to the convictions of thy own conscience. The love which has made us one for life and death, cannot be measured by common rules; nor shall its

manifestations be copied from a common standard. If we stand alone in the world, we shall show what marriage, under its legitimate restrictions, may and should be as a means of perfection to ourselves, and a great and glorious inheritance to those who are born under its happy auspices. The dear affections, the high resolves, the religious consecration of the elements of our whole being to one holy purpose, shall reappear to bless the earth with a new existence, whose heart and hand shall be strong to stem the tide of sin and suffering. Living to this end, we shall satisfy the utmost capacity of our natures for enjoyment here; and when at last we shall lie down to rest, no marble shall record the story of our life, for it shall be kept fresh in the loving hearts which will "rise up to call us blessed."

Thy loving wife, NINA.

LETTER XIII.

GESTATION AND LACTATION.

TREATMENT OF THE WIFE BY THE HUSBAND DURING THESE PERIODS.

NINA,—My heart has never been thrilled by thy presence and thy love as it has been during the past few months; not even when the consciousness of being loved by thee first dawned upon my being. I am a father, and thou the mother of my child. In my bosom, at this moment, sweetly smiles and prattles the priceless treasure thy love hath bestowed upon me. Thou art no longer to me only a wife, but the mother of my child. Thou hast exalted me to the conscious pride and glory, not only of thy husband, but also of the father of thy child. In the new relation in which thy love has placed me, the purest fragrance of heaven surrounds thee—all concentrating influences enshrine thee. Mother of my child! How can I but respect the function of thy nature that has placed this beauteous, innocent child of our love in my bosom, and to call me father and thee mother. How does the memory of the act, in which this new immortal originated, now impress thee? How does the memory of thy husband, during the various periods through which thou hast passed in giving existence and nourishment to our child, now affect thee? If in any respect he has failed to embody to thee thy ideal of a husband and a father, wilt thou frankly tell him? For, in this relation, no husband can, with safety to the happiness of his home, live for himself; for his wife and children he must live. His life, his honour, his heaven will be in their true and perfect development and happiness.

To the true husband and father, where his wife and children are there is his heaven. They are the true magnets to his heart. Other forces may turn his thoughts from them for a moment; but, as the needle turns by a natural attraction to the pole, so will his soul, when other forces are spent, as they must be, turn to these, its true treasures, and there find repose. Other attractions are transient and powerless, compared to the deep and permanent force that binds him to them.

The marriage relation, including those that are based upon it, is the central, vital relation of our being. From this result our deepest responsibilities, our most sacred duties, the richest endearments and experiences of life, and the influences that are most potent in shaping our destiny. This should never be regarded as incidental to any other relation, political, religious, social, commercial, or literary; but all others should be measured and valued by their adaptedness and their power to fit men and women for true marriage and parental relations, and to aid them to enter into, and to perform rightly and

nobly, all the obligations and duties inherent in them ; and thus to establish homes where nobler types of humanity may be prepared and developed. In their power over the organisation, character and destiny of human beings, the Church is nothing, the State is nothing ; religion, government, priests, and politicians are nothing, compared to marriage and parentage, to the husband and wife, the father and mother. Those who make marriage an appendage to commerce, to government or religion, to pecuniary or educational institutions, sacrifice the substance of life to the shadow.

Let this be the one great end of government and religion—to secure to each husband or wife the presence, care, and sympathy of the loved one. Let all public and general institutions and arrangements of society have reference to this one end, to ensure to the wife the love, the tenderness, and protection of the husband ; and to the husband, the presence, the sympathy, and counsel of the wife ; and to parents, the affection and respect of their children ; and to children, the tenderness, the care, and companionship of their parents. Then would these arrangements and institutions be cherished for the good they do, rather than be feared for the evil they sanction. Then would they do much to perfect the organisation, character, and destiny of the race, and promote its progress.

In our correspondence, I have said much of the reproductive element, and the laws by which its expenditure should be governed. I have specified three, which seem to me to be natural and just, *i.e.*, Mutual Love—the Conditions of the Wife—and Offspring. If reproduction were the sole object in the expenditure of this element, and its retention in the system sacredly cherished, except for this, it would greatly conduce to the health, beauty, strength, and activity of the body, to the true development, nobleness, and energy of the soul, to the freshness, life, and refinement of social enjoyment, to the peace and elevating influence of home, and to the progress of the race in all that is true and noble.

Were the question asked—How can this element be rendered conducive to enjoyment to body and soul, supposing a man is in pursuit of pleasure, and wishes to make this power of his nature most perfectly to answer this end, will this end be gained by expending it or retaining it ? I believe Nature and the history of mankind would render this answer—Retain it for pleasure ; expend it only for offspring. What would be said of him who was ever toiling for wealth, but who could derive no enjoyment from it except by throwing it, as fast as he earned it, into the fire or the sea ? All would call him insane. Having by severe toil created wealth, his only pleasure in it consists in destroying it ! But in what would he differ from him, who, by the costly action of the vital forces, has elaborated and secreted this essential element of manhood, but who can derive no conscious, certain enjoyment from it except in expending it ? He that expends this life-principle of his manhood for mere pleasure, whether in solitude or otherwise, will be sure to learn his mistake, when it will be too late to repair the injury. His pleasure will be like the spasmodic laugh of a maniac.

In addition to all I have said as to the conditions of the wife which should regulate this passional expression of her husband's love, I must add one thing more. There is a period in which she should resolutely resist all solicitations, come what may. I mean the period of gestation. She has received into herself the elements of a new existence. From the moment of conception, the energies of her body and soul are put in requisition to develope and perfect the embryo. The one object of her life will be, if she understands her relation to her child, to give it a perfect organisation. She should guard her tender being from harm, as she would her own soul. It is ever pleading, through her maternal instincts, for love and protection. She feels the call in every fibre of her being. Not for a moment should she yield to anything that may injure herself, or the being she bears under her heart. God and all good spirits

surround her, to shield her and her babe from harm. Who shall dare approach to outrage them?

Unaccountable as it may seem, the fact is undeniable, that the husband and the father is the first to demand that which she cannot grant without injustice to herself and the being that looks to her for life and happiness. Regardless of the health and feelings of his wife and child, he often insists on the gratification of his passion, and if the wife resists he visits upon her and her child his indignation; to vex her soul and make her condition as uncomfortable as he can. Against such a disgrace to manhood, the condemnation of every decent man and woman should be directed. The only apology that can be offered for such abuses of marriage and parentage is ignorance. "They know not what they do," therefore let them be forgiven.

It is in vain to plead, for an excuse, that the wife during this period demands such expressions of his love. She is in a diseased condition if she does. Could her nature, if in a true and healthy state, call for this indulgence? Would not the desire naturally cease from the time when her nature is directed to the purpose of perfecting her child? If she does demand it, no man will answer such a call, if he truly loves and respects his wife or child. Nature cries out against such a violation of all that is true, loving, and wise. No man will excite his wife to desire such a manifestation of his love, if he be worthy of the name of husband or father. He will do all in his power to surround her with an influence so calm, so deep, so soothing, and so full of repose, that the entire energies of her body and soul may be left free to concentrate themselves upon his child, to beautify and perfect its organisation.

How many might trace their diseased bodies and souls, their imbecility, idiocy, and insanity directly to the husband's treatment of the wife during the period of pregnancy! Against the ignorant or selfish demand of the husband the wife pleads the injury to her nervous system, and thereby to the health of her child. He answers that he cannot control himself so long, and tries to stimulate her passion. He succeeds, and thus her energies are diverted from their natural functions to minister to the sensual gratification of her husband. This unnatural excitement deranges the action of the whole generative system; the pains and perils of child-birth are greatly aggravated, and the life of child and mother is oftentimes endangered. The action of sexual excitement on the nerves of the mother and the child is direct, powerful, and destructive. When these consequences are fully understood, husbands will be appalled to behold the diseases of soul and body—the deep, enduring suffering they have caused. That so many children die in infancy, may be traced directly, in good part, to the sexual abuse of the wife by the husband during gestation.

As we would glorify and elevate our own nature; as we would secure to future generations a more perfect physical, intellectual, and spiritual organisation; as we would make home the source of our deepest, most intense, refined and enduring happiness, all should do what they can to call attention to this subject, and to urge on men the duty of controlling their passion, and of treating their wives naturally and nobly, during this most important and influential period in the life of woman.

What I have said of the period of Gestation, I should also say of Lactation. While the child receives its support from the mother, the food is injuriously affected by every great excitement, and especially by that of the sexual passion. It is a fixed law by which every husband should be governed, never to have passion intercourse with his wife during Gestation or Lactation. Nina! thou canst now feel and speak on this subject as no man can. Must not every such indulgence be at the expense of both the mother and the child?

It is said that a man of strong nature and great vital energy cannot, and will not, control his passion for so long a time as Nature may require the energies of her system in the periods of pregnancy and lactation, while he is living with his wife in habitual, daily intimacy; and that if he cannot find

gratification with her, he will seek it among strangers. The apology is a libel upon manhood ; and any true lover or husband will scorn to accept it for himself. Shame would forbid him to justify indulgence on such a ground. He knows that his passional nature can be subjected to his love ; and the animal can be controlled by the spiritual, so long as the health, happiness, and future destiny of his wife may require. There is ample scope for the action of the sexual element, without expending it in sensual indulgence. What does the wife demand of her husband at such times ? Does she not call in every fibre of her womanhood, for the expression of a love which may be accorded and received, not in wild, intense excitement, but as a soothing, sustaining, ever-present influence, which she may not be able to define, but which she feels as a life-giving presence ? Is not the deep, longing desire of her soul to her husband and to the father of her child, for his encouraging smile, his sustaining sympathy, his gentle caress ?—to be folded in his arms and sheltered in his bosom ?—to receive from him every endearing expression, short of passional indulgence, while she is preparing to encircle his brow with a crown of glory, as the father of a living child ? Is not this all she needs, or can healthfully receive ? Is it not all the true husband should wish to impart ? Here is room enough for the constant and healthy action of all the elements of man's nature as a husband. To cherish and sustain thee as my wife, and the mother of my child, and so aid thee in perfecting the organization and development of this object of our love, for whose existence and destiny we must account to ourselves and our child, has been scope enough for all the strongest elements of my manhood.

As the omnipotent energies of God are under the control of his infinite love, so the energies of the husband, however deep and strong, may, and should be governed by a love deeper and stronger still.

With emotions that cannot now find utterance, I subscribe myself,

Thy husband, and the happy father of thy child, ERNEST.

A N S W E R.

ERNEST,—As thou hast said to me, so I say to thee : my heart speaks to thee as it never did before. I am a mother, and thou art the father of my child. How deep, how tender, how intense and sublime, the relation of a mother, not only to her child, but to him who has crowned her being with this happiness ! Thou hast enshrined my brow with a diadem of beauty. I look back on my experience, from the time I received into myself the germ of this new life to the present hour, and an inexpressible tenderness, a concentrated, loving respect, and a deep, grateful yearning for the presence, protecting care, and manly love of my husband and the father of my babe, have filled my heart, and presided over my child's development, in every stage of its progress, before and since its birth. From its conception to the present time, the function of my nature which has given to us this pledge of our love and our happiness, has been a means of refinement and exaltation to my entire being.

It is the true office of love to refine and exalt passion ; and of passion, to intensify and ennoble the expressions of love. The memory of the act in which this new life originated is sacredly cherished. It was rendered delicate, and most acceptable, by the assurance that it was but the expression of your soul's deepest love. In our passional relations, there is not a single memory or association which is not refined and noble. I cannot conceive of the aversion some wives express in speaking of the animal passion of their husbands ; it can never be associated in my mind with thee. I owe thee a deep debt of gratitude for this experience.

It is no slight responsibility which rests upon the man who first officiates as a husband at the Holy of Holies of woman's personal surrender of herself to

the functions of maternity. He stands as the embodiment of an attribute of manhood which, according as it is revealed in connection with or without love, is for ever afterwards associated, in a wife's mind, with all that is true and noble, or mean, selfish, and brutal. Thou, as my husband, in exalting me to the relation and dignity of a mother, hast been high priest of this offering of my womanhood at the shrine of Love. Robed in garments of consecration, thou hast performed thy rites with a pure heart. Thou hast left no stain upon the altar of our love. Thou hast sought to bestow on our child the priceless legacy of a deep, rich love-nature. For evermore will thy wife feel that it is for thee to rule over her in the passional relation. She asks no protection but thy manly love; she needs no guardian to protect her slumbers, for she knows that an ever-watchful eye of love is open for her safety.

The Church may ordain bishops, the Pope may be acknowledged the head of the Church; but not even he has so holy, important, and delicate a mission as the husband, who, for the first time, reveals the power of his manhood to his wife in this relation. All men will, ever after, be regarded by the wife in the light of this experience. I have heard women say that, after this first experience with their husbands, they could not see a man, a stranger, passing in the street, without disgust at the thought of the animal passion accompanying his masculine nature. That was a revelation of first experience which I did not, at the time, comprehend; I can now, deeply and fully, by contrast. When a husband, for the first time, thus urges upon his wife this expression of his love, for which her nature not only does not call, but which it positively and shrinkingly repels, her sense of disgust can never be forgotten nor overcome. It is death to the sentiment of love in her heart, and to all the out-gushings of her wifely affection.

The young wife comes to the husband with a heart full of confiding love. His animal passion is impetuous; he knows nothing of woman's nature; he is equally ignorant of the laws designed to govern his own sexual instinct. He at once demands and takes from her what her nature shrinks from giving. From that hour she dreads his passion. The doom of that home is sealed.

Ernest, be this my highest tribute to thy manhood: Thy wife fears not thy passion, for she has faith and knowledge that love rules in your soul and body with an absolute control. Man can exalt his sexual nature to no higher point than to secure for it the grateful respect and perfect confidence of his wife. When he has made it the medium of the soul's holiest aspirations, when it stands associated in her mind only with her highest and holiest moments of the heart's desire for true manifestation, then the animal nature answers the highest object for which it was created. It serves not its own selfish ends; it waits on a Divinity whose service purifies and ennobles its own nature. It becomes a servant of the Most High.

Such ideas, such convictions and assurances have been brought home to me in my relation to thee as a wife. Thou hast, by thy self-control and considerate regard for the wishes and conditions of thy wife, inspired me with a deep and loving respect for thy passional nature, for the symbols of thy manhood, and for the deep, stern, but gentle heart, which, through them, has revealed its wealth to me.

Can a husband help feeling proud and happy to receive such assurances from the heart of his wife? They are due to thee, for they are true as eternal life. In thy person, manhood stands in its true dignity and nobleness before thy wife, and what higher office canst thou fulfil to her than this?

Could I but do justice to the emotions of my soul, in reading thy last letter, thou wouldst feel that through me thou hast reached the deepest chord of woman's heart. That letter has vividly realised the experiences of the year when first the concentrated joy of a mother's heart came over me. My husband, thou hast lived out thy ideal in this relation. When I told thee that I could no longer assert exclusive right to thy affection, it was at that moment

thy love assumed a more sustaining mode of expression. A more than mother's solicitude foresaw my wants, and gave to my physical weakness a manly support. No words can tell the susceptibility of a woman's nature, at these times, to external impressions of pleasure or pain. A word, a look, that at other times would pass unheeded, will bring the tears to her eyes. Mentally and bodily she is most delicately attuned, and a passing breath will waken sweet or discordant music in her soul. If ever she needs a soothing love, it is while she bears a child under her heart. The nature of the child seems to shine in her, and claim the same tenderness which she will bestow after its birth. She cannot be trifled with, except at the risk of her own safety and that of her child. She does not ask for the masculine element in her husband's love; she craves the feminine in him, added to her own, fully to perfect the new being; and just in proportion as she receives it, will a loving soul be infused into the strong and healthy frame of her child. A wife feels, from the moment she takes charge of the germ of a new being, in order to become a mother, that God is with her. She is set apart to fulfil the highest office of her being, and she can never willingly betray her trust. And when hope becomes a reality, and the being actually reposes by her side, or in her arms, and she offers it to him who has, with her, lent the highest energies of his soul and body to this personification of their love, she must, in her soul, say to every thought or word of passion, interfering with this new life, "Stand off, for this is holy ground!"

Ernest, have I met thy wishes in these expressions of my thoughts in regard to our marriage relation? I have been true to my own soul, in every word I have said. I have but described my own experience, in all the pictures I have drawn of the holy influences of married life. Thou hast a right to lay down rules for the benefit of the race, for thou hast tested their power by thine own experience; and I will add, that they have secured the happiness and growth of her whose progress thou hast made the chief object of thy care. It is from thy obedience to such rules of life, that I feel myself blessed in being thy wife, and twice blessed as the mother of thy child.

Thy wife, NINA.

END OF PART II.

THE SEXUAL ELEMENT.

ITS NATURAL USE—ITS ABUSE.

THE following is an extract of remarks, by L. Deslandes, M.D., Member of the Royal Academy of Medicine, at Paris, on Manhood. Speaking of the abuses of the sexual element, and of diseases and sufferings resulting from them, he says, in substance :—

“The bad effects of such abuses can be truly estimated only by a careful study of the reproductive system, in its relations with other organs, and considering the influence it exercises upon them. In this way, alone, can we arrive to a correct knowledge of the maladies and dangers of all kinds which attend the abuse of this element. What relation does it hold to the brain, the stomach, the liver, the lungs, &c.? Can its unnatural expenditure do much injury to the general system?

“The injury which results from the abuse of this element to the rest of the body, must be in exact ratio with its influence when not abused. This element may be considered in two aspects : as it is retained in the system, and as it is expended.

“Its influence when retained in the system. This can be truly determined only by considering the conditions of those who, by any means, have been deprived of the power of secreting it. Men seldom understand how much of their power to enjoy life depends on the presence of this element in their physical organism. If they did, they could never expend it as they do. They would know that, as a mere source of permanent happiness, the retention of it in the system is of infinitely more importance than its expenditure.

“Consider the man who is born imbecile in this particular. His body and soul have been developed without the presence of the sexual element. Compare him with other men, and see in what he is deficient. His physical, intellectual, and moral relations will all be deficient, so far as they depend on this element. By such a comparison, we may learn its powers, and the great difference between a man in whose development it has assisted, and one in whose growth it has taken no part. In the latter, the physical man is deficient in stature, in symmetry, in strength and activity. All the tissues are less developed ; and some, not at all. This element, then, has a powerful effect on nutrition ; for when it is wanting, the growth is always defective. The organism of the man who is deficient in the sexual element is necessarily imperfect. That which should have appeared at the period of puberty, not being seen, other parts of the system acquire but a partial growth. The study of these facts demonstrates the extent of the derangement that may result from sexual abuse ; for that element which is abused by the libertine takes a most active part in the internal economy of all our tissues, and stamps them with the seal of vitality, of which those who are deprived of it ever remain destitute.

“Consider, also, the two in the various relations of life. Who would look to the man, destitute of the reproductive power, for thought, activity, and sensibility? He is inactive, apathetic, and liable to be excited to fear or anger by the least cause. He is pusillanimous ; he cannot be gay, but is morose, burdensome to himself and others. He is destitute of the feelings which attach man to man in unselfish friendships, and is incapable of love and devotion. He vegetates for himself ; is an egotist : and if he has sentiments, they are generally those of envy, hatred and revenge, or, in some way, repulsive. He repels everybody, and is repelled by all. The soul of him who is destitute of this element, remains or becomes a dreary waste ; incapable of vigorous and manly thoughts, and of generous, warm, and noble sentiments. He cannot conceive nor execute anything great.

"Such is the man destitute of the sexual element. His intellect, his heart, his whole soul, as well as his body, is mutilated. It is certain, then, that the development of the body and soul is essentially connected with this. Deprive a child of an arm or leg, and he will continue to develop in all other directions, as if no injury had been done in him; but take away this element, and his entire nature must ever bear the marks of the injury. It is with this power that the sensualist, whether in legal marriage or out of it, by solitary indulgence or otherwise, trifles without hesitation or moderation. Can it be necessary to pursue this, to show that the abuse of this element is most dangerous to the entire man?

"To the influence of this element on the other parts of the system, the sexes owe their peculiar differences. Their organization, influenced by the difference in the sexual element, presents a different mode of existence, action and sensation. The sexual characteristics, but slightly marked at birth, become distinct, as the sexual organs develop themselves. To mutilate the sexual nature of the male or female, prevents the regular development, and alters the special distinction of sex. We have seen that such an abuse renders man effeminate; we will add, that it renders the female more masculine, and gives her characteristics which naturally belong to the male.

"But it is especially before and during puberty that the sexual nature deserves most serious attention; for it is then it has most power over the general economy of life. This influence commences with the existence of this element, and increases as it does. Thus, the tastes, characters, inclinations, and generally all which distinguishes the sexes in a moral and physical point of view, are marked from infancy. The influence of this element commences with life, but does not attain its fulness until puberty. At this period, which, in our climate, commences from twelve to fourteen in females, and from fourteen to sixteen in males, this element has the most power over the general system. At this period, its development is more sudden, and its power more perceptible. At no period does the body grow so rapidly as during puberty. The body responds, in all its functions, like an echo, to all that takes place in the reproductive system.

"But the moral susceptibility is still more affected than that of the physical. The mind, directed and controlled by the most vivid, most varied, and most transient impressions, takes up and lays aside the most opposite opinions, and adopts the wildest and most hazardous enterprises. This disposition has existed to so great a degree as even to constitute a kind of monomania. But the mental state, resulting from puberty, is characterized particularly by the readiness with which one shares the affections of others, partakes of their sympathies, and sympathises with them. This is the moment of generous ideas; it is the period of illusions. How much experience ought not the mind to gain, when passing through this passionnal tempest! It is not surprising to find cold hearts and weak minds among those in whom the sexual nature is abused. But being deprived of that element, which, at puberty, gave so marked an impulse to the body and soul, they do not feel its power; the most active and powerful of all moral excitants is wanting. Judge from this of its power; and yet it is this stimulant which the licensed, as well as the unlicensed sensualist, so abuses.

"We state, then, as a positive truth, that the reproductive element modifies extremely the action and sensation of the entire system, and modifies it in proportion as it is itself excited. This fact admitted, the question whether sexual abuse can or cannot do injury, is resolved. Life is so mysterious, and coition is so transient, that what takes place in the tissues during the excitement is concealed from view; but we may be certain that something takes place in them—that some disturbance occurs, and that the disturbance is greater during the act than in the preceding states. This act exerts more influence than it appears to exert, as it deeply affects all parts of the organization. The retention of this element in the system, in a state of perfect repose, produces a powerful influence on the whole man. When excited and not expended, the effect is great, though not so injurious. The whole body feels the influence, and experiences a kind of febrile agitation. All the secretions undergo great modification. The functions of nutrition are strikingly modified.

"But the most striking fact connected with this state of excitement is the development of a special, sexual sense. We shall not attempt to describe it. We may ask what it requires. As hunger impels to eat, and thirst to drink, so this sense impels to

sexual intercourse. It is the bond which brings the two sexes towards each other, which unites them, and which makes a perfect individual of male and female. This sense may be only feebly excited, and then it has but a moderate power. But when it is excited, the chain with which it binds the will is of great power. The male dreams of the female, the latter of the male. One of the opposite sex is ever-present to the imagination. Individuals and forms, which at other times appear by no means remarkable, now excite admiration. Riches and honour are no longer esteemed, and even life itself is considered not worth possessing, without the presence and companionship of one of the opposite sex. All necessities disappear before this one. Hunger and thirst are no longer felt. It is, in fact, a state of wild delirium. All the senses are concentrated in one; it commands them and receives from them, all the illusions which they present to it. Such is the power of this element when retained in the system. What, then, must result from its abuse, whether the unnatural expenditure be with one or more in legal marriage, or out of it, or whether it be in solitude."*

* For an able exposition of the Reproductive Element, with directions for its proper use, and illustrations of the evil consequences of its abuse, we would refer our readers to O. S. Fowler's work on "Amativeness." Price 3d.—[G. T.]

THE END.

TEA.

INTRODUCTORY.

EVERY variety of tea is, in a greater or less degree, exciting or exhilarating. Few would long use an article, even with the addition of cream or sugar, which had no other effect than pure water, viz., to quench thirst.

Of the nature and extent of the excitement produced by tea, however, most persons appear to be ignorant. They are not aware that it influences the whole vital domain, and excites or exhilarates by affecting the brain and nervous system in nearly the same way with distilled and fermented liquors, opium, and tobacco. They do not suspect that they are admitting, in the guise of a friend, a most insidious and dangerous enemy—one silently, if slowly, undermining and destroying the very citadel of life. Such, however, is the effect.

HISTORY OF THE USE OF TEA.

Tea does not appear to have been known in Europe or America till about two hundred years ago. Now, as Europe has been settled more than 3,200 years, it follows that not less than ten thousand millions of people must have gone down to the grave without the knowledge of tea, while not more than one-twentieth of that number have ever tasted it. Whether among the immense host who lived and died without this Chinese beverage there was any want of that physical vigour which enables men to till the soil, raise the structures, and fight the battles of their countries, may be left to the decision of those who are familiar with the scanty records of Greece, Rome, Britain, and other mighty or polished nations.

The tea plant, of which there are two varieties—the *viridis* or green, and the *bohea* or black tea—is a native of China and Japan, and was long confined to those countries, though since cultivated elsewhere.*

* In 1639 the Russian Ambassador in Tartary refused a present of tea for his master, "as it would only encumber him with a commodity for which he had no use."

The East India Company appear to have first imported tea into England in 1664,* when they brought two pounds and two ounces as a present to the King. From that time its use has been continuously increasing. The present yearly consumption of the article in Great Britain is about 150,000,000 pounds.† The imports in 1875 reached 198,277,272 pounds, valued at upwards of 14 millions sterling, of which 31,704,253 pounds were again exported. Other European countries use much less in proportion to their population.

Perhaps no country makes more use of tea than the United States. In 1821 the quantity imported was a little short of 5,000,000 pounds. In 1836—fifteen years afterwards—it was 16,382,114 pounds.

The imports from 1821 to 1837, inclusive, were something more than 150,000,000 pounds, at an estimated cost to the consumers of £25,000,000. That between 1834 and 1837—four years—was over 60,000,000, and the expense, without reckoning the time, cost of fuel, &c., employed in its preparation must be enormous. The average consumption is at present about seven pounds of coffee and one of tea for each individual.

EFFECTS OF TEA AND COFFEE ON THE SYSTEM.

Who does not know that "a good cup of tea," taken at the close of a fatiguing day's work, or when drowsy, will remove the fatigue or dispel the drowsiness? We read in the life of that distinguished and philanthropic teacher, Anthony Benezet, that he removed the fatigue of the schoolroom by strong tea, and many literary men have done, and are still doing, the same.

But we need not search far for examples of the exciting or medicinal qualities of tea. We find people everywhere, especially females, in the daily use of this beverage, either to relieve fatigue or pain. No intelligent person pretends that his strength is restored by nutriment derived from tea or coffee, for if any it can only be very slight. It takes from two to four hours for any substance to go through the whole digestive process and be converted into blood, so as to give us strength in that way, whereas the effect of tea is sudden—almost instantaneous. It comes, doubtless, through the medium of the nervous system. The

* About this time Thomas Garway Coffeeman, Exchange Alley, claimed to be the first who sold tea "for the cure of all disorders;" and Pepys, in his diary (1667), says: "Home, and there find my wife making of tea—a drink which Mr. Pelling, the 'potticary, tells her is good for her cold and defluxions."

† In 1670 a duty of eighteenpence was exacted for "every gallon of tea made and sold, to be paid by the makers thereof;" but in 1688 a Customs duty per pound imported was enacted in lieu of an Excise upon the decoction; and in 1745 this duty was reduced from 4s. to 1s. per pound and 25 per cent on the price, which in one year increased the consumption threefold, so that Duncan Forbes complained that the British farmers would be ruined by the use of malt and good ale being superseded by this new beverage. Cobbett, a century later, was also a great enemy to tea.

nerves of the stomach are excited—in other words, irritated—by the narcotic received, the irritation is conveyed to the brain, and this last is roused to impart an increased but short-lived energy to the system.

Whether this fictitious strength is imparted by tea, coffee, opium, alcohol, or tobacco, or several conjoined, makes little difference. None of these form blood or give natural healthy strength. They only impart nervous irritation, and thus relieve fatigue or drowsiness, and afterwards induce sleep by the depression which follows, always in proportion to the previous excitement. The female who restores strength by tea, the labourer by spirituous liquors, and the Turk by opium, are in precisely the same condition, as far as the stimulation is concerned.

The first effects of tea are exciting. Certain it is that not a few tea drinkers lose their powers of self-command, so far as to say and do things which, in their cooler hours, they regret. The tongue is loosed, the countenance flushed, and the eye preternaturally animated. As in the case of receiving a moderate dose of opium or alcohol, the vital energies are roused, and perhaps, for a time, general activity and industry are promoted.

But it is in the sedative or depressing effect of tea that we find the strongest proof of its medicinal character. Besides, if it did not first rise above the line of healthy action, we should not find ourselves sinking below afterwards.

DISEASES PRODUCED BY TEA.

Among the indications that the system suffers from the sedative effect of tea are headache, wakefulness, palpitation, trembling, loss of appetite, indigestion, nervous prostration, susceptibility to fatigue, and chronic affections of the vital organs, accompanied often by emaciation, sallowness of the skin, and a peculiar appearance of the surface of the body, that reminds one of the application of an astringent.

In connection with the last-mentioned indication, if the countenance be naturally fresh, it may require many years to induce the change of colour. Other influences, also, may combine with the tea to produce any of the symptoms above mentioned.

Who complain most of nervousness, irregular appetite and sleep, unequal warmth and strength? Who suffer most from the dread of poverty, misfortune, sickness, death, and future woe? Who find most fault with the world and the dispensations of Providence? Who fret most? Assuredly they are those who use most nervous excitants; among whom tea and coffee drinkers often have place. Not, indeed, when under the influence of their favourite beverage, but while they are suffering from its sedative or secondary effects.

Tea is even shown to be a sedative medicine by its effects. Dr. Burdell, a dentist of New York, having noticed the nervousness of tea drinkers, made the following experiment: Having steeped and strained a pound of young hyson tea, the liquor was subsequently evaporated to

half a pint. This extract was applied to the nerves of those teeth which required an operation, in order to lessen their sensibility and prevent pain. The experiment was attended with complete success, and he has ever since continued the use of the extract. Thus tea may be substituted for opium, oil of cloves, creosote, arsenic, &c., which have been used for lessening the sensibility of the dental nerves.

To treat of tea as both a medicine and a poison may be said to make a distinction without a difference, since every medicine is a poison. Nevertheless it is convenient to separately consider the subject.

MEDICAL TESTIMONY ON TEA DISEASE.

Evidence that tea is poisonous is found in the fact that, like alcohol, stramonium, belladonna, and many other medicines, it produces its specific disease—the *tea disease*. This is best illustrated by the experiments of Mr. John Cole, Member of the Royal College of Surgeons, England. Mr. Cole does not attempt to show that every tea drinker has the tea disease, but he is on the high road to the tea disease, just as every dram drinker is on the road to *delirium tremens*.

Though tea disturbs most readily those constitutions whose tone has been lowered by fatigue, debility, loss of blood, &c., it has the power, when taken a long time in excessive quantity, of reducing the constitution to that state in which it becomes accessible to its own deleterious influence. The following is Mr. Cole's description of the progress of the disease in those whose systems were prepared to be injuriously affected:—

“In a longer or a shorter time after taking the beverage (from a few minutes to two or three hours) an uncomfortable feeling arises in the stomach—a craving, sinking emptiness—which soon acquires a degree of intensity that is almost insupportable. The hunger-like gnawing and craving are described as being to the last degree painful to endure. The stomach being full has no effect in preventing its accession, neither does eating relieve it. This is often all that is felt for a long time; but by degrees a fluttering, as of a bird, in the left side is superadded, and a feeling of fulness pervades the chest, with breathless and frequent sighing. The fulness is more especially felt about the clavicles (or collar bones) and the root of the neck. When black tea or coffee has been taken, considerable excitement often ushers in this succession of phenomena; the face becomes flushed, the eyes sparkle with unusual brilliancy; all the earlier effects of intoxication from alcohol are observable, the pulse being full and throbbing, and considerably quickened. The hands and feet often become cold as marble, and bedewed with a clammy sweat. Efforts to warm them are made in vain, even in the hottest weather. A feeling of coldness or numbness also invades the back part of the head. This is the milder form of the disease (if I may so term it), the one which is most commonly seen; but occasionally a variety of aggravated symptoms arise. To the coldness and benumbed feeling at the back of the head there is added formication of the scalp (a sensation as if ants

were creeping in it), violent pain in the head, dimness of the sight, unsteadiness in walking, and vertigo; and these are accompanied by a fluttering, feeble pulse. To the feeling of fulness of the chest and about the clavicles are added threatening of suffocation, insensibility, and convulsions. The sufferings felt in the stomach are aggravated to violent spasms. The fluttering at the heart becomes pain, violent palpitation, or enfeebled action, bringing on a syncope. The mind partakes of the disorders of the body—the temper becomes peevish and irritable, so as to render the sufferer a torment to all about him."

Who does not see in a substance that can induce all these mischiefs a less severe though certain poison to all who indulge in its use? Is there a possibility of mistake? Mr. Cole gives details of ten cases of disease from tea drinking. Except during what he calls the paroxysms, he was not in the habit of giving medicine, relying solely for a cure on abstinence from the drinks which produced the mischief.

1. A female, thirty-five years of age, who complained of great pain in the stomach after eating, with a sense of sinking and emptiness, and such a feeling of faintness that she could hardly walk, followed at length by fluttering in the side, fulness about the clavicles, and vomiting.

2. A female, forty years of age, was just recovering from catarrhal fever, when, one morning after taking her breakfast, she was seized with symptoms similar to those already mentioned, excepting the vomiting. It appeared, on inquiry, that her tea that morning (black tea) had been stronger than usual, and that she had also drank more than was customary.

3. A female, thirty years of age, who had long been taking strong green tea in large quantities. For a year before Mr. Cole was called she had been subject to violent spasms of the stomach, which had at length become so frequent that the slightest exertion was sufficient to bring them on. When he arrived she was thus suffering. She had likewise the other symptoms of tea disease. She was directed to abstain, and for several weeks had no spasms or other symptom of disease. On venturing upon a single cup of tea she had a slight attack of her old complaint. She resumed her abstinence, and remained well.

4. Another female, thirty years old, had the symptoms of tea disease, with the usual nervous suffering. She had used green tea, and had taken digitalis and colchicum for a fortnight, with no other effect than to add to her sufferings, as might be expected from adding two more poisons to the one already undermining her constitution. She abstained, and in three days recovered.

5. A female, twenty-five years of age, famous for her tea drinking. Mr. Cole prohibited tea, but was surprised to find, after having made daily visits for a week or so, that she was no better. On a rigid inquiry he found she was still indulging clandestinely. She complied at length with his prohibition, and in a few days was well.

6. An author and parliamentary reporter of middle age. He was a

green tea drinker, sometimes using it strong, as his common drink, for five or six hours together, to keep up his mental strength.

7. A middle-aged mother had been subject for some time to occasional fits of insensibility, which occurred in the evening. She used black tea twice a day, which Mr. Cole forbade, and she quickly recovered. She had taken the strongest medicines without success.

8. A shopkeeper, forty years of age, who was not only a great tea but also a coffee drinker. His head was affected. To total abstinence from every drink but water was added, in this case, for ten days, a little valerian.

9. A young man of twenty-two. In addition to the other symptoms of tea disease he was attacked with bleeding at the nose and convulsions. He was cured in the usual manner.

10. The last case was that of a female devoted to the tea-pot. She had long been a sufferer, but would not abandon the cause of her suffering till a very severe cough, with a bloody expectoration, compelled her to do so.

Mr. Cole averred that he could extend the number of cases "so as to form a body of evidence which it would be difficult to resist." "If it be true," he adds, "that the continued disturbance of the function of an organ will induce change of structure, what are we to expect from the use of tea twice a day, when it deranges the functions of the heart for three or four hours after each time of its being taken? If the answer be that it may be expected to produce some structural disease, then arises this other question, may not the greater prevalence of cardiac (or heart) disease of late years have been considerably influenced by the increased consumption of tea and coffee?"

But Mr. Cole is not the only practitioner who has condemned tea as a poison. Several distinguished men of both hemispheres have verified their suspicions.

As early as 1767 Dr. Smith, of Edinburgh, demonstrated by a series of experiments that green tea has the same effect as henbane, tobacco, sicuta, &c., on the tissues of the body, diminishing and destroying their vital properties.

In 1772 Dr. Lettsom, of Ireland, made experiments with similar results; and Dr. Beddoes, of England, demonstrated that tea is as destructive to life as laurel water, opium, or digitalis. Indeed, a small quantity of strong tea or coffee will destroy life, in one unaccustomed to the use of it, as quickly as an equal quantity of laudanum.

Dr. Cullen observes that "scientific experiments prove that an infusion of green tea has the effect to destroy the sensibility of the nerves, and the irritability of the muscles. From these, and from observations made in the course of *fifty years* upon all sorts of persons, I am convinced that the properties of tea are both narcotic and sedative." But what does Dr. Cullen mean by narcotics? His definition is, "As their power and operation (that of narcotics generally) may be extended

so far as to extinguish the vital principle altogether, they form the set of substances which properly and strictly may be called poisonous."

Dr. Combe, in his work on "Digestion and Dietetics," observes that "when made very strong, or taken in large quantity, especially late in the evening, they (tea or coffee) not only ruin the stomach, but very seriously derange the health of the brain and nervous system."

The "Catechism of Health," usually ascribed to Dr. Bell, of Philadelphia, says that "tea, when drank strong and in large quantity, impairs the powers of the stomach, produces various *nervous* symptoms," &c.

Professor Sweeter, of New York, in a work on "Digestion," says of both kinds of tea, black and green, that owing to a volatile oil they contain they are both stimulant to the nervous system. After proceeding to mention all or nearly all the effects which have been ascribed to tea by Mr. Cole and others, and noticing the custom of physicians of referring them to other causes rather than the tea, he concludes, "I am inclined to think that the evil is to be ascribed to the peculiar properties of the tea."

Dr. Hooper, in his "Medical Dictionary," says, "Tea is a narcotic plant; when taken too copiously it is apt to occasion weakness, tremor, palsies, and various other symptoms arising from narcotic plants."

"Not a case of sick headache," says Dr. Burdell, of New York, "has ever occurred within my knowledge, except with the drinkers of narcotic drinks (meaning tea and coffee), and not a case has failed of cure on the entire renunciation of these drinks."

Dr. Beaumont, a surgeon in the United States army, says—"Coffee and tea, the common beverage of all classes of people, have a tendency to debilitate the digestive organs. Let anyone who is in the habit of drinking either in a weak decoction take two or three cups made very strong, and he will soon be made aware of their injurious tendency. Yet this is only an *addition to the strength* of the narcotic he is in the constant habit of using."

TEA A NARCOTIC POISON.

The reader will observe that Dr. Beaumont calls tea, no less than coffee, a *narcotic*.* His testimony will be the more valuable when it is known that he does not bring it to support a theory, but as matter of pure science. Green tea, moreover, is spoken of in some journals as being very efficient, as a remedy, in the case of burns and scalds, on account, most unquestionably, of its narcotic, anodyne, or poisonous

* Cocoa is used by many persons as a substitute for tea and coffee, and is, no doubt, less injurious than these. Nevertheless not only are all hot drinks better avoided, as debilitating to the mucous membrane of the stomach as hot water to the external skin, but cocoa (*theobromine*), when analysed by Schrader and Woskresensky, was found to contain a poisonous principle similar to the *thein* of tea and the *caffein* of coffee. In 1876, England imported 20,382,308lb. of cocoa, value £559,197, of which 10,428,478lb. were retained for home consumption.

properties. The *Transylvania Journal of Medicine* regards it as an anodyne; as truly so, in some cases, as opium.

The *London Quarterly Review* says there is a manufactory near Canton where the worst kinds of coarse black tea are converted into green tea by heating the leaves moderately on iron, and mixing with them turmeric, indigo, and white lead, by which process it acquires a blooming blue colour like plums, and that crispy appearance which is supposed to indicate the fine green teas. The writer says he saw about 50,000 chests of this spurious article ready for shipping.

Other statements speak of Prussian blue and plaster of Paris, and we have reason to suspect that a large share of the teas imported are damaged. *Manufactured to suit the market. We must have tea, and the Chinese, an accommodating people, are ready to furnish us with it!*

It is said that if it could be proved that the green teas are poisonous, the same testimony cannot be brought against black tea. But Mr. Brande, the distinguished chemist, has ascertained by experiment that there is no perceptible difference in this respect between green and black teas.

The proportion of black teas formerly imported amounted to only six-twentieths of the whole, as may be seen by the following: Bohea, 1-20th; souchong and other black teas, 5-20ths; hyson and young hyson, 9-20ths; hyson skin and other green teas, 4-20ths; imperial and gunpowder, 1-20th.

In speaking of tea I have had occasion to prove its tendency to produce what Mr. Cole has denominated the tea disease; and have more than alluded to its effects in producing headache, dyspepsia, &c.

DECAY OF THE TEETH PROMOTED BY TEA.

Tea injures the teeth, and causes premature decay. The vulgar belief that hot, cold, sweet, and acrid substances injure the teeth by mere contact is probably untrue. Not even mercury does this, nor henbane, nor hemlock. A very powerful and highly concentrated acid might indeed do it, if they were unhappily exposed to it. The injury, however, is usually done in what may be called an indirect manner.

It is a generally received doctrine that whatever injures the gums affects the teeth through them. Now many things injure the gums. Everything extremely hot or cold does this. Tea is usually taken hot, and, by rendering the gums diseased, produces caries of the teeth. This is one way in which mischief is brought about.

But the teeth are injured through the stomach. The same membrane which lines the mouth extends to the stomach; and whatever affects the latter unfavourably has a proportional effect upon the former. Among these are hot and cold drinks. So that hot tea has a double agency in producing this species of disease.

One evidence of the tendency of hot substances to induce caries of

the teeth and gums may be derived from an examination of the cows near cities, fed on still slops at too high a temperature. When this subject was agitated in New York the teeth of cows on some farms in that vicinity were examined, and the results were most striking. In cows fed upon natural food the teeth were healthy, and the enamel—the hard substance which coats the teeth wherever it projects beyond the gum—was quite sound. The portions of the jaw which support the teeth, forming their sockets, called the alveolar process, were also healthy. Nor was there any accumulation of tartar between the teeth, which were firm and white. But in the cows fed on still slops, hot from an adjacent distillery, the whiteness of the teeth was gone; they had lost their enamel. Nor was the decay confined to the enamel, for even the bony parts had suffered, as shown by a diminution of size. Caries had commenced, evinced from the black spots. The alveolar process had become diseased; ulcers had formed at the roots of the teeth; the portion of the jaw opposite these roots had become affected and was broken off, and one of the teeth had quite disappeared.

But whatever injures the lining membrane of the stomach to such an extent as to react upon the teeth must affect the nerves of this central organ, and not only produce disease therein, but also in every organ which sympathises with it. Dyspepsia, nervous or sick headache, heart disease, palsy, and sometimes epilepsy—in truth, every form of nervousness and nervous disease which can be named—may be, at times, the legitimate and certain fruit of tea drinking. Or when these diseases originate in other sources, they are always aggravated thereby.

In particular does tea drinking tend to paralytic affections, and nervous headache. Let not the slave to tea solace herself with the idea that tea cures her headache. It may afford her temporary relief; but the complaint is aggravated by it, and the seeds of other diseases often sown.

Decay of teeth, and disease of the stomach, moreover, are often hastened by other causes. The teeth last much better for being used. But they who wash down their food with tea masticate less in proportion; and, consequently, make their teeth more subject to decay.

NERVOUS DEBILITY INDUCED BY DRINKING TEA.

Again, from the fact that the food is less perfectly masticated and insalivated, digestion is less perfect. Dr. Arbuthnot says: "Mastication is a very necessary preparation of solid aliment, without which there can be no good digestion." Solid aliment, well chewed, is moist enough without any addition. When, however, we swallow large quantities of drink, cold or hot, the absorbents of the stomach are taxed, and its vital energies expended in carrying off the superfluous liquid; so that the process of digestion being commenced and carried on by a weakened stomach, must necessarily be imperfect. Hence many unpleasant sensations, such as fulness, wind, distention, heat, acidity, pain, chronic inflammation, schirrhous, cancer, and many more diseases.

The evil effects of tea drinking fall with greatest weight upon females. How many women who think they cannot get along a single day without tea owe to it their cold feet and hands, their liability to frequent cold, their peculiar difficulties, especially their weakening ones, and their loss of appetite. No wonder tea drinkers are so frequently *small eaters*, when their tea has gradually destroyed their appetite!

One cause of scrofulous constitution—*i.e.*, by inheritance—is to be found in the use of tea by ancestors. Whatever weakens the nerves—especially those of the stomach—in a mother is sure to entail a tendency to disease on her offspring, which will not unfrequently prove to be scrofula or tuberculous consumption.

The senses often suffer from the slow poison of tea—especially vision and taste. The hearing is affected, at least indirectly, by colds, which are more frequent from the use of tea. Sometimes the voice is affected by tea drinking.

Black tea does not tend to disease as much as green tea, or weak tea as much as that which is strong. But it is maintained that tea of both kinds, and in every degree of strength, tends to disease, because in every form and at every degree of strength it is more or less poisonous.

If tea affects the brain and nerves and produces that state of things known by the term “nervousness,” and also the severer forms of nervous disease—if, moreover, it affects those avenues to knowledge, the senses—it must affect all the powers of the mind. This beverage is taken by thousands as a sharpener of the intellect, overlooking wholly its remoter benumbing tendency. But this no more proves its usefulness than does the confidence of the ignorant in brandy, tobacco, or opium for the same purpose. On the contrary, the very fact that it increases at first the vividness of the sensations causes a preternatural activity of the ideas, and unlooses the tongue, only serves to raise our suspicions, and there is no doubt that the mind of every person is in the end made more dull by its use.

It is said of one of the giants of American literature that, after a long season of mental depression, he would suddenly resume his tea-cups, and accomplish for a few days a prodigious amount of mental labour, after which he would sink down and again become a mere hybernating animal, and he destroyed himself prematurely in this way. Dr. Samuel Johnson, also another giant of literature, is believed in his later days to have injured his intellectual faculties—if, indeed, he did not greatly hasten his dissolution—by his excess in drinking tea. Such slaves may even great minds become to the power of habit, that Dr. Johnson writes of himself as “a hardened and shameless tea drinker, who has for many years diluted his meals with only the infusion of this fascinating plant; whose kettle has scarcely time to cool; who with tea amuses the evenings; with tea solaces the midnights; and with tea welcomes the mornings.” We see as a consequence the old gentleman’s nerves were in a frightfully shattered condition.

Indulgence in what we know to be wrong is of immoral tendency, so that we are under obligation to get rid of every improper habit, and to do all to the glory of God.

Whatever takes from us the power of self-government and leaves us the slaves of our propensities is immoral.

Whatever encourages unnatural thirst exposes to the danger of gratifying that thirst with stimulants. Tea is itself an extra stimulus. He who is in the habit of exciting his nervous system with tea is already in the path of intemperance, in the strict sense of the term, and has no guarantee that he shall not advance to more destructive forms. Tea drinking subjects us to the dominion of the animal appetites, and he who is dependent on anything which is a mere excitant of the nervous system has his spiritual nature enslaved to animal propensities.

The pecuniary waste which the use of tea occasions is another evidence of its demoralising tendency. It is no light thing to spend so many millions on a mere luxury at best, and not in any sense necessary.

It not only exhibits much callousness of moral feeling but adds to it. Especially is this true of a community that boasts of its charities, when some of the noblest of those charities cost comparatively but a small sum. Take, for example, Foreign Missions. Is it not strange that a Christian community will spend more than forty times the sum for its tea than for the conversion of the world?

TEA A MEDICINE—NOT A FOOD.

"Suppose it were granted that tea is a medicine, what is this against its use? Has not the tomato been commended for the reason that it has medicinal properties? Is it not so with onions? Still more are not the condiments—mustard, pepper, spice, saleratus, ginger, cinnamon, and even salt and vinegar—in themselves medicines?" These substances may possess medicinal properties, but however sparing mankind are in the use of those substances *with their meals* they would be more healthy without them. Medicine is a foreign substance, a foe to the powers of life, and has no natural affinity to the stomach, whether in the form of calomel, opium, alcohol, mustard, or pepper, even in the smallest quantity. It is true, also, of the slight medicinal properties found in tomatoes, onions, and tea. They are not the better as food or drink for possessing such, but the worse, for medicine and food are in their action incompatible with each other.

"But what if tea is poisonous? All things we eat contain poison more or less, or they would probably do us no good." This defence of tea is more lame than the former. For it is not true that poison is necessary to our support. Nor is it true that all things we eat *contain* it. Not one of the farinaceous grains contains poison in ordinary circumstances. Ergot, a strong poison, is indeed occasionally found in rye, but its appearance is occasional and

abnormal. So of a few other poisons which find their way into grain. But healthy grain has no poison. Nor have apples, pears, melons, currants, strawberries, and other common fruits, potatoes, turnips, beet, peas, beans, &c.

How, then, can we obtain the poison of alcohol from them? By a chemical change, viz., fermentation. Whatever contains saccharine matter can be fermented, and fermentation produces alcohol. Many things which are not poisonous can be made to *destroy*. Thus, water if taken cold when the system is overheated may destroy almost instantly. A surfeit may be produced, and a crop of eruptions on the inner surface of the stomach, by merely overloading it with apples or bread. But there is no poisoning, properly speaking, in either case. A poison is a foreign substance, which, in all circumstances, has a destructive tendency, or is *anti-vital*. This is the case with alcohol, opium, calomel, prussic acid, tobacco, tea, and coffee; and, in truth, all things medicinal.

Very small doses of active medicine, frequently repeated, such as calomel, digitalis, and opium, by insinuating themselves into the system, poison, in a greater degree, in proportion to the whole quantity given, than larger doses. Nor can tea be an exception to the general law.

"But it is invigorating, and we need some stimulus. I should faint without my tea; especially when labour is severe."

So says the spirit drinker, the tobacco chewer and smoker, the snuff and opium taker, and with the same show of reason. All claim the need of stimulus; and all claim that their *favourite* stimulus imparts strength.

That no one can be sustained without stimulus of some sort is true. The air which is the food of the lungs, the light which may be regarded as the food of the eye, and all other things which excite or move to healthy action any part of the system, are stimulants. In general, however, when we speak of stimulants, we mean those things which excite the nervous extremities. But these do not give permanent strength. The aid they afford us is deceptive. They appear to make us stronger, more active, and perhaps warmer for a time; but as soon as their effect is exhausted there is a falling away greater than the previous exaltation. Tea, then, leaves us in a worse condition than it found us.

The fainting sensation produced by tea is purely nervous, as shown by Dr. Cole's first case, as well as by the general fact that spirits, opium, wine, or cider, as well as tea or coffee, will remove it instantly.

TEA CONTAINS NO NOURISHMENT.

"But is it true, then, that tea contains no nourishment?" Not a particle, as usually taken. With milk or cream and sugar it *contains* a little nutriment, though a small piece of bread or a small quantity of fruit would supply much more. This apology, however, is mere pretence; it is the nervous excitement which is sought in tea drinking. Still, it

is said by some, in spite of all our reasoning, tea does them no harm. Is not experience, they say, the safest guide—the best schoolmaster?

But there is a false experience ; and we should seek and cleave to the truth. Where a thing produces pain and disturbance it is best to let it alone. Besides, it often happens that things injure us which common observation would not detect, and we are forced to correct our own experience by the observation or study of others. The following statements and facts will illustrate, in a striking manner, this part of our subject :—

Alexis St. Martin had his left side so wounded as to leave, on recovery, an external opening an inch or more in diameter, through which could be seen, when the bandage and compress which he usually wore were removed, the exact condition, and to some extent the operations, of the stomach. In these circumstances, Dr. Beaumont instituted a series of experiments on the nature and effects of the gastric juice, in the progress of which he made many curious discoveries.

One of these was that the lining membrane of the stomach might be so inflamed and broken out, and filled with eruptions and ulcerations, as not only to secrete pus, but to bleed, without the subject of so much disease being conscious of the least suffering, and without his health being affected “in any sensible degree.” This condition of the stomach, without any consciousness of the fact on the part of the possessor, was quite frequent ; and though more generally the consequence of improper indulgence in eating or drinking, was also induced by a moderate use of spirits, wine, beer, or any other intoxicating liquor, when continued for some days. “Eating voraciously, or to excess,” says Dr. Beaumont ; “swallowing food coarsely masticated, or too fast ; the introduction of solid pieces of meat suspended by cords into the stomach, or of muslin bags of aliment secured in the same way, almost invariably produces similar effects, if repeated a number of times in close succession.” “Extensive, active, or chronic diseases may exist,” he adds, “in the membranous tissues of the stomach and bowels, more frequently than has generally been believed. In the case of the subject of these experiments, inflammation certainly does exist to a considerable extent even in an *apparent* state of health.”

Now suppose St. Martin, relying on his sensations alone, were to insist that eating too fast, swallowing unmasticated food, or the use of beer, cider, wine, tea, or coffee, did not hurt him, while the observations of Dr. Beaumont told a different story, which ought we to believe? He certainly would speak from *experience*. Is he to be believed, or shall his experience be corrected by the observations of Dr. Beaumont? We meet many individuals whose experience tells them they could not digest their dinner till they had swallowed tobacco juice. Should this experience be regarded as true, or should it be deemed *false* experience, and as such corrected? Others believe their experience proves the necessity of using opium or brandy. They do more work, and do it better, they say. Why then is it not best for them? But how *long* can they do more work, and

do it better? How long before they must increase the quantity of their stimulus, or else be found falling off? And of how many diseases are they meanwhile sowing the seeds—preparatory to a future harvest of suffering?

ACCOMMODATING POWER OF THE STOMACH.

"The stomach," we are told, "is very *accommodating*, and habit very powerful." We grant even the truth of the story of Mithridates, King of Pontus—that he accustomed himself to the deadly influence of hemlock. But what then? Was Mithridates uninjured by it? Did it produce no inflammation of the lining membrane of the stomach and alimentary canal? Was it neither the cause nor the aggravation of disease? If it is said he lived to be about seventy years of age, confirmed drunkards have been known at a still greater age, and also opium eaters; men who began their intemperate lives much earlier than Mithridates began his hemlock. Does their narrow escape, when thousands for one of them has fallen, prove rum, and opium, and hemlock safe, much less useful? Yet, on the principle of being guided by our own experience solely, such might be the conclusion.

The stomach is, without doubt, diseased by any poison; and this, as a general rule, predisposes to other maladies more likely to be fatal.

But if, owing to a strong constitution, the subject should last to a comparative old age, he will never last as long as he would had he avoided the poison, whilst his posterity would inevitably inherit disease as a consequence. There is no discharge in this war. All accommodations of the stomach are made at the future expense of the system, or must be paid for, with interest, by posterity.

"But is there not a difference of constitution? Is not *one man's meat another's poison*?" Not in the sense commonly received. The human constitution, in its unperturbed state, is *one*, as much as the horse constitution is one. And the food which is best for one person is best for another, unless custom has so changed him that *second nature* is stronger than first nature. Men endure tobacco, and rum, and tea, and hemlock, and many become fond of them, just as cows come to feed on fish, cats on bread, and dogs on tobacco.

MORAL OBLIGATION TO SHUN TEA.

"After all," some will say, "we like a short life and a merry one," and "we have no notion of denying ourselves one of the comforts of life for the sake of ten more wretched years at the end of it." But a part of the mistake here is that in adding ten years to life it is not all added to the end. The middle is prolonged in proportion with the rest. And as to a merry life, the longest and healthiest life is the most merry, despite its self-denials.

Lastly, it will be said by a few that they "would continue the use of tea if they knew it injured them." They love it, and will have it at every hazard. "It is nobody's business but their own." But is this so? Are you not a member of society? And do you not violate a duty you owe to society when you pursue a course of conduct which unfits you, in the least degree, for usefulness? Has your example no influence? And have you a right to set a bad example, even though the evil you thereby confirm were but small? Should you do this, would you regard yourself a good citizen, and ought you to be regarded as such? Have you no relative duties to perform? Have you no father, mother, brother, sister, son, or daughter, who may need your wasted earnings, to say nothing of your wasted vital energies? Can you, with a clear conscience, waste that time or money—and time itself is money—which, if not wanted in the education of your children, may be wanted by them or by friends hereafter? Besides, are there no deeds of charity to be done in the world?

Generally speaking, tea drinkers profess a belief in Christianity. They admit the authority of St. Paul and his coadjutors. Yet these writers tell us, "No man liveth to himself, and no man dieth to himself;" and that we should glorify God in our body and spirit, which are His.

COFFEE.

COFFEE was introduced into Europe and America as a common drink much later than tea. It was, indeed, brought more than two centuries ago; but it is only about 200 years since the first coffee-house was opened in Europe. This was in Paris, in 1672.

Coffee is a native of Abyssinia. From thence it found its way into Arabia, in the sixth century—probably as a substitute for wine, when that liquor was first prohibited by the Koran. It appears, however, to have been for some time used as a medicine rather than as a common beverage, for it was not until near the close of the fifteenth century that it became a frequent favourite even in Arabia. In 1511 its use had extended to Cairo.

Opposition to it was, however, soon excited, and a sentence of public condemnation was pronounced against it at Mecca, by an assembly of muftis, lawyers, and physicians. They declared coffee drinking to be contrary to the law of their Prophet, and alike injurious to the soul and the body. Soon the pulpits at Cairo resounded with anathemas; all the stores or magazines of the seditious berry were burnt; the saloons were shut, and their keepers pelted with the fragments of the broken pots and cups.

The tumult, however, soon subsided, for the Sultan, by a public decree, declared coffee drinking not to be a heresy; and the two principal physicians who had pronounced it to be pernicious to health he caused to be executed. From Cairo this suspicious liquor passed to Damascus and Aleppo; and thence, in 1554, to Constantinople. Here, as at Cairo, it was opposed by the dervishes and others, who regarded its use as prohibited by the Prophet. They called it, when roasted, a species of charcoal; and declaimed, with much vehemence, against the impiety of using so base an article at the table.

Coffee appears to have been first introduced into Italy in 1615; and afterwards, in 1657, in France—in both instances, however, as a curiosity. It was evidently beginning to be used at Marseilles in 1679; for during that year the medical faculty in that city made it the theme of a public disputation.

In Paris, coffee was first sold at 2s. 6d. a cup. The shopkeeper was unsuccessful, however, and removed to London. Here the new drink was destined to meet with more powerful opposition than in Asia or Africa. Ministers as well as others declaimed against it, some of them with much violence. Probably it was seen to be used chiefly, if not wholly, for the sake of its nervous excitement. The following is said to be an extract from one of the sermons of those days against the votaries of coffee and tobacco. It is mentioned as a curiosity rather than with

approbation of its denunciatory spirit: "Here they cannot wait till the smoke of the infernal regions surrounds them, but encompass themselves with smoke of their own accord, and drink a poison which God made black that it might bear the devil's own colour."

Coffee, however, like spirits, tobacco, opium, and other nervous excitants—in a world where men are governed by appetite rather than by reason—was destined to have a *run*, and a prodigious run too. For one hundred and fifty years its use has been extending; and it is now found in nearly all parts of the civilised globe.

The quantity imported into England for the year 1875 was 190,698,720 pounds (value £7,605,339), the bulk of which was re-exported, leaving, however, 32,849,560 pounds for home consumption. In 1840 the quantity consumed in the countries of Europe annually was estimated as follows: France, including Spain, Italy, &c., about 70,000,000 pounds; Netherlands and Holland, 81,000,000; Germany, and countries round the Baltic, 64,000,000. The consumption of coffee in the United States has been rapidly increasing. In 1821 the importation was only 21,273,659 pounds; whereas in 1836, fifteen years afterwards, the amount was 93,790,507 pounds. During the seven years ending 1838 the consumption increased one hundred per cent, while the population advanced only thirty-three per cent.

MEDICINAL PROPERTIES OF COFFEE.

That coffee is essentially a narcotic medicine* will hardly be questioned by any medical man.

Hooper, in his "Medical Dictionary," says "it possesses nervine and astringent qualities." It is said to be a good antidote against an overdose of opium, and to relieve obstinate spasmodic asthmas. A substance, by the way, which is nervine, and has the power of relieving spasm, is of course, a narcotic, or diffusible stimulant.

Dr. Paris says "it is suspected of producing palsies—and not without foundation." Here one might be disposed to ask—Do we want a stronger reason for believing coffee to be a narcotic than the fact of its producing palsy?

Dr. Willich represents coffee as possessing "anti-spasmodic virtues," and speaks, in particular, of its powerful effect on the nervous system. He says it is "a valuable medicine."

The opinion of Dr. Beaumont has been given in speaking of tea. In remarking on the necessity which exists for increasing the dose of both tea and coffee, in order to have their effects permanent, he says of the additional quantity, "Yet this is only an *addition* to the strength of the *narcotic* he is in the constant habit of using."

Mr. Graham assures us that "tea and coffee are among the most powerful poisons of the vegetable kingdom."

* See note, page 9.

Professor Hitchcock, in his "Dyspepsia Forestalled," repeatedly speaks of coffee as a narcotic. "The bewitching influence," he says, of both tea and coffee, "lies in their narcotic properties—the same principle that gives opium and tobacco their attractions. They exhilarate the system, producing a pleasurable glow, and lessening nervous irritability. They do this in a less degree than ardent spirits and wine; still the *exciting principle is essentially the same.*"

Dr. Trotter, in speaking of the cause of nervous maladies, says that "the only means of cure lie in a total abstinence from every species of fermented liquor, and from everything that bears an analogy to them, such as tea, coffee, opium, and all other narcotics."

Dr. Dunglison says of coffee, "It is manifestly tonic, and somewhat stimulating;" and, in many of his occasional remarks, clearly admits its narcotic tendency. The same admission is made in the "Journal of Health," in Faust's "Catechism of Health," and in the "Catechism of Health" by Dr. Bell, of Philadelphia. All this is good authority. The latter work says expressly that coffee—not *strong* coffee, merely, but coffee under all circumstances—has a "pernicious effect upon the stomach, bowels, and *nervous system* generally."

The testimony of Dr. Combe, in his work on "Diet and Regimen," is very much in point. He says "it acts as a strong stimulant, and certainly increases our comfort for the time. Like all other stimulants, however, its use is attended with the disadvantage of *exhausting the sensibility* of the parts on which it acts, and *inducing weakness*. This inconvenience is not felt to the same extent, indeed, after coffee, as after spirits, but it still exists."

Professor Sweetser says, "It has appeared to me that more persons suffer disturbance from the nervous system and of the digestive function from the free use of coffee than tea." Elsewhere he avows the belief that its long-continued use sometimes produces palsies.

Dr. S. A. Shurtleff, a physician of Boston, says, "Of all the common beverages drank in society, coffee is decidedly the worst."

Londe, a distinguished French writer on health, classes coffee among the drinks which *stimulate* but do not *nourish*. He says "it accelerates the functions only by shortening their duration. It doubles the energy of the organs only by doubling the debility which follows. *Coffee*," he adds, "*should be used only in those circumstances in which it is proper to use fermented or spirituous liquors.* It is not on account of its liquid condition or its high temperature, but on account of its stimulating without nourishing, that coffee, like tea, produces nervous affections."

Sinibaldi, an Italian medical writer of eminence, has the following remarks: "The commerce which we have opened with Asia and the New World, in addition to the smallpox and other diseases, has brought us a *new drink*, which has contributed most shockingly to the destruction of our constitution—I mean coffee. It produces debility, alters the gastric juice, disorders digestion, and often produces convulsions, palsy of the limbs, and vertigo."

Linnæus, in his "Medical Botanical System," represents coffee as being "drying, exciting, healing, expelling, carminative, diuretic, anti-venereal and anthelmintic." He speaks of it, moreover, as of known usefulness in that long list of nervous complaints, at the head of which stands hypochondriasis and hysteria. Surely such powers entitle coffee to the name of a medicine and a narcotic poison also.

Drs. Percival, Musgrave, and Millengen recommended coffee in cases of asthma; and the latter, in speaking of its medical effects, says it is liable to produce feverish heat, anxiety, palpitations, trembling, weakness of sight, and predisposition to apoplexy.

Dr. Grindal, of Russia, in his attendance at the hospital at Dorpat, has used a preparation of raw coffee in intermittent fevers as a substitute for Peruvian bark, with great success. In eighty cases scarcely one resisted its power.

The "Encyclopædia Americana," in an article which was probably written by Dr. Lieber, one of the editors, says: "As a medicine, strong coffee is a powerful stimulant and cordial, and in paroxysms of the asthma is one of the best medicines; but it should be very strong."

Dr. Burdell, of New York, has made many curious experiments on small animals, not only with the decoction of tea but with what he calls the extract of coffee. He says: "By experiments upon animals it is shown that there is more excitement of the nervous system produced by coffee than by tea; but death does not ensue so quickly."

The testimony of Mr. Cole should not be forgotten. The learned surgeon believed coffee to be liable to bring on all the diseased action which he referred to tea; so that in his view there is really a *coffee* disease abroad as well as a *tea* disease, or rather coffee and tea produce symptoms nearly the same.

Dr. Hahnemann, the father of the homœopathic system of medicine, and of an essay on coffee, gives the following testimony: "Coffee is strictly a medicinal substance. All medicines, in strong doses, have a disagreeable effect on the feelings of a healthy person. No one ever failed to be disgusted the first time he smoked tobacco. No healthy palate ever found strong coffee, without sugar, palatable on the first trial."

DISEASE PRODUCED BY COFFEE

No man has written better on the disease induced by coffee than Hahnemann. Whatever may become of his system of medicine his essay on coffee will endure as long as the English language. He first describes what may be called, as has been intimated, *the coffee disease*. "The first effect of coffee," says Hahnemann, "is in general a more or less agreeable increase of vital activity. The animal, the natural, and the vital functions are for some hours artificially elevated by it, and the subsequent effect which arises after the lapse of several hours is its opposite—an unpleasant feeling of existence, a lower degree of vitality, a kind of

paralysis. When a person unaccustomed to coffee drinks a moderate quantity, or one accustomed to it an immoderate quantity, his vitality is, for several hours, more lively. His pulse beats full, quicker, but softer. He acquires a well-defined glow on the cheek—a glow which does not disappear insensibly on the adjacent parts, but stands out separate like a spot of red. The forehead and the palm of the hand become moist and warm. He feels an agreeably oppressive warmth—a sort of voluptuous palpitation of the heart ensues, as when great joy is felt. The veins of the hands are distended. Externally, too, a greater warmth than natural is produced, which a large quantity of coffee never changes to heat (rather to general perspiration); some even acquire a burning heat. His presence of mind, his faculty of attention and sympathy, are more lively than in the natural condition. If the dose is large, and the subject irritable and unaccustomed to its use, it produces a headache affecting one side of the head, from the upper part of the side bone (or parietal) to the base of the brain. The membrane covering the brain seems to partake of its influence, and to become painfully sensitive. The hands and feet become cold; there is a cold sweat on the forehead and in the palms of the hands. The temper is irritable and intolerant; no kindness awakens gratitude. The patient is anxious and trembling, much disquieted, weeps without any occasion, or laughs involuntarily. After a few hours he slumbers, awakening from time to time as if much frightened."

Dr. H. goes on to explain the nature of fatigue, hunger, thirst, and digestion, and to show that coffee removes the first three of these, and greatly impairs the latter. But this is not all. The intestinal action is quickened, and the half-digested food is hurried through the body in a half-liquid state, without having contributed much of its nutritive substance to the support of the body. The lower portion of the bowel is not only over-stimulated but disordered in its function.

This is the first stage of the coffee disease, and were there no secondary stage it would hardly be regarded as formidable. But to this over-activity of the system succeeds a condition of things almost the reverse. Intestinal motion is more difficult and more painful, muscular motion generally irksome, the extremities chilly, ill-humour is excited, a sort of gnawing comes on, and there is more or less oppression of the head and stomach. The disease, in this secondary stage, would become serious were it not partially removed by a renewal of the coffee. But other diseases are also excited, such as nervous or sick headache, toothache, darting pains in the body, spasms in the chest, stomach, and abdomen, costiveness, erysipelas, disease of the liver, uterus, and bones. The latter become carious—sometimes exceedingly so. Nothing but grief and the use of mercury is so destructive to the teeth. In children, a species of hectic fever is induced; and, short of this, inflammation of the eyes, with difficulty of breathing and bowel affections. Even when not excited by coffee these diseases, and most others, are aggravated by it.

Is it strange that the daily use of that which is admitted on all hands to be an active medicine should produce much mischief? Let us consider, then, how incompatible in their action and effects medicine and food are, even when taken apart from each other. But if the frequent use of medicine, when not taken with meals, is destructive, how much greater must be the disturbance and final derangement when it is actually present in the stomach with our food from day to day and from year to year? We have alluded to darting or lancinating pains in the body as one occasional effect of coffee. But these are sometimes regarded as a part of the true coffee disease. This symptom is represented as extremely troublesome. When it occurs in the limbs it does not appear to be in the joints, but in the spaces between the joints, and rather in the cellular tissue or flesh than in the bones.

The expressions *moderate* and *immoderate*, as used above, must, of course, be understood relatively; for as one person, say a robust labourer, can bear more than another, what would be but moderate for one would be immoderate in the case of another. A prince whom Hahnemann mentions used, at once, the strength of seven ounces of well-burnt and suitably prepared coffee, while some persons require only a quarter of an ounce.

"When I awake," says a devotee of coffee, who was once respectable in intellectual and moral powers, "I have the intelligence and activity of an oyster." But without intimating that coffee drinkers are generally so much lowered, it is maintained that coffee is a stultifier of the mental faculties, and, notwithstanding its deceptive promises, no person using it ever escaped this influence. But if the mind could escape the general attack upon the nervous system, not so the moral faculties. These are crippled, dwarfed, we may almost say annihilated. If we try to exercise them the effort seems almost without hope. This result is the secondary effect of coffee, not the primary, for, as Hahnemann well says, the primary operation of coffee is to excite the nervous system and develop it many years too early—he says ten or fifteen—a circumstance which has a most visible effect on the public morals.*

"Immediately after our coffee," says the same ingenious writer, "the stores of memory leap, so to speak, to our tongues, and talkativeness, haste, and the letting slip something we should not have mentioned are often the consequence. Moderation and prudence are wholly wanting. The cold reflective seriousness of our forefathers—the solid firmness of their wills, resolutions, and judgment—the duration of their not speedy but powerful and judicious bodily movement—all this noble, original impress of our nature disappears before this medicinal beverage, and gives way to over-hasty attempts, rash resolutions, immature decisions, levity and fickleness, talkativeness, inconstancy, rapid mobility of the muscles," &c.

"I am aware that the German must drink coffee, if he would revel in pleasantries, if he would weave together flimsy romances, and produce

* For an exposition of the evils of tea and coffee see Fowler's "Amativeness."

frothy *jeux d'esprit*; and that the German female needs coffee, if she would be brilliant and sentimental in modish circles. The ballet dancer, the improvisatore, the mountebank, the juggler, the sharper, and the faro banker need coffee, as does also the fashionable musical virtuoso for his dizzy rapidity, and the omnipresent fashionable physician when he wishes to flutter through ninety-nine visits of a morning. Let us leave these to their natural stimulus, and with it its consequences on human health and happiness! Thus much at least is certain. The most refined man of the world, the most accomplished prodigal of life, can discover no medicinal article but coffee (perhaps *tea*) which is capable of converting our usual sensations into purely pleasing ones—of producing for some hours a more jovial mirth, a more lively wit, a brilliant fancy—of accelerating the motion of our muscles and of doubling in speed the regular course of digestion and evacuation—of keeping the nerves in involuntary excitement—of stilling the beneficent pain of hunger and thirst—of driving sleep from the weary—and of feigning a species of wakefulness when the world is enjoying rest in the still bosom of the night."

We might dwell, as in speaking of tea, on the immorality of the amazing waste which the use of coffee involves, and say something of the folly of complaining of heavy taxes, hard times, &c., while we tax ourselves. The connection of this extravagance and waste with the idleness, and consequently with the morals, of the community cannot but be obvious.

"But man has become artificial. In this condition, with an artificial stomach and digestion, may not artificial drinks become necessary?" Such is the reasoning when we are *fond* of these drinks, and in particularising everyone defends the kind to which he is enslaved, while he does not hesitate to utter maledictions against some other of the fraternity. Did, then, the Creator make the stomach so that it cannot do its work till it is goaded and spurred? It cannot be so in the nature of things. No other condiment can be necessary than a good appetite, with a healthy secretion of saliva and the gastric juice.

STIMULATING EFFECT OF COFFEE.

If Hahnemann is right in saying that coffee hurries the food through the alimentary canal, dissolved, indeed, but only half digested, then all which the champions of tea and coffee have said about their usefulness in aiding digestion falls to the ground. The most which can be affirmed is that the various processes are *quicken*ed by these drinks. The gastric juice flows in great abundance. The liver forms its secretion more rapidly. The lacteals convey chyle faster, and the action of the intestinal canal is more violent. But the nervous energy enabling the vital machinery to work faster than is natural, which should have been reserved for some future exigency, being expended prematurely, a lack of energy in the same proportion follows. So that nothing is gained to the current of life, whilst the flow of that current is unnatural, now too high, now too low, and life's purposes are not so well accomplished.

Nor is it in the stomach and alimentary canal alone that mischief is done. It is a law of the system, that if one member suffers all the others suffer with it. Coffee and tea, then, increase the gastric and peristaltic action, and by consequence the action of the parts in immediate connection; but by the law of sympathy more distant parts have their action also increased, as the heart, lungs, brain, and skin. Then, when the debility follows—*e.g.*, when the liver, which formed its bile too rapidly, or of too thin a quality, forms it too slowly, or too muddy—the other organs fall into inaction in the same proportion. Again, each organ has its own sympathies with others; among the rest, with the very organ from which the disturbance first emanated—the stomach. Thus a series of wrong influences is put in operation, which continues to act and react as long as the abuse continues, unless some organ gives way, and disease follows. It must be obvious that disease of *any* part may ensue, and the weakest part of the system will give way first.

The influence of a single cup of tea or coffee would be inconsiderable. It is the accumulated consequences of many small doses which we are to fear. Dr. Combe says that "*health is more frequently undermined by the gradual operation of constant though unperceived causes than by any great and marked exposure of an accidental kind*;" that, as in the great majority of instances, the breach of a natural law "becomes serious by the frequency of its repetition rather than by a single act, so is the punishment gradual in its infliction, and slow in manifesting its accumulated effect."

Besides, the actual amount of harm done is not the only test of the injury of a thing. We have something else to do besides *doing no harm*. An apostle has said that whether we eat or drink all should be done to the glory of God. Do we use tea or coffee to the glory of God? Is it the best drink we can use? Is it a drink whose influence on ourselves, on the wellbeing of society generally, is more favourable than any other? Is it a drink whose use we wish to confirm by our example?

IMPORTANCE OF AVOIDING POISONS.

But it is a *small thing*. The tributaries of the Mississippi are small things; nevertheless they make up the mighty flood which has been aptly enough designated as the "Father of Waters." So of the tributaries to that mighty stream which flows into the sea of intemperance. He who says coffee is a small thing might say that arsenic, or lead, or prussic acid, is a small thing. Persons who labour in factories, exposed to the fumes of arsenic or lead, sometimes last to thirty or forty years of age, though many die much earlier. Prussic acid, a drop of which will kill an animal, may be so used that a person will bear repeated doses of it for a long time without apparent injury. Will any one attempt to say that this is not poisonous?

Talk not of the nutritious property of coffee. It is not drank for its nutriment by one of a thousand. "But it saves food." "Coffee drinkers are usually small eaters." The same may be said of cider and wine drinkers.

Is it on account of the nutriment these liquors contain, which is very trifling? Is it not because they destroy the appetite? We need not envy the small appetite of one who is satisfied with a slice of bread or a biscuit, and his bowl of strong coffee. We prefer the strong appetite of the water drinker, with his increased moral freedom, to slavery to coffee.

We entreat all who make claim to the name of philanthropist or patriot to pause ere they contribute to swell this mighty aggregate—this river of death. The soil now devoted to tea and coffee might be made to produce substances conducive to health. If, however, in spite of all that has been said, there are those who will use those poisonous drugs, they are entreated to consider what are the benefits derived from this expenditure of money and waste of health. What might not be made of the time and money now squandered in this way? How much might be done in promoting social, intellectual, and moral improvement? How many school, village, and town libraries might be purchased? How many teachers' seminaries might be sustained by it? How many teachers of temperance, physiology, and moral reform might be scattered? And how many books might be furnished to the brotherhood of mankind? Let them reflect on the health lost to those who use poisons; the number of diseases excited or rendered fatal; and especially the nervous complaints. Let them not forget the constitutional ills inherited. There is many a large family where not a child exists who is not the inheritor of ills produced by its parents' irregularities; and some in which children may be found whose sufferings, beginning before they are a month old, will end only with their lives. Let parents consider whether they are willing to sow the seeds of pain and disease in a soil so productive as the tender frame of the infant, compelled to reap a harvest of premature disease, decay, or death. How many children and young persons sink prematurely to the grave, while their parents, though they are the cause, still retain considerable vigour—their early habits having been formed under better auspices! How many children, at only one-third the parents' age, seem half as old as the parents themselves! And whose is the error? On whom falls the guilt of so much suffering, premature decay, and death?

We are far from saying that tea and coffee are the sole authors of all the misery referred to; but they are among the numerous tributaries to the mighty stream of premature death. And he who effects a reform with regard to tea and coffee, though he were to retain, for a time, beer, cider, or wine, has not only removed two articles that ought never to have been received, but has begun a good work in the right way. Let the causes of undue fondness for excitement and unnatural thirst be dried up and the larger streams will sooner cease to flow, while the renovated and happier world will rejoice in their extermination.

APPENDIX.

"The devotees of tea and coffee are no less under the slavery of an evil habit than the drunkards who drink wine and beer."—*Virchow*.

"The taste of tea is more or less astringent, and, before it is infused, unpleasantly acrid. To make the infusion, the Chinese pour boiling water on a small portion of the leaves, but do not allow it to stand or macerate, as is done in England, but instantly pour it off again, by which they obtain only the more volatile and stimulating portion of its principles. The poorer Chinese indeed boil the very inferior and coarse leaves, which alone are within their reach, and drink the decoction repeatedly during the day. This is done not only to extract such virtues as it possesses, but to qualify the water, as little good drinking water is met with in China. Travellers find a supply of tea a very valuable accompaniment on long journeys, as it improves the most brackish waters. The exciting effects of fresh tea are such that it is rarely used till it has been kept twelve months, as already stated; and where indulged in it produces great disturbance of the mind, almost resembling inebriation, like the action of the Erythroylon Coca among Peruvians, and inducing a tremulous motion of the limbs. This property is diminished by repeated roastings, but as green tea is less exposed to heat than black it retains more of this power. Besides the green tea for exportation undergoes some process which changes its colour, giving it a bluish green hue. The Chinese themselves do not consume those kinds of green tea which are prepared for exportation. (Davis, *Chinese*, ii., 468.) It is altogether a mistake to suppose that the colour of green tea is owing to its being dried on copper pans, as none such are used, and the most searching chemical analysis is unable to detect a trace of copper unless constituent of the vegetable. The chemical analysis of tea does not shed much light on its action on the human system. Frank and Sir H. Davy found more tannin* in black than in green tea; but the results of Mr. Brande's researches, conducted on a more extensive scale, give a different result. [The writer probably meant to say that Mr. B.'s researches give a different result, and not that their results do so.]

"Before attempting to estimate the action of tea on the human system it is necessary to call to mind that some of the effects are due to the plants mixed with the real tea, several of which, such as the *Chloranthus inconspicuus*, are stimulants of the

* Tannic Acid, or Tannin, is a peculiar vegetable acid contained in the bark of each species of quercus oak. Its name is derived from the property it has of combining with the skins of animals, or in tanning, by which they are rendered impervious to water, and prevented from putrefying.

highest order ; and ~~in other instances~~ deleterious chemical compounds are used by the Chinese to convert damaged black teas into saleable green teas. (Davis, *Chinese*, ii., 466.) For the effects of these tea is not justly chargeable. A correct estimate of the action of tea is not easily formed ; yet the most dispassionate inquirers regard it as a narcotic, the stimulating period of which is the most conspicuous and of longest duration. Tea has been preposterously praised by some writers, and unjustly accused by others as being productive of numerous diseases ; above all it has been charged with causing an increase of nervous diseases. It would perhaps be more just to attribute the increase of such complaints to the more complicated state of our social relations, arising from an augmented population and an advance in luxury, with the more frequent infringement of the natural laws, particularly turning night into day, and not seldom day into night, as is the practice of the votaries of fashion. That tea should not suit all constitutions or all ages is not remarkable. It is less suited for young children than for adults ; indeed for very young children it is extremely improper, producing, like all narcotics, a morbid state of the brain and nervous system. It is also unsuited for those of an irritable nature, and likewise for those of a phlegmatic constitution. It may not be true that the use of tea, as alleged by Dr. Lettsom, has been a main cause of the increase of scrofulous diseases, still as diseases of this class are the only diseases which are proved by the reports of the registrar-general to be stationary, or perhaps more frequent than others, whatever impairs the nervous power and ultimately the digestive function in strumous children should be avoided. His advice is sound where he says ' It ought by no means to be the common diet of boarding schools ; if it be allowed sometimes as a treat, pupils should be at the same time informed that the constant use of it would be injurious to their health, strength, and constitution.' Those to whom it is most suited are the plethoric and sanguine. Upon the same principle it is a proper article of diet and perhaps the best common drink at the beginning of fevers and inflammatory complaints. In a peculiar state of brain, termed by Mr. Newnham (*Observations on Medical and Dietetical Properties of Green Tea*) *sthenic excitement*, a state clearly bordering on inflammation, especially if produced by alcoholic stimulants, or by intense and long-continued application of mind to any particular object of literary research, a green tea acts as a salutary remedy. On the contrary, in states of diminished excitement, morbid vigilance and nervous disturbance follow its use."

"Many persons have immediately found their health improved by entirely relinquishing the use of tea or even omitting it only at breakfast, for which meal it is certainly less proper than for the evening beverage. In some forms of diseased heart tea proves a useful sedative. It is nearly as valuable an antidote to poisoning by opium as coffee is. Some cases of poisoning by arsenic and tartarised antimony have been prevented proving fatal by the administration of tea in the form of a very strong infusion. Here its power as an antidote depends upon its tannin decomposing the poisonous substances. Some cases of severe nervous headache are relieved by a cup of strong green tea, taken without milk or sugar. But this should be sparingly resorted to ; it is a wiser plan to avoid the causes of such headaches."—*Penny Cyclopædia* Art., "Tea."

"The annual consumption of tea in this kingdom is enormous, yet physicians are still divided in opinion respecting its real qualities, some considering it to be, upon the whole, a wholesome and beneficent diluent, while others look upon it as pernicious, and attribute chiefly to its frequent employment the visible increase of nervous disorders, and other complaints of debility. A considerable majority of professional men, however, appear to rank among the former; at least, this is my impression. *I was formerly of that opinion, but of late years my sentiments have, in this respect, undergone a considerable change. Now tea appears to me to be an infusion exerting a very injurious influence on the stomach, bowels, and nerves.* It certainly has a very marked and irritating effect on the nervous system, and is drunk in this country far too often and too strong. It forms a refreshing antispasmodic beverage, but should not be taken either strong or hot; the addition of milk renders it more wholesome, that of sugar less so. Individuals of a rigid and solid fibre are less injured by it, than those of an opposite habit; but none should take more than two small tea-cups full, morning and evening. . . . It is certain that all *green tea* is exceedingly pernicious, having a strong tendency to injure the stomach and bowels and whole nervous system."—*From Modern Domestic Medicine, by Thomas J. Graham, M.D., & M.R.C.S.L.*

"Pure cold water is the best drink, when it can be received without the dust and other properties with which it often becomes mixed. As it falls upon the roofs of houses it is soft and pure. 'Hard water,' as it is called, is unwholesome. When no other water can be obtained, as is often the case in cities, 'hard water' may be filtered, or distilled, and in this way rendered perfectly pure and fit for drink.

"If we except milk, which is the *aliment* nature has provided for *infants*, it may be put down as a rule from which it is never safe to depart, that every substitute used for pure cold water, as a drink, is an injury to the health. As a general thing, we drink too much, even of water. When the diet is what it should be, and the health is good, there is little or no *thirst*. The immoderate use of salt creates an unnatural desire for drink; and we speak from experience when we say it may be entirely left off with advantage.

"All *intoxicating* liquors, and tea, and coffee, are poisonous, and should never be taken into the stomach at all.* Dr. John Burdell, a distinguished dentist of New York, informs us that he boiled down a pound of young hyson tea, from a quart to half a pint, and ten drops killed a rabbit three months old; and when boiled down to one gill, eight drops killed a cat of the same age in a few minutes! Think of it! Most persons who drink tea use not less than a pound in three months; and yet a pound of hyson tea contains poison enough to kill, according to the above experiment, more than seventeen thousand rabbits, or nearly two hundred a day! And if boiled down to a gill, it contains poison enough to kill 10,860 cats in the same space of time! Dr. Burdell made similar trials with coffee and black tea, and found the results nearly the same.

* See Note page 9.

"Now can any one in his senses believe that any human being can take poison enough into the stomach in one day to kill one hundred and eighty-five rabbits, and not suffer from it? Or that the use of this poison can be continued from day to day without injury to health and life?"

"It is not generally known that the different kinds of imported teas are coloured; that is, in the process of curing the leaves, after they are gathered, there is colouring matter added to them. A gentleman in London, connected with the East India Company, who has the most intimate knowledge of this business, has recently disclosed the above fact, and he adds, that 'green tea,' or 'black tea,' might be any other colour, as blue or yellow, as well as the colours by which these teas are now known. The same reasons against drinking too much, especially with our meals, may be urged as a general rule against the use of liquid food in general. And hence, adults should not drink milk even; if taken at all, it should be eaten with coarse bread or ripe fruits."—*Journal of Health*, March, 1855.

"Tea and Coffee have no appreciable nutritive value. If the leaves of tea or the berries of coffee contained as much nutrition as the same weight of spinach, still but an infinitesimal portion could be in the decoction we drink. In the matter of food and as materials for bone, muscle, or nerve, an ounce of bread is worth gallons of tea or coffee. The sugar and milk drunk with them are food, the rest is almost worthless. Tea and coffee soothe hunger, as narcotics and sedatives. Some physiologists are of opinion that they prevent waste, and so make less food necessary. If this were true it would be injurious, for waste, and the removal of waste matter, are necessary to the health of the system. Tea and coffee are stimulants only, and their influence upon the body is either inappreciable or hurtful. Strong decoctions of either stimulate the brain and nerves, produce over-action, and, by concealing fatigue for a time, allow us to overtask our powers until we bring on dyspepsia, neuralgia, softening of the brain, paralysis, apoplexy."—*T. L. Nichols, M.D., in "How to Live on Sixpence a Day."*

"Some functional nervous derangements are excited by fluids commonly consumed with or as foods. *Tea*, taken in excess, is one of these disturbing agents. Tea exerts an astringent action, and by the presence in it of an organic substance—*thein*—it exercises a special influence over the nervous system, which, to say the least, is temporarily injurious . . . and severely felt by the young. . . . The symptoms which indicate this injurious action are sufficiently characteristic. They are, intensely severe headaches, constipation of the bowels, with what is usually considered to be deficiency of bilious secretion, flatulency, an unsteadiness and feebleness of muscular power, and not unfrequently a lowness of spirits amounting to hypochondriacal despondency. In children, under the influence of tea, this lowness of spirits is often so severe that the occurrence of the simplest natural phenomena, as the approach of darkness, the cast of a large shadow, or the spreading over the sky of dark clouds, are sufficient to create dismay and fear.

"In poverty-stricken districts, amongst women who take tea at every meal, this extremely nervous semi-hysterical condition from the action of tea is all but universal. In London and other fashionable centres in which the custom of tea-drinking in the

afternoon has lately been revived, under the old name of 'the drum,' these same nervous symptoms have been developed in the richer classes of society, who, unfortunately, too often seek to counteract the mischief by resorting to alcoholic stimulants. Thus one evil breeds another.

"The flatulency induced by tea taken late in the evening has the effect of interfering with the process of sleep. It prevents or disturbs sleep by dreams and muscular startings, and is a common cause of that peculiarly painful symptom known as nightmare. The extremely injurious effects of tea are best seen in some of those who are charged with the commercial duty of what is called '*tea-tasting*.' A professed '*tea-taster*,' who was seriously affected, defined the symptoms very clearly as follows: 'Deficiency of saliva, destruction of taste for food, biliousness, nausea, constipation, an extreme and undefinable nervousness, and nightmare whenever sleep is obtained.' . . . These phenomena disappear in a few weeks when the process of '*tea-tasting*' is stopped. The symptoms from which habitual tea-drinkers suffer are identical in character but minor in degree.

" The majority of persons in our modern life indulge too freely in drinks. . . . The signs of laxity of muscular fibre and thinness of the blood, of pallor of the face, and of nervous excitability with deficiency of power, which mark many of our women, are often due to the consumption of an excess of liquid food.

"*Coffee*, though less injurious than tea, is even in slight excess a source of derangement of nervous action. Its effect is to relax the minute vascular network and increase glandular secretion. For this reason it acts on most persons as a diuretic, while on some it acts as a purgative. Its influence is exerted through the agency of its organic base—*caffein*. Coffee, like tea, induces dyspepsia, and, perhaps with even more activity than tea, it keeps the brain awake when that wearied organ ought, according to nature, to be asleep. It is, nevertheless, a better [less injurious] beverage than tea, for the simple reason that it is not an astringent; does not, like tea, suppress the secretion of the kidney, and does not lead to mental depression and nervous irritability."—"*Diseases of Modern Life*." By B. W. Richardson, M.D., M.A., F.R.S. Third Edition, 1876.

ELEMENTARY PRINCIPLES OF EDUCATION.

GENERAL VIEW.

THE preliminary points to be considered in this general view are—1, the definition of the word education ; 2, the perfectibility of mankind ; 3, the little success which has hitherto attended education ; 4, the singleness of the human species ; and, 5, the usefulness of education.

As to the definition of education, I think it necessary to state that I intend to introduce in this volume several topics which are not generally considered as falling under education, in the common acceptation of the word, merely denoting instruction in literature and accomplishments ; I use this term as embracing every means which can be made to act upon the vegetative, affective, and intellectual constitution of man, for the purpose of improving this his threefold nature.

Being asked what I mean by human nature, I reply that it is not body alone, nor mind alone, nor animal propensities, affections or passions, nor moral feelings, nor intellect ; neither is it organisation in general, nor any system of the body, nor any particularity whatever ; but human nature, in the proper sense of the words, comprehends all the observable phenomena of life, from the moment of conception to that of death, both in healthy and diseased states ; or, in short, all the manifestations both of the body and mind.

The next introductory point to be elucidated is, whether human nature is susceptible of perfection or degradation.

In speaking of the susceptibility of being perfected, it is not to be understood that man may lose one faculty and acquire another ; for the fundamental nature of men being unchangeable, in body as in the faculties of the mind, such an event is impossible on earth. The meaning of the proposition, therefore, can only be, whether certain powers are capable of attaining greater or less activity ;—whether some of them may prevail over others ; and whether the mutual influence of the faculties and their actions may be regulated and well conducted.

In this latter signification alone the answer is affirmative. Such a perfectibility exists in all living beings. Certain qualities of plants, for instance, may be strengthened, increased, weakened, or diminished. Fruit trees may be modified as to their growth, or fruit—their produce. Each part of the bodies of animals is subject to great variations. Animals also are not confined to actions which their preservation

requires. They modify their conduct according to the situation in which they may be placed ; hence they are susceptible of a kind of education beyond their wants. Monkeys, dogs, horses, bears, &c., can be instructed to play various tricks. They have also a recollection of what has happened to them, and modify their conduct accordingly. An old fox which has escaped several snares, and knows that he is watched, takes greater precautions, and proceeds with more slyness when he approaches the habitations of man with a view of stealing poultry. A bird, whose nest has been destroyed in a frequented place, conceives the necessity of placing it in future in a more retired situation ; and the construction of the second nest is also more solid and more perfect than that of the first. A dog resists its instinct to run after a hare, because it recollects the beating it has previously received on that account. The horse avoids the stone at which it once stumbled. There are even facts on record of learned pigs and learned canary birds.

Similar examples are within the knowledge of every one, and it is therefore unnecessary to multiply them. Yet this power of modifying their actions is not unbounded in animals, but limited according to their nature. Pigeons and hares, for instance, can never be taught to hunt like falcons and dogs.

Man offers similar appearances. The various modifications to which he is liable are known. The manifestations of the mind also vary in persons, even in whole nations. Yet, as far as history informs us, mankind has always been essentially the same. The only difference observed at different times has been, that the manifestations of the special powers have been more or less active, modified, and variously employed.

The next question is, whether man, with respect to his feelings and intellect, has improved or degenerated ? By some authors mankind is said to have arrived at a greater state of perfection than it originally enjoyed ; while others lament its progressive degeneracy. The improvement or degeneracy of the human race, in regard to a knowledge of the external world, the practice of fine arts, and moral conduct, are particularly to be examined. A detailed elucidation of these points would require a whole volume. It is my intention only to take a general view of them.

It is superfluous to mention that the moderns enjoy a great superiority over the ancients with respect to every branch of natural philosophy. The Baconian and true method of studying nature, founded on observation and induction, has been recently discovered and introduced. It has forwarded every kind of positive knowledge in an astonishing degree. It has, however, been unfortunately neglected in the study of man, and hence his nature is but little known. It is true, whatever it was in the power of man's reasoning faculties, unaided by observation, to discover, was discovered by the ancient philosophers. But the knowledge of the man remained extremely vague and uncertain, and phrenology alone will supply this defect, and reduce anthropology to invariable principles.

In the fine arts of imitation, modern artists find it difficult to surpass the ancient masters, yet they seem to be wrong in confining themselves to mere imitation of ancient productions ; nature always remains the

best model, inexhaustible in her modifications, whilst, by the former proceeding, the arts degenerate, or their improvement at least is impeded.

The arts of industry have undoubtedly improved, and political economy may be considered as a science of modern days. The state of mankind at large is evidently better than in ancient times and during the ages of darkness; and it will still improve in proportion as ignorance and immorality are removed and the laws of the Creator attended to.

The improvement or degeneracy of man, as regards his moral and religious opinions, presents a particular interest, even with respect to his worldly happiness. Both these sorts of notions vary according to the different states of civilisation, and they are by no means stationary, any more than the functions of every other faculty.

Savages commonly believe in polytheism, and generally consider all superior beings as malevolent, and worship them through fear. People in a more cultivated state admit superior beings of a mixed nature, like men. The gods of the Greeks, for instance, were supposed to be endowed with all human feelings; they required food and sleep. Jupiter himself was not free from human frailties; he was jealous, often cruel and implacable. He had overturned everything in heaven, and reduced the other gods to be his slaves. The gods of the Romans were not more noble. They were mercenary, and could be bribed by fine temples, games, and more acceptable sacrifices. People of little instruction divided the invisible beings into benevolent and malevolent. Others admitted two principles—one benevolent, the other malevolent; and they acknowledged also many other inferior deities as emanations from the primitive ones. Persons of more cultivated minds believed in one supreme benevolent deity; and in inferior spirits, some benevolent, others malevolent. The most enlightened acknowledged only one Supreme Being, boundless in perfection, and the maker of every creature.

The mode of worship deserves equally a peculiar consideration in the history of mankind. It is always conformable to the notions entertained of the nature of the Deity. In order to avert the wrath of the malevolent powers, and to please them, men have made themselves as miserable as possible by mortifications, flagellations, painful labours, sacred victims, human sacrifices, and suicides. To gain the favour of manlike gods, sweet-smelling herbs, burning incense, oblations, gifts, agreeable impressions on the senses, ceremonies which illustrate a prince at his court, and various sorts of formalities, have been employed.

If we compare the absurdities of Paganism, or even the imperfect doctrines of Judaism, with the purity and sublime principles of true Christianity, we shall perceive that the latter are greatly superior. The Old and New Testament attribute very different qualities to the Supreme Being, and their moral precepts are very different. The old dispensation may be viewed as accommodated to the Jews, who were a hardhearted, stiffnecked, stubborn race.

The God of Israel was jealous, revengeful, terrible, and a God of war. He was fond of perfume, ornament, ceremonies, burning incense, even of bloody sacrifices. He commanded His people to destroy those who forsook him, or who did not obey His commandments; even those who kindled fire on the Sabbath day. Neither brother, sister, son, daughter,

husband, wife, or friend was to be spared if he served another god. He who knew an infidel was forbidden to pity, conceal, or save him; on the contrary, it was his duty to stone him. (Exod. xxxv.; Deut. xiii.)

The God of the Christians, on the contrary, is love, benevolence, and charity. He is the father of the whole of mankind, and wishes for universal happiness. He freely pardons, provided the sinner repents. He gives the same laws to all, makes no exception, and pays no attention to the appearance of persons; He judges, punishes, or rewards everyone after his actions. He is a spirit that cannot be confined to temples, and is to be adored in spirit and in truth. (John iv.; Rom. ii.; 1 John iv.; Matt. vi., &c.)

The Jews were obliged to be faithful only to those of their own race; they were permitted to take usury from foreigners, and to hate them. David praised God in saying: "Do I not hate those who hate thee? I hate them with perfect hatred." (Ps. cxxii.) They were ordered to form a separate nation, and prohibited from intermarrying with other people. Their food was prescribed; many things were interdicted and declared impure. Polygamy was lawful; Solomon had seven hundred wives and three hundred concubines. The husband was allowed to put away his wife; it was sufficient to write her a bill of divorcement, &c.

How superior and more noble are the principles of Christianity; they prohibit anger, hatred, and revenge, and order us not to do evil; they command forgiveness of every offence seven times in a day, and seventy times seven if asked for; to love our enemies; to bless them that curse us; and to do good to them that hate us. They interdict all selfish passions, and declare our neighbour everyone who does the will of God. Christ asked to drink of a woman of Samaria, whilst the Jews had no dealings with that nation. He associated with Jews and Gentiles, ate with publicans and sinners, and declared those only who do the will of His heavenly Father to be His mother, sister, or brother.

No food is an abomination to Christians. Christ said: "Not that which enters into the mouth defiles a man;" and St. Paul declares to the Romans: "I know and am persuaded by the Lord Jesus, that there is nothing unclean in itself." Christ permitted only one wife, and in this respect re-established the law as it was from the beginning of the creation. (Mark x., 6.)

Before the Christian dispensation empires were founded by the sword, and by the most cruel and frightful destruction of the vanquished. Christ declared that He came not to destroy men's lives, but to save them; that he who exalts himself shall be abased. He made no distinction among persons, and considered love and peace as the aim of all commandments. He only proposed the doctrine of His heavenly Father for the acceptance of mankind, and did not enforce it by the sword. He directed his disciples only to shake off the dust of their feet in departing out of that house or city where their words had not been attended to.

The superiority of the Christian principles over the Jewish law is evident. St. Paul said to the Hebrews (iii.) that "Christ is more worthy than Moses;" and (vii., 20), "By so much was Christ made a surety of a BETTER Testament;" and (viii., 7), "If the first covenant had been

faultless, then should no place have been found for the second." True Christianity really improves the moral and religious character of a Jew.

In regard to morality it is indeed impossible to establish better principles than have been pointed out in the New Testament. But since these rules, unexampled in ancient legislation, have been established, the followers of Christianity have often fallen back to many of the contemptible doctrines of the heathen. Many points of importance have been neglected, and trifles adhered to. Pretended Christians, for instance, have disputed whether it be permitted or not to eat meat on certain days, in the same manner as Mohammedans dispute whether coffee be or be not prohibited in the Koran. Notwithstanding these abuses, however, it is certain that the precepts of moral and religious conduct have improved by degrees; and that many selfish and absurd opinions will be rectified as soon as human nature shall be better understood. True Christianity will gain by every step which is made in the knowledge of man.

Let us now see whether education is advanced as much as may be desirable. Unfortunately we find, that notwithstanding the sublime principles of Christian morality, and the numerous masterpieces of the arts and sciences, it is a lamentable truth that hitherto education has succeeded less than the friends of humanity wish. Indeed, if we examine its influence on the improvement of mankind, a thousand years is like a day that is past. Who has not seen children of the most pious and exemplary parents indulge in scepticism, and plunge themselves into profanity and vice? And who has not observed that licentiousness often prevails in the most enlightened and refined classes of society? Who has not observed very limited talents appear in the offspring of men of the greatest genius? Now the inferences to be drawn from such facts are, that either the education has not been adapted to the natural dispositions of those individuals, or that everyone is not capable of receiving the full effect of a good education; and as man in general hitherto has little improved by education, we must conclude that either he is less perfectible than we may wish for, or that the true means of improvement have not been employed. The latter cause seems to me the most probable, and it may be principally accounted for by our ignorance of the nature of man. Plants and animals succeed only if treated according to their natural qualities, and the education of man will not and cannot succeed without adapting it to his nature.

Some philosophers have endeavoured to degrade man to a level with the brute; while others have fancied that he has nothing whatever in common with the animal kingdom. By some the faculties of man are considered as the result of external impressions and accidental circumstances; while others believe that the existence of each person, and all the phenomena of that existence, are the effects of predestination.

I shall mention a few particulars concerning the great error, according to which the champions of education consider new-born children as blank paper, on which they can mark every impression. But under such a supposition, why are children of the same family so different? Why can teachers not communicate their own talents to every pupil? Why cannot everyone who understands the masterpieces of genius produce

similar effects? Why is not every poet a Homer,—every musician a Handel,—every historian a Tacitus,—every speaker a Demosthenes,—every painter a Raphael? The rules which lead to perfection being pointed out, it would be easy for everyone to put them into practice, if no innate powers were necessary. Experience then forces us to decide entirely against such speculative assertions; those who have been engaged in conducting education are convinced that they are incapable of producing those talents and feelings which they could wish; and those who assert the contrary maintain only dreams, and instead of observing nature indulge in their fancy.

Many defenders of education wish to persuade us that the first impressions in early age determined the direction of the mind. I do not deny their influence, but it is less than it is generally supposed to be. Children in their early years are almost exclusively entrusted to the care of females, yet boys and girls show from the earliest infancy their distinctive characters; and this difference between the sexes continues through life. A marked variety of tempers and capacities may be observed in children as soon as they are susceptible of any impression. Children, like adult persons, are differently affected by the same external circumstances. Impressions also, it is to be observed, are more or less permanent. How often in the maturity of age, when the activity of the mind is the greatest, does it happen that we are at one time perfectly acquainted with a subject, but afterwards forget it as if we had never known it? How, then, is it possible to believe that individual impressions, received at a period when the mind is almost inactive, determine the character or the mental capacities of a child for his whole life? On the other hand it is well known that many individuals turn out very different from what they appeared at an earlier period of life. It must therefore be allowed that the above-mentioned opinion is destitute of all support from experience.

I do not hesitate to maintain that education must fail as long as we continue to think that children are born alike, and may receive with equal advantage every kind of education. If J. J. Rousseau had taken care of his children instead of sending them to the public hospital, he would have detected his erroneous conceptions; he would have observed that Nature implants certain kinds of feeling; that education only weakens, or invigorates and refines them; that children react on external circumstances, according to their natural dispositions; and that it is necessary to adapt education to the nature of individuals. Hence, the first thing to be done is to trace back the faculties of children to their origin. Such a knowledge will contribute to the advancement of arts and sciences, and to the improvement of moral conduct, by suggesting suitable means for directing the energies of children to the objects which they are most fitted by nature to attain. "There are few subjects," says Dugald Stewart, "more hackneyed than that of education, and yet there is none upon which the opinions of the world are still more divided. Nor is this surprising; for most of those who have speculated concerning it have confined their attention chiefly to incidental questions about the comparative advantage of public or private instruction, the utility of peculiar language or sciences, without attempting a previous examination

of those principles and faculties of the mind which it is the great object of education to improve."—*Elements of the Philosophy of the Human Mind*, p. 62.

Another great error in education, also founded on our ignorance of human nature, is that every teacher takes himself as a model for his pupils. What he likes and learns with facility he supposes ought to be equally liked and learned by every other person; while in every child the feelings and intellectual faculties, though essentially the same, are modified in quantity and quality. Hitherto, on account of none of the systems of education being founded on a correct analysis of the faculties of man, education has been conducted altogether in a general way; and hence almost every individual who thinks for himself, when arrived at the age of maturity, has found it necessary to begin a new course of education, according to his individual character and talents.

Still another point, hitherto not sufficiently understood in education, concerns the organic conditions on which the manifestations of the mind depend. This is the object of a new doctrine, and is detailed in my work on Phrenology.

Education, though it does not create any power whatever, may produce great effects; but for that purpose its whole system must be changed, and this will be done in proportion as the nature of man becomes known, and as it shall be acknowledged that man must be perfected like other created beings. He is the disciple of Nature, and must submit to the determined sway which prevails in her government. He errs the moment he ceases to observe and begins to excogitate. The construction of a system of education cannot be a creative but an imitative process, which must be founded only on the lessons of experience. Here, as in the cultivation of every other science, it is not by the exercise of a sublime and speculative ingenuity that man arrives at truth, but by letting himself down to simple observation; by rejecting equally the authority of antiquity and of eminent contemporaries when in opposition to nature; by sacrificing every consideration that opposes the evidence of observation and its legitimate and well-established conclusions; by being able to renounce all the favourite opinions of infancy the moment that truth demands the sacrifice—in short, by following only the lights of observation and induction. "Does not our happiness depend," says a contemporary writer, "on the knowledge of the various relations which man bears to his fellow man and to his God, and the practice of the duties which they impose? and how are we to discover these relations, except by the assistance of reason operating on experience? Can false views of human nature and its attributes increase the happiness of the human race individually? or can political society, framed on such erroneous principles, attain the end for which alone society was framed? 'Deception and mendacity are always regarded in the common and everyday intercourse of life as base and odious; is it then only upon subjects of the highest importance to man that he may be deceived without danger or detestation?'" (*Retrospective Review*, No. 1, p. 71.) I concur entirely in these sentiments.

In treating of education and legislation, it seems important to examine whether there is only one species of the human race, or whether there

are several. The great variety of bodily and mental appearances,—of features, complexion, size, and configuration,—of feelings and intellectual powers,—must strike the most superficial observer. The causes of these differences have been examined, and various hypotheses have been invented to account for them. Some authors have had recourse to different original species; others have accounted for these modifications by the common law of nature. It is indeed natural to ask, whether a negro and a white man, a dwarf and a giant, a Hottentot and Lord Bacon, are of the same species? Whether the cannibal, whose earthly and expected heavenly pleasures are gratifications of the low animal passions, and the true Christian, full of kindness and benignity; whether he whose ingenuity is exercised merely in destruction and devastation, and he who beholds all creatures as objects of Divine providence and beneficence, were originally formed after the same image?

If there be several species of man, there can be no universal principle of human conduct; human nature cannot be included in any one system, and the rules which are suitable for one nation will not be fit for another. If, on the contrary, there be only one species, general principles of education, general rules of conduct, and national laws, may be established. Moreover, if there were several species, and one superior to the others, the white to the negro, for example, slavery might be contended for as an institution of nature; but if the species be only one, neither the primitive moral character, nor Christianity, can excuse this most selfish of all barbarities.

I will not examine the arguments of those who, from inferior motives, without any respect for human dignity, and without any religious or moral principles, or reproaches of conscience, force other people to become the mere instruments of their selfish gratification. I shall examine only the reasons which natural history offers, in support of the one or other opinion: that the human race consists of one species or of several. These reasons may be drawn from the external qualities of the body, such as size, configuration, and complexion; its internal structure; the laws of propagation; and the manifestations of the mind.

In the elucidation of this important object, it is not sufficient to examine the external qualities alone. Such a proceeding is like that of Linnæus, who classed the animals according to their external appearances, and not according to their nature; or like that of a librarian, who should class books according to their shape, size, or binding, without regard to their contents.

Man is found in all climates; and hence some philosophers have inferred that there are several species of men. These philosophers reasoned by analogy, stating that each climate has its own species of men, in the same way as plants and animals are adapted to hot, temperate, and frigid regions. Plants will grow in the torrid zone, perish in a cold climate, and those which flourish upon the mountains decay on being removed to a plain. The reindeer, say they, is confined to the frozen regions, and the white bear cannot live in a southern climate; while the elephant, rhinoceros, and many other animals, do not prosper in the frigid zone. Hence Nature has destined and fitted different beings for different climates, and she has guarded them against the natural vicissi

tudes of the seasons. To this end, in cold countries, animals are protected with more fat and thicker hair. The same rule explains why plants and animals lose their qualities when removed from their native climate; and why, in several countries, the stock requires to be continually renewed. In northern countries, for instance, flax degenerates, and a quantity of seed is annually imported from southern regions. In the same way, to preserve, in some degree of perfection, the breed of Arabian and Barbary horses, frequent supplies from their original climates are requisite.

Lord Kames (*Sketches of the History of Man*, vol. 1.), one of the principal champions of the opinion that there are different species of men, insists much on observations of this kind, and thinks them conclusive. He supports his assertions by observing that men, in changing climate, usually fall sick, and often run the risk of losing their lives. This argument, however, is not decisive. The plants and animals adapted to different climates are evidently of different species. This is not the case with the varieties of men. Moreover as plants and animals can by no means alter or regulate the effect of external influences upon themselves, it is conceivable that peculiar species, fitted for every climate, should be created. Man, on the contrary, is able to remove obstacles, to overcome difficulties, and to modify, in a high degree, the effect of external circumstances upon his nature. On the other hand, the argument of analogy is not even general; for several animals, such as pigs, dogs, and others, follow man, and, sheltered by him, live in all climates.

It is certain that great changes of climate produce diseases. We must observe, however, that it is not a great difference of climate alone that produces this effect, but that all sudden changes of season, weather, situation, and mode of living, also expose us to the loss of health. "In America," says the Rev. Dr. Smith (*On the Varieties of Men*, p. 119), "we are liable to disorders by removing incautiously from a northern to a southern State, but it would be absurd to conclude that the top of every hill and the bank of every river is therefore inhabited by a different species, because in the one we enjoy less health than in the other. The constitution becomes attempered in a degree even to an unhealthy region, and then it feels augmented symptoms of disorder on returning to the most salubrious air and water; but does this prove that Nature never intended such men to drink clear water, or to breathe in a pure atmosphere?" It may be added that there are diseases of professions, as well as of climates. Shall we maintain, therefore, that there is a species of man for every profession? Captain Cook, Captain Krusenstern, and other navigators, have proved that, with sufficient care, man can bear great changes of air, temperature, season, and weather. They have preserved the health of their crews in long voyages, and in the most dissimilar climates. The human constitution is known, from positive observation, to become in time assimilated to every climate; and the offspring of foreigners at length endure, like the aborigines, the external influence without injury. Thus the argument that sudden changes of climate have a tendency to produce diseases, or even death, does not prove that there are several species of man.

The Rev. Dr. Smith has clearly shown, from another argument quoted

from Lord Kames, that the latter was too credulous ; that he was deceived by erroneous reports of superficial observers ; and that he did not sufficiently understand the pliancy of the human constitution, which enables it to adapt itself to every climate, and to all external circumstances. The last remark that Lord Kames makes is a striking example against his own assertion. He says that "the Portuguese colony on the coast of Congo has, in course of time, degenerated so much that they scarcely retain the appearance of men." Another assertion of his is a complete specimen of credulity. He is of opinion that the Giagas, a nation of Africa, could not have descended from the same original with the rest of mankind, because, unlike others, they are void of natural affections, kill all their own children as soon as they are born, and supply their places with youths stolen from neighbouring tribes. Common sense, however, would answer that if such a species were created, it could not continue longer than the primitive stock endured. The stolen youth would resemble their parents, not those who adopted them, and would soon be the sole constituents of the nation. Yet Lord Kames thought that the Giagas formed a peculiar species, who continued from generation to generation to kill their children !

All organised beings are modified by external influences, though their primitive nature is never changed. There is certainly no reason to believe that every kind of apple, pear, or other fruit tree which we see in our gardens has been the subject of a distinct creation, these varieties being produced by degrees. The specific character, however, is constantly the same ; and one tree can never be changed into another,—an apple-tree, for instance, into a pear-tree.

The same law of modification prevails among animals. Their size, colour, and other qualities are very different in different climates. There are varieties of horses, eight times smaller than other races. Some goats have no horns ; others have several. The pigs, also, of Scotland, Ireland, and Hungary, are very different, but it would be irrational to admit as many primitive species of this animal as there are varieties. Their specific character is always the same, and a pig can never be changed into a sheep.

As the body of a man is subjected to the general laws of organisation, why should it also not undergo considerable changes and present great differences of appearance ? This matter, on account of its importance, deserves to be examined more at large.

One of the most striking differences perceptible in the human race, as well as in animals, is to be found in the skin and hair, which are in the most intimate relation with each other, and indeed receive their nourishment from the same blood-vessels. They vary in thickness and colour, and evidently depend on climate. The ermine and weasel change the colour of their hair in summer and winter. The fur of wild animals grows thicker in cold weather ; while under the heat of the torrid zone the hair is coarse.

Among horses, oxen, rabbits, and other animals, some individuals of the same species are brown, black, or white ; and why should it be thought absurd that there should be also variously coloured men ? The only difference in this respect betwixt man and animals seems to be that man

resists longer the influence of external circumstances, and that his skin requires a greater difference of climate to change its colour. It is a fact, however, that heat and extreme cold thicken the skin of man and darken his colour. We might naturally expect what is indeed the case, that changes of the skin produced by climate should take effect in a longer or a shorter time, according to the different degrees of civilisation: for example, savages, being exposed to the influence of climate, suffer its full force; while civilised nations obviate or even greatly prevent it.

Among the physical qualities of man, complexion is the most easily changed. The Portuguese in Africa are become black, but they have preserved their original configuration. The Jews in northern countries are fair; they become brown and tawny towards the south, but their configuration does not undergo proportionate changes.

It seems difficult to say whether the original colour of man was white or black; but it is certain that white people grow black sooner than negroes become white.

On the other hand, difference of size and form does not prove the existence of several species of man, more than that of several animals which vary greatly in this respect. The swine carried from Europe to Cuba acquires double its original magnitude. It is the same with the oxen in Paraguay. Climate, diet, and the manner of living may produce such differences. Young animals of the same litter, treated with care or neglected, well fed or reduced to starvation, will be quite different in shape and size. Children, when neglected, are emaciated, sallow, and their features coarse and meagre. The poor, exposed to excessive hardships, are apt to be deformed and diminutive in their persons; whilst luxury and excess also tend to debilitate and disfigure the human constitution.

Determinate feelings, too, when permanent and habitual, change the countenance and external appearance.

The most effectual means of producing differences, and of preserving those which exist, is propagation; and on this subject I shall hereafter enter more into detail.

Thus, the external differences of mankind may be explained by known natural causes, and are no proofs that there are several original species. A sound philosophy never assigns, without necessity, different causes for similar effects. Small influences, acting constantly, will necessarily produce, in time, conspicuous changes in mankind; just as a succession of drops of water, falling on the hardest rock, makes a cavity. The first alteration in the external appearance of man is observed in the countenance, the next in the complexion, and the last in the size and configuration.

It may be added that man may live everywhere, the flexibility of his body supporting different impressions; moreover no obstacle, neither river nor sea, prevents him from continuing his excursions; he transports with him animals and vegetables, and prepares by art what he cannot use in the natural state; and he knows how to shelter himself and other useful beings against noxious influences from without.

The internal structure of the body of man also indicates that there is only one species. To prove that there are several it would be neces-

sary to show that the number of the essential parts is not the same in all; that Europeans, for instance, possess certain parts which Negroes have not. Whoever could demonstrate that one part of the brain in Europeans is wanting in Negroes, would prove that there is a natural difference between them. I hope, during my stay in the United States, to be able to examine the brains of Negroes, and to ascertain that the same essential parts exist in them, subject merely to modifications, as is the case in different individuals of the white race.

Another argument to prove that there is only one species of man may be founded on the manifestations of the mind. Everywhere, and at all times, the same primitive faculties, however modified the actions flowing from them may be, are to be observed. Negroes, in general, are inferior to Europeans; yet some of the former excel in music, mathematics, and philosophy. Blumenbach (*Goetting. Magazine*, t. iv., p. 421) and Bishop Gregory have collected the names of Negroes famous for their talents. Herbe and Raynall, in various passages of their works, quote instances of extraordinary virtue and morality observed among savages and barbarous nations.

It has been reported that there are nations without religious feelings; but more exact investigation has shown that religious ceremonies existed, but had been mistaken for mere social amusements, such as dancing, singing, and fighting. It has frequently happened that descriptions of savage nations have been given by travellers who neither knew their language nor the signification of their manners and customs. Almost all reports of this kind are founded on single observations. How erroneous, therefore, must they be, and how little to be relied on, particularly when they describe the customs of nations hostile to strangers. It is known that savages frequently steal from foreigners while they continue faithful to each other; like several criminals in Europe, who show great attachment towards each other, and rather suffer the greatest torments than betray their companions and friends, but who do not spare either the goods or lives of other individuals. If a traveller, accustomed to the most brilliant ceremonies of religion, were to meet with a sect of the followers of Confucius, who have neither temple nor priest, nor any form of external worship; who adore the Supreme Being in mere inward contemplation, and in the practice of moral virtue,—and he had no direct means of communication with them, might he not easily be led to think that they professed no religion whatever? Hence, it is important to distinguish betwixt the faculties themselves and their application. Attachment, for instance, may act with respect to our native country, to our friends, to animals, or to other objects, yet the primitive impulse is the same in all these instances, although the external applications are very different. Courage may show itself in self-defence or in defending others. He who is fond of approbation may adorn himself with ear-rings, with girdles, with chains, or embroidery. Religious people, in like manner, may pay divine honours to a bull, to a serpent, to the sun, to saints, or to the God of Christians; they may howl to the glory of invisible beings, or worship one Deity, by singing psalms or by the practice of moral virtue, and all of these acts may flow from the same primitive tendency to veneration.

Finally, propagation is considered as a means of determining whether animals belong to the same or to different species, according as they can or cannot engender together, or as their issue can or cannot procreate. Tried by this test, also, we must conclude that mankind form but one species.

However, it ought to be observed that natural history can show only the possibility of mankind being derived from one original species, which by degrees has undergone various changes; but it cannot prove the reality of this fact any more than it can ascertain whether the original colour of man was white or black, or whether one or two pairs of each species of animals were created at the beginning.

Thus in the following considerations I shall take it for granted that mankind is only one species, comprehending various races endowed with the same primitive powers of body and mind. Yet, as the sense of smell, attachment, or courage, &c., is stronger in one dog or in one race of dogs than in another, so such faculties may be more active in one man, or in one tribe, than in another, though both races be essentially of the same species.

There remains an important introductory point to be considered, viz., whether education, principally instruction, is useful; or, in other words, whether it is better to leave the common people in ignorance, or to instruct all classes of society?

To answer this query in a satisfactory manner let us remember that the human mind embraces feelings and intellectual faculties; that intellect does not produce feelings, but that the latter are the main causes of our actions. Hence it is a great mistake to confine education to intellectual instruction. Education, then, if well conducted, embraces both feelings and intellect, and improves both the body and mind. A few observations, however, will prove that intellectual education is preferable to ignorance.

There is a great difference in the actions of all nations through the different stages of civilisation. The history of each at the beginning is stigmatised with assassination, parricide, incest, and violation of the most sacred oaths. The selfish passions then appear to have enjoyed an overwhelming power; and all enjoyments sprang from the gratification of the lower propensities. In periods of ignorance, too, all nations confined moral virtue to themselves, and supposed the rest of nature destined to be their prey. Legislation, corresponding with the national character at the beginning, is sanguinary, and capital punishment is common. Nay, it falls not on criminals alone, but also on their relations, and on whole districts. Their religion is founded on terror, their gods are endowed with all the lower feelings and affections, such as selfishness, jealousy, wrath, and fondness for dreadful actions and expiatory sacrifices. If they hope for immortality, the scenes which they expect are conformable to their actual feelings—triumph over enemies, gratification of the lower passions, and sensual pleasures. The whole tendency of the mind is atrocity; and their actions might almost be denominated a series of horrid crimes. I doubt whether those who consider the savage state so worthy of commendation would be disposed

to give up the comforts of civilisation, and be satisfied with the food, clothing, habitations, and accommodations of barbarians; whether they would prefer roots, acorns, nuts, insects, and other animals, at the sight of which we shudder, as their food, to the preparation of a skilful cook; whether they would be better pleased with clothes made of the skins of animals, of leaves, or of grass, than with woollen, cotton, linen, or silk habiliments; whether they would like to exchange our comfortable rooms for a hollow tree, for the cavity of a rock, a den under ground, a hut of reeds, or of turf and branches of trees: finally, whether they would seriously think the rough attempts of savages at painting and sculpture equal to the statues of Phidias and the paintings of Raphael.

In following the history of mankind we observe that in proportion as nations cultivate their moral and intellectual powers atrocious actions diminish in number; the manners and pleasures become more refined, the legislation milder, the religion purified from superstition, and the arts address themselves to the finer emotions of the mind.

By observing also the different classes of society, and the inhabitants of different provinces, we learn that ignorance is the greatest enemy of morality. Wherever education is neglected, depravity and every kind of actions which degrade mankind are the most frequent. Among ignorant persons, *cæteris paribus*, rapacity, cheating, and thieving, drunkenness and sensual pleasures are prominent features in the character.

Those, then, who object to the instruction of the lower orders can merely act from selfish motives. Being aware of their superiority, they may wish the inferior classes to be obedient to their arbitrary regulations; for, unquestionably, it is much easier to lead the ignorant and uncultivated than instructed and reasoning people. Knowledge, too, and the habit of reflection, detect abuses and errors which selfishness and pride may wish to keep concealed. But whoever thinks it right to cultivate his own mind cannot with justice desire others to remain in ignorance. He, therefore, who is versed in history, or understands the law of Christian charity, will join those who contend for the benefit of an instruction adapted to every class of society. This, then, will not be confined to reading and writing, but particularly extended over the moral conduct, and all duties and rights in practical life.

The education of the body is called physical, that of the mind moral. It is impossible to decide by observation whether education modifies the mind itself. We can only show that we may exercise an influence on the instruments by which the powers of the mind manifest themselves. Hence, the study of organisation is necessary, even with respect to the moral education of man; and for that reason I avoid the common division of education into physical and moral, though I find it proper to divide the following considerations on education into two sections. In the first I shall speak of the conditions which contribute to the greater or less activity of the powers of the body and mind; and in the second of their aim and direction.

SECTION I.

ON THE CONDITIONS OF EXCITEMENT ; OR THOSE WHICH CONTRIBUTE TO THE ACTIVITY OF THE INNATE POWERS OF THE BODY AS WELL AS OF THE MIND.

THESE important inquiries are not sufficiently understood, and are therefore too generally overlooked. They, however, deserve the most serious attention of every natural philosopher. Our reflections on them may be divided into four chapters, corresponding to the natural divisions of the conditions of excitement themselves. The first condition is founded on the laws of hereditary descent ; the second on those of the vegetative functions ; the third on exercise ; and the fourth on the mutual influence of the powers.

CHAPTER I.

ON THE LAWS OF HEREDITARY DESCENT.

THE development of the human body is favoured, retarded, or disordered, according to the general laws of organisation, in the same way as that of other living beings. Consequently, children participate in the bodily configuration and constitution of their parents, and also in their tendencies to particular manifestations of the mind, these being dependent on the individual parts of the brain. The elucidation of these subjects is indispensable to a sound system of education. Nay, I am convinced that this condition exerts a greater and more permanent influence than any other which can be introduced with the view of perfecting mankind. Let us first consider how other organised beings are improved.

Florists, pomologists, and horticulturists are aware that Nature produces the varieties of plants, and they observe the circumstances which are favourable to the improvement of certain qualities. They know that the first and most important point is ripe and well-conditioned seed ; the second, a fertile and convenient soil. In short, it is a fact that in order to improve the vegetable kingdom propagation is attended to.

In perfecting animals, or in promoting their peculiar qualities, such as the colour or figure of horses, the wool of sheep, the smell of dogs, &c., country people have recourse to the laws of propagation. By these means farmers have succeeded in diminishing or increasing various parts of animals, such as their bones, muscles, &c.

We might naturally suppose that it would be sufficient to mention the fact that the organisation of man is submitted to the same general laws as that of animals, to induce reasonable beings to take at least the same care of their own offspring as of their sheep, pigs, dogs, and horses. But man wishes to make himself an exception from the immutable laws of the Creator, and the result of his ignorance and self-conceit is lamentable. As this subject is of the utmost importance, I shall enter into a few details upon it.

For the sake of bodily health, many natural philosophers, a long time ago, insisted on the necessity of a better regulation of marriage. Their

benevolent desire was supported by the constant observation that health depends on organisation, and that the latter is propagated by birth. "Sir John Sebright," says Dr. Adams (*On the Pretended Hereditary Diseases*, p. 33), "informs us that if a flock of sheep in which there is any defect are permitted to breed in and in, the defect will gradually increase among them; and Colonel Humphries, by selecting for breeding a marked variety, has succeeded in procuring a flock with deformed bones." Dr. Adams adds, that if the same causes operate in man, we may impute to it many endemic peculiarities found in certain districts, which have hitherto been imputed to the water, and other localities.

Those who have more confidence in facts than speculative reasoning, cannot doubt that the qualities of the body are hereditary. There are family-faces, family-likenesses, and also single parts, such as bones, muscles, hair, and skin, which resemble in parents and in children. The disposition to various disorders, as to gout, scrofula, dropsy, hydrocephalus, consumption, deafness, epilepsy, apoplexy, idiotism, insanity, &c., is frequently the inheritance of birth. There are few families where there is not one part of the body weaker than the rest,—the lungs, for instance, the eyes, the stomach, liver, intestines, some other viscus, the brain, &c.

Children born of healthy parents, and belonging to a strong stock, always bring into the world a system formed by nature to resist the causes of disease; while the children of delicate, sickly parents are overpowered by the least unfavourable circumstance. Medical men know very well that in curing diseases nature is oftentimes more powerful than art, and that the latter is ineffectual if not assisted by the former. Longevity also depends more on innate constitution than the skill of physicians. Is it not, then, astonishing that this knowledge, as a practical piece of information, is not taught to, and disseminated among, young people? Indeed it ought to be familiarly and generally known; not because it is expected that everyone would be reasonable enough to regulate his conduct by it, but in order to induce as many as possible to do so. A great number are too selfish to be guided in their enjoyments by a regard to the condition of their offspring; but many, on the other hand, who reflect on the future, may be induced to avoid, even from a selfish motive, a union with a person who will be likely to embitter their future days. Even the unthinking must perceive that the enjoyments of life are impossible when diseases make their ravages in a family, and that love for the most part ceases when poverty takes up its abode in the house. Others, who wish to live in their posterity, will, when acquainted with the immutable laws of the Creator, submit to them, in order to lay a foundation for the prosperity of their descendants. The physical education, then, of both sexes deserves the greatest attention, and it is unpardonable to neglect that of girls.

The laws of hereditary descent should be attended to not only with respect to organic life, but also to the manifestations of the mind, since these depend on the nervous system. There are many examples on record of certain feelings or intellectual powers being inherent in whole families. Now, if it be ascertained that the hereditary condition of the brain is the cause, there is a great additional motive to be careful in the

choice of a partner in marriage. No person of sense can be indifferent about having selfish or benevolent, stupid or intelligent, children.

An objection may be made against the doctrine of hereditary effects resulting from the laws of propagation, viz., that men of great talents often have children of little understanding, and that in large families there are individuals of very different capacities.

This observation shows at least that the children are born with different dispositions, and it proves nothing against the laws of propagation. The young ones of animals that propagate indiscriminately are very different; but when the races are pure, and all conditions attended to, the nature of the young can be determined beforehand. As long as the races of mankind are mixed their progeny must vary extremely; but let persons of determinate dispositions breed in and in, and the races will become distinct. Moreover the condition of the mother is commonly less valued than it ought to be. It is, however, observed that boys commonly resemble their mother and girls their father; and that men of great talents generally descend from intelligent mothers. But as long as eminent men are married to partners of inferior capacities, the qualities of the offspring must be uncertain. The Arabs seem to understand the great importance of females, since they do not allow to sell a female horse to foreigners, and note the nobility of their horses after the females.

The age of propagation, too, is not indifferent. Animals are not permitted to propagate at all ages, neither too young nor too old, but in the period of their strength. Men of talents and science often marry when the body, particularly the nervous system, is exhausted by protracted studies and debilitating causes. They are seldom rich from birth, and their condition rarely allows them to choose during the period of their greatest energy; yet they might often accomplish more than they do for the benefit of their offspring, were they better acquainted with the laws of hereditary descent, and the dependence of the mind on the organisation of the body, and would they submit to appreciate such laws more than fashionable manners and customs.

The age of the parents is to be considered both in regard to their own health and to the constitution of their children. Young trees which bring forth fruit are weak; animals that propagate their species too early in life generally do not grow strong. Many women who marry when very young, and bear a numerous family, become early victims to an exhausted constitution.

Farther, the fruit of young plants is imperfect; the eggs of young birds are very small; the progeny of young quadrupeds is feeble and diminutive; and, in like manner, the offspring of living beings, when old, is weak. Such a progeny, therefore, is never destined by country people to the preservation of the species. Moses forbade the Jews to bring up the firstling males of animals. (*Deut. xv., 19—23.*) When both parents marry early in life, and have a numerous family, the eldest children commonly possess less talent than those who are born during the period of vigour of their parents.

The laws of degeneration belong to those of hereditary descent, and deserve a peculiar attention. They again are general throughout all nature. Plants cultivated on the same spot degenerate. Wheat must

alternate with barley, flax, potatoes, or other plants. Where firs will no longer grow, beeches will succeed. The seed of plants that degenerate ought not to be taken for propagation, for they at length perish entirely; nor ought the sickly organisation of one tree to be engrafted on another. In this way we see an explanation why the same sort of fruit trees dies in whole districts, the external circumstances of which are unfavourable. The sickly condition of the tree is constantly propagated, and it dies at last by the continual and noxious influence from without. All trees, or parts of the same tree, perish a little sooner, or resist a little longer than others, on account of the influence of the branch on which they are engrafted.

The same law of degeneration prevails in animals. Various circumstances weaken their constitution; and among various conditions, to prevent degeneration, it is necessary to cross the breed and to renew the blood.

The degeneration of man, too, is certain in families who intermarry among themselves. Uncles and nieces, or first cousins, or cousins who commit this error for several generations, have no children, or their progeny is commonly feeble. The smaller the number of choice the quicker the degeneration takes place, and no class of society can be made an exception from this law. Any bodily or mental affliction which may happen to originate in one individual soon affects such families. This frequently happens among the rich and high ranks; and as their manner of living is not conducive to bodily strength, it is quite natural that there should be so many living proofs of the truth of this proposition, which invites the friends of humanity to admire the law of compensation.

The great influence of propagation is ascertained also by the fact that it is infinitely more easy by it to keep up natural changes, and even deformities, than to produce them by art. Deaf people often have children with the same defect; while circumcision among the Jews and Mohammedans has not yet become superfluous. It is more probable that a man born without an arm should have children like himself, than that he should do so whose arm has been taken off by the knife of the surgeon.

The laws of hereditary descent are still visible, since the greater number of first-born children are girls; since in one year more girls, in another more boys, are born; since, when old and weak men marry young and vigorous females, the greater number of their children are girls, &c. These effects must have adequate causes; and by more patient attention to the phenomena than has hitherto been paid, some valuable conclusions might be arrived at. May not the particular and transient state of the same parents at different periods account in some degree for the differences in their children? At all events, the bodily constitution of both parents, in every respect, ought to be attended to. Moses (*Leviticus* xii., 2, 5) ordered a longer period for the purification of a girl than for a boy. Is there a natural reason for his having done so? Can any inference be drawn from the observation that the greatest number of monsters are amongst the female sex?

It is indeed a pity that the laws of hereditary descent are so much neglected, whilst, by attention to them, not only the condition of single

families, but of whole nations, might be improved beyond imagination, in figure, stature, complexion, health, talents, and moral feelings. I consider, with Aristotle, that the natural and innate differences of man are the basis of all political economy. He who can convince the world of the importance of the laws of hereditary descent, and induce mankind to conduct themselves accordingly, will do more good to them, and contribute more to their improvement, than all institutions and all systems of education. Yet they embrace more than a choice, according to the beauty of configuration and to the vigour of body and mind. The state of health of both parents, their age, their previous manner of living, contribute to the development of the embryo; and the state of the health of the mother and her vital functions, as digestion, respiration, circulation, &c., during pregnancy, is likewise of great weight.

"It is probable," says Dr. Rush, "that the qualities of body and mind in parents may be fixed and regulated; and it is possible the time may come when we shall be able to predict with certainty the intellectual character of children, by knowing the specific nature of the different intellectual faculties of their parents. The marriages of Danish men with the East Indian women produce children that had the countenances and vigorous minds of Europeans; but no such results appeared in the children of the East Indian women who intermarried with the males of any other European nation."—*On the Influence of Physical Causes on the Intellectual Faculties*, p. 119.

Three successive generations appear to be necessary to produce an effectual change, be it for health or disease. "Si le goitre," says Dr. Fodere, "n'est qu' accidentel, et qu'il n'y ait qu'un des parens affecte, les enfans ne naissent pas goitreux. Si de pere en fils un goitreux a epouse une goitreuse pendant deux generations, et dans un pays ou le goitre est endemique, a la troisieme generation l'enfant qui nait, n'est pas seulement goitreux, mais il est encore cretin." (*Traite du Goitre, et du Cretinisme*, Paris, 1800, p. 69.) According to the laws of the Creation, therefore, it is said that "the Lord visits those who hate him [in my opinion, who do not submit to His laws] to the third and fourth generation;" viz., by their hereditary dispositions.

Such causes as produce what is called the old age of nations deserve to be remarked. Luxury belongs to them, and its influence, if continued during several generations, weakens body and mind, not only of families, but of whole nations. The degeneration of the organic condition of man, in general, is not sufficiently understood, and is of greater effect than the political economists of modern days are aware of. This neglect is undoubtedly the most influential cause why families and nations disappear.

The Rev. Dr. Smith, who ascribes particularly the variations of man to external circumstances, says, "that Germans, Swedes, and Frenchmen in different parts of the United States, who live chiefly among themselves, and cultivate the habits and ideas of the countries from which they emigrated, retain, even in our climate, a strong resemblance to their primitive stock. Those, on the contrary, who have not confined themselves to the contracted circle of their own countrymen, but have mingled freely with the Anglo-Americans, entered into their manners,

and adopted their ideas, have assumed such a likeness to them that it is not easy now to distinguish from one another people who have sprung from such different origins."

On a closer examination it will be found that one stock may adopt the manners of another—a Saxon, for instance, the fashions of the French—but that the original features of the tribe will be preserved as long as they do not intermarry. The genuine races of Highlanders and Lowlanders of Scotland will not lose their originality by exchanging their countries, but by intermarrying with each other.

The Jews are a striking example that climate and external influences are less powerful in changing man than propagation. They are dispersed in every country of the globe, and though, owing to the climate they have inhabited, their complexion may have changed, yet being prohibited by sacred institutions from intermarrying with other nations, they are still distinguishable from other people.

The ancient legislators were very attentive to the laws of propagation. Moses complains (Gen. vi.) that the sons of God saw the daughters of men, that they were fair, that they took them wives of all which they chose: he divided his people into tribes, but prohibited, on pain of death, the intermarriage of near relations.—*Levit. xviii.*

The Greeks, as appears from their customs, philosophy, and legislation, had particularly in view the beauty and vigour of the human constitution. "As we," says Plutarch (*De Nobilitate*), "are anxious to have dogs and horses from a good breed, why should we marry the daughters of bad parents?" Plato spoke against marriages betwixt relations. He, as well as Solon and Aristotle, considered also the age at which it was best to marry. The ancient philosophers commonly fixed it between eighteen and twenty-four for a woman, and between thirty and thirty-six for a man.

It may be replied that these considerations can never become practical rules of conduct for society at large. In the actual situation of things I will not maintain the contrary. But we must also admit that the laws of the Creator will not change to gratify our fancy. If we will not submit to His dictates, we have no right to complain of being punished by unavoidable, though disagreeable results. Christian principles are not sufficiently exercised in society, yet it is not on this account considered superfluous to teach them; and he who loves mankind will wish for their promulgation. Now, the laws of hereditary descent are in the same situation. Nay, if observed, they would even tend to prepare mankind to receive and keep the precepts of Christianity, which, in the actual and common way of Providence, seems impossible.

I find it also necessary to obviate another objection which may be made by religious persons, who are not aware that the letter kills, while the spirit vivifies. Some, who are entirely unacquainted with natural causes, and who expect all from supernatural influence, may be offended by so much being ascribed to the laws of organisation. If they reflect and will be consistent with themselves, they cannot reject anything that is in nature, and the work of the Creator. The organisation is constituted by the same Almighty Being whom they implore to be propitious. If they will submit to Him, they must acknowledge every law of Creation.

The primary arrangements of nature as certainly proceed from Him as any subsequent revelation. Shall we, then, have no recourse to natural means to cure diseases, because St. James has admonished us, if any one is sick to call for the elders of the Church, to let them pray over him, anointing him with oil? We read in the Old Testament that Elias prayed that it might not rain, and it rained not on the earth for the space of three years and six months; and he prayed again, and the heavens gave rain, and the earth brought forth her fruit: shall we therefore not study the laws of vegetation, and cultivate the vegetable kingdom? Shall we neglect to sow, and expect that by means of prayers we shall be permitted to reap? In the same way if while we say prayers we do not at the same time submit to the laws of hereditary descent and of organisation, supernatural influence alone will not give talents nor bodily health. The laws of the Creator have been the first dictated, and must be the first obeyed. A parent who perceives that his child is affected with disease and a weak constitution, and who, while he prays to God for restoration of his health, leaves him in confined air and under the charge of careless or ignorant servants, has no right to expect that supernatural influence will be exerted in his favour, while he continues to neglect his own duty in contemning the laws of Creation. The Supreme Being gave us understanding that we might perceive these laws; and having perceived them, it is our first duty to obey them as His dictates; and having done so, we may then, and not till then, expect His blessing to attend us. The special obedience to the natural laws of hereditary descent is an indispensable condition to the improvement of mankind; and nothing but ignorance, superstition, and prejudice can oppose it.

The influence of these laws* may be shown to young persons, first in plants, then in animals, and at the end in mankind. Many parents are cautious and fearful of speaking of such notions to their children, and do not think of the anxiety with which children look for information of that kind, and of the benefit they may derive from it. Such information, when given by the parents, will be received with confidence and respect. Some young persons will possess reflection enough to attend to their bodily health, from the consideration that their constitution will be communicated to their offspring. I know positively that such a proceeding has been more effectual and beneficial than endeavouring to prevent children from acquiring any knowledge of that kind, or to conceal the effects of the disorderly satisfaction of physical love. This propensity deserves the same attention which we pay to hunger and thirst. Both are active without our will: and their activity must be directed. Why should we not have recourse to the understanding as far as possible, to regulate the actions, and employ natural means of correction against natural faults? How can we expect that children should suppress a strong and internal feeling, without being acquainted with the bad consequences of its abuses, and with its destination? It seems therefore advisable to show the dreadful effects of Onanism to those who are

* For a more full and complete exposition of these laws, see Fowler's "Hereditary Descent," 1s.

inclined to this aberration; at first with respect to their own health, and afterwards in relation to their offspring.

It has been my object in this chapter to bring under consideration a most important point, which must precede, and which will influence whatever remains to be done in education. Yet I do not deny the efficacy of various other conditions which I shall examine in the following pages.

CHAPTER II.

ON THE LAWS OF THE VEGETATIVE FUNCTIONS.

It is reasonable, when we desire the improvement of any living being, to employ all the means which may contribute towards its perfection. We have seen in the preceding chapter, that man is born sickly or healthy, deformed or well shaped, an idiot or a genius,—in short, that the human being enters life with the greatest modifications of bodily and mental endowments. The innate constitution, then, which depends on both parents, and the state of the mother during pregnancy, is the basis of all future development.

Being placed in the world, man is subjected in every respect to the laws of organisation. Organisation is influenced by light, air, climate, nourishment, bodily exercise, rest, sleep, cleanliness, and excretions. The body of man, like other organised beings, undergoes various changes: it begins, increases, arrives at its full growth, decreases, and dies. There is a certain regularity in the succession of these natural changes; and accordingly, the duration of life is divided into different periods, commonly called ages.

These changes cannot entirely be prevented, but they may be accelerated or retarded by external influences. The regulation of all the conditions which contribute to the development of the body and of its parts, and to the duration of life, constitutes what is termed Physical Education.

I shall not endeavour to explain Life: I am satisfied to say that it embraces all the vital functions from conception to death. It certainly depends on various conditions, several of which are not yet sufficiently understood. The chemical explanation is not more satisfactory than that founded on mere mechanical laws. Life is more than the effect of a machine, more than a crystallisation. The life of man is also more than the organisation of a plant, and even more than that of an animal. Some fluids belong to its necessary conditions, such as caloric and the electric fluid; but it remains undecided how far some ancient and modern physiologists are right or wrong in speaking of a peculiar Vital Principle, which in ancient times often was called the Soul of the World; and which sometimes has been confounded with the immortal soul of man.

The modern physiologists consider rather the functions of man than the principles of which he is composed. They place together the functions without consciousness, and call them Automatic Life; while the functions with consciousness are known under the name of Animal or Phrenic Life.

It is not generally admitted that the phrenic, like the automatic functions, depend on the organisation. Physical education, however, evidently rises in importance, if the manifestations of the mind are modified in energy and quality by the influence of the body.

In this respect various opinions have prevailed, and still prevail. There is an ancient belief in oriental countries that the body prevents the soul from communicating with superior beings, and from exercising freely its powers. PYTHAGORAS, PLATO, and almost all metaphysicians, fancied that in this life thoughts might be manifested without the medium of organisation. The body was considered as a prison of the soul. Hence the great tendency to deliver the immortal soul from the mortal body—hence the spontaneous vexations and torments of the body—and hence many nonsensical ideas of castigation.

This opinion, however ancient it may be, is yet erroneous. Experience, which must constantly guide our reasoning, proves the dependence of the mental operations on the body during this life. Phrenology teaches the particulars of this doctrine.

The duration of life is commonly divided into Infancy, Adolescence, Adult, and Old Age. With respect to physical education, the time from birth to that of full growth is the most important. It is preparatory for the rest of our days, and has also a great influence on our offspring. It may be subdivided into several periods, the first of which is that from birth to two years, or to that of the dentition,—I call it Infancy; the second from two to seven years, or to the second dentition, viz. Childhood: the third from seven years to puberty, viz., Adolescence: the fourth from puberty to full growth, or to the period of Marriage. Before I enter into details on these periods, I shall notice some general considerations, and begin with Longevity.

It is not probable that the life of man has diminished with the duration of the world; it is more reasonable to suppose that the years mentioned in the Old Testament were shorter than ours. It is a common observation that the same term has quite different meanings among different nations, and even in the same nation at different periods of its history. The English and Germans, for instance, measure the distances of localities by miles; but it is known that about six English miles only make one mile in Germany. In the same way it may be that the expression *year* did not always denote the same lapse of time. It is also possible that the duration of a family, that is of all male descendants, was considered as the continuation of the same life, as it is still a common saying that parents continue to live in their children. Men, like quadrupeds, commonly live in the state of maturity five or six times longer than they grow; and many individuals of the human race arrive still at an age corresponding to these proportions. But there is no reason to suppose that the Jews made an exception from the physical laws in general, whilst, on the other hand, it is more probable that life, generally speaking, is shortened by artificial means rather than by the lapse of time since the Creation.

Among the causes which contribute to longevity, the most important is the innate bodily constitution. In this respect savages have an advantage over civilised nations. The health of the former is more durable,

and they do not experience a number of bodily and mental disorders with which the latter are molested.

A moderate temperature is more conducive to old age than great heat. The latter accelerates the natural changes of organised beings, and brings them sooner to death. Pure, dry, and cold air, moderate exercise of all the bodily and mental faculties, a good physical education, and quietude of the mind, are all very favourable to longevity.

On the contrary, hereditary disposition to diseases, a weakly constitution, great and sudden changes of temperature, intemperance, want of bodily exercise, noxious occupations, too great application of the mental powers, misery, unwholesome food, a want of sufficient rest, every kind of debilitating influences, disagreeable affections of the mind, such as jealousy, envy, fear, grief, &c., are hurtful to health.

The influence of nature in preserving the species, and also the individuals, is great, and has been spoken of at all times, under the *vis plastica* or *vis medicatrix naturæ*. It is visible in the healthy and diseased state. Yet, however effectual nature, and however favourable all circumstances may be, the succession of the different ages cannot be prevented, and death is at last unavoidable. Physical education can produce only modifications, but can never annihilate the immutable laws of the Creator.

The modifications produced in the body by external circumstances deserve special attention. Plants and animals which can live in various climates are extremely modified by the influence of outward conditions. Fruit trees which have been transplanted from the south to the north bring forth the same kind of fruit, but of modified qualities. The grapes of France excel those of England.

Leibnitz has already remarked that plants and animals show the same type of configuration, are long and slender, or short and stout, in different countries. We may add that it is the same with man. In Angora the beard of men is modified like the hair of animals. In countries where the grass of the meadows is long, the cattle are tall, and the animals in general have long extremities. Mankind shows a similar make.

The influence of physical education may be examined with respect to the body as a whole, or to the individual systems, such as the muscles, blood-vessels, bones, nerves, digestive organs, &c. It is certain and generally known that climate and the manner of living modify the whole organisation of man. Climate, in its general acceptation, designates not only temperature, but all external influences, particularly air, light, dryness and moisture, and food. A particular effect produced by a high temperature on living beings is, that they undergo their natural changes with greater celerity than in colder regions. Annual plants of the south, the aloes, for instance, when carried into northern countries last many years.

It is quite superfluous to insist on the modifications produced in organised beings by food and other external circumstances. Who does not know that the constituent parts of milk, such as butter, cheese, and whey, of the same cow, vary according to the food with which she is nourished; that the flesh of roes, hares, rabbits, fowls, &c., though each sort preserves its specific taste, is greatly modified by the food on which the animal lives?

This principle, however, is not sufficiently attended to in the physical education of children; they are commonly treated according to a general plan, while external circumstances ought to be regulated according to the individual temperament.

In this respect a very important question may be examined, viz., how far may external circumstances contribute to the development of individual parts of the body? It is known that different systems of the body, such as the muscles, the nerves, the digestive organs, &c., do not possess precisely equal activity in the same individual. It would be extremely interesting to ascertain that such or such a climate, such or such food, &c., is more or less favourable to the improvement of particular systems of the body.

The same degree of excitement, whether of temperature or of food, may stimulate one system and weaken another. Great heat accelerates the circulation of the blood, and debilitates the digestive organs. As the manifestations of the mind depend on organisation, it is conceivable why even talents and moral feelings depend on the influence of climate and nourishment. All observations of this kind have been made merely with respect to health and the intellect in general. But, as medical men admit that some drugs act more on the nerves, others on the blood-vessels, others on the skin, others on the abdominal or urinary secretions, why should aliments, and other external influences, not be more or less favourable to individual parts of the body? In this way, nutrition and the regulation of external circumstances will increase in importance as they are discovered to contribute, not only to the development and organic constitution of the body in general, but also to the improvement of single parts.

In this respect our knowledge is by no means satisfactory; yet every one will feel the importance of these considerations, and wish for positive observations. This interesting subject, indeed, deserves the attention not only of medical men, but of all those who have the charge of education.

I shall now add some ideas concerning the regulation of the vegetative functions, during the different periods from birth to the full growth, or to the time of marriage.

FROM BIRTH TO THE AGE OF TWO YEARS, OR INFANCY.

In this age, the mortality of children is the greatest; and hence the care bestowed on their treatment must be proportionate to the dangers to which they are exposed. Let us, then, see what is to be done with a view to regulating external influences upon them; admitting, however, as I have already stated, that the most important requisite to health and prosperity is a good innate constitution. Among the external circumstances after birth, the most essential are Temperature and Food, then follow air, light, cleanliness, sleep, rest, and bodily exercise.

Temperature.—It is known that without a sufficient degree of caloric no act of vegetation or animalisation can take place, and that before birth the child is constantly exposed to the temperature of a lukewarm bath. Was it then reasonable to think that immediately after birth a low temperature should be most suited to its health? In new-born children

it frequently happens that circulation in the external vessels of the skin is impeded by the influence of cold air, and that from this circumstance a kind of jaundice arises. In more advanced years great changes of temperature are hurtful to health. In hot climates tetanus is often the result of sudden refrigeration. We also see the natural instinct of birds leads them to cover their young with their wings. How, then, was it possible to fancy with J. J. ROUSSEAU, that new-born babes may receive benefit when exposed to cold, or when bathed in ice-cold water, or in snow? Such a treatment, it is true, has been defended by an appeal to the example of northern nations. But it has been overlooked that in those cold countries the whole animal economy of the parents is different, and that the children participate in their bodily constitutions. The mothers in northern regions digest things which the delicate women of the south could not take without injury. It would, however, be as reasonable to feed a southern mother on fish oil as to bathe her tender offspring in ice-cold water. The bad effect of cold bathing upon new-born children is now ascertained, and this nonsense has been given up. It is not, however, my opinion that young children ought to be brought up as in a hot-house. I grant that they are often kept too warm and too much wrapped up. Man being obliged to bear various temperatures, children should be accustomed to them by degrees; but the weaker and the more delicate children are, the more care is requisite. In general, however, cold is better borne by young than by adult persons.

Food.—It is scarcely imaginable how the simple proceedings of Nature should be neglected, and fantastical dreams substituted in their place; how any one, for instance, could doubt, whether, during the first days, the milk of the mother was wholesome to the suckling, whilst calves, puppies, and the young of all quadrupeds, suck immediately after birth. Why will man alone disdain the laws of Nature, who takes so much care for the preservation of species? How was it possible to think that honey, syrup of rhubarb, or even wine was more wholesome to young babes than their mother's milk, which at the beginning is thin, watery, and fit to evacuate the meconium collected in the child's intestines, and which, after a few days, becomes thicker and more nutritious? Nothing but ignorance would endeavour to govern Nature. Thus, the mother, after having taken rest from her labour and some restoring nourishment, should, as soon as she has got milk, give suck to her child. In cases only where she has got no milk light artificial nourishment ought to be given till Nature supplies a better food.

Much has been said upon the question whether the child is better nourished by its mother's milk, or by that of another nurse, or by heterogeneous substances. I think Nature must decide. Experience shows that, *ceteris paribus*, a plant succeeds better if it be not transplanted from one spot to another, and that young trees transplanted from a fertile soil into a barren one languish or perish; while, on the other hand, if left as they were, they grow luxuriantly. Young birds may be nourished with eggs, viz., with substances on which they lived in the embryo state. Young mammalia also may be well fed upon milk and eggs; and why should it not be the same with young children?

If the mother be healthy, and her milk nourishing, it will agree the

best with the digestive powers of the child ; and by giving suck the mother will be freed from various complaints, noticed by many medical writers as the result of neglecting the first duty of a mother. In many cases, however, it will be better—for the mother, for the child, or for both—to feed the child on the milk of a nurse, or, if this be impossible, on other alimentary substances. Many mothers of a delicate constitution are weakened and fall into consumption in consequence of giving suck. Many children also perish in such cases from want of sufficient nourishment. A mother is certainly blameable, if, from a love of dissipation and perpetual amusement, she persuades herself that she is sent into the world merely to pass through it in the most easy manner. But in the above-mentioned examples, it is most advisable to have recourse to the milk of a healthy nurse, who, as far as possible, should resemble the mother in age, temperament, and in the period of her delivery. If newborn children are given to nurses who have been delivered some time before, artificial means, such as syrup of rhubarb or chicory, generally become necessary to evacuate the meconium ; or we may act on the babe by the medium of the nurse, in giving her alimentary substances that make her milk thin and clear, or even that are slightly purgative.

The milk of a wet-nurse varies according to her age, her bodily constitution, to the food she takes, and according to the manner of living in general. She must avoid everything which disturbs digestion, particularly strong spices, spirituous liquors, and disagreeable affections of the mind. The suckling participates in her bodily disorders. It is liable through her to vomiting, to hiccough, to pain of the belly, diarrhoea, uneasiness, to convulsive motions, and various other complaints.

Bad digestion, and all symptoms which result from it, are frequently caused by feeding the infant immediately after birth with artificial aliments, such as panada, pap, &c. It will be found that new-born children succeed best if they live for the first three months only on the milk of the mother, or of a sound nurse. By degrees they may be accustomed to some other food, according to their temperament and digestive powers, beginning with liquids, such as milk and sugar, broth, boiled biscuit, rice-cream, &c., and so go on to solids. The younger the child is the less nourishment should be given at once, and the oftener repeated ; older children may take more food, and at greater intervals.

The nurse's milk certainly has great influence on the development of the suckling. Those, however, who think that it imbibes the moral character of its nurse with her milk, are mistaken. If it were true that a child brought up upon goat's milk was fond of jumping, that another fed with swine's milk was dirty, it would follow that adult people ought also to adopt the character of the animals on whose flesh they live. Men and women who live in the same manner, would be endowed with the same affective and intellectual faculties. Nor could it happen that different children, nourished by the same mother, should show quite different characters, even before they had taken any heterogeneous food. Thus the nurse's milk will contribute to the nourishment and development of the instruments of the mind ; but it will not give rise to determinate qualities. Her moral character may change her milk with respect to its healthy condition, but it cannot produce talents or feelings

Finally, the mental powers of children, though innate, are more or less exercised and directed by the nurse's temper and mental capacity, and the nurse is the first moral and intellectual instructor.

Air.—Atmospheric air is another indispensable condition of human life, and its physical properties and constituent parts have an influence on all the vital functions. Its transparency is necessary to vision, or to the passage of light; its fluidity permits the free motion of the body in it. In virtue of this quality it admits also of being changed or renewed. Its elasticity in propagating its vibrations assists the sense of hearing. Its weight compresses the fluid and solid parts of our organisation. Moreover, as the temperature of the atmosphere is commonly below that of the body, the air receives the superfluity of caloric. Generally, however, we are obliged to guard against the disagreeable sensations of cold caused by the too great privation of caloric.

The constituent parts of the atmosphere are extremely important to the body. Its oxygen and caloric are essential to the sustenance of life. Its azote, hydrogen, carbonic acid gas, water, electric fluid, and the various exhalations of plants and animals, have a great influence on the functions of organised bodies. Certain conditions of the atmosphere cause plants of different kinds to perish. Some winds and conditions of weather produce epidemic diseases among animals and mankind. In some persons the digestive powers are disturbed at the approach of a storm. Persons whose limbs have been injured by wounds, can foretell the changes of the weather by the pains they feel. Nervous and delicate constitutions perceive the slightest difference in the state of the atmosphere. Many of them know by their bodily sensations whether the wind blows from the north, east, or west.

New-born children, according to their innate temperament, are more or less benefitted or disturbed by the condition of the atmosphere. Some constitutions require a dry and others a moist air. It is, however, a general rule that it should be pure, and not impregnated with noxious exhalations.

Light.—The influence of light is also necessary to the development and health of organised bodies in general. It changes the colour of plants and animals, and the complexion of man. Plants kept in darkness grow pale and yellow. Worms and insects confined to dark places remain white. Those who spend their lives in their closets have a pale and yellowish complexion. The whole organisation being deprived of light, grows weak and fat. It is affected with scurvy or putrid complaints, and the liver enlarges. Hence dark habitations, narrow streets, high houses, little windows, and whatever shuts out light from dwelling-places, are unwholesome.

Light awakes us from sleep; it excites all functions of the body, particularly those of the skin. Its sudden impression excites sternutation. Too much light produces headache, inflammation of the eyes, of the skin, of the throat, and of the brain; hence its regulation is of great importance.

The eyes of new-born children should not be exposed to a strong light at once; and when they begin to see they ought to be placed so that the light is before them, since they always direct their eyes towards it, and

may acquire an irregular look, the eyeballs being turned too much upwards or sideways.

Cleanliness.—The skin having a great influence on the preservation of health, by its absorption and excretion, its pores must be kept open by washing the body, and by changing the swaddling-clothes and linen whenever they are unclean. According to the condition of the skin, it may be washed with lukewarm water only, or with water and wine, to strengthen it, or rubbed over with some oily substance if it be dry and rough.

Some parts, such as the folds of the neck, behind the ears, the interior of the legs, &c., which are liable to be inflamed, deserve particular attention. They may be washed with a solution of alum, or powdered with *pulvis lycopodii*, or be smeared with cocoa-butter, oil, or any other pure greasy substance. I have already mentioned that children should be accustomed by degrees to a lower temperature: hence the water or the bath employed as the means of cleanliness, must gradually be used colder and colder. The body, like the face, might be exposed by degrees to the atmosphere.

Sleep, Watching, Rest, and Bodily Exercise.—Before birth, children seem to sleep almost continually. After birth, the younger the infant the more sleep it requires. Young children then should never be awakened, but be allowed to sleep as long as they please. It is, however, wrong to employ soporiferous means to produce sleep. On the other hand, they may soon be accustomed to awake and to fall asleep at a certain hour, and this habit is useful in various respects.

The free exercise of their limbs is very advantageous to them. No part of the body ought to be pressed. It was an absurd custom to tie the tender creatures, and to impede all their motions. It is particularly necessary to attend to the head, and not to let it fall backward, since the nerves of the spinal cord may suffer from pressure, on account of the cartilaginous state of the vertebral processes.

We ought not to be uneasy when children cry a little. By crying the lungs are distended and strengthened, the eyes and nostrils are cleaned, and the circulation of the blood is promoted. It is imprudent to lift up children by one part only, such as by one hand or one arm, luxations being easily the result of this practice. It is also wrong to place delicate and fat children too early on their legs, since curvations of the spine and hip bones may be thereby produced. Moreover, the thorax and shoulders are often injured by leading strings, which, in consequence, ought to be abolished. It is true that many children are strong enough to resist, but delicate ones must frequently suffer by them. Too violent shaking may injure the stomach and brain, and produce vomiting, principally at the moment when the stomach is full. Bodily exercise is of great influence, but it is to be directed with caution.

PERIOD II.

FROM THE AGE OF TWO YEARS TO THAT OF SEVEN, OR CHILDHOOD.

BEFORE I consider the particularities of this period, it will be interesting to advert to a few circumstances with respect to dentition. At first the natural food of children is liquid; but, about the seventh month, instru-

ments which are fit to assist the digestion of solid aliments, viz., the teeth, appear. The development of these organs is often the cause of various complaints. The saliva is generally secreted copiously, frequent sneezing occurs, the gums grow red and hot, sometimes they are swollen, and one or both cheeks are red; the child carries his hands, and everything he holds, into his mouth, and presses the gums against it. At the end white spots are seen where the teeth appear. Commonly the two middle incisors of the lower jaw first cut through the substance of the gums. A little while after the corresponding incisory teeth of the upper jaw show themselves, then the ateral incisors, the eye-teeth, and the lateral grinders. When the small molar teeth have come through at the age of about two years the first dentition is complete, and the life of the child, which before was precarious, is then more secure; for it is ascertained that a third part of children die before the age of twenty-four months.

The growth of teeth, though a natural operation, causes various disorders in the vital functions of children. Diarrhœa and convulsions are the most fatal accidents attending difficult dentition. The state of the jaws alone, or, by sympathy of several other parts, sometimes of the whole body, is inflammatory. Hence the treatment of such children must be comformable. As their constitutions, however, are extremely modified, a physician ought to be entrusted with the particular care of them. The general rule is that every kind of stimulus ought to be avoided. Tepid bathing is an excellent antiphlogistic.

It may be observed in general that in infancy the vital motions tend particularly toward the head, and that therefore this part is the principal seat of the afflictions peculiar to this age.

In order to favour the cutting through of the teeth, the gums may be rubbed with sugar or bits of althea-root, moistened with honey or syrup, and kept between the jaws. The nurse may also introduce her little finger, moistened with honey, between the gums of the child, to soften them, and to relieve the pains of the young creature. Sometimes little incisions are made into the gums with evident advantage. The excretions of the skin and bowels must be kept free.

To the twenty teeth of the first dentition two new grinders in each jaw are added at about the end of the fourth year. They differ from those that preceded them in this, that they are destined to remain throughout life, whilst the primitive or milk-teeth are lost at seven years of age, in the same order in which they appeared, and are replaced by new teeth, better formed and provided with longer and more perfect roots. Towards the ninth year two new large grinders come forth beyond the others. There are then twenty-eight teeth. Between eighteen and thirty, or sometimes still later, the *dentes sapientie*, two in each jaw, complete the second dentition.

Dentition, like all other acts of the living economy, is subject to endless variations. There are instances of children that have come into the world with one or two incisors, and there are often supernumerary teeth. It is difficult to say why the primitive teeth are detached and replaced by others, which have remained so long buried within the alveolar processes. Teeth of a third set have been known to be cut in very old people.

Generally speaking, teeth are not taken all the care of which their importance demands. They ought at least to be kept clean. Those who neglect this duty offend against the first requisition of nature; and if they are punished by tooth-ache they receive only their desert. The condition of the teeth certainly depends on the whole constitution of the body; and in many cases the advice of a dentist, who understands not only the operative part of his art but the animal economy, is to be recommended.

The teeth are in close relation with nourishment, and this deserves particular attention. The necessity of taking nutritive substances is generally known and indicated by hunger and thirst. The nourishment must be modified in quantity and quality according to age, to the bodily constitution, to climate, to season, and to the manner of living. The influence of different kinds of food on the whole constitution is evident from the modified flesh of animals of the same species fed on various aliments. It is useful to vary the food; and Nature, who has assigned to different animals their different aliments, has in this respect allowed to man the greatest variety. He is almost omnivorous, and he alone understands the art of cookery, by which he facilitates digestion.

In children the functions of nutrition are quicker; they die sooner of inanition than adult persons; they require more frequent feeding, and a larger quantity of food, as they not only change the matter of their body, but increase also.

As children grow stronger they will digest substances of a heterogeneous and more solid nature. In general the more simple and plain the better are the aliments; and all food which digests is wholesome. It is, however, known that lymphatic constitutions require nutritive and invigorating substances; that nervous temperaments suffer from stimuli, and stand in need of light and simple aliments; and that weak bowels do not bear vegetables, fruit, and paste, these aliments giving rise to worms and scrofulous diseases. Such intestines then must be strengthened by animal food, steel-water, wine, and bitters.

In cold climates animal food is necessary to man—he grows pale and languishing on vegetables. In hot countries, on the contrary, fruit and vegetables nourish sufficiently—their nature being quite different from that of plants in northern regions. This is evident, since the spices we take to assist digestion belong to the vegetables which grow in southern climates. A cold, dry air excites the appetite, while a hot and moist atmosphere weakens the digestive organs.

The alvine and cutaneous excretions are in intimate connection with nutrition. Noxious particles, when they remain in the intestines, are absorbed and brought into circulation. The abdomen being constipated, the blood vessels are compressed, the circulation is impeded, and piles are produced. The blood is carried to the brain, and causes headache. Thus, the excretions must be taken into consideration and regulated. They vary in quantity and quality, according to age, temperament, nutrition, weather, and season. Perspiration is more considerable in youth than in old age, more in hot than cold weather, more in irritable than in inert temperaments. Children suffer from being kept too warm; yet too sudden and too great changes of temperature produce in them,

as well as in adult persons, catarrhal affections, coughing, inflammation, diarrhoea, &c.

The skin ought to be kept clean, exposed to the light and the air, and thus rendered less sensible to external impressions. Health is preferable to a pale white skin and a sickly constitution. With respect to clothing, the general rule is that no part of the body ought to be pressed. Weak organs may be supported, and the whole body defended against cold, but all the movements of the body ought to be free and easy. It is a false taste to hurt the health, or to injure the vital functions of females, with a view to increase their beauty. A sedentary life is adverse to health in general, particularly to that of children. It is the cause of incalculable mischief. Children require more bodily exercise and more sleep than adults.

During childhood, as well as in infancy, should be the regulation of the most important point of education. A good and healthy organisation is the basis of all employments and all enjoyment. Many parents, however, are anxious to cultivate the mind at the expense of the body. They think they cannot instruct their offspring early enough to read and write, whilst their bodily constitution and health are overlooked. Children are shut up, forced to sit quiet, and to breathe a confined air. This error is the greater the more delicate the children and the more premature their mental powers are. The bodily powers of such children are sooner exhausted, and they suffer from dyspepsia, headache, and a host of nervous complaints; their brain is liable to inflammation and serous effusions, and a premature death is frequently the consequence of such a violation of nature. It is indeed to be lamented that the influence of the physical on the moral part of man is not sufficiently understood. There are parents who will pay masters very dearly in hope of giving excellency to their children, but who will hesitate to spend the tenth part to procure them bodily health. Some, by an absurd infatuation, take their own constitutions as a measure of those of their children; and because they themselves in advanced life can support confinement and intense application with little injury to health, they conclude that their young and delicate children can do the same. Such notions are altogether erroneous,—bodily deformities, curved spines, and unfitness for various occupations and the fulfilment of future duties, frequently result from such misunderstood management of children. The advantages of a sound body are incalculable for the individuals themselves, their friends, and their posterity. Body and mind ought to be cultivated in harmony, and neither of them at the expense of the other. Health should be the basis, and instruction the ornament, of early education. The development of the body will assist the manifestations of the mind, and a good mental education will contribute to bodily health. The organs of mental operations, when they are too soon and too much exercised, suffer and become unfit for their functions. This explains the reason why young geniuses often descend at a later age into the class of common men. Indeed, experience shows that among children of almost equal dispositions, those who are brought up without particular care, and begin to read and write when their bodily constitution has acquired some solidity, soon overtake those who are dragged early to their spelling

books to the detriment of their bodily frames. No school education, strictly speaking, ought to begin before seven years of age. We shall, however, see in the following chapter on the laws of exercise, that many ideas and notions may be communicated to children by other means than books, or by keeping them quiet on benches. When education shall become practical and applicable to the future destination of individuals, children will be less plagued with nothings ; but they will be made answerable not only for their natural gifts of intellect, but also for the just employment of their moral powers and the preservation and cultivation of their bodily constitution, since vigour in it is indispensable to enjoyment and usefulness. They will be made acquainted with the natural laws of nutrition and all vital functions, and with their influence on health.

The importance of the laws of vegetative functions is great, so that those who direct mankind ought to be permitted to regulate them in many respects. The Mosaic law may serve as a fine specimen. All ancient legislators paid great attention to these laws, as well as those of hereditary descent. This knowledge will be of greater use than forbidding to eat meat on certain days. Teachers ought to know that nothing is unclean or an abomination in itself, but becomes so by being ill used. Man must eat and drink to live ; but he ought to avoid all unwholesome food, and whatever destroys his health.

The submission of man to the laws of the vegetative functions is necessary during his whole life, but particularly from birth to the age of complete development, since the time of growth is preparatory for the rest of life.

An additional observation concerning the vegetative functions is that they, like all others, admit of great modifications, nay, even of idiosyncrasies. Some persons, on account of their innate vigour and strong constitution, succeed under all circumstances—they resist all noxious influences, they digest whatever they eat—whilst others suffer from particular aliments, such as mutton, pigeon, veal, cauliflower, &c. These latter and all other particularities can only be observed, but can never be explained. In regard to them every one must be his own physician. Demosthenes and Haller were kept in a state of regular excitement by drinking nothing but water. Coffee was the favourite stimulus of Voltaire, and tea that of Dr. Johnson. Sir Isaac Newton lived upon vegetables when he was employed in composing his famous treatise on optics. Hobbes sat in his study enveloped in the smoke of tobacco, &c. In general, however, a strict attention to physical education cannot be insisted upon too much among civilised nations. During the periods of life from birth to the state of full growth, a third kind of laws is to be kept in view, and these will be considered in the following pages.

CHAPTER III.

ON THE LAWS OF EXERCISE.

THESE laws embrace what is called Education in a more limited sense but in this respect many errors are caused by the true meaning of the word *Exercise* not being sufficiently understood. I employ this expression as synonymous with putting into action, and distinguish Exercise from Habit, the latter being the result of the former.

Habit.—Habit has two significations: it sometimes indicates the result of diminished activity, and at other times a greater facility of acting. A power being too active becomes fatigued, diminishes, and is finally exhausted. Moreover, all natural powers become accustomed to external impressions, and the former become less affected the longer the latter are applied. The *mimosa sensitiva* when shaken for a certain time ceases to fold its leaves. In the same way, each sort of impression on the organisation loses its effect by frequent repetition. Even noxious impressions when repeated are less felt than they were at first. In this sense Mithridates accustomed his stomach and bowels to poisonous substances. The attendants and nurses of patients become in a certain degree insensible to contagious diseases in hospitals. The mind itself shows less energy at each repetition of the same functions; it becomes accustomed even to misfortune and painful situations. Time is a great remedy of many evils.

Organised beings adapt themselves in a surprising degree to external impressions, and a change of place and various circumstances are frequently less advantageous than might have been expected. Prisoners who have been confined for many years to dungeons, or unwholesome habitations, fall sick when they obtain their liberty. Many morbid but accustomed affections, such as old sores and exudations, &c., should be removed with the greatest precaution, and sometimes be left untouched. Body and mind successively take a turn, which can be changed solely by degrees.

All changes which nature produces are successive, and art ought to imitate her proceedings. It is the same in dietetic rules and in every manner of feeling and thinking. Drunkards cannot leave off their bad habits suddenly without injuring their health. Those who are too near starving from inanition will perish if too much nourishment be given them; and too much light dazzles those who have lived long in darkness. The bad effects of great and sudden changes of temperature on inanimate bodies, such as glass, or on plants, animals, and man, are generally known. Those who are accustomed to certain mental occupations feel great reluctance to give them up. In the same way, great and sudden changes of political, moral, and religious opinions are not borne with indifference. Habit is second nature, physically and morally speaking.

The living generation, if not prepared for it, generally rejects every reform. It is only in process of time that the adherents to any new doctrine become numerous; and any doctrine, though false, when once admitted will be replaced by another and a better only by degrees. Yet it is natural that the more agreeable a doctrine is the sooner it will gain

ground, and that a precept which commands resignation will be submitted to in proportion to the reward it promises. Christianity assigns eternal happiness as the reward for temporal conflicts, and it was adopted by fishermen and the poor sooner than by the rich.

The way of modifying mankind, or of producing changes, is seldom understood by reformers. They are commonly too hasty; though, at all times, experience has shown the danger and harm of such a proceeding. When changes are to be made let them be gradual: the greater the alterations you wish for are, the slower must be your method of proceeding; keeping, however, constantly the aim in view. The precipitancy of common reformers can be excused only by their ignorance of human nature, and by their erroneous opinion that it is sufficient to point out errors and to propose principles in order to perfect man, without considering that he must by degrees be prepared for and accustomed to them.

The facility of accommodating man to new impressions greatly depends on age: it succeeds best during the period of growth, whilst in later years we are less susceptible of changes. It is therefore not astonishing that all new doctrines have been received and propagated by youth and new generations.

The law of accommodation, however great, never annihilates the general laws of life: it is even subordinate to them, and cannot prevent the successive changes of age. Again, every individual being born with a different constitution and a different disposition, is not equally capable of accommodating himself to circumstances; and hence each will present some modification, though the external influences are the same. This is the case in the automatic and animal functions. Notwithstanding these restrictions, the law of accommodation is incalculably great in the education both of individuals and nations.

The second meaning of Habit is an increased facility of acting in a certain manner. In this acceptance of the word it is still more interesting to education than in the former, and deserves a detailed elucidation.

Exercise.—I have already mentioned that I employ the word exercise as synonymous with putting into action. Now the first law of this kind is that exercise strengthens powers. This principle is quite general throughout nature, and extends even to inanimate bodies. Musical instruments being played on by masters in the art, improve. The power of a magnet to support weight may be increased by gradually appending more to it. Every power, both in automatic and animal life, may be exercised, and thereby gains in activity. There is something analogous even in the diseased state. Each organic part having once been affected by any disorder, is liable to relapses in the same way as, according to the first meaning of habit, by repetition and continuation many diseases are exhausted.

The digestive organs may not only be accustomed to various aliments but they become also more active by being satisfied. In persons who spit out the saliva the glands secrete more abundantly. All muscles which are exercised increase in strength. Smiths, and those who use their arms, acquire more power than those who seldom employ them. Bodily exercise in general strengthens, and a sedentary life weakens the constitution.

The influence of exercise on the functions of the five senses is generally known and admitted. The sense of feeling often acquires a very high degree of perfection in persons who are blind. It is the same with the internal faculties manifested by means of the different parts of the brain. Each mental power if it be sufficiently cultivated grows more energetic, whilst if neglected it shows less activity.

In this chapter on the Laws of Exercise I take for granted that all dispositions are innate and discovered. I refer for the details of this important proposition to the first vol. of Phrenology. Hitherto philosophers have admitted a few general powers, and have derived from them all particular manifestations. The greater number of them consider the intellect as the cause of the feelings : accordingly, they confine education to the understanding, and do not think of cultivating the feelings themselves. This, however, is a great error. The first thing to be done is to specify the primitive powers of the mind ; and then, as they exist independently of each other, every one must be exercised for itself. The legs or arms will not be strengthened by reading treatises on muscular motion : the digestive organs will not act with more energy in those who know all the theories which have prevailed on digestion, and who are even able to explain the causes of hunger and thirst. Let such persons have but little to eat or drink, and give to others who have never heard of any theory of alimentation wholesome food in abundant quantity, and every intelligent reader will perceive whose appetite and digestive functions will be exercised to the best advantage.

Let any one study the principles of optics merely in books and in descriptions ; let him learn by heart all the theories of colours, but let him never see any colours nor feel their harmony. He may, like a blind man, recollect all the expressions used in painting but without practical instruction his faculty of colouring will not improve.

Who will pretend to cultivate the musical talent only by reading discourses about the principles of melody and harmony ? Is it not necessary for this purpose to perform tunes, or to hear them performed by others, either in singing or in playing on a musical instrument ?

It is the same with all intellectual faculties—each must be exercised or put into action for itself. Thus, to cultivate the power of numeration, the numbers must be shown in real objects : to exercise the power of locality it is not enough to know the names of each town, river, sea, &c., but their respective situations must be acquired. Some children easily recollect names and geographical descriptions by heart, but feel great difficulty in learning local situations ; while others present to themselves, in their own minds, an exact image of localities, the names of which they have forgotten. When children are obliged to trace maps, it is not always those who know the localities best that have the greatest power of tracing them on paper. The fundamental faculties must be separated in every study. In geography, for instance, a perfect knowledge requires the exercise of Individuality, of Form, Size, Locality, and Language. In order to draw maps Constructiveness is required in addition. The latter power will be assisted by Order and Numeration.

The intellectual faculties of man have improved less by education than they might have done, in consequence of two reasons—first, of the primi-

tive power of the understanding not being known ; and second, of the difference between sensations and perceptions on the one hand, and the artificial signs (either sounds or figures) which express them on the other not being attended to.

To proceed as if artificial signs could produce sensations and perceptions, while they can only call those ideas into recollection which have pre-existed in the mind, does incalculable harm. The old system of education, however, is conducted in this faulty manner. Children learn and repeat words without meaning, like parrots. But it ought to be admitted as a general principle, in communicating every kind of positive knowledge of the external world, that first sensations and perceptions must be excited, and these then denoted by particular signs. In that way only we shall avoid the great mistake to which we are accustomed from infancy, viz., of pronouncing words without knowing their signification.

The vocal or written signs are to be used only as a means of communication, of recollection and tradition ; but they cannot be considered as the cause of any idea or sensation. On the other hand, each intellectual faculty must be exercised by practical application, in the same way as the sense of hearing is exercised by hearing, that of smelling by smelling, that of sight by seeing.

With respect to the feelings, education is still more defective. It is commonly believed that it is more difficult to cultivate the propensities and sentiments than the intellectual powers. It is even said that the feelings cannot be taught ; this proposition, however, is not clearly stated. The feelings cannot be taught, if by this proposition we mean that they may be given by education ; in this sense also understanding cannot be communicated. Both intellect and feelings are innate or given by the Creator ; but the latter may be exercised in the same manner as the intellect, not by the action of the faculty of language, or by learning signs, or by exercising the verbal memory, but by putting the feelings themselves into action. I even think that it is much easier to exercise the feelings than the intellectual powers.

It cannot be too frequently repeated that the feelings do not result from intellect, any more than intellect is the result of the feelings. No one is benevolent, just, timid, courageous, haughty, or affectionate, in proportion to his understanding, nor has he penetration on account of his feelings. Moreover, each affective, as well as each intellectual, faculty must and may be exercised for itself. Man learns to be courageous, circumspect, ambitious, just, or benevolent, as he learns to sing, to calculate, to measure, to speak, and to reflect. When often exposed to danger he learns to meet death without fear : by habit he becomes indifferent to destruction. The heart, as the Chinese proverb states, goes farther than understanding.

Thus, bring men into favourable situations, calculated to call forth their feelings, and these will be strengthened. In order to cultivate benevolence, one should not frequent only the society of rich and opulent persons, and learn by heart descriptions of charity—he must experience misery himself, and contemplate the painful situations of others. There are more poor willing to give charity from their necessity than rich from their superfluity. If all our whims and fancies have generally been satisfied, the feelings of conscientiousness and benevolence

towards others are less excited than if our wishes have been contradicted and reformed. For the same reason moral feelings will not improve by frequenting places of debauchery.

The principle in question explains the ancient proverb, *verba movent, exempla trahunt*, and also the great influence of bad or good company. Society, however, cannot be, as it is often considered, the cause of any faculty; it presents only an opportunity to the innate powers to act, or excites them to do so.

The knowledge of the means of exciting the powers is very important, but not better understood than the fundamental powers themselves. It is time to abandon the immense error that words and precepts are sufficient to call internal feeling and intellectual faculties into active exercise. Gospel-preaching is infinite; but many of those who deliver exquisite sermons are too often obliged to add, "Do what I say, and not what I do." Now, if they themselves show no faith by their works, how can they expect others to do so? Let education be practical, and the means of excitement adequate to the innate dispositions. Bold children will reap advantage from being brought up alone, but timid ones must be early accustomed to the society of strangers. Obstinacy will increase by unseasonable vexations, while just and quiet resistance or mild treatment may suppress it. The feelings are rather moved by a dramatic representation than a monotonous sermon. The sight of a person wounded, or in danger, makes a greater impression on the mind than reading that thousands have been killed in a battle. Natural language in general has more effect on the feelings than artificial signs. We are, for instance, more likely to smile or to laugh on looking at a gay face than on hearing the word gaiety mentioned.

The effect of external impressions on internal faculties is proportionate to the assistance which the external senses give to the internal faculties. I refer particularly to what I said of the mediate functions of the external senses in Vol. I. of Phrenology. In that way the influence of religious ceremonies on common people is easily explained, and ought not to be overlooked. Music, and representations of objects and facts in paintings and sculpture, may excite various kinds of feelings, the inferior as well as the superior. It is true that these means may be and have been abused; but I think it wrong on that account to reject them altogether. Let the impressions on the senses be adapted to the feelings we wish to excite, and these will be exercised. Church music certainly should be different from that of the ball-room, but music itself ought not therefore to be considered as useless in the inspiring religious feelings. By means of music the soldier may be incited to fight, and the Christian to adore his Creator. The great point is not to confound the means with the aim, and not to consider the first as the second. Religious ceremonies are nothing but means to become morally good; and if they do not tend to that purpose they lead us into error. The practice of them will not improve the moral conduct any more than learning the commandments by heart will do. It is also true that the effect of music is different in different individuals; but it is a great instance of ignorant bigotry and intolerance in persons to exclaim against its use in religion, because they themselves are unfortunately insensible to its charms.

I shall add a few remarks on artificial signs : they are oral, viz., pronounced, or written and printed. We commence with learning the oral or vocal signs. Their number increases in proportion to the activity of the innate faculties of the body and mind, but children ought not to be taught to pronounce any word without learning at the same time to understand it.

As every family has not the means of giving sufficient education to their children at home, they send them to schools or colleges to be instructed. Public institutions, in consequence, ought to be established with a view to give notions first and signs afterwards, in proportion to the notions acquired. It is evident that the objects to be taught must vary according to the situations of the scholars in future life, whether they be destined for agriculture, commerce, or any of the learned professions. Articles which compose the first necessities of life ; the most common objects and events ; forms, measures, weights, colours, and coins used in the country ; the general division of beings into minerals, vegetables, and animals ; the great and common phenomena of nature, &c., may be taught everywhere. Those notions which are particularly interesting to country people, such as the rearing of cattle, or cultivating fruit trees and other plants, &c., may be given where necessary. Every kind of information given should be practical and useful. Whatever is spoken of should be shown in nature, since it is useless to speak of things which children have neither seen, heard, felt, tasted, nor smelt. They cannot know any more of them than those who are born blind do of colours. The feelings also ought to be exercised as far as they are necessary ; but it is not enough to *speak* of charity to teach it ; teachers must excite that feeling by their own example, and children must be accustomed to practise that virtue.

In the practical way an immense number of useful notions might be given to children in a short space of time. Their intellect shows a great tendency to acquire positive knowledge, while teachers, in direct opposition to nature, very absurdly torment them with words-meaning, or with things they cannot understand. Spelling and reading seem the only points which teachers mind, hence the great number of school-books of that description. Teachers, however, should be most anxious about children learning to think and to understand what they see and read, instead of repeating, like parrots, phrases and sentences. The school-books ought to be composed in reference to ideas to be communicated to the young mind ; whatever is unintelligible or cannot be explained is not only useless but accustoms the reader to use signs without meaning, and to read without thinking.

As in teaching languages or vocal signs it is essential to combine notions with words, and to show that the latter are merely signs, so that in teaching words the whole grammar of the mother-language might be taught. Children will understand the meaning of substances, or that each being has a name as well as each substance, each form, dimension, colour, &c. They may learn, at the same time, the qualities of objects, and words which may express them, or the adjectives. Their attention may also be directed to the different degrees of the adjectives. In proportion as they become acquainted with phenomena, or facts, the verbs

may be explained. The different kinds of notions, too, may be pointed out, and children may thus become acquainted with the primitive powers of man, without any peculiar study.

Those who are advanced in the acquirement of notions, and of words or spoken signs, may begin to learn written and printed ones. They will then compare the latter signs with the former, or with the sounds of which they have already acquired some knowledge.

To assist the power of language, the faculties of Individuality and Form are usually employed at the same time. The figures of animals are marked under the letters of the alphabet; an ape, for instance, is placed under A; a bat under B; a cat under C, &c.; yet no animal should be named that is not perfectly known to the children who learn the signs. It would be desirable, however, to exhibit the animal itself where it is not familiarly known.

In this proceeding the fundamental powers of language and configuration are obliged to learn each two impressions—two forms and two names; for instance, A and ape, C and cat, &c. I therefore would advise to teach only the written or printed signs, without bringing them in connection with objects; but I would, at the same time, when they learn the printed signs, exercise their fingers in copying the letters of the signs, or, what is the same thing, in writing them in sand, as is the practice in the schools of mutual instruction. The advantage of the other method is supported on the effect of association. But those who are taught in this way, and have the power of configuration very active, may be impeded in reading, because they attach to each letter the object they have learned in its connection; and in order to read fluently they must unlearn what they were obliged to learn at the beginning.

It is clear that the printed and written signs or letters in any language ought to be formed in the same manner. If both sorts of signs are different, as in the German language, a useless difficulty is created.

The printed and written signs should be taught in the same order as the sounds are communicated, and a sign should never be taught without indicating the idea that is expressed by it. We ought to begin with learning the single letters; then go to monosyllables, and by degrees to polysyllables; and these should be pronounced without spelling, and compared with the printed and written signs: Ale, Ape, Bed, Bank, Cat, Cold, &c.; Apple, Bacon, Body, Bitter, &c.; Appetite, Candlestick, Candle-holder, &c.

As we are accustomed from infancy to connect sounds with the printed and written characters which represent them, we never see the latter without repeating at the same time the former. Did we never learn sounds without acquiring at the same time a positive knowledge of the things they express, we should always think of the related notions when we heard or saw the signs, and then learning would be much more agreeable, easy, and profitable.

The same proceeding is necessary with respect to both the intellectual and affective faculties. As we ought to perceive the external objects indicated before we learn the signs of them, either by vocal, by printed or by written characters, so we ought to experience the feelings first before we learn the words by which they are expressed. Hunger and thirst, heat,

cold, anger, fear, and all other emotions, must be felt before their signs can be fully understood. The natural language alone is proper to communicate the meaning of expressions which denote the affective powers of the mind. The natural language deserves particular attention in the cultivation of the affective powers. It excites them much more than the artificial signs can. If a teacher should instruct girls about polite manners while he himself is awkward and sets before them his legs stretched out over a chair, the theoretical lessons will be of less influence than the example which strikes the eyes. If another speak to boys of peaceableness and forbearance with an abrupt and commanding tone of voice and with sharp haughty features, he puts rather Combativeness and Self-esteem than Benevolence and Reverence into action. It is a rule to speak the natural language of any feeling you wish to inspire or to excite, and without doing so the artificial signs are of little consequence. You may be silent and dumb, and yet distinctly speak to the feelings by natural signs. If education be conducted in this way, moral and religious principles will produce more effect on mankind than they have done hitherto. Then the moral faculties will be called into action, and our efforts to cultivate the mind will not be limited to the power of language only, viz., to that faculty which learns by heart artificial signs.

Ignorance of the fundamental powers of the mind, and of the means of exercising them, may be observed in all the institutions of society, and in all branches of mental education. Classes for younger children and whole universities are conducted according to erroneous suppositions. The greater number of teachers agree that the reasoning power ought to be exercised in every individual; but what shall be done to accomplish this end? Perhaps we see one man of great depth of mind who is eminent as a mathematician: the inference is immediately drawn that every child ought to study mathematics, in order to acquire great reflecting powers; and not even the theologian is to be excepted, as if mathematical and moral reasoning were founded on the same principles.

Another person also endowed with great reasoning powers is perhaps a great philologist, and particularly an excellent Greek and Latin scholar: therefore every one is compelled to learn Latin and Greek, with the view of giving him a powerful mind, as if learning words and phrases were the same as acquiring sensations and perceptions of all kinds, and reasoning on them. Happily the time of sophistry is past, and positive knowledge is now esteemed. Experience shows that philology and mathematics do not improve arts and sciences, nor the moral character of man.

It is replied that the great mathematician and great linguist excel by their philosophical minds. This is certain; but they did not become good reasoners, one by studying mathematics, and the other by learning Latin and Greek. There are great philosophers who cannot become great mathematicians, nor great linguists. It is true that the mind must be drilled and accustomed to reflect; but I deny that this can be done only in Latin or Greek, or in the study of mathematics. The reflective powers of men are fundamental, and may be employed in prosecuting any branch of knowledge, in the study of natural history, zoology, geology, chemistry, phrenology, &c.; and whoever excels in any line by

reasoning, must possess them in a higher degree; but they are by no means the exclusive attribute of mathematicians or philologists. They may be applied to any kind of notions, and always with most advantage to the perceptive powers which are most active. Now if an individual has Calculation or Language small, he cannot acquire a great stock of notions of that kind, and his reasoning powers will rather be impeded by the study of mathematics or the classics. It certainly would be astonishing if some talented individuals could not excel in various kinds of knowledge and be at the same time good classical scholars. The plurality of the mental powers and their combinations ought to be better understood, and mental discipline, which I allow to be necessary, may be arrived at by cultivating various kinds of knowledge and in combining them with reflection.

In the same way, as each faculty exists in itself and may be combined with others, so each may be exercised alone or in connection with others. We may exercise the faculty of Form, Size, or any other, without learning signs to denote our ideas; and we may learn signs by heart, without understanding their significations; or Language may also be exercised at the same time with other faculties. Yet it is useful to put into simultaneous or closely successive action all the faculties which have a mutual influence on each other. In this way they excite each other mutually. This rule explains the whole doctrine of Mnemonics; that is, the activity of one power excites that of one or several others. In the next chapter this proposition will be more fully detailed. Here, my principal object is to fix the attention of teachers upon the great fault of confounding together signs and ideas, or of thinking that mere words can produce notions.

School education, after the monkish and old-fashioned system, begins with teaching printed and written signs, without explaining their significations; and even the instruction we commonly receive in colléges is more a communication of signs than ideas. Youth are admired and rewarded in proportion as they know signs. How glorious is it for a boy to know how to communicate the same idea in Greek, Latin, perhaps in Hebrew, or in many languages!

Some speak of the delight they experience from reading the classics. This may be with those who have great facility of learning languages. But it is certain that, generally speaking, the study of the dead languages is extremely tedious for the greater number of pupils. Lord Byron stated it in reference to himself. I am convinced that thereby many children become unwilling to learn things to which they would have attended with pleasure had they been taught them in their own language in a practical way. Many others are drilled by indefatigable pains to become classical scholars, and nevertheless fail to distinguish themselves. Some good Latin and Greek scholars, when they come to practical business are left behind by fellow students, who at school were undervalued. The quantity of Latin words crammed into the heads of the students does not give them the primitive power of reflection, nor does it serve to cultivate attention to practical life. On the contrary, that constrained method of studying renders their conceptions slow and indolent.

It is also said that those who know Latin and Greek generally express

themselves with more clearness than those who do not receive a liberal education. It is indeed natural that those who cultivate their mental powers write with more clearness than the uncultivated individual. The mental cultivation, however, may take place in the mother tongue as well as in Latin or Greek. Yet the spirit of the ancient language is further declared to be superior to that of the modern.

I allow this to be the case, but I do not find that the English style is improved by learning Greek. It is known that literal translations are miserably bad, and yet young scholars are taught to translate, word for word, faithful to their dictionaries. Hence those who do not make a peculiar study of their own language will not improve in it by learning in this manner Greek and Latin. Is it not a pity to hear, what I have been told by the managers of one of the first institutions of Ireland, that it was easier to find ten teachers for Latin and Greek than one for the English language, though they proposed double the salary to the latter? Who can assure us that the Greek orators acquired their superiority by their acquaintance with foreign languages; or is it not obvious, on the other hand, that they learned ideas and expressed them in their mother tongue?

It is further said that it is interesting to know Latin and Greek in order to understand the etymology of modern languages. This is true, but with this view the English ought to study also the German, Dutch, French, and Danish, since their language is composed of words borrowed from all these nations.

I am persuaded that the advantage does not repay the trouble of prosecuting such studies, and that they occasion an enormous waste of time and labour. I had rather learn ten ideas in a given time than ten different signs which express one and the same idea. We should never sacrifice positive knowledge and reflection to the acquisition of a variety of signs. We should begin to acquire notions and that language which is the most necessary for us to converse in. When I was examined, in order to my becoming a licentiate of the College of Physicians of London, it would have been more suitable to have inquired whether I spoke the English language sufficiently than whether I understood the Latin, the English being indispensable to the practice of medicine in and about London, whilst no physician examines his patients in Latin, any more than a barrister defends his clients or a preacher exhorts his congregation in that language.

It is said that a man who knows Latin has received a liberal education; yet it is a lamentable thing that we should pretend to judge of a person's useful attainments by his knowledge of ancient languages. I wish that the medical profession may be cultivated by men of superior talents, but I hope that a knowledge of Latin and Greek will not continue to be the touchstone of deciding who is, or is not, fit for practising this difficult and important art. Few surgeons and physicians who are good classical scholars will, from that circumstance, equal John Hunter in useful knowledge and in improving the healing art; and yet he was not prepared by the study of ancient languages for the excellence he attained. He had not the advantage of having received a scientific education, and hence his writings want clearness of expression; but he might have

acquired the art of writing in a well conducted English high school. It may be also remarked, with respect to Shakespere, that he did not become the great poet he was from being a classical scholar.

We seldom learn to speak Latin and Greek, or we soon lose the habit of doing so. Thus we learn these languages in order to understand the contents of ancient books. This is well; but then we ought, for the same reason, to study all modern languages; at least, to act fully up to this principle, medical men ought to take that trouble, since, beyond doubt, all branches of natural history, anatomy, physiology, and pathology are more advanced now than they were at the time of the Greeks and Romans; and of course more knowledge is to be obtained on those subjects from publications in the modern languages than from those of Greece and Rome. Formerly, when scientific books of all nations were published in Latin, a knowledge of it was necessary; but since the works of every nation appear in the mother tongue, the same degree of importance can no longer be attached to it. Not every one is obliged to learn Hebrew though he is exhorted to read the Bible, that is, in its translation. Further, if men of science be contented with extracts and translations of modern works, why should it not be the same with respect to the ancient? Moreover the greater number of professional men, who are much occupied in practical life, have scarcely time to read what is written in their own language: their knowledge of Latin and Greek, therefore, is quite useless to them and the art.

Once I heard it stated that the classics contribute to the refinement of our feelings; but it would be singular if we could not feel without knowing Latin or Greek. The erroneousness of such an assertion is evident, and does not require a more detailed refutation. It is also remarked that translations are inferior to original words in Latin and Greek, in the same way as the French language cannot express Shakespere's thoughts and conceptions. This cannot be said of the German language, and I do not say that Latin and Greek should not be studied at all. I willingly allow that every one who has the natural talent and leisure may study the ancient languages, as Latin, Greek, Hebrew, and ancient as well as the modern, if so inclined, and grant him his hobby; I only maintain that a knowledge of them ought not to be required as indispensable from every student; and it seems to me to be particularly unwise to begin our preparatory and college education with them, and to lose so much time and labour which might be more usefully employed.

It is replied that childhood is the most fit period for learning languages,—that children must be trained up to the tedious study of ancient tongues, because at a later period they would not submit to the same trouble. This proposition is supported by no authority except that of the prevailing opinion that the study of Latin is a necessary accomplishment; it falls to the ground as soon as we feel its uselessness. It is undoubtedly true that youth is the fittest period for learning languages; but let us learn those first which are the most important to our future life. Now the modern languages appear to me to be the most useful. Above all stands our mother tongue—we ought, therefore, to begin with it. The parts of speech are the same in all languages, and may be learned in the modern as well as in the ancient. I am quite

grieved to see that many young ladies aim at such accomplishments, whilst they entirely neglect every kind of knowledge indispensable to their future destination as wife and mother. One would imagine from this that in civilised life the only duty of the female sex consists in useless amusements, and by no means in the fulfilment of important functions. I leave this subject to the consideration of all those who interfere with education and the direction of academic studies. Some may think that I have entered into too many details, but the importance and great influence of this matter will plead my excuse. I am decidedly of opinion that in this respect education stands in need of reform. It is, however, said that a mother may assist her boys in acquiring a classical education. This remark again supposes that all boys ought to learn Latin and Greek, and that on account of the first error we must commit a second. Yes, a mother ought to attend to the first education of her boys and that of her girls entirely, but let useful knowledge precede that which is merely secondary. There may be single individuals among girls who have a disposition to learn languages; let them exercise their talents, but let them not be a standard for girls in general. I am sure that few of them, as well as of boys, will be greatly delighted with the study of classics. On the other hand, I doubt that on account of this acquirement girls become better wives and better mothers, and that they will for this reason gain the affection of their husbands. Rich and independent females should be occupied; and if they be married without having children, some may be entertained by the study of languages ancient and modern. No sensible man will object to this: the question is only what shall be the general rule and what the exception. It, however, still seems to me that even such ladies might become more useful to their fellow-creatures and more meritorious by other occupations. The exertions of Mrs. Fry have been more beneficial to her fellow-creatures than the classical knowledge of her whole sex in the united kingdoms of Great Britain and Ireland.

In the same way mental arithmetic may be important as far as calculation of the useful is concerned. It may be acceptable to those who found morality on so frail a basis as utility and expediency. But I do not see that it contributes to diminish selfishness, or to strengthen the nobler sentiments any more than Latin and Greek increase the love of truth and the feeling of conscientiousness. Let it then occupy only the time necessary to its practical usefulness. I might also wish to be apprised what useful knowledge young ladies acquire from reading at school works on mental philosophy. Probably the same which little children in infant schools obtain from reading and learning by heart texts of the Bible concerning miracles and doctrinal points which divide the different sects of Christians. Can metaphysicians themselves make any practical application of their doctrines? What an age of useful knowledge—what an age of wisdom is ours!

The second principle of exercise is that the primitive powers are not to be confounded with their application, each power being always the same, but its applications and modifications infinite, according to age and external circumstances. Inattention to this difference produces more bad effects than many persons suppose. They complain, for instance, of the vanity of adult persons, while they continue to nourish this feeling

in every child they meet with. He who knows that the love of approbation is a fundamental feeling, that it exists in different individuals, and that exercise increases its activity, will not excite it too much in infancy for fear that in later life it should produce abuses. He will perceive that flattery of every kind excites this sentiment—that praising a child for his figure, his hair, his voice, his clothes, his manner of dancing, &c., will put into action and increase his love of approbation, and prepare for him a source of misfortune. A looking-glass and curls of hair, ear-rings and bracelets, as well as titles, nourish this feeling. Irascible children should not be permitted, and still less encouraged, to beat their playthings, against which they hurt themselves. As equity was a principal object of the Areopagus of Athens, that virtue was considered as indispensable in the members of all situations. He who killed a bird that looked for shelter in his house could not become a member; and a member who played on a word was degraded, because such practice might do harm to truth. How inferior—nay puerile—is the behaviour of some modern legislators! “Those who are careful in little things,” says Christ, “will be so in great.” Thus particular vigilance ought at all times to be observed not to cultivate to excess the propensities and sentiments of children, which may in after-life render them unhappy or impede their moral conduct. On the other hand, they are wrong who neglect to cultivate any feeling, or the faculties of the fine arts, because disorders may, and often do, result from them. This also happens with acquisitiveness and with every fundamental power, each of which, however, is given for a certain purpose. In admitting that everyone is answerable for the talents he has received, it is evidently our duty to cultivate the fine arts as far as they are in harmony with all other faculties. Superstition undoubtedly degrades a reasonable being; but the human character is ennobled, and charms of society increased, by respectfulness. There can be no doubt that in attending to the difference between primitive powers and their applications, between their legitimate action and misapplication or disorder, many errors hitherto committed in education will be avoided. Ladies want bodily exercise, but it is a mistake to make them march like soldiers, since no female will gain the affections of a gentleman by a soldier-like manner of walking: her movements should be graceful and gentle.

The third principle of exercise is that the order of instruction ought to follow the order of nature in bringing the faculties into activity. Children acquire notions before they make themselves acquainted with signs to indicate them. They know the objects themselves sooner than their qualities and mutual relations; they know the qualities of those objects sooner than the modes of their actions. Accordingly their language begins with nouns, and verbs in the infinite mood. By degrees they learn signs to indicate their acquired notions of other kinds. Their language then evidently shows that their faculties do not appear simultaneously. It is indeed an important point in education to know that the faculties of the mind begin to act successively, viz., in proportion as the organs on which their manifestations depend are developed. Hence they ought to be exercised in the same order, and the knowledge of the periods of development of the respective organs is as necessary as a

knowledge of the primitive faculties, because it is certain that no faculty can be exercised without the assistance of its organ. This principle is general in organic and animal life.

It may be considered that education, as far as exercise goes, begins earlier in life than is commonly believed. The vegetative functions—the hours of sleep, of appetite, of the urinary and alvine excretions, may be soon regulated.

Children are easily accustomed not to fall asleep except when carried on the arms or shaken in a cradle. They begin to make acquaintance with the external world when a few weeks old. It is by degrees that they taste and feel, hear and see—that they learn to distinguish their nurse, or those who take care of them, from strangers, and the existence of external objects. When they become attentive to the things around them we ought to show them repeatedly a great number of various objects, and exercise as much as possible their external senses. They are soon tired with the same object, but pleased with new impressions, as is the case also with the greater number of adult persons. Thus it is not a matter of indifference whether a child be carried quietly on the arm or whether its attention be excited towards external objects. I consider it as very important in whose society young children are kept; not that I think that children absolutely acquire the character and talents of those who are around them, but because their society will be favourable or unfavourable to the exercise of the innate dispositions.

The periods when the innate powers appear, increase, decrease, or disappear, are of great importance. Some are active early in life, and continue longer than others which appear later. Now the powers will be cultivated with the most effect at the period of their natural activity.

There is some regularity in the appearance and disappearance of the faculties, yet there are many exceptions and modifications, as in all natural operations. Nature is immutable only with respect to the relation of cause and effect, but she modifies the phenomena in infinite varieties. It happens usually that those powers that act strongly appear early and last long. The intellectual faculties and many of the feelings commonly decrease in old age. Several persons, however, are particularly fortunate in preserving the energy of their mind to a great age; but the greater number of old people are deceived if they take themselves to be still what they were when young.

Among the intellectual faculties those of individuality, form, eventuality, comparison, and language, appear first. Children soon know many individual objects and facts, and conceive general notions; they call, for instance, every young being child. Then the faculties of size, colouring, locality, number, order, time, and tune appear successively. Objects and their phenomena ought to be taught first, and afterwards the qualities of objects and their relations.

Among the feelings or affective faculties, those of attachment, cautiousness, love of approbation, acquisitiveness, combativeness, secretiveness, destructiveness, firmness, benevolence, conscientiousness, and imitation, are very early active. Those of reference and amativeness appear much later.

Let it not be forgotten that from the earliest age the feelings, as well

as the intellectual faculties, may be educated, and that young children show no less difference in their characters than in their talents. They are patient or obstinate, indolent or lively, timid or courageous, attached to or careless about others, &c. Let those powers which are naturally too active be quieted, and their activity prevented; while those that do not act with energy enough ought to be excited in a practical manner. As imitation is particularly active, good examples and the best impressions of all kinds should be given.

In treating of the vegetative laws, I have stated that very young children ought not to be obliged to sit still in an apartment all the day, as is sometimes the case in common school education. Particular places, in healthy situations, might be set apart, where children could come together to play, and at intervals to learn things in nature, and their names, objects, and their qualities, instead of sending them out only to take a walk, or to breathe pure air. Parents might thus have the advantage of having their children kept out of harm's way, and the young creatures themselves would not be compelled to suffer the distresses necessarily experienced when restrained from moving their limbs, nor be tired by unprofitable learning. They would be pleased with acquiring the knowledge of things and of words to express them, and at the same time they might be accustomed to order and obedience. They will also learn the signs which express the feelings and their relations, in proportion as the feelings are excited in themselves. Gymnastic exercises might and ought to be combined with mental instruction. The principal object of such schools should be bodily strength, order, cleanliness, notions of things, and oral signs.

The schools for young children in Mr. Owen's establishment, at New Lanark, first exhibited, to a certain extent, the practical application of these principles in uniting physical and intellectual education. The infant schools since introduced in London and in the rest of Great Britain do the same; and no one can observe the happiness and intelligence which reign among the children there, without wishing this mode of instruction generally adopted; though it may be still improved and more adapted to the nature of man. Unfortunately for the young beings this mode of instruction has already degenerated from its first plan. Many teachers find it too difficult to adapt themselves to the children. From habit, and perhaps from commodiousness, they prefer to keep them quiet and to teach them A B C and spelling, rather than to satisfy the active dispositions of the young minds. Whoever takes interest in the improvement of education should first think of means of forming teachers.

The fourth principle of exercise is that it must be proportionate to the innate dispositions. Too much activity weakens or even exhausts the faculties, both feelings and intellect. This explains why too early geniuses often become ordinary men when grown up; why the mental operations, when too active, are frequently deranged; and why it is necessary to keep up the balance between body and mind, and between the individual faculties. The brains of delicate children and premature geniuses ought to be exercised late, and the greater their mental activity is the less it needs to be exercised, and the more care is to be taken of the body and the physical education.

It is also very important to know that during the climacteric years, when the body increases most rapidly, the mental powers are weaker. Hence at that period the body deserves greater attention than the mind. The mental faculties will resume their activity when the body has acquired its solidity.

Increased or diminished energy is dependent not only on the periods of growth, but all powers are liable to be occasionally more or less fatigued. No power is always equally active—each requires rest. It is, therefore, advisable to exercise one power after another, and to allow to children sufficient sleep. As any faculty, if too much excited, is injured or even exhausted, so it is weakened if it remain too long inactive. Teachers may easily perceive the disadvantages of too long a cessation from study in the effects of vacation on their pupils. These latter always find some difficulty in returning to application and order. Intermission is necessary as well as exercise, but neither ought to be of too long a duration. They are relative, and education requires to be amended in this respect. A long vacation is more favourable to the teachers than to the students. The former, it is true, want rest, but they might alternate, for the same reason as the objects to be taught must be changed from time to time. Education should never be tedious, nor too long interrupted; different faculties should be put successively into action, which produces a kind of relaxation, and sufficient care ought always to be taken that the bodily constitution does not suffer by pressing too keenly the progress of mental instruction. Children, who return for months to their family, are rather spoiled during that time than improved in order and obedience. They are indulged in their caprices, and see conduct practised in direct opposition to what they are taught at school to regard as meritorious. The frequent and long interruptions of practising the theoretical rules prevent them from becoming altogether accustomed to them, and they wish for nothing more earnestly than that the time of learning might be over, to be permitted to act in opposition to what they have been taught, and to forget the ideas they have had so much difficulty in acquiring.

The fifth principle of exercise is, that its influence will not be the same on every individual, on account of the innate dispositions. Even different children of the same parents, and brought up by the same teachers, turn out quite differently. Indeed the fact that the dispositions are innate cannot be insisted on too much. We must say, with Hume, (*Essays on Morality*, 3rd edit., p. 93,) that the influence of education would be miraculously great could it but create one sense, and that this miracle is reserved to our Maker; that education may cherish and improve the plants of nature's formation, but cannot introduce any original plant. Helvetius, who considered man as the result of education alone, was obliged to allow that "une folie passee rarement eclaire les hommes sur une folie presente." Marcus Aurelius calls little politicians, and compares with children, those who maintain that whole nations might be changed into philosophers. He was satisfied by being able to contribute in a slight degree to the common welfare, and to improve a few persons. He denies the possibility of establishing Plato's republic. He in particular insists on the importance of making any

new idea popular. He adds that without this precaution success is impossible ; that absolute power and lessons remain without effect if the manners of the people do not change ; that in this case nations are but slaves and complain of restraint, or are hypocrites and feign to be persuaded.

It is more easy to cultivate the lower feelings, since they are naturally stronger in mankind. In the same manner those who are virtuous by nature will sooner learn to practise moral principles than those in whom the lower propensities predominate. Those who have little conscientiousness will with great difficulty learn to be just in a higher degree, in the same way as those who possess any intellectual faculty in a small degree will never excel in it. The greater the disposition the greater the effect of exercise. Yet it is always true that a proper degree of exercise strengthens the functions of each power.

The preceding considerations on exercise afford an opportunity of speaking of the method of mutual instruction. It is inconceivable how its advantages can be contested. I rather excuse those who contend for the beneficial effects of ignorance, and who object that mutual instruction is a means of teaching in too short a time, than those who acknowledge the benefit of general information and yet hesitate to employ this method. Its superiority is too evident to be long impeded by its novelty.

It is my decided opinion that this method ought to be used in all branches of knowledge which may be acquired by the influence of teachers, or which may be taught. Even those who are destined to improve arts and sciences will gain by it. The reason of this is very simple, and founded on the influence of exercise ; while at the same time this method has the great additional recommendation of being the least expensive mode of instruction. This advantage is certainly of importance, but I shall examine only the benefits which result from exercise.

If there be many children or students together, the school hours are not sufficient to examine every one. Young persons, however, who are not examined, are less attentive to their studies than those who are ; their faults not being remarked are not corrected, and only a few are noticed. In large classes all that can be expected at present is that the teacher should explain everything distinctly, and repeat it with a few scholars. He addresses himself commonly to those who learn quickly. Should it happen that the master speaks to others of less talents, the better heads, knowing their lesson, cease to pay attention, or at least are soon weary of doing so. But were the better students obliged to repeat the lesson with the others, they would experience that we learn by teaching ; they would feel inclined to go over and over the same thing with those entrusted to them for instruction ; while in the common way they cease to repeat their lessons when left alone. At the same time the students of less capacity will be more attentive, and, on account of the constant repetition, they will remember what was lost at the mere explanation of the master.

Let us examine any branch of education whatever, and we shall find that the advantages of this method are always the same. We may take a mathematical problem for the sake of example. Suppose the rules to

have been taught, and that they are to be applied. Those scholars who possess the mathematical talent in a high degree will soon finish their problem, and will be obliged to wait in irksome idleness till many others, who cannot follow so quickly, have done. If the former only are called for by the master to resolve the problem, the others hear it, but it is not attended with the same advantage to them as if they were called to work for themselves. If, on the contrary, the scholars with little mathematical genius be chiefly examined, those who excel in that talent will lose their time and neglect what they know, while their attention would be excited if they were employed in teaching their co-disciples. Their natural activity may lead them to do mischief whilst they are not otherwise occupied. It is the same with spelling, writing, drawing, dancing, learning history, geography, languages—in short, with every branch of knowledge that is taught.

The practice of the common method can be excused only by the supposition that all pupils are endowed with the same degree of abilities. As, however, daily experience shows the contrary, it ought no longer to be tolerated if the object be to take the greatest possible advantage of the period of education. The new method is particularly useful in schools where all classes of children are collected together in the same room, and where, in the common method of teaching, while one class is examined the others are doing nothing. Children are in general required to learn by themselves, but few only are capable of this exertion. According to the new method, all classes go on at the same time, and the same subject is repeated till every child knows it.

In colleges, where each class is separated, the necessity of the new method is less felt; yet the above-mentioned reasons induce me to think that it should be employed in all large classes, where the pupils, on account of their different degrees of capacity, naturally form themselves into several subdivisions.

The superiority of a new method ought to determine the directors of instruction to make a new classification in colleges, according to the subjects to be taught. There should be one professor for each branch of knowledge: one for history, one for geography, one for the mother tongue, one for Latin, one for Greek, one for poetry, one for mathematics, &c. The pupils who study the same branch might be brought together but divided into different classes; those, for instance, who study history might be in the same room, but divided into several classes. A similar arrangement should prevail among the students of Latin, Greek, mathematics, geography, &c. The professor of each branch might put all his classes into action at the same time, in the same manner as is done in the schools for children. Monitors might take his place in the inferior classes. In this way the pupils would make more progress than they commonly do. It is not necessary to state how many professors might be instituted, for there might be as many branches as are found to be requisite. The principal object I here contend for is that the better students should instruct the inferior ones when the masters are not sufficient for the purpose. Emulation would induce the monitors to employ their leisure moments in learning new subjects. Moreover, the time which the masters give to explanation is short; that employed by

the scholars in learning occupies a greater portion. This portion of time will be filled up to more advantage by the method of mutual instruction than if everyone is left to himself alone; and those who instruct others will in this way derive even the greatest advantage. This method, being new, has met with adversaries; but whoever will set an example of using it in the higher branches of knowledge, will find its superiority the same as it is already ascertained to be in teaching the first elements of education. The fundamental principle employed in the method of mutual instruction is one and the same for whatever is taught to many pupils at once. At colleges, those who are very zealous form private classes for repetition among themselves, and others who have means pay repeaters. Every improved system of learning admits the advantage of repetition, and all teachers speak in favour of numerous instructors. This is accomplished by the monitorial system. It is objected that boys do not teach soundly. I reply that in that case they are not taught, or do not learn soundly. It is applicable to monitors what we may say of instructors throughout. The most learned is not always the best teacher. The head master ought to understand human nature, and to choose the proper monitors. Further, if the monitorial system has failed to produce the desired result, we may say, "What is best administered is best;" and not at once accuse or reject a new doctrine or system because it is not understood. I have seen the monitorial system applied with astonishing effect. I will mention only Wood's Sessional School, at Edinburgh, in Scotland, where the children of the industrial classes are instructed, with little expense, in a manner which should do honour to those of the first ranks, and it is done by the monitorial system.

The principal point of the Hamiltonian system, too, is that of continued exercise. Numerous teachers replace the monitors, and the same lesson is continually repeated. The other great point of this system, which teaches to learn a language without the grammatical rules, does not seem to me equally applicable to every individual. It will, however, please the great number, and in general those who attach themselves little to principles; whilst those whose reflective powers are large will be desirous of knowing from the beginning the rules contained in their language.

The advantage of repetition, then, being evident, and confirmed by daily observation, it ought to be more generally practised than it is in public institutions. The more the pupils are examined the more they will learn, and the clearer their notions be.

It may be asked whether exercising the affective and intellectual powers makes the respective powers increase. Each part of the body, being properly exercised, increases and acquires more strength. The fact is known to be so with respect to the muscles of woodcutters, smiths, runners, &c. Now the brain and its parts are subject to all the laws of organisation; they are nourished like the arms and legs. Cerebral activity, therefore, determinates the blood towards the head, in the same way as the blood is carried to any other part when irritated; and this law of the organisation may enable us to account for the development of certain parts of the brain of whole nations, and to explain national characters,

if individual powers are cultivated during successive generations. I can speak with certainty from repeated observations. The changes of cerebral development, when the individual powers are exercised or kept quiet, are astonishing. In the former case individual organs increase, and in the latter they not only cease to grow, but sometimes become absolutely smaller.

The growth of the organs, however, is not the only or even most important advantage to be derived from proper exercise, for it is certain that organic parts, such as the muscle, the senses, the brain, &c., do not increase in size in proportion to their exercise. The muscles which move the fingers of a musician, for instance, who plays on a pianoforte, will acquire more facility and agility than size by the exercise. If we walk little during winter, and take more bodily exercise in the spring, we are easily fatigued at the beginning; but by degrees we can make greater excursions without suffering by them. Yet the muscles do not grow in proportion as walking becomes easy. In the same way, the size of the organ of tune, or of any other power, will not augment in proportion to its being exercised, but its fibres will act with more facility.

I finish this chapter by repeating the principal points detailed in it. Exercising is the same as putting into action; each faculty must be exercised for itself; the means of exercising the powers are of great importance; exercise of the faculties should take place in proportion as their respective organs are developed. Exercise must be proportionate to the innate dispositions—too little or too much does harm, but applied in a proper degree it makes the organs increase in size, modifies their internal constitution, and produces greater activity and facility. The effect of the same exercise is different, on account of the innate dispositions of different individuals. It has been hitherto feeble, particularly in reference to the moral feelings; but it will be greater when the innate dispositions of the mind and the laws of exercise are understood and attended to. The required reform of education must begin with forming teachers themselves. Their influence being so very great, they must rank high in society, and their reward ought to be honourable. This might be done by the assistance of the monitorial system, and without increasing the general expense.

CHAPTER VI.

ON THE MUTUAL INFLUENCE OF THE FACULTIES AS A MEANS OF EXCITEMENT.

THE fourth condition which contributes to increase the activity of the faculties is their mutual influence. To employ this means it is necessary to understand that each power may be active by its internal energy, or by its being excited by one or several other faculties; and that, on the other hand, each power may be inactive either by its want of energy, or by the influence of other faculties. This consideration deserves every attention in practical education. It supposes in the teacher, who wishes to reap from it all the advantages possible, a knowledge of the primitive

faculties of the mind, of the natural connection of their organs, and of the individual dispositions of him who is to be educated.

It is a general law that organic parts which contribute to the same function excite one another. The organs of smell and taste, the nerves of hunger and thirst, and the digestive power, are in intimate connection. Smell and taste often whet appetite, and the appetite excites the sense of taste; it is therefore justly said that hunger is the best cook. The internal feelings are equally subject to mutual influence. Amativeness and philoprogenitiveness frequently excite combativeness, viz., male animals fight more when under the influence of amativeness than at other periods. Females defend their young ones with more courage than they do any other object. Acquisitiveness and cautiousness excite secretiveness to act. Attachment may put cautiousness into action, or we may fear for the sake of friends more than for others. Firmness may assist hope and justice, reverence and self-esteem; and it may be assisted by the other feelings. In short, each feeling may be stimulated by one or several others.

Mutual influence exists also with respect to the intellectual faculties, and is called association of ideas. Those persons, however, who consider association as a primitive power are mistaken, for the activity of at least two powers, whose functions are associated, is necessarily employed in its very existence. Now this mutual influence takes place among the feelings as well as among the faculties of the understanding, and among feelings and intellectual faculties promiscuously; that is, one or several feelings may excite intellectual operations, and *vice versa*.

The mutual influence of the faculties is the basis of what is called Mnemonics, or of the art of strengthening memory. This art is very ancient; but in consequence of its principles not being sufficiently understood, it has been rejected by some and extolled to excess by others. The great errors committed in mnemonics resemble those committed in all branches of education, and in all sorts of institutions. Teachers of every sort look upon themselves as the standard for the whole of mankind, and commonly have recourse to that great faculty which is most active in them, reproduces the most easily its anterior perceptions, and excites other powers with the greatest facility. They err in overlooking the differences of the innate dispositions and talents of different individuals.

The most common kind of mnemonics is founded on language; that is, words recall individual notions. Written signs do the same, in bringing to our ~~recollection~~ sounds and ideas: they depend on the faculty of configuration. If we resolve upon doing a thing in a distant place, and ~~after~~ setting out to go there forget our design, and recollect it only on returning to the place where the resolution was first made, the power of locality is the means of mnemonics, and many teachers of mnemonics have recourse to this faculty; they combine ideas with places, and in thinking of the latter they remember the former. It seems that the ancient orators employed these means, in order to learn their discourses with greater facility. Their proceeding appears to be indicated by the expressions denoting the divisions of the subject, such as in the first, second, and third place, &c. This power may indeed, if it be strong, assist the other faculties. Persons endowed with it may divide and sub-

divide, in their minds, a given place, and put into each compartment a particular notion, and the idea will be called to recollection in thinking of the corner where it has been lodged. Locality, however, will be of little use to those who possess it only in a small degree; whilst if they be endowed with the power of form in a high degree, they will combine a notion with a figure with great facility. We may also, with other mnemonists, have recourse to several faculties at the same time, to fix the recollections of an object.

This proceeding then may be applied with great advantage in education; but it is to be remembered that the most active powers furnish the best means of mnemonics, and that any particular mode of association useful to one may be useless to another, on account of the differences in the innate faculties. The general rule is to exercise, at the same time, as many faculties as possible in combination with each other and even with the senses. The activity of one or several faculties may excite the peculiar action of mind we wish for. The smell of a flower may recall the place where we perceived it first, or any particular circumstances connected with it. The powers of comparison and of causality are often usefully exercised to this purpose, particularly in persons who cannot learn by heart what they do not understand. Others who have imitation and ideality large, recollect easily things expressed with ideality. Every one remembers best those phenomena, or those points in history, which are in the most intimate relation with his strongest feelings and intellectual faculties. These faculties enter into action with the greatest facility, reproduce their sensations, that is, appear as memory, and excite the other faculties.

The strongest illustration of the effects of mutual influence among the faculties is to be seen in the effect of emulation in children, and the desire of distinction among men. Many students learn more in consequence of excitement produced by emulation, than by the innate activity of their understandings. The love of approbation, indeed, may excite every other power. Soldiers do not always behave bravely from the desire to fight alone; but sometimes they do so from love of glory. Some men of talent ruin their health by continued study, as frequently from a desire of distinction as from a strong passion for the study itself.

Acquisitiveness, or the desire of gain, is another great cause of excitement of other faculties. Its influence, and that of the love of approbation, are of such power that many philosophers have considered these two motives as sufficient to explain all particular manifestations of the mind. But however strong their energy may be, they never produce powers—they only excite the innate faculties to act. This fact ought to be specially attended to in education. It is understood by Phrenology. If two boys possess the same natural endowment of the faculty of language, but the one double the love of approbation of the other, he, by the influence of the latter faculty, may be rendered the more excellent scholar of the two. But if the love of approbation is equal in both, he who possesses language naturally powerful will undoubtedly excel.

The mutual influence of the faculties being also a means by which we may direct their employment, I shall enter more into detail on this subject in the next section, where I speak of the motives of our actions.

From the considerations unfolded in the preceding chapters, I draw the conclusions that education ought to be founded on the knowledge of man ; that the true principles of education ought not to be confounded with school-learning ; that great improvements remain to be made even with respect to instruction in arts and sciences, and that the education of the feelings, which I consider as the most important, and place far above that of the understanding, will require to be quite newly modelled.

SECTION II.

ON THE DIRECTION OF THE FACULTIES.

AFTER having examined the conditions which contribute to the greater or less activity of the mental faculties, I shall consider the direction which ought to be given to their actions. In the same way as, in the first section, I held it established by Phrenology that all dispositions are innate, and that their manifestations depend upon cerebral parts called organs ; so I suppose here that my ideas on the moral nature of man, as detailed in the second or philosophical part of Phrenology, are known. Phrenology shows that there is a natural arrangement among the faculties ; and this circumstance is the foundation of the moral character of man. To understand fully the ideas unfolded in this section, it is also necessary to be acquainted with the sphere of activity of each special faculty of the mind, and with the modifications of their manifestations. This information likewise is communicated in the volumes on Phrenology.

In employing and directing the faculties of mankind we ought to proceed according to fixed and ascertained principles—the first and most important of which is, that human actions are objects of moral regulation ; the second is, that each faculty has a tendency to act ; the third concerns the knowledge of the inducements or sources of our actions ; and the fourth the difference of natural gifts. I shall, therefore, divide this section into four chapters.

CHAPTER I.

ON THE IMPORTANCE OF MORALITY.

ACCORDING to my ideas of the moral character of man, his actions ought to be subordinate or conformable to the whole of the faculties proper to mankind, and all actions which are in contradiction to the whole of these properly human faculties are bad. The point which I wish now to impress on the minds of my readers is, that human nature is so constituted by the Creator that morality is as necessary to the prosperity of mankind as oxygen to combustion, caloric to vegetation, and respiration to human life ; and that not the animal but the human powers are the end of human existence.

The primary virtues, essential to the existence of society, are withdrawn from our election and choice ; nor are they left to be directed only

by so weak a principle as reason—they are identified with human nature by the dictates of creation. Submission alone to the indispensable laws of morality is left to our choice. In doing so only can we contribute to the improvement of mankind.

Christianity promises future rewards for every kind of righteousness, such being the will of the Creator. But I maintain also that morality is necessary in this life, not because I believe, as many do, that wicked persons are tormented by their consciences—a notion which I have endeavoured to explode in treating of the faculty and organ of conscientiousness in the first volume, or in the physiological part of *Phrenology*—but because I really think that the world is so constituted that morality is indispensable to the general happiness of mankind.

It is objected that the just often perishes in his righteousness, while the wicked often thrives in his iniquity; but shall we infer from this that morality is less necessary to prosperity than I maintain?

The condition of individuals is subordinate to that of the community. On the other hand, one power may triumph over another for a certain time, and the animal over man in single individuals; but such a state cannot become general nor everlasting, because the animal powers, from their tendency to the gratification of selfishness, would, if predominant, overset society; while the powers proper to mankind are eminently conservative, and calculated to promote general happiness.

As long as mankind remains as at present constituted, the faculties proper to man will stand in need of the assistance of the animal powers to avoid being destroyed. Society must still be prepared for war in order to maintain peace. But history furnishes numerous examples that wherever mere animal faculties have governed the sovereignty did not last—morality and understanding being the two first principles of politics, and necessary to direct the actions of every faculty.

I am sorry to observe that generally the cultivation of the understanding constitutes the principal object of education; and that in different countries the pupils of public establishments smile with pity at praise given for good behaviour. I know very well that children of excellent conduct do not always excel in intellect; but we find also that many young and old individuals of great understanding do not always behave as they ought to do. These persons often convert their intellect into scourges of society, and are the greatest enemies to the happiness of the race. Let the public beware of this in reference to authors, reviewers, pamphleteers, gazetteers, and writers of any kind. It is a too common tendency among them to say: "I and my friends alone have understanding, we alone are in the right." Let the oracles be respected if they write only with conscientiousness. Both moral and intellectual endowments are important, and therefore ought to be cultivated in harmony. By neglecting one or both, societies and even nature will come to an end.

In examining mankind at large we shall find that general happiness is founded more on morality than on intellect. Public establishments for relieving distress, improving morality, and correcting manners are more beneficial to society than colleges for the study of mathematics under the government of conquerors. Morality ought to be the aim, and

understanding but a means of attaining it. Those, however, who know my ideas on the primitive powers of man, and on their moral arrangement, will know that I distinguish morality from religious creeds; that my God is a God of union, who wishes to save and not to destroy; and that, in my opinion, charity or general love is the greatest of virtues. They will perceive that I do not agree with teachers who place the love of their country, and that of glory, above the love of mankind; and that I maintain the authority and the advantage of the Christian principle, which commands us to love every one as our neighbour. Jesus called *him* his brother who did the will of his Father. I allow that we owe obligations to our parents and to our country; indeed, I admit there is a primitive feeling of attachment to all beings around us. But this propensity is given also to the lower animals, and is far inferior to general love. He who considers the wants of the poor, and the causes of those wants; the deserts of the poor, the possibility and necessary means of improving their situation; who will never encourage idleness or disorder; who considers attachment as a quality of secondary weight; who relieves him first that deserves it best; and who prefers his countrymen only in so far as they are equally meritorious, is far nobler than those who are influenced by the love of their country, or by a religious creed alone, to the neglect of this universal benevolence.

It is a touchstone of superiority among the faculties that their influence is more universal. The animal feelings contribute to the preservation of individuals, of societies, and in a certain degree of the species. Human feelings alone place society above individuals, and species above societies. They coincide with the proceedings of nature. Individuals perish, while nations continue; and these disappear while mankind is preserved. The faculties which produce such effects must be important. When I state that the sphere of the faculties proper to man is more extensive than that of the animal powers, this must not be confounded with the other proposition, that a faculty is more or less generally bestowed by nature. The meaning of the latter is, that a faculty exists in a greater or smaller number of species; while the former denotes that the influence of a faculty extends over more beings. Amativeness is very general, while Christian charity is confined to mankind; but the effect of this latter feeling embraces all beings, while that of the former is infinitely more limited.

Thus, in all actions, morality is to be kept in view as the aim and end. Man, by superior powers, is the lord of the terrestrial creation; but the same feelings which constitute his superiority command him not to abuse other beings. A lower propensity excites man to kill animals, in order to live on them; but the superior feelings forbid us to torment them.

All sects of religion must agree that morality is necessary to the welfare of the human race, however different their opinions may be about the mode of attaining it. But I have no hesitation in declaring against any creed that undermines charity, and which teaches children that those who do not believe as they themselves do, and that those who wish to adopt different means, in order to please their Maker, are damned. As Christianity evidently tends to unite all men in the presence of God,

it appears to me that we are entitled to reject every interpretation of any passage of the Gospel which does not agree with general peace. The superiority of the Christian principles of morality is proved and recommended by their good effects; and, in this way, belief is converted into conviction.

Modified ideas about the means of pleasing God are natural, and present a large field for teaching tolerance and mutual forbearance. Various formalities are considered as agreeable to God; but history informs us that many of these, used by different sects, are borrowed from paganism. Every one ought to be permitted to do as he thinks right, unless the general happiness of mankind be disturbed by it. I think that he is too proud who believes that he can add to, or exalt the happiness of his Creator, to whose dictates all that man can do is to submit. In submitting to His dictates we practise the true and undefiled religion—viz., in this way we show that we are true to God, and obey His will. Thus it is an important point, in teaching religion, never to confound the *aim* with the *means*. The former is universal happiness, and loving our neighbour as one's self. The means which lead to it are various, and differences of opinion in regard to them are to be expected. It seems, however, a great error to look for happiness from Divine influence while the natural means of producing it, appointed by the Creator to be observed in the ordinary way of Providence, are neglected.

CHAPTER II.

EACH FACULTY TENDS TO ACTION.

THE faculties are innate and active in different degrees; but each desires to be satisfied, and all are necessary. Hence it would be wrong to endeavour to annihilate or to neglect any one of the institutions of society, whilst the acts of every individual power may be morally good or bad—that is, conformable or contrary to the whole of the faculties proper to man. In order to elucidate this subject, I shall first make a few general remarks and then subjoin some details concerning the primitive powers.

In the greater number of persons the lower faculties are the most active, and several of them more so than others. This explains the great activity of the animal nature of man. Again: single individuals, each of the sexes, the inhabitants of certain provinces, and whole nations, possess individual faculties more than others. These primitive dispositions, then, must first be studied, and each power cultivated in harmony with the dictates of general morality and with the particular situation of the nation, sex, or individual in question. Any feeling that is naturally too active should never be exerted. Hence, in those children and nations whose character is strongly marked by the love of approbation this feeling should never be nourished by education; for if predominant it becomes the cause of great mischief; and it is evidently a great fault to encourage it continually, and to hold out approbation and glory as the principal reward of every action. If in a nation self-esteem be

the strongest feeling, it should not be encouraged; and in the case of children, they should be accustomed to attend to what others say of them, and be spoken to freely of their faults.

On the other hand, no strong feeling can be overcome at once; its activity will appear in one way or another, and the object of the teacher or governor ought to be to make the best use of it. The love of approbation, for instance, may lead to war or peace, to idleness or industry, to virtue or vice, according to the object approved of by the directors. It is the same with every fundamental power. Has not every crime been committed, and every virtue exercised, under pretence of glorifying God, or of obeying God rather than men?

The improvement of mankind has been greatly retarded by the erroneous notion of our being born alike in feelings and understanding, and of our being capable of becoming whatever teachers please. On account of the differences in our innate faculties, on the contrary, education must be modified in many respects even for nations, as well as for individuals and sexes. As the inhabitants of cities cannot digest the food on which savages will thrive, so civilised nations stand in need of principles which cannot enter into the brains of uncivilised persons. There are many examples in history where nations have been ungrateful to their governors who have endeavoured to improve their condition. Missionaries who preach to the ignorant and barbarous tribes in the same way as to enlightened people cannot produce the desired effect. New-born children cannot bear too much light at once; and the mind, like the eyes, must be accustomed by degrees to new impressions.

On the other hand, governments are wrong if they retard the attainment of the degree of civilisation which their nations require. They are mistaken in thinking that the special tendency of primitive faculties can be prohibited by mere commandment. As no institution having for its object the annihilation of amativeness, acquisitiveness, the love of approbation, or any other feelings given by the Creator, can be permanent—as its duration will be shortened in proportion as such feelings are more active—in the same way, as soon as our understanding has arrived at a higher degree of cultivation, such institutions as are adapted to dark ages will no longer suffice.

The faculties proper to man being given to govern everywhere, are to be cultivated incessantly and in everyone; whilst the powers common to man and animals should be encouraged only in so far as they contribute to the great end of the satisfaction of the properly-human nature, or to general happiness. The animal faculties may be employed as means, but not any one should become the aim of our existence. They may do good when subordinate, but they produce much evil as soon as their gratification becomes the aim of life. It is remarkable that all institutions, true Christianity excepted, are founded on selfish principles, and that by far the greater number of the motives which they propose to mankind originate in the animal feelings.

The regulation of the mode in which gratifications are sought is an important point in education. Each faculty, when active, wishes to be satisfied, and will excite those powers which may become the means of its gratification. Suppose, for example, that we have a desire to be

distinguished, we may fight, destroy, calculate, cultivate arts, &c., according as distinction is likely to follow the performance of such and such actions. To gain eternal happiness we may do and we may omit various things, according as we are taught that it is to result from the one or the other. Selfishness, in general, is a great stimulus. The gratification of individual faculties may even become a means of obviating their abuses. Acquisitiveness, for instance, may be prevented from stealing and cheating, &c., by placing before the mind the consequences of illegal actions, and by showing that the best-calculated selfishness is that which is combined with honesty.

Though it is a pity that in common education the satisfaction of the inferior faculties is generally represented as the aim of our existence and of the whole of our actions, their gratification, however, may be of great use, being a source of pleasure, and the contrary a punishment—the idle being pleased by vacancy, the dainty-mouthed by cakes and sweetmeats; the vain by decorations, fine clothes, titles, and every kind of showy appearance; the mechanician by ingeniously-contrived instruments, the painter by colours. There are as many sorts of reward or punishment as natural gifts, but the gratification of those powers which are not requisite to our profession should be only an object of reward and recreation, the difference between aim and means being constantly attended to.

A question which has been often repeated by philosophers may be brought in here, viz., Whether it is better to have many or few wants? Want is here synonymous with desire, or the tendency of individual faculties to seek gratification; and there are as many sorts of wants or desires as there are primitive powers. To answer this question we must bear in mind that the satisfaction of each desire gives pleasure; that there are as many sorts of pleasure as there are faculties, and that desires and pleasures are proportionate to the activity of the powers; moreover, that the pains, displeasures, or states of dissatisfaction are also as numerous as, and proportionate to the activity of, the faculties. Thus, wants or active faculties may render us happy or unhappy. In order to prepare happiness for ourselves let us exercise those faculties which we have the power of gratifying, and check the activity of those which we cannot satisfy, taking constantly for granted that morality is the aim of our life, and that no animal power shall be permitted to become predominant; that ostentation, for instance, must remain subordinate to justice, and that spending our superfluities on purposes useful to society is preferable to employing them in the gratification of any animal propensity.

The proper employment of the faculties being so important, this knowledge is not only necessary to teachers and governors, but it should become an object of instruction for every person, and be taught and learned by heart.

We must eat and drink because we must change the substance of our body, and we are excited to do so by hunger and thirst. But the laws of digestion and nutrition might be explained. The respective organs show the necessity of submitting to the dictates of creation taught. The knowledge of the general rules of Hygeia is useful to every one. Let,

then, children know that they must eat to live, but that they do not live to eat and to drink ; let them feel the advantages of sobriety, and the consequences of indigestion ; let them see the vice of gluttony and drunkenness in nature, and be accustomed to temperance and the moderate use of every kind of food. It will be easy to render them attentive to the quantity and quality of aliments necessary to be taken, and to those which do not agree with their digestive organs. It is important that they should be able to resist the desire to eat of every dish that is placed on the table. But it is a great fault of parents and teachers to preach sobriety, and themselves to give a contrary example : the example is more effectual than the precept. I think it is also wrong to giveainties and liquors as rewards, for it is in this manner that they are taught to value them. They may enjoy the sense of taste, but they ought not to be governed by it.

In speaking of hunger and thirst, food, beverage, and nutrition, a great deal of knowledge may be given to children at table with respect to the natural history of the three kingdoms, and with respect to chemistry and physiology. Parents might direct the conversation towards convenient subjects, and enter into further explanations after dinner. Certainly this supposes the parents themselves to be well informed, which, however, is too frequently not the case. The duty of instruction devolves particularly on the mother ; but to be able to do her duty, she must have acquired notions herself. If there be several children, the elder may assist the mother in informing the younger.

Is not the great curiosity of children a hint of nature that they ought to be made acquainted with many subjects ? Why then do we not rather cherish than suppress it ? We should always answer, even when questions are put to us to which delicacy does not allow us to reply. In such cases, we may find an excuse by observing that they are not yet able to understand the thing. This will be believed, if we show them the reality of such an excuse in other examples. But they must never be told they ought not to know such things : a formal denial will excite their curiosity.

The objects which concern cookery, eating and drinking, and playthings, furnish sufficient matter to different conversations. We may put questions about the origin, usefulness, and preparations of aliments. Each object will offer a large field of information. I suppose, for example's sake, that when potatoes are placed on the table the mother may ask to what kingdom of natural history do they belong ? According to the age of the children, various questions may be added. After the first notions are communicated, the mother may continue to inquire about the parts of the plant which we eat under the name potatoes. The discussion again requires to be more or less detailed according to the capacities of the children. Whatever cannot be shown at home could be noticed in taking walks into the fields or elsewhere. In what country are potatoes indigenous ? Geography will come in. How are they cultivated, &c. ? Then notions of agriculture may be communicated.

Bodily exercise is another important point in education. Muscular activity is greater in childhood than in later age. It is necessary to the development of the body and to health. To keep children quiet is

acting against nature. The body and the intellectual and moral faculties may be exercised at the same time. Playing is to be considered as a mere change of occupation, and many things may be taught by means of it: for instance, to dance, to climb, to leap, to swim, to go on horseback, to fence, &c., belong to a true plan of education. The muscles of the arms, or legs, or trunk, may be exercised according to utility, or such exercise in future situation, or according to local weakness. All gymnastic amusements serve these purposes. It is to be understood that bodily exercise ought to be proportionate to the innate strength and progressive growth of individuals, and not beyond the innate capacity, since in that case the misapplication of a principle will do harm. It is said that Milo carried on his shoulders a calf day by day, till it was full grown.

On the play-ground children may be made acquainted with a great number of objects, their physical qualities, such as form, dimensions, weight, colour, distances, phenomena of hydraulics, mechanics, and chemistry. Nothing, for instance, is more easy than to teach what is called gravity, affinity, attraction. Let children collect stones of different specific weight; let them make figures in the sand, such as circles, triangles, squares. They will learn such notions with less pleasure when they are confined to the benches. It is known that girls, in amusing themselves with dolls, exercise many faculties necessary to their future condition in life.

The external senses deserve particular attention. Though they are not sufficient to make us acquainted with the external world, they are, nevertheless, indispensable means to acquire distinct perceptions. Blind and deaf persons show how in the former the sense of touch, and in the latter that of sight, can be improved. For those who feel an aversion to touch innoxious insects—for instance, a lizard, a frog, a crawfish, or even velvet and other tactile objects, an early habit of doing so is advisable. It is the same with regard to a dislike to certain smells, tastes, colours, or sounds. The ears ought to be exercised to bear the noise of a gun, of thunder, &c.

Children ought to be accustomed to speak loud, and to pronounce all possible sounds and articulations, even those of such foreign languages as they will be obliged to learn; for almost every language has particular sounds which we pronounce with difficulty, if we have not been early accustomed to them. Accordingly, nations who have the greatest number of sounds in their speech learn the most easily to pronounce foreign languages, since they know their articulations by having met with similar sounds in their own language. The French and English having no guttural sounds in their language, find it difficult to imitate them in German. The Germans, on the contrary, who have not the French sounds of *j* and *v*, or the *th* in the English, acquire them with difficulty. The inhabitants of Otaheite, when trying to pronounce the name of Cook, always said Toutou.

As to the internal powers, it is a great fault in education to think exclusively of the intellectual faculties, and to try to conduct mankind by precepts. It never should be forgotten that children, as well as adult persons, always act by feelings, and that charity and justice are not science,

and that knowledge is not virtue. Precepts alone have no more effect on the feelings than on the understanding. To say be just, patient, and benevolent, will neither produce nor exercise justice, patience, nor benevolence, any more than we should understand mathematics, chemistry, or philosophy if we were only exhorted to study them. Precepts must be put into execution, and this alone is of practical use. Two ideas, then, must be well understood—first, that the faculties which give feelings, and those which constitute intellect, exist independently of each other; and, secondly, that they act in different degrees of force in children as well as adults. In this sense we may say, with De la Motte, that the child is already a man, and the man still a child. It is the same idea which De la Bruyere on characters (T. II. chap. xi.) has detailed in stating that children, like adults, are affectionate or selfish, courageous or timid, candid or disingenuous, lazy or industrious, benevolent or envious, peaceable or quarrelsome, unsteady or persevering, humble or proud, just or unjust. The powers are, indeed, the same in children and adults—they are only applied to different objects. The same person, when a child, may be jealous or envious about sweetmeats, and when adult about places of honour. The same faculty renders a child self-willed, a boy disobedient, and a man mutinous. Mr. Coombe has well expressed the same idea: "The child," says he, "who trembles at the threat of being shut up in a dark closet, who exhibits to us with delight his new suit of clothes, who fights about a marble, or who covets his neighbour's top, is under the influence of the same faculties which, in future years, may make him tremble under the anticipation of a fall of stocks, make him desire to be invested with a star and garter, contend for an island or a kingdom, or lead him to covet his neighbour's property." (*Essays on Phrenology*, p. 315.) Hence the individual tendencies must be observed, impeded, or encouraged and directed. A young girl whom I knew was prohibited from being imperious to servants and common people; she continued to amuse herself with giving orders to such of her playthings as represented servants, and with scolding them. When she was told that she committed a fault, she excused herself by saying that it was merely play. But the parents were intelligent enough not to confound the feeling of self-esteem with any object of its satisfaction, and this amusement was equally interdicted.

In the cultivation of the feelings the natural language is of the greatest importance. Let the feeling which you wish to inspire speak its natural language, and you will impress the juvenile minds. Avoid particularly the natural expressions of inferior affections, as of anger, jealousy, envy, impatience, &c. In showing anger to children you give a practical lesson. Follow the example of the philosopher who said, "I should punish you if I were not angry."

If any inferior feeling be too energetic, it is proper to avoid every circumstance that may put it into action. Accordingly, never vex quarrelsome or obstinate children: particularly, do not at length yield to them and let them have their own way: never desire such children to do what is unjust: make every demand on them quietly, but never yield.

It is essential to know which faculties assist each other and which act in opposition, in order to direct the actions and omissions of man. Attach-

ment will generally rest on objects, men, animals, or things, whereby the other feelings may be satisfied at the same time, or at least not prevented from being so. It is assisted by mildness and cautiousness. Children endowed with these feelings, and with ideality and love of approbation in a high degree, in order that they may not be deceived in their dealings with man, should be made acquainted with the difference of men, and with the various motives of their actions.

Courage is not given to indulge quarrelsomeness and anger, nor to effect gratification of vengeance. Its aim is to defend what is absolutely just. If not active enough it ought to be encouraged, not only by words, but by exposing the individual to situations which may appear annoying. Timid children will become less fearful by being accustomed to society. If courage be too strong, its bad consequences may be shown; and, according to circumstances, attachment, selfishness, the love of approbation, or the moral feelings, may be opposed as motives to restrain it.

The faculty of firmness greatly assists the activity of every other power; but it also produces many disorders, particularly if it be naturally strong in combination with large self-esteem, and if parents, in order to form the character of their children, as they say, allow them the gratification of every fancy. Such beings are exasperated by the least resistance in future life, and become frequently unhappy. Firmness alone will never produce great actions. It only causes the active faculties to persevere. Hence the same person may persevere much in one respect and very little in another. It has particular influence on self-esteem, the love of approbation, conscientiousness, and reverence. Ideality and the want of order and time are in opposition to perseverance.

The direction of amateness and of the religious sentiments is of prime influence. These feelings appear commonly later, sometimes, however, earlier in life.

The longer the difference of the sexes can be concealed from children the better. But as soon as children are inclined to abuse their persons, let them know the dreadful consequences of such a vice on the whole body and on the manifestations of the mind. Incalculable mischief is done to individuals, and to mankind at large, by the abuses of amateness.* Many become insane, and in numerous cases mind and body are ruined, and all happiness undermined, by its disorderly gratifications. Parents and teachers commonly are not watchful enough in this respect. The picture may be varied, according to the knowledge of the child, and to the bad effects which are already visible in him. Everything which excites nervous irritability, and accelerates the circulation of the blood, must be avoided. Bodily exercise, however, cannot be dispensed with, as it is necessary to produce sleep. If the functions of propagation be known, the influence of the vice, not only on him, but on generations to come, may be detailed. Many ideas of this kind are mentioned in books on physical education. I refer to them, mentioning again that a too anxious taciturnity of parents concerning these points will rather do harm than good, because the propensity is innate, and acts without restraint in its destination, if the consequence of its abuses be not clearly shown to children. Being informed of its importance they will

* See Fowler's Amateness. Price 2d.

more readily resist, and submit to those means which seem necessary to restrain it.

Religious precepts of various kinds, and the most opposite opinions when proposed as the will of God, have been listened to. The majority of mankind is credulous. Say that it is necessary to sacrifice animals, to burn perfume, to ring bells, to fast, to sing, to make prostrations, to dance, to whip the body, or to do various other things in honour of God, and man will comply. Even those who reflect for themselves and admit the revelation of Christian principles, will differ in their explication of them. The question then is often put, Who can decide which is the true religion? As the tree is known by its fruit, so is the man by his actions, and a doctrine by its effects. I think that the touchstone of every principle, religious and moral, is the same, viz., its tendency to promote the glory of God and the common happiness of mankind. It is absurd, and even blasphemous, to hold out any doctrine as coming from God, the manifest tendency of which is to inflict evil. I adopt, therefore, only that explanation of every passage of Christianity which favours general love.

There are religious people who agree with respect to principles, but vary as to the particular application of them. They insist much on some, and are indifferent about other points, and sometimes follow the absurdities of their own imaginations: they explain one passage of the Gospel according to its spirit, and take another literally. Others admit the principles, and say that they believe them, but care very little for their practice; whereas the least portion of intelligence and honesty might enable them to perceive that the practice is better than the mere assertion of belief.

In religious education, as well as in every other sort of instruction, three things are particularly to be kept in view: first—The objects taught must be suitable to the station of those instructed; secondly—The knowledge communicated must be applicable; and thirdly—The necessary means for attaining the end must be pointed out and attended to. With respect to the first point, the choice of objects to be taught, there can be little difficulty in deciding between the advantages of communicating a knowledge of fabulous tales or examples of moral conduct—of teaching habitual charity or vice. Children ought to be taught that moral conduct is the aim and end of their existence, and that morality is indispensable to the welfare of individuals and of society. And moralists, who wish for the improvement of mankind, ought not to reject any means of attaining that end, except those which have been tried and found ineffectual; but these should be given up, of whatever date and authority they may be, and only those that prove useful be employed.

There is another great error committed in many schools of England, viz., the third part of the year is given up to idleness. This may be necessary because the objects to be taught are few, and because the faculties employed are fatigued and require rest or vacation days; but these might be filled up by the useful employment of other faculties, which could be exercised one after another. In that way more knowledge would be acquired, and sufficient time allowed for attention to the individual faculties.

Natural history, mechanical and chemical experiments, are well suited to the capacities of youth, and would delight many; architecture, painting, music, geography, theatrical performances, &c., would please others. No better recreation would be wished for. The great error is that all children are obliged to learn the same thing—the boys Latin and Greek, and the girls music and drawing. Yet out of the prodigious number of girls who learn these arts, how few are there who, after they become mistresses of their own time, and after they have the choice of their *own* amusements, continue to practise them for the pure pleasure they afford. Even those who take pleasure in good music are better pleased with hearing others than in performing themselves. How often are the labours of years and the expenditure of large sums of money lost in this way? What a pity that we are obliged to learn so many things for no end but to forget them!

Accomplishments in general are not sufficiently distinguished from necessary and useful instruction. The latter is often neglected, and things are taught for which children have no taste, such as drawing and music, while they never would take a pencil in their hand nor play a tune from choice. How glad are they, therefore, when the time for lessons and masters is over, when they are of age and their education is finished. Many women, possessed of such accomplishments, never touch the heart of a man. They have learnt many things except those they ought to know. They find a partner only for their money, but the result of such an union is daily seen. Leisure time alone should be filled up by accomplishments, and whoever does not cultivate them from his own impulse should not cultivate them at all.

Order is of great importance in our affairs. Children ought to be accustomed to take care of whatever belongs to them, and young females should be exercised in keeping the family accounts. Order does not depend only on the understanding, but it requires also experience. This cannot be infused in the mind by precept, but must be acquired by practice. Everyone should learn to employ his own powers and to regulate his own conduct; and for that purpose he should be placed in various situations, and left to his own resources. This is particularly necessary to boys. Girls are more dependent, and in many respects they may be accustomed to trust to the experience of others, and to conform to the custom of society. They must be more reserved in their manners and moral conduct, because their faults are of greater consequence than those of boys to their station in society: for repentance and tears will not wash out the errors and immoral conduct of girls. On the other hand, however, prudery should be avoided with the same carefulness, and not be confounded with delicacy and modesty. Delicacy of sentiment and refined manners are a great ornament, and ought always to be cultivated. All odd motions or attitudes, and awkward gestures, should be watched, and prevented from becoming habitual.

The reflecting faculties deserve particular care. Let children be taught, if possible, to understand what they say and do, and to express their own ideas with precision. I have already mentioned that those persons are mistaken who think that reasoning can be improved only by one sort of study, such as of language or of mathematics. The fact

is that studying any branch accurately, applying judgment to it, and reflecting on the relations of cause and effect which it exhibits, will cultivate the reasoning powers with equal effect. Comparison and causality are necessary in important and trifling things. If children have great difficulty in reasoning, the first attempt here, as in every other branch, is the most difficult part of the work. We should therefore allow them time to reflect, and wish that they should rather acquire one distinct idea than many confused notions of different things.

I conclude this chapter with repeating that each faculty tends to action ; that each faculty may be used and abused ; that all faculties ought to be employed in augmenting the common happiness ; and that moral conduct and reflection are the principal means of producing it ; but that precepts alone will not change and improve mankind. Their influence is little in comparison to that of social intercourse. The manners of the world, the spirit of families and of parties, customs and received opinions, are often opposite to those which we are taught at school. We hear sobriety praised, and in our families we find luxury ; disinterested conduct is highly spoken of in our books, but we live in the midst of a crowd of busy creatures, whose most anxious thoughts are directed towards gain and vanity ; and we observe that respect and consideration are paid to others in proportion to their wealth, idleness, privileges, and fanciful, nay, selfish distinctions. School education is then soon forgotten. Whoever, therefore, has an influence on society, let him contribute all in his power to cause the same spirit to prevail in education, in legislation, in social intercourse, in writings, in arts, and in sciences.

CHAPTER III.

THERE IS NO ACTION WITHOUT A MOTIVE.

THE principle that no action takes place without a motive is the same as that there is no effect without a cause, and the law of causation exists in the moral as well as the physical world. Yet the nature of the motives of our actions, and their origin, are not sufficiently understood.

As long as it is believed that education can create faculties, the whole of mankind will be treated in the same manner, and the same motives will be proposed to all men. But when we know the influence of innate dispositions, we perceive the necessity of having recourse in each person to his natural powers, and of fortifying or guiding them by cultivation.

I here repeat that our feelings, inferior and superior, furnish the principal motives of our actions—that, in consequence, the motives are different, like the faculties themselves ; but that the proper aim or object of our actions is only one. I take it also for granted that the cultivation of the faculties proper to man is the aim of his existence, since they alone constitute moral rectitude and general happiness, and submission to the laws of creation.

The superior faculties, when they act by themselves from their internal energy, do so with pleasure, and constitute the kingdom of

love. But whenever they must be excited in any way, or when the energy of the inferior faculties requires to be moderated or restrained, then government and obedience, or the rule of the law, begins. As the inferior faculties, however, exist in human nature, and stand in need of constant regulation, it is evident that Jesus, in his own person, fulfilled the law and could not abolish it. Its existence was the will of His heavenly Father, and the constitution of human nature evidently requires it.

The motives arising from the superior faculties of man are also termed religious and moral—*religious* as far as we stand in relation to God as governor and ruler; and *moral*, in so far as it is our duty to act in such or such a manner with respect to mankind. There can be no doubt that our Maker has bound us by laws which must be obeyed. These laws are established by the Creator, and have been confirmed by revelation. Man is a moral being, and the law of his natural morality has been confirmed by Jesus. This matter, exercising the greatest influence on the happiness of man, is considered with details in my work on the Philosophical Principles of Phrenology.

Children may soon be made to comprehend that they cannot change the laws of nature, and to see the necessity of submitting to them. When they understand the tendency of these laws they will feel respect and veneration for that Almighty Being who instituted them, and for His all-wise appointments. But it will be a matter of greater difficulty to make every one comprehend and honestly love the general good as the aim of our existence, though it is conformable equally to the law natural and revealed. The desire for the common welfare of mankind is not strong enough in man to allow us to depend on it as a sufficient motive of self-direction; and, accordingly, various means have been, and still must be employed, in order to direct our actions towards this point. A knowledge of the different motives of our actions, then, is indispensable. If the moral law be written in the heart of man, that is, if the faculties of conscientiousness, benevolence, and reverence be naturally most powerful in any person, let us appeal to them. If another be more disposed to obey because it is commanded by the revealed law, that is, if his hope and marvellousness be naturally the most powerful faculties, let us not reject these motives. The same aim is to be attained, but the means may vary.

If the superior motives of man—his natural charity, his religious faith, and his reasoning powers—are not sufficient to direct his actions, inferior motives must be employed, such as love of approbation, acquisitiveness, reward and punishment, fear, &c. Many persons are prevented from stealing through the criminal code, or the fear of hell, or of being dishonoured.

The kingdom of fear and selfishness is infinitely more extensive than that of love. The former has existed, exists, and will long continue to exist; but the latter cannot come as long as selfishness and the love of approbation are presented as the aim of our conduct. While these are considered as the objects of human existence conquerors will prevail over their satellites, like Brennus, who sent wine from Italy to his countrymen, saying, "If you like this wine, come and help me to conquer the country where it grows."

It is essential for a teacher, or anyone who directs others, to know what different motives may produce the same action in different persons. One child may behave well through attachment to his parents, another through fear or the love of approbation, a third through selfish views, or a feeling of duty.

Moreover, it ought to be kept in view, as a principle in moral and intellectual education, that children do many things by mere imitation. They often adopt the manner of thinking and acting of those with whom they live. They consider as good that which they hear praised and see done by their parents. For this reason we know by the children whether we are liked or disliked in a family. This propensity to imitate will produce most effect in children whose natural character is not very determinate, and in them it may be applied with advantage as a means of instruction. Parents, therefore, become the best moral teachers; but let their moral conduct agree with their precepts, if they expect to produce any effect by their teaching. If they show in words an abhorrence of vice, let not their actions be stained by impurity. When they teach their children to avoid bad company and to esteem virtue and excellence above the distinctions of wealth and rank, let them not be encircled themselves in fashion and vanity. If they exhort them to order, truth, candour, and charity, let them prove their sincerity by their own actions.

Children, however, as well as adults, like what is conformable to their natural dispositions. If their intellectual powers are very active they may be allowed to follow their dictates, and to determine even their own future situation in life. But if parents wish to bring them up to professions which they themselves prefer, and not according to the natural gifts of the children; or if children are not distinguished by their natural talents, they must be encouraged by various means, and sometimes even forced, to exertion and to make a choice of employment. Without this many children would become careless and idle. It becomes necessary to impose tasks whenever the natural dispositions do not induce children to attain the knowledge requisite for their profession. It is always an error to allow idleness and free hours as a reward, because such a proceeding implies that learning is a punishment. It is not very judicious, either, to conduct education so that king's birthdays and holidays are liked because they exempt children from attending school. This is nearly as bad, in principle, as compelling them to learn verses or write versions by way of punishment. Certainly a better mode of chastisement, if necessary, might be found. This kind of punishment is similar to that inflicted by some priests, who as a penance command a repetition of certain prayers.

The question concerning emulation and its successful or dangerous influence, is discussed among institutors. Some prove its good, others blame its bad consequences. It is founded on a strong fundamental feeling, on the love of distinction or approbateness, which may be used or abused. Those who have certain powers very strong are pleased with their gratification, and they do not want any other motive. But emulation may become an excitement of any feeling as well as intellectual power. It is a great stimulus for children to learn their lessons; but as its influence is so great in society and the cause of numberless disorders, and as it is so much cultivated in social relations,

I find it advisable to omit it entirely in school education. At all events no praise should be bestowed except on talent and virtue. It certainly should be better if we could think that in doing all which is to be done we do merely our duty.

Selfishness and approbateness act with the most different appearances, according to their combinations with other faculties and to external circumstances. It is known, and I have already mentioned, that their activity has been considered by some philosophers as sufficient to explain all the actions of men, and even as the source of superior talents. Indeed, whenever we omit anything in order to gain any earthly or heavenly enjoyment, selfishness is active; and whenever we wish to be approved of, the love of approbation comes into play. The tendencies of these two powers are easily distinguished in children; but I repeat that their preponderance produces great mischief in society—that they are too much cultivated in common education—and that it is an error, the evil consequences of which are incalculable, to represent them as the chief aim of our existence while they ought to be only secondary motives. I have seen children endowed with a great deal of pride and love of approbation, who became quite intoxicated by being praised, and, certainly from this excitement, committed new faults, and sometimes became intolerable for several days.

Let us examine with more detail whether selfishness and the love of approbation produce talents, and whether the satisfaction of these two feelings should be the aim of all our actions. Is it true that arts and sciences originate and improve in proportion as they are patronised by pecuniary rewards and honour? In Greece, the masterpieces of poetry, eloquence, history, and philosophy were not the result of patronage. The successors of Alexander the Great encouraged the learned; yet sciences lost their grandeur and originality—only commentaries, compilations, and imitations became numerous. In reading history we meet with many great men who found their reward in the cultivation of the sciences and the arts themselves, and who were even persecuted on their account. Many others have persevered in contributing to the improvement of arts and sciences only until they met with rewards and honours; and it was fortunate if this did not happen too soon, as it appeared they worked only for them, and became idle when their aim was attained.

If individuals, because they possess some talents, are to receive the privilege of deciding on the value of every scientific production, their elevation to distinction becomes a great obstacle to the progress of arts and sciences, because the learned themselves are not free from selfish passions, and, like the vulgar, are ready to hinder others from attaining similar enjoyments and honours. Few are disposed to acknowledge the superiority of others.

As the great maxim of a liberal government is, "Let them act," so the true patronage consists in not preventing talents from exercising themselves, as long as absolute justice towards mankind is not injured—in rewarding productions according to their influence on the general welfare, and in rewarding only services actually performed. Among the abuses concerning rewards and distinctions, I mention only the fault to give to regular professors the exclusive right of teaching, and, what is still worse, to permit them to delegate their duties to any substitute they

may choose. Monopoly impedes improvement in everything. If the services of a professor be useful to society in other avocations, and he cannot attend to his scientific pursuits, his professorship ought to be transferred to the person who, next to him, cultivates that branch with pleasure and success.

It is certain that reward and distinction do not *produce* talents, though they are of great weight in exciting and directing the actions of all the faculties. I even infer from history that mankind will suffer, and that all institutions will remain imperfect, as long as selfishness and glory are the aim of our actions, or, in other words, as long as places are looked for with a zeal in proportion to the profit they bring and to the distinction they bestow on the possessor, whilst all our actions ought to tend to the common benefit and honour of mankind. Nothing but the place we occupy in society, and fitness for its duties, should give distinction. It should be considered as every man's duty to do all that he is capable of doing for the general happiness of those among whom he lives. Private interest, when exclusively pursued, is the greatest enemy of morality. Whoever contends for it as the chief aim of his existence, acts after the impulse of his animal nature—he is not a man.

Selfishness, it is true, has greatly contributed to abolish various kinds of injustice, for everyone is ready to resist his oppressor. In religious and civil legislation privileges are more and more limited, and the rights of man become more equal than they were in ancient times. We no longer believe that all mankind is made for the sake of a few. Indeed, as long as there is anything to gain, there will be many who will contend for independence out of mere selfishness; but the principle from which they act, though hitherto auxiliary to the common good, cannot be applauded, for it would lead them to tyrannise in their turn, if they had the power.

A great step towards perfection would be the full and practical admission of the principle that everyone has the right to employ his talents to the utmost for his own benefit—as far as he can do it without injuring others. This system of government is certainly far superior to that of exclusive privileges of any kind. Many battles, however, will be fought betwixt selfishness and bigotry on the one hand, and reason and sound morality on the other, before it is generally admitted and followed.

It must be added, however, that the adoption even of this principle cannot be expected to obviate misery, nor luxury, with all its fatal consequences, for this simple reason, that the natural endowments of individuals are very different, and that those who have more talents will govern the others in one way or another. While selfishness continues to be the motive of their actions, the highly gifted will employ the weak to advance their own ends. The poor will be constantly dependent on the rich, and will serve them as the only thing they can do to live. Supremacy will, of necessity, fall on single individuals. Nations also, through selfishness, interfere with each other, and war becomes unavoidable. The fortunate commander finds satellites whose advantage it is to serve him, as workmen serve the manufacturer; he avails himself of their talents, and tells his countrymen that peace and obedience to his will are essential to their happiness. Is not this the state of man as far as history informs us? And this must continue to be his state, wherever

personal welfare is the only rule of conduct. Tyranny causes revolutions; revolutions, again, are productive of tyranny; and all this has its origin in selfishness. There is no possibility of changing this permanent circle of events in mankind, except by subordinating private interest to common advantage.

This doctrine is not new—it is the basis of Christianity; but it has been dreadfully abused at different times, even by pretended teachers of morality. It is nowhere practised in its full vigour, and happy is the nation whose governors follow it even in a limited degree. But it ought at least to be generally propagated, and its good effects shown to everyone who is capable of appreciating them.

CHAPTER IV.

EVERYONE HAS HIS NATURAL GIFTS.

THE reader somewhat versed in Phrenology will easily perceive that the different considerations of this work are in the most intimate connection with, and even founded on, ideas developed in other publications to which I have frequently referred. In this chapter I take it for granted that all mental dispositions or powers are innate, and I speak of them in so far only as regards the direction of their actions.

In respect to feelings as well as intellect, mankind may be ranged in different classes. There are persons who may be called fortunate, namely, those who, from the felicity of their natural constitution, desire only what is good—who act from love, and show pure morality in all their actions. In these happy beings the superior feelings predominate much over those common to man and animals.

The rest of mankind—by far the greater number—are obliged to combat against the activity of the inferior feelings, and stand in need of the law to direct and restrain them. Three subdivisions of this latter class may be considered. The first embraces those who have one or several of the inferior as well as one or several of the superior feelings very active. These persons may be great in vice or virtue, according as they follow the dictates of their inferior or superior faculties.

In the second order may be reckoned those in whom certain inferior faculties are very active, and all the superior very weak. Such individuals are exposed to the danger of being overwhelmed by vice, in proportion to the weakness of the superior motives. This disproportion is common in great criminals.

In the third class are placed by far the greater number of mankind, namely, those individuals in whom all the faculties are middling; those who act according to education and external circumstances, and follow without examination the moral and religious principles which they are taught. Some philosophers, founding on them as instances, have been led to maintain that man does everything by imitation. Though that opinion be erroneous the influence of imitation remains very great, and we may say with Mr. Combe (*Essays on Phrenology*, p. 322), "As a general rule whatever you wish your child to be or do, be that or do that to him. If you wish him to be outrageous, to be cruel, to be quarrelsome—

be outrageous, cruel, and quarrelsome to him. If you wish him to be humane and polite, be humane and polite to him. If you wish him to be just and pious, be just and devout before him. The great mass of mankind, indeed, cannot be left to their own guidance: common people, when tempted, easily yield: education, therefore, in all its details, legislation, and all public institutions, ought to contribute to accustom them to regularity and order. But, at the same time, the rulers of mankind must not expect the lower minds to be obedient whilst they forget their own duty. Power is given not for the selfish gratification of those who are invested with authority, but to promote the general happiness of the community.

With respect to understanding, it is also certain that few are endowed with a mind so comprehensive as to enable them to learn whatever they please, and to embrace the principles of universal knowledge. Some are given rather to deep reflection than to great learning; others have less reflection, but much talent for acquiring erudition: and, in the last place, the greater number do not excel in any department of knowledge, of art, or of science whatever, but may learn anything that is necessary to qualify them to become useful members of society.

The preceding facts being ascertained by observation, we may examine the question, Whether the same kind of education will equally suit every individual?

The aim in educating all must be the same, namely, to render them virtuous and intelligent; but, as the natural endowment of individuals is different, all persons are not capable of the same improvement, and everyone cannot be induced by the same motives to pursue the same end.

The faculties proper to man, being the aim of all our actions, should be cultivated in every person as much as possible; but the natural difference will be observed with respect to the energy of these, as well as of the other faculties in different individuals. Nature, by her endowment, constitutes some characters moral and others religious. The latter will act more from faith, the former from duty. Yet the law, "Love thy neighbour as thyself," must be constantly held up to both as the object of their exertions, and obedience to it required even of those who do not feel inclined to do so.

If the superior motives be not sufficiently strong to produce this obedience, the lower faculties must be employed. The influence of the latter powers, then, is double; they constitute motives themselves, and they also assist the superior feelings to arrive at their gratification. Among the lower motives selfishness and fear are the most generally energetic, and no legislation can exclude the use of them.

Thus, a true system of education cannot be founded on single views, or established according to single individuals; it must be adapted to human nature. I have already mentioned that whoever will direct man ought not to hold out only one motive of action. He who endeavours to change every person into a philosopher, and he who will never reason with any one, is equally mistaken. A preacher who invites others to become morally good will err when he trusts entirely to the motives which govern his own actions, not being aware that sometimes such motives make no impression on others. He ought to bring forward all possible reasons to touch all his auditors, and make them feel those

motives which they are susceptible of. He ought to be particularly careful to be understood, and to speak by examples. Moreover, his precepts must be confirmed by his own actions. He who teaches order and cleanliness must be orderly and cleanly himself; he who preaches peace and charity must not deny these principles by his moral conduct. Those who say, "Follow my words, but not my actions," are unfit for their situation, and ought to be replaced by more worthy subjects.

It follows that the feelings, as well as and even still more than the intellectual faculties, ought to be considered before children are destined to certain professions, or adults to certain places. To bring up a child endowed with great animal propensities, such as amateness, combativeness, acquisitiveness, self-esteem, &c., to the Church, whatever his intellect may be, is the height of error and absurdity. Nothing has done greater harm to society than placing individuals in professions and situations for which they were unfit, not only through the want of some necessary faculties, but also through the inordinate activity of some of the opposite ones. Strong amateness or cruelty produces mischief in a Roman Catholic priest, as does the love of domination in the representative of a free nation, corruptibility in a judge, fear in a general, &c. The feelings, also, ought to be exercised with a view to the future destination of children. Combativeness is to the soldier what reverence is to the clergyman; but in both benevolence and conscientiousness should be active.

It is also impossible to insist too much on the importance of considering the effect of the natural feelings in the choice of persons to rule or to lead society. This highly interesting point can be perceived, in all its magnitude, by those only who are convinced that the faculties which produce feelings are natural gifts differing in every individual; that they are independent of intellect, and are the principal cause of our actions. In this way, fishermen who are eminently gifted in natural sentiments may be better moralists than high priests, mathematicians, orators, or philosophers, who excel only in intellect, and whose moral sentiments are weak compared with their inferior propensities.

An opposite error, but not less hurtful to society than the preceding, is committed by those who despise and neglect the cultivation of the intellectual faculties. Some religious persons of this kind have endeavoured to put aside all temporal concerns, and have become hermits. Others avoid all pleasure, or even torture their body, in order to be agreeable to their Creator. Others represent a knowledge of the Bible as a substitute for all other information, in the same way as the Mahometan confines his knowledge to the Koran. Our ignorance of human nature is the cause of such mistakes. The faculties which produce feelings constitute only one part of our nature: the other part is intellectual, and the feelings work in darkness if not enlightened by the understanding.

Intellectual education, too, is frequently misconducted from ignorance of human nature. The basis, however, of the direction of the intellect is the same as that of the feelings. A plurality of intellectual powers exists, and they are possessed in different degrees of strength by different individuals. The reflective faculties are essential to our moral conduct in every situation, and are necessary to form clear conceptions in all intellectual operations, while the perceptive faculties are applicable only to certain

kinds of employment. The reflective powers then should be exercised in every individual.

I have already repeated that all our learning ought to be useful, and that we should obtain positive notions instead of mere signs, which convey no meaning. Indeed no one has excelled, or will excel, as a deep thinker, or a great minister, general, lawyer, physician, or moralist, merely because he is a good classical scholar. Great men are no doubt frequently skilled in the classics; and it would certainly be astonishing if their natural capacities, which enable them to become great, should prevent them from becoming good Latin scholars, since we see that they are obliged to spend more time and labour in learning Latin than in any other pursuit. But it should never be forgotten that the talent for learning artificial signs is a primitive one, and that it may or may not be combined in any individual with a great endowment of other intellectual powers, and hence that it is wrong to consider it as the standard of understanding in general. "It is high time," says Dr. Rush (*Essays Literary, Moral, and Philosophical: Phil.* 1806) "to distinguish between a philosopher and a scholar, between things and words." We may be good scholars, and know nothing of man and things. A mere scholar can call a horse or cow by different names, but he frequently knows nothing of the qualities and uses of these valuable animals. "A boy of eight years old, with the Latin Grammar in his hand, asked his father who made the Latin language, and for what it was made? Another boy, of eleven years of age, wished he had not been born, because of the trouble which he found in learning Latin." It is certain, as Dr. Rush also says, that many sprightly boys, of excellent capacities for useful knowledge, have been so disgusted with the dead languages as to retreat from the drudgery of schools to low company, whereby they have become bad members of society.

The exclusive study of the ancient languages has retarded the progress of the arts and sciences. Whoever takes an interest in their improvement must declare against it. Philology ought to be considered as a particular branch of instruction, in the same way as chemistry, botany, &c. Useful and practical knowledge ought to be the principal object of intellectual education. During the time we spend in learning the words in which Virgil delivers the erroneous opinion that bees originate from putrefaction, we might learn, with greater advantage, the natural history, treatment, and usefulness of this insect itself. In countries where vines are planted it is more useful to teach children how to cultivate them, and how to make wine, than the expression which Horace employs to inform us that he liked a good glass of wine. Instead of learning mythology in Latin and Greek, we had better make ourselves acquainted with the history of the different religious creeds and of true Christianity, by reading in our mother tongue. Of what use is it to us to know what words the Greeks used when they spoke, since we never converse in Greek?

Intellectual education may be divided into general and professional; and in both respects the pupils may be subdivided into several classes, not according to age and time, but according to the objects to be taught and those to be learnt; for, in point of fact, some children learn double what others do in a given time, and succeed better in one branch than another. They should remain in each class as long as, and no longer

than, is necessary to acquire sufficient knowledge of the branch there taught. There should be one professor for each branch, and each class should be conducted according to the plan of mutual instruction.

I have already laid it down as a fundamental rule that no sign should be employed without its meaning is explained, and that children should be constantly admonished that they use artificial signs as means of communication or recollection, and that sensations, feelings, notions, and reflections precede, and can be acquired only by the activity of the faculties themselves.

I reckon the knowledge of as many objects and beings as possible, viz., of the three kingdoms of natural history, of the physical and chemical qualities, of the vital phenomena, of history, geography, geology, and cosmography, of anthropology, the mother tongue, printed and written signs, calculations, and finally, moral and religious principles—to be essential to a general intellectual education.

Elementary ideas, or outlines of these subjects, are sufficient for children; but during the college education these branches are to be extended and detailed, but always taught by the way of mutual instruction.

It is a common complaint that arts and sciences do not improve as much as might be wished for. This proves at least that education does not produce talents; but I think, on the other hand, that nature has given many capacities which education suppresses. If, for instance, a boy who has little talent for learning Latin, but great inclination to draw, will, whenever his master turns his eyes away, exercise his natural bias, he will, when perceived, at least be scolded. The consequence will be, that in the end he will know but very little Latin, while his innate talent of drawing has been prevented from being exercised. In this way many children are punished for cultivating their natural gifts, and their intellectual education is impeded. How different would every one be were he brought up to his natural endowments. It is really the greatest misfortune for mankind to educate children and youth in an indiscriminate manner; and we may say, that in consequence of absurd views in the selection of the objects taught, and in the manner of teaching, learning has hitherto been tiresome, unprofitable, and even disgusting in no ordinary degree.

The mistakes committed are particularly great in professional education. It is a lamentable truth that few persons stand in the situations for which nature particularly fitted them. This soldier ought to have been a clergyman; that clergyman a soldier; and here we see a shoemaker who was designed for a poet; and there an advocate who was designed for a shoemaker. The first indication of improvement in this respect will appear when human nature shall be better understood. Be it well known that there are natural gifts—that these gifts are different; that precepts and rules neither bring forth talents nor moral conduct; that none should be promoted to the degree of a leading man who is not fit for the station, and that he who is fit for one place is not on that account necessarily fit for all others. It is a great evil if education be very expensive, so that merely rich persons can receive it. Their children are not always the most talented, whilst the geniuses among the poorer classes are excluded. In this respect the Roman hierarchy serves as a model. It was conceived in a true republican spirit, and no civil government has hitherto shown a

succession of talents at the head of affairs to be compared with the Church of Rome.

There is another example on record, which proves the importance of choosing the talents among all classes, and employing every one according to his talents. The Society of the Jesuits rose in a short time to an extraordinary height and influence. Several causes contributed to this result; but the principal one certainly was, that they who were employed in conducting education distinguished the genius of their pupils, chose for their order only those who excelled in talents, and employed each individual according to his natural dispositions. No society will acquire an equal influence that expects to do so from teaching alone.

Moreover, their regulations were calculated to contribute to their excellence. They were under a leading general, who nominated without control all functionaries of the order, and could remove them at pleasure. To him the reports of the subordinate societies were submitted. These reports were minute and circumstantial in the highest degree, containing exact information of the characters of novices and professed members, their talents, dispositions, and prevailing tendencies, and, above all, their knowledge of human nature and experience in affairs. Thus, the general could appoint to each man his station and his reward, could elevate and degrade, exclude and retain, and allot the chief duties to the highest abilities.

I am far from defending the Church of Rome and the Society of Jesuits in all their tendencies. I argue only in favour of their sagacity, in furnishing means of education to the better heads of all classes, and in employing every member according to his abilities.

If every one were employed according to his natural gifts, a double advantage would result: arts and sciences would be cultivated with more success, and many persons would be better pleased with their station in life. It is certain that it is not always the profession to which we are forced by circumstances that makes us happy. Many would be satisfied with a smaller income if they were allowed to follow their natural bias. Even people of independent fortune are still dependent on the arrangement of education. They know perfectly well that one or another of their sons will excel as classical scholars, but they must submit to custom and prejudice; the boys must be drilled for years, though they will soon forget that which they learned by compulsion. This is school-wisdom!

The second error of professional education is, that we are plagued with a great deal of useless knowledge, while the most important objects are overlooked. Of what use is mathematics to a clergyman? while his attention is scarcely called to human nature, and to the organic conditions on which the manifestations of the mind depend. None of the unprofitable studies ought to be compulsory. Yet, as every kind of knowledge is useful, no branch of it should be neglected, and therefore Latin and Greek might with propriety continue to be taught, if we make it requisite for those only to learn them who have the inclination to do so, or whose professions require such knowledge. No one can learn everything, and it is wrong to oblige pupils to learn that which is useless in their practical situation in life.

The third error of professional as well as of general education consists in the method of teaching. It has been examined in the preceding pages, and I mention it once more for the sake of connection. Children learn languages without ideas, and natural history by mere descriptions; and those who teach them in this manner, if they think at all about the matter, must proceed on the belief that every word communicated necessarily excites, in the mind of the pupil, the idea which they mean it to convey. This, however, is an extravagant error; for words can excite only ideas already acquired, and if no previous ideas have been formed they are mere unmeaning sounds. The same error is committed in professional education. In the study of medicine, for instance, we are frequently told a great deal about various diseases, of external appearances, of different conditions of pulse or skin, &c., before we observe such things in nature. The result is, that the time and labour we spend in acquiring such theoretical knowledge are, in a great measure, lost. Let us first see nature, and then hear descriptions. A medical student who has never seen a patient, but has studied the theory of diseases, will be as little acquainted with them as with minerals of which he has only read the descriptions, though he might excel in his theoretical examinations.

Thus, in the study of medicine, it is not only wrong to compel the students, as is the case at certain universities, to learn the auxiliary sciences in detail, such as mineralogy, botany, zoology, and chemistry, since a perfect and practical knowledge of each of these branches would require several years; but it is a great error to begin with theoretical lectures.

Moreover, the individual branches of medical education are too much separated. The instruction begins commonly with anatomy, without the pupil being taught to think of the use of any particular part. At certain universities they spend the greater part of the time in studying osteology and myology (the knowledge of bones and muscles); they must learn the ridge and edge; but may hurry over, with very superficial notions of the viscera and nerves, which certainly are more important to medical practitioners in general than those of the bones; whilst operative surgeons alone stand in need of a very exact knowledge of the bones and blood-vessels.

Physiology and anatomy ought never to be separated from each other: the structure will be learned with more ease and pleasure when at the same time its uses are taught. On the other hand, students ought to begin with the more necessary functions, and go on to those of less importance. When well acquainted with anatomy and physiology, they ought to see patients, and the different morbid symptoms; they should learn to distinguish diseases, to become attentive to modifications according to age, temperament, climate, season, and manner of living and to learn the mode of treatment. Being instructed in this practical way, they will feel an interest in studying the *Materia Medica*, or the substances used out of the three kingdoms of nature, and also the chemical preparations and doses. This study will not require great extension if we attend more to the art of healing than to the display of knowledge. The most skilful practitioners use a small quantity of drugs in curing their patients, and they use still less for themselves when indisposed.

When human nature shall be better understood, and the primitive faculties of the mind and the conditions of their manifestations more perfectly known, professional education will be better regulated, and we shall then no longer be obliged to learn for the school, or, as we commonly say, for the examinations. We shall then acquire only practical knowledge, and no one will find it necessary to begin his own plan of useful learning when he has finished his studies at the university. Indeed, nothing can be more tedious for students than to attend *ex-officio* lectures of mere theoretical schoolmen.

Here the qualifications of teachers might be considered with propriety: they are certainly of great importance; but it is not my intention to speak of them. Pupils are well aware that great abuses are committed in this respect—that it is not always the most worthy who fills the chair. I merely notice that there is a difference between the possessing of knowledge and the capacity of communicating it to others, and that some persons of more knowledge are sometimes less skilful in teaching than others of less information, in the same way as the best students of theoretical knowledge have not always the most practical skill.

The common method of teaching arts is not better than that of cultivating sciences. Let us suppose, for the sake of example, that those only who have natural talents apply themselves to drawing, painting, and the arts of imitation; but, we may ask, how are they generally taught? They are too frequently confined to copying the antiques as the only models of beauty and perfection, instead of representing and imitating nature. In this way artists will only be copyists, and never can acquire any claim to originality. On the other hand, the ancients had no exclusive privilege of genius, nor did they necessarily exhaust all the sources of excellence, so as to leave to posterity no resource but to copy them. On the contrary, there are many antiquities that have no merit but their age. The only criterion, then, of greater or less perfection in works of art, is their resemblance to nature. Now, if the ancients have brought forth masterpieces in imitating nature, why should not modern artists do the same, since nature, though infinite in her modifications, is constant in her laws? Let us imitate the method of ancient artists, but not copy their productions. They represented nature, and imitated her varieties; they gave to each strong hero strong muscles, yet different in proportion and size, just as we find in nature; why should our artists copy only the statue of Hercules in order to indicate bodily strength? Why should they in general confine themselves only to one and the same configuration and attitude for particular personages? All musicians might be equally, and with the same right, requested to follow only the productions of one or several great composers; and all music which is not like that of Handel, Mozart, or Haydn, be declared good for nothing.

Even on the supposition that education, in all its details, is well understood, and its principles practised, still there will be but a few individuals who will unite all the faculties necessary to such or such a situation. The individual painters will be rare who possess in a high degree the faculties of constructiveness, configuration, size, colouring, imitation, individuality, comparison, and causality. The same difficulty of uniting the necessary fundamental faculties together prevails in all arts, sciences, and professions. In every one there are and will be individuals endowed with one or several

of the necessary gifts ; but it seldom happens that all the faculties are united in an eminent degree in one person. The combination of the primitive powers are innumerable, and form the proper subject of a particular treatise on character.

The reader will keep in mind that in this volume I intend merely to expose the fundamental principles according to which education is to be regulated and the human race perfected. The peculiar applications are without end. The two following chapters, however—one on the education of both sexes, and the other on that of nations—seem to me particularly interesting ; yet there, too, the general principles remain the same, but their application is to be modified and adapted to the peculiarities of sexes and nations.

CHAPTER V.

EDUCATION OF THE SEXES.

THE question whether both sexes are to be educated differently or in the same manner, and placed in different or the same situations in practical life, has been and is still variously answered. Women call men usurpers and tyrants ; and men, on the contrary, boast of natural and positive rights of superiority. I shall consider, in the first place, in a general way, the condition of women as it was and as it is, and then examine what natural claims they have to equality. Their education is to be regulated according to the determination of the latter point.

The condition of women is very miserable among barbarous nations, for they are slaves. Wherever bodily strength and animal feelings predominate they are sadly off : they are purchased, and divorce is permitted. The Jews were permitted to divorce their wives.—Deut. xxiv.

Among civilised nations, as long as the code of morality is dictated by the lower feelings, females are looked upon as the means of gratifying the selfish passions of men. The ancient Greeks, and the European nations during the dark ages, treated them with every indignity. Polygamy is intimately connected with the custom of purchasing wives. It prevailed originally everywhere, and exists still in many countries. In China the wives are sold at marriages, and not permitted to make any choice of their own. By polygamy, however, some men usurp the right of others—a custom which is contrary to nature, since more boys are born than girls ; or are we authorised to admit that the contrary happens in Asia ? The pure spirit of Christianity abolished this odious practice and re-established the primitive law of the Creator.

The female sex has risen by a slow progress to higher and higher degrees of estimation in Europe. Females are respected wherever moral feelings are esteemed. Where this is the case they are valued as friends. But still they are either considered as weak and delicate creatures, and assisted, since it is thought a duty to compassionate and succour the feeble ; or they are treated as simple and useful housewives. Where a taste for beautiful forms and elegance of manners prevails, the females are considered as agreeable companions, and often become mistresses.

Women are best treated when polite manners and moral feelings are cultivated. Then they live with men under the decent form of

matrimony. Their gentle and insinuating manners are highly appreciated, and they are considered as intimate and faithful friends.

Yet there is no society in which the two sexes stand altogether in an equal situation. Is this difference founded on nature, or the result of the selfishness of men? Women speak of vindicating their natural rights: they call it tyranny to deny them a share in civil and political affairs, to force them to remain immured in their families, &c. Mary Wolstoncroft has taken great pains to show that both sexes are by nature equal. She was obliged to admit the actual inferiority of her sex; but still she endeavoured to prove that women are degraded only by want of education and external circumstances; and that men, through jealousy, purposely neglect the cultivation of girls. Male writers, on the contrary, maintain that nature has made the two sexes different, though concordant, so as to produce together a delicious harmony; that she has prepared them for their future destinations by a peculiar modification of feelings and intellectual faculties given to each, and avoided rivalry between them by giving them different dispositions.

It is to be understood that I do not speak of single individuals. There are women who resemble men, and *vice versa*. Mary Wolstoncroft speaks of her own manner of feeling and thinking, which resembled that of a man. She contends particularly for the power of generalizing ideas, of drawing comprehensive conclusions from individual observations—a power which seems to her the only requisite of an immortal being; a power which is commonly denied to women, and often considered as inconsistent with the female character. I allow that this power exists in some women stronger than in many men; Mary Wolstoncroft would accuse herself and speak against her sex if she would draw general inferences from her own individual feelings. As I am of decided opinion that the two sexes in the actual state of things are naturally different in their dispositions, I shall contrast them in a summary view. They possess essentially the same powers of mind—the whole difference consists in the degrees in which they have them.

The form of the female body is rounded, and indicates rather delicacy and beauty than strength and solidity. "Let us be allowed," says Mary Wolstoncroft, "to take the same exercise as boys, not only during infancy but also during youth, and we shall arrive at the same perfection of body." I admit that in girls confined to close rooms and prohibited from taking sufficient exercise, the muscles are relaxed and the digestive powers destroyed. It would certainly be advisable to take the greatest care of the bodily constitution, and to adopt a manner of living which would secure females against bodily deformities and the immense train of nervous complaints that afflict them under the present system. I pity the female sex for their physical education being so utterly neglected, and for their mental improvement being thoroughly mismanaged; yet I am also fully convinced that although the same physical education were given to the muscular system of both sexes each would preserve its peculiarities, because the functions—those at least which characterise the sex—are different in each. The country people of Europe furnish a certain proof of the truth of this assertion; boys and girls are brought up in the same way, but it is superfluous to say which sex is the strongest and which has recourse to the other when muscular strength is required. Women

are exposed to many little disorders unknown to the male sex. Further, in fulfilling their duty as mothers they are exposed to great sufferings and causes of weakness. Mankind is treated in this as in many other respects like all viviparous animals: though the manner of living be the same in both sexes, the females are smaller and weaker than the males.

Some of the feelings necessary to the preservation of the species are stronger in men, and others of them stronger in women. In animals, the male pursues, the female yields, and so it is in mankind. Among all nations men court and women are courted. As to the love of offspring, the two sexes show a decided difference. Female children delight to dress and undress a baby, to take every possible care of a doll, to get an infant in their arms, to carry it, to sing and walk about, staggering under the weight. Boys seldom think of such pastime. They have more inclination to noisy amusements, to run about, to ride upon a stick by way of a horse; they delight in a top, a ball, a drum, &c. Since the suckling mother must stay with the child, and provide for its wants, nature has taken care that she should be pleased with doing so. Indeed many mothers have this feeling too strong, and they cannot manage their children properly; they spoil them, become unjust to other people on their account, and sacrifice truth and everything for their sake. This is seldom the case with fathers; they are commonly obliged to inflict the deserved punishments, and to be the judges in all disputes.

Mary Wolstoncroft denies that women from birth, independently of education, have a fondness for dolls. She quotes her own feelings, and ventures to affirm that the doll will never excite the attention of a girl unless confinement allows her no alternative. "Girls and boys," says she, "would play harmlessly together, if the distinction of sex makes any difference." Mary Wolstoncroft is very wrong to take herself as the standard of her sex, while general observation shows that throughout nature the love of offspring is stronger in females than in males.

Another feeling more energetic in women than in men is attachment. This feeling is not the result of their weak state, but is given by nature. Many women have sacrificed to it their happiness and welfare. Females commonly wish to possess, exclusively, the friendship of others, and often complain of the want of friendship in men, since they are not so exclusively governed by it. The circumstance of this feeling being so energetic and prevailing in women is an additional motive why seduction should be more severely punished. I fear that many legislators wink at this crime, from the circumstance of their not being themselves so prone to strong attachments as women.

There are still some other feelings more active in women than in men, which essentially enter into the formation of the female character. It is, however, difficult to say whether they contribute to their happiness, since it often happens that if they be not satisfied they become sources of unhappiness to them. I allude to ideality and approbateness.

One of the most prevailing sentiments of females is love of approbation. They show it from their earliest infancy, in dressing, walking, speaking, &c. They are constantly desirous of knowing what others say of them; they are fond of distinctions, of every kind of decorations, and external show. Young girls who are scarcely capable of understanding what is said of them, may be governed by talking to them of what other

people think of their behaviour. This motive has not the same effect with boys. Many females are intoxicated by the love of approbation. They cannot distinguish true merit from false flattery ; nay, they would be pleased with adoration. They try to make impressions on others by various means. Some would suffer pain, in order to be pitied, rather than remain unnoticed.

No man will object indiscriminately against the feeling which causes a desire of pleasing. It is the source of many pleasures in society ; but its too great activity, combined with other sentiments, and not directed by reflection, makes many women weak and fastidious, or mere objects of amusement, by their pretty nothings and infantine airs. It is still worse if such fine ladies be full of capricious fancies. Females who are governed only by this feeling will remain alluring objects for a moment, but they will not obtain a durable interest in the affections of a sensible man. It follows that the sentiment of the love of approbation being in general too strong in women does not stand in need of being exercised ; it is, indeed, their greatest enemy. Further, they delight frequently in a world of fiction and eccentricity. The softer feelings and the religious sentiments are commonly stronger in women than in men. Females, therefore, become easily the favourite tools of the priesthood.

Females naturally have less courage and destructiveness than men, and more cautiousness. Fear, therefore, ought not to be cherished in them ; but it ought to be treated as cowardice. To fear a cat, a mouse, an insect, a little noise, &c., is irrational, looks infantine, and indicates altogether a false susceptibility of mind, or a too great nervous irritability. The ardour with which some females amuse themselves in hunting, shooting, and gaming, appears on the other hand equally objectionable. In short, while coarseness in females is to be avoided, delicacy and refinement of taste must not be confounded with weakness.

The conduct of females in general is unstable ; their opinions are often wavering. They think too much of incidental occurrences—of actual events. They wish to enjoy immediately ; are moved by momentary impressions ; do not like to work for a future period, while men have more frequently the end in view. Females undertake many things ; they are warm by fits and starts, but their warmth is soon exhausted.

Indeed, hitherto the greatest enemies of the female sex reside in their own feelings. Many civilised women please rather than inspire with respect. They prefer alluring manners to permanent friendship. Many are charming, romantic, vain, or fine sentimental ladies. They are occupied with trifling things, mere beings of sensibility and pleasure, refined by novels, poetry, and gallantry ; but they should never forget that they will always be considered as insignificant when they wish only to be fine ladies, and not to fulfil the duties which nature has assigned to them.

Thus, the feelings and their combinations in women tend much to make them dependent. To be independent it is not sufficient to be endowed with the feelings of duty and justice as the principal motives ; these must also be combined with indifference about the opinion of others when unjust, with courage and perseverance in order to resist difficulties and obstacles, and to attend only to the aim, and to think of the necessary means.

The intellectual faculties, though, like the feelings, essentially the

same in both sexes, are widely different in power in the two, and in the actual state of things men undoubtedly enjoy the superiority. I by no means say that women are made to be the toys of men, much less their slaves; and I wish that their understanding may be more cultivated than it usually is, not by Latin and Greek, but by useful knowledge. Let their whole character be prepared for the important duties in their future stations as wife and mother. Whoever will attend to female education will find that they acquire many notions of individual things; that they excel in the recitation of anecdotes and descriptions of manners in the epistolary style; that they are admirable in details, but dwell on effects without tracing them back to their causes. In arts and sciences females rarely show themselves masters; they most commonly remain apprentices. Those female authors who defend their sex maintain that their education is neglected, and that on this account alone they are inferior—for they are all obliged to admit the actual inferiority of the fair sex—yet there can be no doubt that more girls than boys learn music, drawing, and painting, and that many females cultivate these arts exclusively. Why, then, we may ask, do their compositions so rarely equal those of men? Whenever great combinations, deep reflection, discrimination, and general abstraction are required, when principles and laws are to be established, females in general remain behind. A shawl or a ribbon will soon absorb their minds, and make them easily neglect any philosophical discussion.

Thus there is a natural difference between the two sexes, not in the number but in the degree of the primitive powers of the mind. Some are stronger in women, others stronger in men, and both sexes seem to be destined to different occupations in society. Indeed, no education will change the nature of the innate dispositions. Let, then, each sex and each individual be cultivated and employed in those things for which he is fit. The claim to justice and merit is equal in man and woman; their duties only are different. Females are not destined in any circumstances to be slaves, or mere patient drudges, nor are their duties limited to those of chaste wives and good managers of their families only; women are required also to direct the education of their children, and to be agreeable and intelligent companions to their husbands. Let their understandings be cultivated by useful knowledge: by the study of the human mind and the principles of education, and of their duties in the direction of their families; let their intellect be improved by the study of history and of arts and sciences. Girls commonly learn only objects of secondary importance—mere accomplishments—and hence, when they arrive at the age of being united to a husband they are seldom capable of supporting permanent friendship by the elevation of their minds and the steady practice of the domestic virtues. Many do not know how to guide themselves, still less their offspring, their servants, and household affairs. Indeed, if the fair sex continue to go on as they have done hitherto, they cannot repine that they have no share in political concerns. If their minds do not take a more serious and more solid turn, they may govern in drawing-rooms, where delicate feelings and polite manners are attended to, but they will have no permanent influence on the laws of society.

I would not like to be misunderstood, and certainly not to be thought

hostile to the fair sex. I most sincerely wish their advancement in every respect. In my opinion there would be a greater number of better wives if there were a greater number of better husbands. But I say of women what I say of nations: If they want a saviour from without, they are not yet fit for emancipation. Let them do the work necessary for this change, and they will no longer complain of inferiority. Let the girls cultivate their intellect by practical knowledge. Let them aim at solidity as well as polite and refined manners, and not at prudery: this latter can be an indication neither of sense nor of taste. Society, where both sexes meet together in social intercourse, is most conducive to mutual improvement, to delicacy of sentiment and language. Why do gentlemen exclude ladies from their society when they meet to speak of scientific objects? Ladies of former days probably have shown less taste for such conversation. Or is it the fault of the gentlemen? In that case let females direct the attention of men to science and arts—let them prove that they have the same desire of knowledge as their pretended lords, and are not occupied merely with finery, ornamental dress, and showy appearances. Let them emancipate themselves. But as long as they can read the Old Testament from one end to another, and listen to sermons where expressions are used which no delicate person would pronounce in the society of gentlemen, whilst they think it indelicate to speak at table of the leg of a fowl, I cannot help thinking that there is some want of reflection either in the gentlemen who introduce such customs, or in the ladies who submit to them, or in both. I know the power of custom; but if the fair sex cannot overcome such fashionable, but nonsensical trifles, how can they manage to be able to legislate for society at large? I am sorry to say that I cannot perceive any arrangement of nature that would lead me to expect that women in general will cease soon to be considered as subordinate to men in the higher intellectual capacities. Their feelings obscure easily their understandings; this is evident in their religious manifestations. In social life they seize quickly the useful and practical part of things, but they seldom take general and comprehensive views. Yet let the many gratify their ambition—let them endeavour, if they please, to acquire the same degree of talent, energy, penetration, and perseverance which we see in many men; but, till they have acquired it, let them cherish order, and diminish the evils of their actual condition in society, rather than present themselves in a sphere for which they, generally speaking, are not fitted.

CHAPTER VI.

EDUCATION OF NATIONS.

THE first idea that presents itself in this chapter is to inquire who, according to the laws of the Creator, is intrusted with national education, this being taken in the most extensive signification of the word. In treating of the education of children, I took it for granted that parents are their natural protectors and leaders, and that they ought to consider it their duty to favour the happiness of their progeny. On the other hand, parents, being free agents, are to be declared answerable for their influence on their offspring.

Nations and governments are often compared, the former with children and the latter with parents. The analogy, however, is very inaccurate, nations never owing their existence to their governors. This comparison is further objectionable, since nations always provide for the living of their rulers. It seems, therefore, more reasonable to think that individuals unite under determinate conditions for the sake of the common good; and submit, on that account, to an appointed leader or director. But who could fancy that this submission can be agreed to at the expense of the general welfare? The sovereignty of nations seems evidently to be a law of the Creator; and will be acknowledged in proportion as men become intelligent and virtuous.

Yet, let us suppose what governors like to persuade mankind—that they exist by the grace of God, viz., allowing this to be in the same way as every arrangement is made, and every kind of order is established by the will of the Creator; but let us add the question whether God, the Father of all, according to reason and Christianity, could establish civil and religious governments for the sake of any absolute power and private pleasure, independent of general happiness? Reason says, that wherever there is a community, its aim can be the public good alone. This principle prevails as regards families, tribes, nations, and mankind at large. Jesus Christ, instead of assigning privileges to his disciples, abolished all personal supremacy and prerogatives. “Ye know,” said he, “that the princes of the Gentiles exercise dominion over them, and they that are great exercise authority upon them. But it shall not be so among you; but whosoever will be great among you, let him be your minister, and whosoever will be chief among you, let him be your servant.” (Matt. xx.) “The disciples had disputed among themselves who should be the greatest; and he sat down, and called the twelve, and said unto them, If any man desire to be the first, the same shall be last of all and servant of all.” (Mark ix.) He ordered them to be peaceable, humble, charitable, and satisfied with their daily bread. The following text—“Render unto Cæsar the things which are Cæsar’s, and unto God the things that are God’s” (Matt. xxii.), commonly quoted to prove that Christianity is not against absolute rulers, bears, in my opinion, a more sound interpretation than is commonly given to it. Christ imposed upon his followers a new code of morality, which was the will of his heavenly Father, and incumbent on all his disciples, Jews and Gentiles; one of its great commandments, applicable to all members, is to love our neighbour as ourselves. Now, I doubt whether common sense can allow privileges compatible with such a doctrine. If we maintain that Jesus Christ sanctioned absolute power because he did not interfere with it, it may be said, with equal propriety, that he sanctioned every state of things he did not mention. Is it not a natural consequence of his doctrine, that those who follow it change their former manner of living and abandon the abuses of preceding ages? At all events, even those who consider God as the true legislator, and themselves as the directors appointed by His special grace, must acknowledge that the aim of Christianity is the general happiness of mankind, and that all notions opposed to that cause must be abandoned.

The reader, then, may easily suppose that I do not intend to examine the means favourable to governments, in order to dispose nations to be

satisfied with the good pleasure of their rulers, to keep them in ignorance and poverty, to force them to passive obedience, and employ them for mere selfish purposes—in short, to enslave them; on the contrary, my object is evidently to speak of the means which may enable governments to fulfil the only reasonable and moral destination of their existence. I take it for granted that general welfare is the object of national education, and go at once to the inquiry, how is this to be obtained?

In national education as in that of individuals, the same principles prevail. Those who wish to contribute to this great work must always remember, first, that they cannot create, but are confined to the laws of the Creator; hence, that they can produce certain effects only under conditions. Secondly, that the faculties of the mind are innate, and that their manifestations depend on the cerebral organisation. Thirdly, that the special faculties of the mind are essentially the same, but more or less active in different nations. Fourthly, that man acts from feelings rather than from intellect; and finally, that the feelings in themselves are blind, and that their actions must be regulated by reason. Convinced of these principles, they may endeavour to increase or diminish the activity of the individual powers, and direct them towards the aim of society.

With respect to the general preliminary principles of national as well as individual education, I refer to my other publications, where these points are examined with details; even in treating of the means necessary to obtain the desired effect of national education I may be short, since they are the same as those explained in the preceding chapters.

Among the means of improvement propagation occupies the first place, and crossing the breed is the surest way of changing races. Foreign invaders who intermarried with the old inhabitants have greatly contributed to change the character of different nations; and new settlers who mix with the natives will be of greater effect than all sorts of other regulations. The northern provinces of Ireland are inhabited by Scotch, and by a mixed race of Scotch and the primitive inhabitants: their character is known to be different from that of the Leinster people, and their cerebral organisation is not less so. Tribes, by attending to the laws of hereditary descent during several generations, might be modified with greater certainty than by theoretical instruction in reading and writing, or by hearing sermons and repeating prayers. Granted that governments have no right to force nations, except in conformity with the established laws; they may, however, if they really mind the welfare of the people, inculcate the natural laws of hereditary descent, and find various ways to favour their practice. Careless tribes ought to intermarry with cautious persons; fearful with courageous; gloomy with gay, &c. Natural morality and Christianity command nations to live in peace, and by crossing their blood their faculties of body and mind may be strengthened and improved. The principle, "Make the tree good, and it will bring forth good fruit," is undeniable.

Thus the knowledge of the laws of hereditary descent being the first and surest means of improving nations, deserves the attention of legislators and governors: it embraces the conditions of innate strength of body and mind; the causes of degeneration; the propagation of hereditary diseases; the number of inhabitants, or population; and the regu-

lation of marriages. A military government that institutes the conscription such as it existed in France under the reign of Bonaparte—that carried on war for several generations, and distributed all the honours only to soldiers—is the greatest curse to a nation. Degeneration will be unavoidable, since all the better heads are sacrificed, and the inferior allowed to propagate. On the other hand, when all inferior moral and intellectual organisations are employed as soldiers, and prohibited from marrying, the military line may be very useful to society. Hence, if standing armies be necessary, take up in preference those who enlist from laziness and disorderly habits, and who are under the influence of the lower propensities.

I think it necessary to add, that it is by no means my intention to degrade the military profession; I acknowledge its usefulness and merit in times of necessity, as in a war of defence against foreign aggression. I even admit that, in order to resist with vigour, every member of the community should be exercised in the use of arms, and be obliged to defend his country in case of attack. The number of degenerated brains will always be small in proportion to the great bulk of the nation; they will be easily kept in order, partly by the regular behaviour and good example of their companions, partly by the severe laws of military discipline. Their number will also diminish by degrees, when all the principles of national education shall be practised. The great weight I lay on this proceeding depends on the means of purifying the race, by preventing the inferior organisations from propagating.

The next object of national education concerns what is commonly styled physical education, or the regulation of the vegetative functions. It includes the salubrity of air and light, cleanliness, food, clothing, bodily exercise, in short, corporeal health and strength, these being indispensable conditions to personal happiness and public usefulness.

In this respect, too, a good deal more than generally is, might be done, in taking for granted that governments never act from selfish views, but always with the intention to favour the public good, since they are aware that they themselves die, whilst their nation continues and may be everlasting, and that therefore they calculate their measures not for momentary advantages, but for permanent results. This latter point, however, is too often neglected, though it is a characteristic sign of greatness in a legislator if his regulations be lasting, viz., adapted to nature and her manifestations.

The preservation of bodily health and strength is of greater importance than legislators commonly imagine, and its neglect during several generations may greatly contribute to the fall of a nation. Overgrown towns, and capitals in general, after several centuries would die out if the inhabitants were not renewed by people from the country. In the same manner whole nations may be weakened by various causes: they may degenerate, lose their energy—grow old, as it is commonly expressed—and become incapable to resist foreign invaders. Hence, whatever, besides the innate dispositions of the body and mind, concerns the salubrity of habitations, the purity of air in the streets and houses, food, cleanliness, bodily exercise, &c., belongs to the scope of legislation. This chapter is vast, and includes every point conducive to health and strength.

In this as in any other respect, nations, like children, do not always

understand what is most advantageous to them. They are too often satisfied with temporary amusements, and neglect the conditions of permanent happiness. Legislators, therefore, be they hereditary and permanent or chosen and temporary, might and ought to lead the community and prepare their happiness, in the same way as parents provide for children.

The views which governments entertain of their right to interfere with the personal liberty of the people are sometimes very singular. They often show indifference about things which do harm to individuals and to the whole of the nation, and punish as crimes disorders which are of little consequence. They may wink at debauchery, drunkenness, gluttony, luxury, &c., and bestow the right of hunting as a privilege; they fix the quantity of wine which may be carried from one cellar to another, and inflict a penalty upon the transgressor, but license numberless alehouses; they grant only a small quantity of gunpowder to be kept in private houses, but tolerate gaming places and lotteries; they force individuals to be sailors or soldiers, but have no authority to propagate vaccination; they oblige medical men to study anatomy, and inflict upon criminals the dissection of their bodies as a punishment, &c.; they allow the poor to multiply as they like, and force the rich to nourish the poor and their progeny, &c. Who does not perceive that they never hesitate to interfere in whatever answers their own purposes—always under the pretext of the common welfare—but that they have no right to restrain the personal liberty in whatever is indifferent to them. It seems to me that, among civilised nations, every interference of the government should be allowed which tends to the commonwealth, and which is obligatory for every member of society. Personal exceptions are unjust; they weaken by degrees the force of the laws, and at last destroy their efficacy.

The regulations concerning habitations and nourishment are of prime influence. The situation must be healthy, the air pure, its circulation free; hence, the streets large, the houses not too high, the abodes and walks freed of every sort of ordure, and dunghills and filth at a certain distance from dwelling-places and public roads. In short, it is necessary to enjoy cleanliness of every description, and pure air in every situation.

Nourishment must be adapted to the constitution, age, occupation, climate, and weather. Nothing is wholesome or unwholesome in itself. In northern countries, and in cold weather, animal food is more easily digested than vegetables; these latter, on the contrary, agree better in the south, and in hot weather; whilst a mixture of meat and vegetables favours best bodily strength in temperate climates: but whenever animal food is well digested it gives more strength to the body; and vegetables, by feeding and multiplying domestic animals, should be changed into flesh before they serve to nourish man.

Temperance and sobriety greatly invigorate the body and mind; intemperance and debauchery, therefore, should be restrained by all possible means. The natural wants are to be provided; and as Christians pray only for their daily bread, upon objects of refined cookery might be imposed an enormous duty, and drunkenness considered as a civil fault.

As bodily exercise particularly strengthens, as it invites to sleep and

secures against great disorders, it is to be generally encouraged. Gymnastic amusements may be established for all ages and for all classes of society. The Jews were ordered on the Sabbath day to take a walk out of the city ; and here rich and poor, young and old, master and slave, met and indulged in innocent mirth or in the pleasures of friendly intercourse. Moses, too, instituted three national festivals, not only for the sake of religion, but also to maintain national union. The gymnastic exercises and national games of the Greeks, and their good effects, are generally known and admired. Why, then, are similar enjoyments and means of producing public spirit neglected by modern legislators ? Why are priests allowed to change the Sabbath day into a day of gloom, whilst Moses wished it to be a day of cheerfulness ? The rich amuse themselves during the week ; they have balls, or at least other parties of joy in which the clergymen themselves participate ; but are the poor, who work from Monday to Saturday for their sustenance, to be entirely deprived of every kind of amusement ? Will they not naturally be drawn to ale-houses and gin-shops, or at least feel inclined to indulge in drunkenness or other animal propensities, since all public amusements—even a walk in the fields—are interdicted. The true sense of religion is misunderstood, and the bad consequences are unavoidable. I have reason to believe that refined civilisation on the one hand, and gloom in religion on the other, are great causes of misery and many secret sins which ruin the health of many individuals. The priesthood should consider it their duty to be better acquainted with human nature and the laws of the Creator, which man never violates without suffering for it. Religion cannot be instituted to make man miserable, or to prepare him for the mad-house.

Idleness, the great source of personal dissatisfaction and of many faults and crimes, should be declared a moral and civil vice, and as such prohibited. Every one should be obliged to exercise a profession ; mendicity entirely forbidden ; and every citizen honoured in proportion as he contributes to the welfare of his fellow-creatures.

Here a difficult matter presents itself concerning the poor and charitable institutions. The feelings are blind, and temporary relief of a feeling may do permanent mischief. This seems too much the case with charity. The poor are undoubtedly a burden to themselves and to the community at large : I find, therefore, whatever contributes to increase their number objectionable (charitable institutions not excepted), since in providing alimentation for the poor they encourage their propagation. It is not my object to examine this matter ; but I admit, with all enlightened political economists, that the number of population depends on the means of alimentation, though it cannot be said that the most populous countries are the most happy. I also refer the reader to the chapter on happiness in the *Philosophical Principles*, vol. 2, of *Phrenology*, to make him understand my manner of thinking. I here confine myself to state the reasons which induce me to blame the obligation to provide for the poor. It is generally unjust to force others to work for our welfare ; and if the government think it right to prevent me from doing so with others, there is no more right to oblige me to nourish others or to work for them. All donations of this kind should be voluntary. Governments may excuse this injustice by the public order and welfare, but would they not act

more prudently by removing the causes of misery than by increasing the number of the miserable? As general welfare is the aim of society, and as the poor-laws and charitable institutions augment the mass of misery, benevolent and charitable persons will do well to reflect and reason before they act, in order to bring their feelings in harmony with reason. It is a well-known fact that charitable institutions of any kind never diminish the number of those who stand in need of assistance: hence they give rise to permanent harm. Their nature should be changed; and it might be taken as a leading point that public institutions are to be abolished if they augment public misery, and to be encouraged as far as they diminish misery and establish general happiness. Public schools where useful knowledge is taught, institutions for blind or deaf and dumb, and hospitals for unforeseen accidents, are of the latter kind. Legislators in general are not careful enough in reference to pauperism.

As sufficient alimentation is the first condition of our preservation, and as parents are bound by nature to bring up their children, those who cannot provide for a family should be prevented from propagation. On the other hand, as idleness and mendicity are civil faults, charitable institutions should be houses of correction or penitentiaries. The lazy and mendicants might be confined, instructed, educated, obliged to work, and kept till they can provide for themselves.

Again, as many occupations in society are hurtful to health, they must be superintended, particularly if youth be employed therein. Children, for instance, brought up in factories and hot rooms, unavoidably degenerate, and become sources of future misery.

The consequences of idleness and poverty being deplorable, activity and industry are to be patronised. Yet also this proceeding is not without inconvenience. Besides the misery which attends the working classes, in proportion as they degenerate, the happiness of the families who enrich themselves by industry and commerce is never lasting, since riches invite to luxury, and luxury occasions many evils of body and mind in individuals and nations. I grant that, in the actual state of things, luxury has the advantage of bringing money into circulation, and this ought to be attended to as long as great riches are collected. But the mischief begins if the owners spend above their income, or if they look out for gain by every means. In this way a too great anxiety about riches, as well as great poverty, does harm.

Two important ideas concerning riches may be examined: 1. Great wealth is neither sufficient nor necessary to personal happiness; and, 2. Riches alone do not secure the duration of nations any more than that of families.

The first idea is confirmed by daily observation. A greater number of persons understand how to make a fortune rather than to enjoy it; and whilst they collect and work they are commonly happier and more satisfied than when they give up business and live in retirement. Personal happiness depends on health, and health on temperance. Now this virtue only requires a moderate income, which may be procured by moderate exertion. This state again protracts the necessity to work, and keeps up an essential condition to happiness, which is no more possible without occupation than collecting wealth without activity.

The second idea is equally certain, and confirmed by history. Monarchical

governments, therefore, who want a court and splendour, keep up rich families by primogeniture, and hitherto they have endeavoured to preserve their nation in poverty and ignorance. The examination of this subject belongs to political economy—a science destined, in my opinion, to discover means not only of collecting wealth but of securing property.

This object is interesting both in a moral and political point of view; and here we find a new example of justice being inseparable from the general and permanent happiness of mankind. Rich families left to themselves degenerate. Now, is it not evidently a great injustice that degraded children enjoy wealth, whilst active and intelligent members of society are deprived of the possibility to ameliorate their situation, as it happened under the feudal system? The bulk of a nation living in that state is miserable, and the resources of its government are exceedingly small.

On the other hand, if landed property remain in the possession of a few families by the law of primogeniture, whilst others can enrich themselves by industry and commerce, the number of independent persons increases, welfare and comfort become more general, and the pecuniary resources of the government grow in the same proportion. Yet the injustice of primogeniture, and most likely the degeneration of families, will continue.

But justice is accomplished, personal happiness procured to the greater number, and the greatest advantage secured to the government, if all sorts of privilege be banished—every individual allowed to employ his talents, and to earn the profit of his labours, and to spend his property as he pleases. Under such circumstances individuals and families will disappear, but the nation will flourish and last. There will be talents in abundance—active and intelligent citizens will collect riches, and lay great weight in the balance of national property and resources. Yet it may be observed that the aristocracy of many nations, founded on the moral system of utility, without previous education and without natural sentiments of manner and refinement, is the least agreeable. As rich families commonly degenerate and become soon poor again, refined manners are neglected; even the fine arts are less cultivated as long as the community stands in need of pecuniary resources. Marriages are formed according to the views entertained of wealth and comfort, however degenerated the parties may be under republican governments; therefore, particular care should be taken in education with respect to social refinement. All possible means which prevent rich families from degenerating ought to be pointed out and attended to. If things go on as they have hitherto and still do, there is no wonder that many are disappointed in their wishes and expectations.

Natural talents and dispositions being different, there can be no equality except that before the law, which is the same to all, and equally protects the poor and the rich; which allows to every one the use of his powers, regards personal merit, and makes every transgressor answerable for the disorders he commits. The natural difference of mental dispositions, as to quantity and quality, and the innate love of distinction and superiority, will always be a mighty cause of public disturbances. Rulers, therefore, ought to be very careful in regulating these matters, and they ought to know that, without morality all their labour is in vain.

Those who take interest in the duration of public prosperity will highly

appreciate riches, and acknowledge the great influence and power which they bestow on their possessors, be these single individuals or nations. But governors will find that to produce the desired effect, besides riches, many other conditions concerning body and mind must be attended to, and just the same as are necessary to the improvement and preservation of individuals. They will seriously reflect on what Lord Bacon said to King James of the true greatness of Britain, viz., that in the measuring or balancing of greatness there is commonly too much ascribed to largeness of territory, to treasure or riches, to the fruitfulness of the soil or affluence of commodities, while the true greatness requires a fit situation of place, and consists essentially in population and breed of men, so that every common subject should be fit to make a soldier. Supposing even that war might be avoided, a healthy, intelligent, and moral breed of men is still the most essential condition of national duration and happiness.

The legislators in America might, nay ought to, be particularly attentive to the laws of the new settlers. They may rely on the laws of nature being more powerful than their arbitrary conceptions. If they admit the races of men indiscriminately, what they never do with animals, the country will and must experience more trouble than commonly is thought of. The slave dealers know that one race of negroes is preferable to another, and why should it not be the same with white. The evil will not be remedied in educating the children, and in establishing poor houses for the heedless adults. The number of troublesome citizens will rather increase by such means.

The influence of public institutions is conceived and should be conducted according to the laws of exercise (as explained above, sect. 1, chap. iii.) Institutions in order to produce effect must be lasting; but every sort of institution, if continued for generations, will accustom whole nations to certain manners of feeling and thinking, and strengthen the special and individual powers of the mind.

In examining this subject the following propositions may be laid down as principles. Nations, as well as individuals, act from the feelings; the feelings do not result from intellect nor intellect from the feelings; and every faculty, in order to be exercised, must be put into action. It may be added that, generally speaking, the selfish feelings are strong enough, and scarcely need any exercise, whilst those destined to forward the public happiness are commonly weak. Further, that lessons and sermons never suffice to root out strong feelings, and seldom hinder their disorderly effect. Finally, that natural means may be employed with peculiar advantage, in order to increase, diminish, or prevent the activity of any fundamental faculty.

As to the objects to be taught, two general remarks may be made. It is a great error to confine education to intellectual instruction; and, secondly, it is wrong to attend rather to theoretical than practical knowledge. Ignorance is certainly a fertile cause of error, but society at large will derive greater benefit from moral improvement than from scientific acquirements. Theoretical schoolmen, I am sorry to say, are too much attached to intellectual instruction, and not enough to the progress of moral conduct. Intellect, however, furnishes means to gratify the animal nature, as well as the nobler feelings of man. There

should be schools for infants, children, and youths, where positive notions of their usefulness and means of improvement are communicated by the way of mutual instruction ; where, at the same time, morality is shown in action and imposed as a duty ; where refined manners are inculcated ; and where physical education is particularly taken care of. I hope the time will come when every one will learn to read, to write, and to cipher, in order to be able to acquire new notions, to teach others that which he knows, and to assist his recollection ; when all knowledge, extended according to age and particular classes of society, will be practical, from the most common notions of household affairs and agriculture, to the deeper conceptions of arts and to the principles of the sciences ; when, at the same time, the feelings will be exercised and their actions regulated according to the principles of morality ; when nothing will be taught or learned merely for the school, but everything in reference to universal happiness ; when the religious feelings will be cultivated in every one, not by words but in deeds, not by superstitious formalities, but in harmony with reason and with the intention to improve the fate of mankind ; when even the animal feelings will not be neglected, but only employed as powerful means to assist the faculties proper to man, which alone are the aim of our existence ; finally, when all the powers of the physical, intellectual, and moral nature will be cultivated in harmony.

From the preceding remarks it follows that the principles of excitement are the same for governments as for parents. The same rule, too, holds out with respect to the direction and employment of the special powers. Whatever contributes to the general happiness must be encouraged and commended, whilst the contrary is to be prevented and forbidden. Education can neither be confined to the body, nor to the intellect, nor to the feelings, but all sorts of powers must be exercised at the same time, and in harmony with each other. Reason, destitute of the assistance of the feelings, remains cold, and the feelings without reason are blind, and prepare numberless disorders. Finally, the affective and intellectual manifestations of the mind depend on the body. Even religion, without being combined with understanding, unavoidably degenerates into superstition, and may become a frequent cause of insanity and suicide. Religion, too, as well as intellect, without morality, will do more harm than good in society at large, in nourishing party spirit, self esteem, and all sorts of selfish feelings. Civil governments, who know that they are instituted for the common welfare in this life, will proclaim the same rules of moral conduct for every member of the community, and tolerate every religious opinion, provided it does not disturb peace nor injure the rights of others. They will confine their exertions to the actual state of society, and not interfere in any way with the life to come ; they will remit all conceptions of that kind to every one's own conscience. There will be no creed obligatory, and none will enjoy particular advantages ; in other words, there will be no religion of state. I also think that such governments will consider it as right to pay teachers only for things which are useful to every one, and refuse to charge the community with expenses for knowledge which is advantageous to single individuals alone. Spontaneous donations, or voluntary contributions, however, may be allowed to propagate knowledge of every kind, whilst the only duty of the government remains to protect every member of the community

in his exertions, as long as they are harmless to others and conformable to general justice. Taxation will be proportionate to the advantages which individuals derive from the institutions which must be paid for. The things indispensable to human existence and preservation, such as air, light, and fuel, will be exempt from all duties, and indirect taxes in general will be abolished. Nothing but the right of the strongest, and selfishness, can keep up the things as they commonly are, in contradiction with the principle that those who live have a right to exist ; that every one should earn but the profit of his labours ; that sinecures should be repealed, and idleness despised.

A religious reform in general seems necessary and desirable. Very few among those who allow themselves to reason believe that the priesthood has the power of sending into, or excluding from, heaven. Christianity and common sense teach that every one should do his duty, and that he can do no more. Religious teachers, therefore, should be considered in the same way as teachers in languages, arts, and sciences. Every one who has talent and time might study religious ideas, write and converse with others on them, in short, do as he pleases, provided he conducts himself in conformity with the principles of general morality. Every one might read the Scriptures of Revelation, and form his own opinion ; and every civil government should follow the example of the United States of America, and abolish priesthood as a political body, or as a necessary division of the government. Jesus expressly stated that his kingdom was not of this world. (John xviii., 36.)

I am aware that the sacerdotaly will object to such a reform, and do what they can to make man believe that there is no morality without religion, and no religion without their office, and that they deserve to be largely rewarded. I, however, cannot help thinking that man has been, and still is, misled by priests, because he is naturally religious, and that the priests ascribe to their influence what belongs to the power of the Creator. The time of what was called theocracy is over. I can, however, conceive that where civil governments decide in every respect what people are permitted to do, religious as well as political opinions are dictated ; but it seems natural to admit that, where liberal principles prevail, religious and civil liberty should go hand in hand. Yet there is still too much credulity among the great number of the congregations. They are occupied during the week in their worldly concerns, and on Sunday, without troubling themselves much with examination, they will listen to their clergyman, if he speaks to their liking and according to their feelings. Some teachers will cry against the great Pope of Rome, but are at the same time little popes in their own pulpits, in sending all who differ from their manner of thinking to eternal damnation, whilst they declare themselves and their followers predestined to eternal beatitude. This doctrine, indeed, is comfortable for the elect, and the congregation may say *amen* and sing Hallelujah ; but it shows also that common sense is sometimes wanted in religious congregations. I think it very wrong to leave these matters exclusively to a privileged profession, whilst they ought to occupy every intelligent mind. I shall mention a few well-known remarks concerning the doctrine of the Sunday, or, as it is also styled, Sabbath-keeping. The Sabbath day is allowed to be a noble institution of Moses, who ordained it as a day of rest for man

and animals; hence a benevolent regulation for all classes of working people, particularly for slaves. The cessation of labour on one day of the week ameliorates the condition of all labouring classes, and contributes to cleanliness, to the preservation of health, and to the restoration of bodily strength. It also gives leisure for intellectual, moral, and religious instruction and meditation, and in fact a portion of the law was read to the Jews on the Sabbath day, and their physical welfare was attended to. No one can think that God in creating the world became, literally speaking, fatigued, and wanted to rest and refresh himself (Exod. xxxi., 17), and that this was the principal motive of the Mosaic law in reference to the Sabbath. It should be observed that the Jewish language abounds in figurative expressions.

The Sabbath was farther commended to the Jews in remembrance of their deliverance from the bondage in Egypt, and as a sign of the old Covenant.

Two questions, however, arise—1. Whether the *Jewish* Sabbath day is obligatory to the followers of Jesus; and 2. Whether it is incumbent upon Christians to keep the Sabbath in the same manner as the Jews did? It is a fact generally known that the day itself has been changed since the time of the Apostles and the first Christians. (Acts xx., 7; 1 Cor. xvi., 2.) In reference to the second question, it seems to me that, as with Jesus the old covenant ceased and a new one began, the Sabbath as well as circumcision, both signs of the old dispensation, with all ceremonial observances prescribed for the former, are abolished, and that the Sabbath day is at an end altogether. The Jewish temple was destroyed, the Levitical priesthood; their sentiments, their church government, the whole tone of their worship, and all signs of the Jewish covenant are gone. If the Jewish Sabbath-keeping be incumbent upon Christians, I think the Jewish Sabbath year, and the Jubilee, too, ought to be kept up.

Further, we read that Moses, when he instituted the Sabbath, gave at the same time various other statutes, commandments, and moral laws, which ought either to be kept or abolished together. Jesus rectified a number of the Jewish moral laws. He, for instance, forbade polygamy, which Moses had allowed; he abolished capital punishment for adultery, in opposition to Moses; and he made many other alterations, as is evident from the sermon on the mount.

Moreover, if the Jewish manner of keeping the Sabbath were obligatory and so important as many say, it appears extraordinary that Jesus should have been silent about it, whilst he constantly admonishes his apostles and disciples of the great commandments of love.

Jesus himself did on the Sabbath several things at variance with the Jewish law. He went, for instance, with his disciples through the cornfields and plucked ears; he cured diseases; and even said that the Sabbath was made for man, and not man for the Sabbath, and that therefore the Lord of man is also Lord of the Sabbath. (Mark ii., 27, 28.) He even admonished his disciples to assemble and to sing to the glory of God; they were to be known by their good works and mutual love.

It is also known that the Apostles and first Christians kept the Lord's day in a different manner to that in which the Jews kept their Sabbath. St. Paul called a holyday, or the new moon, or the Sabbath days, a shadow

of things to come. (Col. ii., 14—17.) He positively stated that "he who loveth another has fulfilled the law."

It was, however, a practice among the first Christians to assemble on the Lord's day, to sing, to break bread, to gather stores, and to be instructed; in short, they had religious assemblies upon the first day of the week as on the day on which Jesus arose from the dead; as a festival of the Creation; as a day of rejoicing and of holy worship. But a cessation upon that day from labour beyond the time of attendance upon their meetings is not insinuated in any passage of the New Testament, nor did Jesus or his apostles deliver any commandment to their disciples for the discontinuance upon that day of the common offices of their respective professions. If it was their intention they ought to have stated it, since they preached not only to Jews but also to Gentiles; but they never enforced the law of rest, as in the Mosaic laws.

It is further to be remarked that Pliny the Younger, in his letter to Trajan, where he made a report concerning the Christians, wrote that "he discovered nothing but that they were accustomed to meet together on a stated day before it was light, and sing among themselves a hymn to Christ, as a God; and to bind themselves by an oath not to commit any wickedness; nor to be guilty of theft, robbery, or adultery; never to falsify their words, nor to deny a pledge."

Finally, history tells us that Constantine the First, A.D. 321, made a law for the observance of the Sunday throughout the Roman empire. The Sunday was declared a day of rest in cities and towns, but the country people were still allowed to follow their work. But in 330 the Council of Orleans prohibited also country labour, and declared it unlawful to travel with horses, cattle, and carriages; to prepare food; and to do anything necessary to the cleanliness and decency of houses and persons.

The only thing I contend for is that the Sunday of Christians cannot be the Jewish Sabbath, neither as to the day nor as to the manner of sanctification. Yet this institution is of great importance; but enlightened minds will take greater views of it than mystical persons are wont to do. It is childish to think that we can do anything to increase the beatitude of the Supreme Being. The name of *divine service* should be done away with. Let it be a day of rest, and of physical, intellectual, and moral instruction and improvement, and of religious adoration. It is also reasonable to communicate instructive lessons in the form of songs, that the music may excite the nobler feelings; but it is pitiful to sing, in disharmonious tones, any historical narrative of the Jews, or incomprehensible metaphors of imaginary minds. In short, this institution might be turned to the greatest benefit and improvement of body and mind, among the lower as well as the higher orders; whilst in the ordinary state of things it invites the former to disorders, physically and mentally speaking. I refer the reader, with respect to my ideas on the religious and moral constitution of man, to the second volume of Phrenology.

My writings in general may prove that the principles of true Christianity alone satisfy my mind; but not Christianity disfigured by any sacerdotalism who substitute their inclinations for the will of God, and declare themselves infallible; nor Christianity that degrades the Creator and disturbs peace and general happiness. On the other hand, the aim of civil governments being the common welfare of society, it seems to me

that intelligent rulers should enact regulations to that purpose alone, and protect, and even encourage, religious ideas as far as they are conducive to and in harmony with that end; but they should not employ religion as a means of gratifying selfish views, nor allow the priesthood to treat religion as a trade; and certainly they should not allow the priesthood to undermine the happiness of man, nor any religious sect to enjoy privileges, these being positively interdicted by Christianity. The public wants to be enlightened.

In giving freely my opinion I follow the principles of Protestantism, which grants the use of reason, and I agree with them who think that no one has the right to impose his religious opinions upon others; that true religion consists in the fulfilment of all our moral duties; that the belief of this truth having been revealed, is a powerful motive to practise morality, and that this was the will of the great and all-wise Intelligence who arranged the universe, who gave man his moral nature and the laws of reason.

On the other hand, I pity mankind for not being able to bear the moral code of Christianity, and for not being ripe to enjoy religious and civil liberty. It is lamentable to see that in some countries there are only masters and servants; that superstition, ignorance, and poverty are employed to keep the people in subordination, and to gratify the selfish views of their civil and religious leaders; and that even among civilised nations, where the best known principles of government are in vigour, the great bulk cannot be left to themselves, but must be conducted. I therefore copy from Cowper's letter to the Rev. Walter Bagot: "Do I hate a parson? Heaven forbid! I love you all when you are good for anything; and as to the rest, I would mend them if I could, and that is the worst of my intentions towards them." And, from the hints of a barrister to the public, "whoever sets the best example of industry, uprightness, charity, justice, benevolence, mildness, integrity, and all those practical virtues which are the basis, immovable and eternal, of Christianity; such a man is the best teacher of religion which the community can possibly receive." On the other hand, I reject, as destructive, every doctrine which shows a spirit of sectarian bigotry, generates superstition, introduces discord into the circles of domestic life, depreciates the bonds of charity and peace, or even reprobates all practical virtues and righteousness as filthy rags, and which places peculiar doctrines above the authority of the Gospel, whose great tendency is, and ever will be, to excite the sinner to repentance and reformation, to cultivate benevolence and justice, and to link together mankind in the bonds of peace and charity.

A favourable change is wanted, but, it may be asked, who shall produce it—the governments or the nations, severally or together? Hitherto, nations are too much accustomed to be guided; and governors too fond of commanding and imposing their good pleasure as law. Both parties seem to be wrong. Governments, it is true, may succeed better and sooner, since they can follow a regular plan, and have greater means of execution. But as rulers are too much disposed to do what flatters their selfishness, nations ought to think of their own welfare, and know that *vox populi* is *vox Dei*. Instead of expecting every improvement from their governors, they ought to work at their deliverance from tutorage. There will be masters as long as there are servants, and children will

depend on their parents as long as they cannot gain their own livelihood. It is conceivable that governors like to rule their subjects, but these are blamable for not using all reasonable means to gain and deserve their independency. They should be aware that a liberal government lets the people act for themselves, provided the common welfare does not suffer; and that, on the other hand, governments are despotic in proportion as they interfere with personal liberty and prevent the public good. In fact, in many situations, when things do not go on as they are wished for, nations may accuse themselves rather than their governors. By perseverance they will always obtain what they deserve.

Remarks of this kind are also applicable to the improvement of religious creeds. It is an historical fact that the priesthood always wishes to keep religious ideas stationary, and that every religious reform began with individuals or with the civil power. This will be the case as long as religious governors do not keep pace in knowledge and moral improvement with the community at large. Any church whose tenets were composed in dark ages and adapted to the capacities of ignorant people, will be divided against itself whenever the public become enlightened; and it must end in its overthrow if the leaders remain in ignorance, and confound the aim of religion with the means that lead to it. The former certainly remains the same at all times and amongst all classes, but the latter must vary in different periods of civilisation. It is as lamentable as repugnant to hear ignorant teachers speak of the heavenly Father as endowed with qualities for which every reasonable person would disdain his neighbour. The evil is great, and deserves the serious attention of the civil and religious governors.

What, then, is to be done to establish civil and religious liberty? Is it sufficient to proclaim a reform? By no means. The French tried one constitution after another, and it is scarcely yet decided which suits them best. Civil and religious liberty may be the law of a country while slavery and religious tyranny continue. It happens that there is sometimes more religious freedom under absolute governments than in republics. Man does like to obey and to revere, but he is fond of governing others. He contends for freedom for himself, but thinks to have the right to enslave others. When will stupidity and immorality, severally or jointly, cease to govern human affairs?

It is certain that the natural dispositions and their activity determine the progress of civilisation in nations as well as in individuals. Ignorant people are fond of darkness, while enlightened nations cannot bear measures of obscurity. The French Revolution abolished all external decorations and signs of distinction; but it was easy for Bonaparte to introduce them again, since the love of approbation is an essential feature in the French character. Any reform succeeds easily if it be in harmony with the most active powers; but it will never take root if it be contrary to the predominant powers, or if the necessary powers do not act. The doctrine of the innate dispositions cannot be taken too much to heart by those who wish to exercise an influence on the community. They may direct the given powers to different applications, but they can neither create nor annihilate. Many historical facts will be explained, and many erroneous opinions of government will be rectified, when the innate dispositions are understood. Then, also, not only the different progress in

the various branches of literature, arts, and sciences, but also their modifications in different nations will be easily conceived.

Amongst many instances which might be quoted, I shall mention the following. The Reformation, undertaken by Luther, and continued by Calvin and others, gained more ground in Germany than in France, and it is more advanced in Scotland than in England; and it turned out very differently in different countries. There is a great deal of marvellousness and of the reflective powers in the Germans and in the English; but many of the former will begin with examining how far it is reasonable to believe, and to give up rather belief than reason; whilst the latter take belief as indispensable, and reason merely on interpretations. Self-esteem and love of notoriety are great in the English and French; but self-esteem is proportionately greater in the former, and love of approbation, combined with form, in the latter. The English, in their display of show, betray their predominant feeling, and wish to possess or do what others cannot; for instance, to appear very rich in keeping horses, carriages, and many servants dressed in shoes and white silk stockings; whilst the French wish to be approved of, and to attract the attention of others, by a fine taste in their show-things. Thus, it is certain that lessons will make impressions, and institutions succeed in proportion as they are adapted to the character of nations to whom they are given. Defective heads can neither excel in arts and sciences, nor in the refined principles of morality or Christianity.

The influence of institutions on nations does not only depend on their being adapted to the innate dispositions, but also on their duration. Their effect is insignificant if they be transitory and cannot form habit. Any new institution, like any new doctrine, in order to be of permanent usefulness must become, so to say, incarnate, or be infused in the minds of the people; but then their influence is certain, since the innate powers being exercised during generations, increase, and act with facility. I copy a suitable passage from the introduction to the History of France, by Chateaubriand, read by himself to the Academie Francaise, in the sitting of the 9th of February, 1826:—

“It has been said that from the time of Vespasian to Marcus Aurelius, was the period during which mankind enjoyed the greatest felicity. This is true, if the dignity and independence of nations are to go for nothing.

“Every imaginable kind of merit appeared at the head of the empire. Those who possessed those qualities were free to undertake anything they pleased; they were shackled by no restraints; they inherited Nero's absolute power; they could employ for good the arbitrary authority which had hitherto been used only as an instrument of evil. What, however, did this despotism of virtue produce? Did it reform manners? Did it re-establish liberty? Did it preserve the empire from its approaching fall? No; the human race was neither altered nor improved. Firmness reigned with *Vespasian*, mildness with *Titus*, generosity with *Nerva*, grandeur with *Trajan*, the arts with *Adrian*, the piety of polytheism with *Antonine*, and, lastly, with *Marcus Aurelius* philosophy ascended the throne. Yet the fulfilment of this dream of sages was productive of no solid results to the world. No ameliorations are durable, none indeed are possible, when any act of government proceeds from the will of individuals, and not from laws and institutions; and the pagan religion,

no longer supported or corrected by austerity of manners, transformed men into old children, destitute alike of reason and of innocence.

"There were at this period some Christians in the empire. They were obscure and persecuted, yet, with their despised religion, they accomplished what philosophy upon the throne could not achieve. They instituted laws, corrected manners, and founded society which exists to this day." What a great lesson for legislators! It is easy to regulate, but to give the feeling for the law requires time and more than to give orders.

In the examination of this subject it is found that religious and civil regulations are degraded and improved in the same degree and by the same reasons. Stupid and ignorant people are superstitious, and believe in the good pleasure of their absolute rulers. Whoever is not able, or does not dare to think, or does not feel contradictions and absurdities, is unfit for a refined religion and civil liberty. Understanding, indeed, is the first condition of civil and religious, as well as of personal and moral liberty, and ignorance a fertile cause of superstition and slavery. Understanding improves plants and animals, and it is necessary to the improvement of nations and of the nature of man. The Germans, expressing civilisation by the word *aufklaerung* (enlightening) indicate that they consider intellect as the basis of improvement.

The great point in this discussion is to determine, first, the origin and cause of liberty, and then the means of establishing and maintaining it. None of the faculties common to man and animals conceives the idea of civil liberty any more than that of religion. These conceptions result only from the human powers, and are retarded in their progress in proportion as they are influenced by the animal powers. The animal feelings are selfish, wish for personal advantage, like to take the first place in society, and dispose to religious intolerance and civil despotism. Hence, a nation is unfit for liberty in proportion as the animal powers are predominant over those proper to man. Courage, bravery, and stubbornness to death, are by no means sufficient to establish this happy state of society. Even the higher animal feelings, as attachment, love of approbation, cautiousness, acquisitiveness, and the perceptive faculties, are incapable of securing it. The animal nature, it is true, is powerful to oppose despotism, and so far conducive to liberty. Whilst timid, poor, and ignorant people remain slaves, the courageous, intelligent, and industrious seek for independency. In consequence, instruction and industry are the great means of establishing liberty, whilst ignorance and poverty are its greatest enemies. Industry procures riches, and these enable the possessor to cultivate his understanding. It is, therefore, not astonishing that all those who treat of political welfare speak of industry as necessary and favourable to liberty. But those who think that industry and riches are sufficient to secure liberty are mistaken: they evidently confound the means of establishing this great blessing with its primitive source, and with the means of maintaining it. Riches *alone* being a great cause of degeneration in body and mind, are incompatible with permanent liberty. The same uncertainty of things continues even if riches be assisted by understanding, since the motives of all actions still remain selfish and of the animal nature.

With the faculties proper to man morality begins, and by their influence

the animal nature is directed, every kind of privilege abolished, the number of public officers who require emoluments diminished, every individual permitted to use his talents as he likes, provided he does not injure others; every community allowed to regulate its special concerns, personal merit alone rewarded, the general welfare thought of—in short civil liberty acknowledged. And if such a liberty be granted in worldly affairs, it is still more necessary in things and opinions relative to the life to come and religion. The effect of feelings proper to man can become reasonable only by its union with the reflective powers, and natural morality is a corner stone of the preservation of any society.

On the other hand, though the human nature is the source of civil and religious liberty, yet the faculties proper to man are not capable either of establishing or of warranting liberty. To that effect they need the assistance of instruction and of the animal powers, particularly of industry, or acquisitiveness, self-esteem, courage, and perseverance. In order then to establish and maintain civil and religious liberty, the whole man, his vegetative, affective, and intellectual faculties, must be exercised, but the animal faculties be constantly subordinate to those proper to man, that is, natural morality must prevail.

In this way we have a criterion to decide whether, and how far, a nation is fit for civil and religious liberty; whether, and how far, liberty which is granted or gained can last; and whether, and how far, governments earnestly prepare the nation for that happy state. In the same way those who wish to forward liberty may conceive what is to be done to secure general and permanent felicity, and why hitherto all partial means could not succeed. Union and morality alone can save the future happiness of the United States of America. Being divided or without morality they will have the fate of the ancient and modern nations of the old world. Intellectual education alone cannot produce the desired effect whilst the animal feelings predominate and physical education is neglected. Let the legislators be aware of the detrimental consequences of selfishness, luxury, ambition, vanity, of the animal feelings in general, of all causes which contribute to the degeneration of body and mind: let them be particularly careful about pauperism on one side, and great riches on the other; about idleness, degeneracy of the race, and immorality. Praying alone and religious ceremonies will not remedy natural evils and the neglect of the natural laws.

A delicate question too, viz., whether any nation of those we know of can bear the Christian religion in its greatest purity, and a republican government in its strictest sense, may be answered in the negative, on account of the animal nature being still disproportionate to that proper to man. In speaking of a republican government in the strictest sense, I mean a state of mind where everyone sacrifices his private interest to the common welfare.

In supposing then that any ruler may have the best intention to fulfil his duty, I conclude this chapter with repeating the points indispensable to his success. Let him become acquainted with the threefold character of human nature—with the innateness of the affective and intellectual faculties, with their dependence on the cerebral organisation, and with their modification in the nation he governs. Besides, let him understand that every innate power tends to action, but that the motives of the same action

may be very different; that regulations founded only on truth and morality can last, and that the physical, intellectual, and moral nature of man must be cultivated in harmony. Further, an important point for him is to know how to employ everyone according to his natural gifts and talents, be it as servant, soldier, artisan, merchant, artist, teacher of any kind, legislator, superintendent or president. He also must be aware that various talents are given to all classes of society, to poor and rich, to country people as well as citizens; and that natural nobility and personal merit of talent and virtue alone deserve distinction.

In governments, on the other hand, the electors must keep in mind that intellect is not morality; that individuals must be judged of by their actions and not by their speeches, in the same way as the tree is known by its fruit; and that no one who strives for private interest and forgets the common welfare should be at the head of public affairs.

CHAPTER VII.

A FEW IDEAS ON PUBLIC AND PRIVATE EDUCATION.

VARIOUS opinions are entertained upon the question whether public or private education be preferable. The term education is here taken in a limited sense, and the answer would be easy if education were what it ought to be. In the actual state of things, the greater number of parents cannot adopt the private mode of education for want of pecuniary means: they must have recourse to public schools if they wish to give their children any education at all. The question, then, concerns chiefly the richer classes of society.

There are advantages and disadvantages on both sides. Generally speaking, in private education moral conduct and religious principles may be more carefully taught, and the natural dispositions better exercised. But here we must suppose the governors to be of superior ability. Such persons, however, are not to be easily found. On the other hand, private teachers and servants kindle very often inferior propensities, which would remain inactive were the children sent to public schools. Again, as the education of boys and girls must be conducted in a different manner, particularly in large towns, several day and boarding-schools become necessary; and if in these the moral conduct be particularly attended to, they will combine the advantages of a public and private education. In them physical education can be better attended to than at home; common play-grounds and bodily exercise can be more easily procured. Such abodes are generally in healthy situations, and better teachers may also be provided. It is advantageous to children to afford them opportunities of comparing their talents with those of others. When alone they easily think themselves above all other children; but when together they easily feel their inferiority. The less intercourse we have with others the sooner we are satisfied with ourselves. This happens with children as well as with adults. Those who have travelled with reflection and without prejudice lose in many respects their national pride: they find that everywhere there are good and bad, ignorant and well-informed persons. Whoever remains confined to his own small circle thinks all other society inferior, partly through the

natural attachment to his accustomed manners, and partly through his not knowing what others are, or what advantages they possess.

Knowledge of this world, of different characters, of manners, and social intercourse, is an important point in education. It is easily acquired in public institutions. Children soon learn to distinguish between the different manners of feeling and thinking of their companions.

Greater uniformity in manners, more mutual attachment and general benevolence, more order and greater readiness to obey and to depend on their superiors, may result from public education. There the feelings, in general, may be more easily exercised and directed, because society is indispensable to that purpose, and private education can never afford the same opportunity. Finally, the great effect of emulation is entirely lost in private instruction; and emulation may be necessary to some children in order to push them on.

Thus, even in the actual state of things, public institutions are preferable, and they will be far superior, if only regulated according to sound principles and adapted to human nature.

CONCLUSION.

THE great object of education is not to create, but to prepare, to develop, or to impede and to direct the natural dispositions, vegetative, affective intellectual. The nature of fundamental powers, and the conditions on which their manifestations depend, must be known to enable us to cultivate and direct them. The difference between the feelings and the intellectual faculties is particularly to be attended to. Then, if the means of excitement and those of direction be employed, as I have detailed them, arts and sciences will improve, moral evil will diminish, and mankind will be more happy. I do not flatter myself, however, that in the present state of mankind the most perfect education can abolish all disorders: hence instigations of another kind are necessary, which I shall speak of in the following pages.

APPENDIX.

ON THE CORRECTION OR REFORM OF MALEFACTORS.

As individuals differ exceedingly from each other in the innate strength of their faculties, there can be no doubt that adults, as well as children, if entirely left to themselves, and to the motives which spring up in their own minds, would not all be influenced either by the same number or by the same kind of motives, nor would each motive act with equal force in all. Besides, the faculties which produce the lower propensities do not of themselves produce good actions; and, as they are stronger than the faculties proper to man, legislation is necessary to direct mankind. In regard to many particular acts the government must command what is to be done and forbid what is not to be done, seeing few individuals possess so favourable an endowment of dispositions as to be naturally prone to virtue or to have the law written in their hearts. Now, the general aim of all legislation ought to be the happiness of mankind combined, as far as possible, with that of each individual; or, in the language of Phrenology, it ought to be to establish the natural morality of man, confirmed by true

Christianity. The lower animals have no conceptions of morality, because they do not possess the faculties which produce the moral sentiments and reason. Hence those faculties which are proper to man alone conceive the necessity of legislation, and without them there would be none in mankind any more than in the animals.

Definition of Legislation.—I take this expression in its most extensive signification, and conceive it to comprehend the regulation of the manner in which all our faculties ought to be employed. Positive legislation has been, and still is, very different in different countries. The same actions have been, and still are, considered now as crimes and then as virtues. The first great object is to distinguish natural from positive laws. It appears to me that both ought to be the same, and that the natural laws, in as far as they are known and admitted, ought to be declared positive, and to guide the actions of man. No one, therefore, should endeavour to make laws, but only to discover those made by the Creator—to submit to them, when discovered as to His will, and dispose others to follow this example.

Positive laws are divided into Divine and civil. The former are given by God, the latter by human legislators.

The question which naturally occurs is whether there ought to be differences between the natural, Divine, and civil codes. Hitherto thinking people have not agreed, and the one makes war against the other; but I am of the decided opinion that mankind cannot become happy till the laws of the Creator are put into practice. To say that the revealed law is not the same as the natural is to suppose that God is not the Creator of mankind, or that He has been in contradiction with Himself at different times. Such notions seem to me absurd; and I cannot admit any interpretation of the revealed law which is evidently in contradiction with the real nature of man. Moreover, since man cannot create, he ought not to set himself up as an inventor of laws, nor attempt to control the course of Providence or counteract the nature of things. As already said, he should try to discover, and, having discovered, to submit to the arrangements of the Creator with respect to his vegetative, affective, moral, and intellectual nature.

Civil legislation is necessarily divided into different branches, but they ought all to have constantly only one and the same aim, and to be the result of one and the same spirit. Hitherto selfishness has been the principal object of all civil legislation, and of every branch of it. Soldiers wish for war and an opportunity of spoliation; lawyers, also, have too constantly in view their own special advantages; and the members of the ordinary professions do not think it necessary to conceal that the one aim of all their exertions is selfishness. The same anti-social principle is visible in all worldly affairs; and even the clergy, whose employment is to prepare man for eternity, too frequently show that selfish motives are, in fact, the mainsprings of their conduct. The overwhelming flood of selfishness must abate or the general happiness of mankind remain an impossibility. There is only one permanent legislator, viz., the Creator; and whatever erects itself against His institutions, or deviates from them, is usurpation and folly.

It is certainly a difficult task to discover clearly the law established by nature, and to bring all branches of legislation into harmony with the Creator's will. Happily, however, nature has few laws; but it is of great

importance to know that she never admits of an exception, and punishes severely every neglect. This subject being of the highest importance, any attempt to elucidate it cannot be considered as an idle occupation, and is the true object of a philosophical catechism, which I have published separately.

In this summary view of criminal legislation we may consider legislation in three points, viz., its aim, the means necessary to attain it, and the persons subject to the law.

Aim of Legislation.—Legislation begins with the sentiment of duty. In my opinion the duty of man, according to the will of the Creator, consists in general benevolence and reverence. Hence the natural law requires more than the civil. Justice, according to the latter, is merely passive, viz., not to take from others that which belongs to them; while, according to the former, we are obliged to do to others what we wish they should do to us. Thus Christianity coincides with the natural law. Love thy neighbour as thyself is the touchstone of all legislation as to its true aim.

Means to Attain the Aim of Legislation.—The second part of legislation concerns the means necessary to attain the proposed aim; but this point is not yet accomplished. Either, therefore, those who have it in their power do not earnestly wish for it, or they have not intellect enough to choose the necessary means, or the general aim of legislation is not kept constantly in view. This field is extremely extensive, but without the reach of my study. I shall confine myself to a few remarks with respect to criminal and penal legislation, which certainly has improved in modern times—first, with respect to the means of preventing crime; and secondly, with respect to those of correcting criminals.

There were ages when criminal legislators thought it their only duty to punish or to revenge themselves on those who were disobedient; the animal powers dictated the penal laws, and the feelings proper to man had no share in them. Now-a-days, it is admitted that the penal code ought to have for its objects the prevention of offences against the welfare of society, the correction of those who have failed in their duty, and securing the community against incorrigible members. The aim is laudable; but as it is not attained, we are led to conclude that the means employed to effectuate that purpose are not the best that might be chosen.

Various kinds of punishments have been, and are, inflicted, in order to deter men from committing criminal actions. Malefactors are deprived of their personal liberty, and are confined to prison for a shorter or longer period—some for life. They are treated with more or less severity; some remain idle; others are condemned to hard work; some are exiled or transported; others put to death.

Experience, however, shows that punishments alone do not produce the desired effect. Even at an execution pick-pockets are sometimes busy committing their depredations. I do not say that punishments are useless; I only say that they by themselves are not sufficient to prevent faults and crimes. Hence governments must have recourse still to other means. To choose these means correctly it is necessary to discover the causes of criminal actions, for crimes will cease to be committed as soon as their causes are removed.

The most important way of preventing crime is that of improving mankind by every possible means, and especially by those spoken of in

the preceding pages on education in general, and on that of nations in particular. Let the inferior races, whose actions are stigmatised by crimes or disorderly living, be prevented as much as possible from propagation; for it is a fact well-known to those who have attended to the subject that the organs of the animal passions, like those of the other faculties of the mind, are hereditary. Moreover, let ignorance, idleness, intemperance, and poverty, which are the principal causes of crime, be prevented, and there will be little occasion for prisons.

In the General View to this work, I have considered the great influence of ignorance on the moral conduct of man. Instruction, indeed, will greatly improve the human character, and the facility of acquiring it in our days is a great blessing to mankind. It is, therefore, the duty and interest of wise and paternal governments to diffuse instruction as widely as possible according to the capacities of the people, and according to local and particular situations; and whoever wishes to promote the moral conduct of mankind, and insure their happiness, will favour public institutions for useful information. But knowledge is not virtue, and more attention than hitherto has been given, must be paid to the moral improvement of mankind.

It is both more effectual towards promoting the welfare of society, and more agreeable to correct morals, than to punish crimes. To that end it ought to be a serious aim with governments to adopt means to exclude idleness and intemperance from society. Children should be accustomed to sobriety, and the practice of intemperance despised, and represented as degrading a sensible being. Every person found intoxicated in the streets should be taken up and confined for twenty-four hours, and fed on bread and water.

Persons when drunk are deprived of the use of their reason, and often inclined to abuse their animal propensities; and hence the welfare of society requires them to be placed in a situation where they can do no harm, and which may contribute to their correction. The criminal records of every country bear evidence of flagitious crimes committed, and much misery inflicted, of which drunkenness was the proximate cause. Governments are, therefore, wrong in licensing numberless ale-houses and gin-shops, and in affording great facility for pawning.

In the chapter on National Education, I have already said that in a well-regulated state no poverty ought to be seen, and no mendicity tolerated; that each beggar ought to be shut up, and to be forced to work in public employments; that charity is misapplied and idleness rewarded, if industrious people be obliged to support the poor. This subject being of the utmost importance deserves a particular examination, and the repetition of some ideas does not seem to be out of place. The law obliging the rich to nourish the poor is an indirect infringement on personal liberty, and in opposition to the basis of a free government, which admits private promotion and encourages everyone to use his own talents, so far as is consistent with the general happiness of the nation. The poor laws encroach on his right, and do harm to society. They in fact hold out to the profligate, the idle, the imbecile, an invitation to act without regard to the consequences of their actions, and promise them that if they be overtaken by calamities which nature has

attached to heedless conduct, the virtuous and considerate shall be made to bear the burden for them.

If the poor, on account of their right to personal liberty, cannot be prevented from marrying, the rich, for the same reason, cannot be forced to nourish them. It is an infringement of personal liberty for an industrious citizen to be compelled to support a lazy drone. If the poor must be permitted to marry after the consequences are pointed out to them, then, at least, let every one be equally free; let him who gets children provide for their subsistence; and let him who labours reap the whole fruits of his own industry.

But, it may still be said that whoever lives has a right to the prolongation of his days, and that hence necessitous persons must not be allowed to perish. Strictly speaking, there is no doubt that those who exist have a right to partake in whatever nature produces. But civil laws are destined to keep order and to regulate property. Now, I am willing to admit that humanity calls upon us to preserve those who actually exist; but it appears to me to be impossible permanently to ameliorate the condition of the poor, except by preventing them, by some means or other, from excessive propagation. In the first place, it is a general law in nature, and it holds good in the case of mankind as well as in every other species of animals, that every germ produced is not permitted to prosper and to multiply. As things are now managed, however, the best and most considerate of the race are those who are most restrained from multiplying, because they see the evils and endeavour to avoid them; while the worthless and unreflecting indulge their propensities without fear, and fill the world with misery. This is exactly the reverse of what it ought to be. Moreover, for the sake of general order, sailors and soldiers are prohibited from living in matrimony, and why should not the same liberty be taken with the poor? If they can show that they have the means of supporting a family they are no longer poor, and the interdict would not apply to them. Many things are forced upon as well as interdicted to individuals, for the sake of general happiness: and this being the principal aim of society, I cannot conceive a reason why the abject poor may not be hindered from marrying, for the general good, just as they are excluded, for the same reason, from directing the government.

The law should harmonise with the manners and morals of the day, the punishment proportioned to the crime, and no hope left to the criminal to be pardoned.

Finally, the surest and most universal means of preventing crimes would be if selfishness could be made subservient to general benevolence, and if morality could become the leading aim among all nations—then the kingdom of heaven would in fact arrive. The influence of this principle cannot yet be felt by mankind at large, and many may therefore say, Why, then, do you speak of it? I answer, Because it appears to me that the arrangements of nature admit of such a state, and that men only require to understand and practise her laws, to bring it about: and as the tendency of the mind is to approximate towards the truth, and to appreciate it when discovered, I am not without hope that the time may come when the higher sentiments shall prevail over the lower propensities, and benevolence over selfishness. Truth, whether admitted

or rejected, is and remains truth. At all events, no encouragement should be given to the abuse of the lower feelings, nor any facility offered to commit crimes. Bigamy, for instance, and seduction are facilitated by the permission of marrying without a certificate of any kind.

I am convinced that in proportion as the preceding means are neglected or attended to, offences and crimes will be committed or prevented ; and that by applying them in practice mankind will improve their condition more than by punishing malefactors, and praying the Heavenly Father for his assistance, while they neglect the natural means of preventing crimes and producing good. The blessing of God will follow as soon as we submit to His laws ; but prayers for it, while we condemn them, are impious and absurd. Prisons are not become useless by building churches and by the influence of bible and tract societies. However, I do not mean to say that Christianity is ineffectual in preventing crimes ; I only maintain that all means, natural and supernatural, should be employed.

Natural means of correcting Malefactors.—Let us examine how far the second point of criminal legislation, viz., the correction of malefactors, has been attained. Experience shows that punishments alone do not correct delinquents any more than they prevent disorders, and that the common way of treating criminals depraves rather than improves them. This truth is more and more perceived, and some practical results have already taken place which have proved highly beneficial ; and I hope that the good effect they produce will encourage their adoption in all countries. One great object of regret, however, remains, that the nature of man is not sufficiently understood, and that in consequence many modifications of treatment, which individual malefactors require, are entirely overlooked.

Formerly, malefactors of all kinds, young and old, persons seduced by strong temptation into crimes, and those who were only accused and detained on suspicion, as well as the most inveterate villains, were shut up together. In many prisons they were idle, or, if they had some occupation, they were generally unprofitable, sometimes too easy, at other times too hard, often dirty and unwholesome ; and because punishment, and not reform, was the principal motive of confining prisoners, they were treated with neglect. Their food was not sufficient, and sometimes noxious. Prisons were sometimes erected in damp and unwholesome situations. The prisoners were, on account of ill-treatment, affected with various cutaneous and scrofulous diseases, with blindness, dysentery, consumption, typhus, &c. Such aggravations of punishment were too severe, and against the intentions of the law.

This error has been felt, but in our days men are falling into an opposite extreme. In many prisons there is too much comfort, and not punishment enough. Here and there they become houses of reward. They perhaps appear still uncomfortable to the rich administrators, but they afford more comfort than the greater number of criminals are accustomed to. The prisoners are clothed, secured against the inclemency of the weather, have a good bed to rest on, and are better nourished than at home. Some persons, indeed, commit faults in order to be taken into them. Such prisons fail to effect their purpose. To be confined in a prison ought always to be a disagreeable situation in one way or another. A proper arrangement would be to have in each prison a variety of apartments, affording different degrees of comfort and

accommodation, and to put every atrocious criminal into the lowest first, and let him rise to the higher as his moral improvement proceeded. This would be a practical illustration of the great natural truth, that a state of vice is one of misery, and a state of morality one of comfort and enjoyment. Prisons constructed on such principles would no doubt require to be extensive; and they would, in their first erection, be expensive. But whether would a nation derive greater ultimate advantage from a sufficient number of such establishments, to correct and restrain the vicious part of her population, or from a victory in a war about a sugar island? And the sums consumed by the nations of Europe in prosecuting quarrels which have no natural foundation, and in inflicting misery on each other, would have placed a penitentiary in every department of each kingdom! Such are the results of the dominion of the animal over the man in human affairs.

There are still other causes which prevent the correction of prisoners. Prisoners are taken in ignorant, idle, poor, and disorderly, and are dismissed in the same state, or, perhaps, more instructed in vice. Being together, they are induced to converse; and even where this is prohibited when at work, they take advantage of every moment when the overseer is absent to do so, or they find in the yard an opportunity of becoming acquainted with their companions. They tell each other their crimes and tricks: and every new comer, especially if his natural dispositions harmonise with that kind of instruction, profits by such lessons, and his corruption is soon complete. In a short time the novice is accustomed to live intimately with the outcasts of mankind, becomes one of themselves, and then all shame and bashfulness disappear. In this manner, according to the saying of the criminals themselves, prisons are schools where all sorts of vice are taught. The malefactors become friends, and form projects, to be executed when they are liberated; they organise bands, and prepare to pursue with greater audacity their former criminal life.

The greater number of malefactors who are liberated are incapable of gaining their livelihood. Their immoral habits, their idleness, and even sometimes their intemperance, have increased during their confinement, and nothing can be more natural than that they should yield again to their animal dispositions. Nay, some are forced to continue their depraved manner of living to escape dying of hunger. This, for instance, is the case with those who are branded, and publicly dishonoured. Who will give employment to such individuals? Who will work with them in the same shop? If it seem necessary to brand, in order to know whether a criminal has already committed a crime, let it be done where the mark may easily be concealed.

Another manner of treating prisoners, without correcting them, and which is very illiberal towards neighbouring countries, is that of sending all malefactors over the boundaries. Such a course of proceeding should be only permitted in cases of political errors. In other cases it is saying to a malefactor, Do not steal in my house, but go to my neighbour's and do what you please.

The common way of treating criminals gives rise to another injustice against society. According to the common mode of conducting gaols, those who, by their criminal actions, disturb the general peace, live at the expense of the honest citizens. It is indeed shameful that male-

factors, who are commonly stout fellows and in the best years of their lives, should not gain the necessary means of subsistence, while manufacturers get immensely rich by the employment of other people.

Thus, it is high time to rectify such abuses. The aim of all prisons for malefactors, who are to be sent back into society, ought to be one and the same, viz., *correction*. But, then, in order to change the houses of perversion, which all common prisons are, into houses of correction, other regulations must be put into execution, and the prisoners should be kept till, in all probability, they are corrected.

I repeat that these ideas are not new, but they must be repeated till they are practised everywhere. First, then, let the causes which produce offences and crimes be removed. Ignorant people who are taken up should receive instruction, and their attention should be particularly directed to their duty in society. They must be treated as grown-up children whose education has been neglected. It will be more difficult to change their habits than those of children; but they are more capable of feeling the difference of motives, and their will may exercise a greater influence on their actions.

Solitary confinement is one of the most effectual means of improvement. Let it not be said that the punishment is too hard, and may derange the mental dispositions of some criminals. This will be exceedingly rare; but it will correct the greater number of them. Let the directors of prisons be competent judges of human perversity, and let them be allowed to modify the severity of punishment according to the individual characters of criminals. Let even the committee of overseers attend to this regulation, and give relief if necessary.

Idleness ought not on any account to be tolerated in prisons. Those who know a trade may continue to exercise it; and those who do not know may learn one. The better heads may superintend the inferior, and become their masters and teachers. Every person should be compelled to work to pay his expenses. If they gain more than is necessary to supply their wants, and if they have placed their fellow creatures in misery; those, for instance, who have stolen or destroyed the whole property of a family, ought to be obliged to indemnify them as far as possible. Moses ordered the thieves to be slaves for a certain period of indemnity. Others who gain above their personal wants may be allowed to turn it to the profit of their family, or may put it aside to receive at their exit. Prisons should be open to the gratuitous inspection and superintendence of intelligent and benevolent individuals of the community; or if such cannot be found, the prisoners might work to pay inspectors. The confinement should last till the occasional causes which gave rise to the offence are removed, and till amendment is probable; and on being released the prisoners are, for a certain time, to be observed by the inspectors or the police. If each large town were divided into districts, and several inhabitants of each district would act as inspectors, and visit the released prisoners who come to settle in it, they might save many from relapsing into crime.

The system of confining prisoners indefinitely till corrected certainly supposes perfect justice in the management of the gaols; otherwise persons might be detained in prison from improper motives, and much longer than necessary for amendment. Such an abuse ought to be most carefully

guarded against ; and, perhaps, the best of all checks to its existence might be found in the system of open and gratuitous inspection by benevolent individuals above recommended. The public could never conspire to do injustice to an individual ; and while his confinement was continued under their eye, there would be very little chance of its being unjustly and unnecessarily prolonged. Or, the period of confinement might be mentioned in the sentence, leaving power to the inspectors, or some properly constituted authorities, to shorten it on proofs of amendment.

The efficacy of prisons established according to sound principles is no longer speculative. Penn first showed it in a practical way at Philadelphia. Several states in America, and several governments in Europe have followed his example, and the result has perfectly answered the expectations. Relapses of malefactors dismissed from prisons and common houses of correction are usual ; while in the houses of correction conducted according to the new plan, a small number are confined a second time, particularly when they are kept for some time.

The new method of treating criminals is advantageous also in other respects to society. The prisoners gain more than they consume, and being corrected they no longer injure orderly nor seduce innocent persons.

I cannot help mentioning a singular idea which prevails in different places, where means of public education are provided for, viz., that masters are required, subject to a committee, to expel from school any pupil who shall manifest an habitual and determined neglect of his duties. This advice does not seem to be conformable to Christianity. Jesus did not come to call the righteous, but sinners to repentance. The parable of the Prodigal Son, too, is given in a quite opposite spirit. I think that such individuals should be particularly taken care of, and not let loose upon society and exposed to all sorts of criminal temptations. Might they not be confined to a house of reform, and accustomed to regular habits ? The House of Reform of Juvenile Delinquents at Boston, in the hands of the Rev. Mr. Wells, furnishes a convincing proof of what may be done with such young offenders. Blessed be those who save their fellow-creatures from the precipice of perdition, and turn them to the path of righteousness.

It is important to understand human nature and the modified characters of the malefactors, in order to treat them properly, because every measure which the natural constitution of each individual renders available to produce amendment may require to be employed. A knowledge of this kind will confirm and render still more useful the practical views of several intelligent benefactors of mankind. The reader may consult John Howard on Prisons and Houses of Correction ; the work on the Prisons of Philadelphia, by a European (Duc de Liancourt) ; " *Theorie des Paines et des Recompenses*," par Jeremie Bentham ; " *An Inquiry whether Crime and Misery are Produced or Prévented by our Present System of Prison Discipline*," by Thom. Buxton ; the Annual Reports of the Board of Managers of the Prison Discipline Society in America, &c. ; and he will find in Phrenology a most satisfactory theory to explain and to direct the further application of the practical maxims of these and other authors.

Treatment of Incurable Offenders.—I come now to the third point of

penal legislation, viz., that which has for its aim to secure society against incorrigible individuals. I shall not enter into the vain discussions on the right of society to inflict capital punishment. I take it for granted that society is entitled to cut off one of its limbs for the sake of the happiness of the rest if there be no better means of securing that end; but death, as the last evil, ought not to be inflicted till all others have proved ineffectual.

Some crimes are punished with death in order to prevent their repetition. All judicious writers, however, speak with regret of the frequency of capital punishment, and deny that it has this particular effect. Death is not equally frightful to every one. Criminal legislators judge of others according to their own feelings; they fear death, hence they think that all men do the same. Experience, however, shows that to many persons death, when contemplated at a distance and as a contingency, is not appalling; nay, by some even the immediate infliction of it appears to be regarded as a small evil. The unfortunate wish for it, in order to be delivered from their pains. Those in despair destroy themselves, and many become the martyrs of ambition and religion. The laws themselves suppose that the loss of life is little in the eyes of many criminals, for means are taken to prevent them from putting an end to their days, which they would do rather than be confined for life. It is certain that many criminals are not at all moved by the sentence of death, and that they go to the gallows with perfect calmness and resignation. Inveterate criminals commonly say, "Dying is nothing; we must finish in that way."

It appears to me that there is no harm in delivering society from villains, particularly from those who are dangerous to the existence of others. A tree that brings forth no fruit is cut down and burnt; a furious animal is killed, and a dangerous fellow may, on the same principle, be extirpated. Yet I am also of opinion that capital punishment might be abolished, and replaced by other means which would be more effectual to protect society. There is an inconsistency in the present practice of inflicting death as a punishment for a great variety of offences; for certainly crimes differing greatly in atrocity do not merit exactly the same retribution. If it be true that crime must be judged of according to the perversity of the malefactor, and according to the mischief which results from the offence; and if it be established as an axiom, that a crime consists in the intention, and not in the action—all crimes which are at present capitally punished cannot be considered as equal in guilt. A man who intentionally kills his benefactor, or another who kills one who has excited his jealousy and disturbed the peace of his family; an inexperienced girl who, in a moment of despair, destroys her offspring, the cause of her misery for life; the horrid monster who strangles an old father to enjoy his inheritance the sooner; the prostitute who assassinates the companion of her debauchery; and the highwayman whose whole life is only a succession of robberies and murders, who spreads desolation and devastation in whole districts, cannot be considered as equally guilty. Either, therefore, the minor offences should be visited with a less punishment than death, or, to preserve consistency, the greater offences should be followed by death aggravated by increased horrors; a proposition at which even the sanguinary spirit of legislation

would revolt. But as it is said that death is the ultimate extent of judicial authority over malefactors, and that every punishment beyond it is cruelty, it ought not to be inflicted on individuals who might be prevented from doing evil by other means, such as confinement and education; nor on those equally who are guilty in very different degrees, particularly since it does not prevent others from committing similar offences.

If the proper means of education and correction were employed according to the law of nature, the injustice in criminal legislation now mentioned might be avoided; and, indeed, there would soon be no occasion for capital punishment at all. There ought to be a particular establishment for those who are confined for life, regulated by sound principles. It may be found necessary to treat some with severity, yet by far the greater number will be kept in order by less severity.

The idea of punishment is closely connected with that of different degrees of guilt. If the reformation of malefactors were the principal object of the penal code, the possibility and means of correction would be the first object to be considered, and the extent of the guilt only the second. Punishment would then be viewed as one of the means of correction, but all the others would likewise be examined and employed. The greater the villain the more care would be taken to correct him. At the same time it is natural to consider the different degrees of guilt. On this point many ideas may be communicated which are not adequately understood by legislators, because they are not sufficiently acquainted with human nature.

It is scarcely possible for human intelligence to decide with perfect justice in regard to the precise extent and innocence in every particular case. All the motives and causes which have determined a malefactor to commit a crime cannot be known by man, and without such a knowledge it is impossible to form a perfectly just estimate of the exact degree of guilt. Such a judgment must be remitted to Him alone who is all-wise. Although, however, human wisdom has limits, it must extend itself as far as possible. In penal legislation, extenuating and aggravating motives are admitted; and indeed some individuals, the fatuous and insane, are not held as answerable at all for their actions. In other cases, actions may be clearly illegal which nevertheless admit of extenuating motives. I shall speak of several grounds of extenuation which appear to me to be founded in nature, but which, nevertheless, are not considered as such in different countries.

ON ILLEGAL ACTIONS WITHOUT GUILT.

The first condition upon which a man is answerable for his actions is that he is free. Whenever moral liberty is wanting there is no guilt. This is the case at those periods when the human faculties have not acquired strength enough to exercise the will, viz., in infancy, or when the influence of the will is suppressed by a state of disease. In all countries a certain age is fixed when punishment may be inflicted. It is also admitted that a diseased state of the manifestations of the mind excludes culpability; but the extent and appearances of this state are not sufficiently understood.

I. *Illegal Actions of Idiots.*—Idiocy is complete or partial. Instances

of the former kind are rare ; of the latter numerous. Complete idiotism is easily distinguished, and does not require a detailed elucidation ; but the common manner of judging of incomplete idiotism is frequently very erroneous. Legislators and judges are not yet convinced that there are various faculties of the mind, and that the manifestations of each power depend on a particular part of the brain ; that one or several organs may be very active while others are in a state of idiotism. These facts, however, which, although not generally admitted, are true, explain why in some individuals the perceptive faculties and the inferior propensities may be very active, while the powers of the moral will are silent. Such individuals are like animals, and cannot be moved by moral motives. They act only according to the feelings which they possess, without being able to choose between motives. Pinel speaks of an idiot who had the most determinate inclination to imitate the voice and gesture of all persons around her. "It is observed," says Fodere, "that by an inexplicable particularity several cretins, endowed with so little intelligence, are born with a particular talent for drawing, musical compositions, rhyming, &c. I have seen," continues he, "several of them who learned, by themselves, to play pretty well on the organ or the harpsicord ; others, without having had any master, knew how to mend watches and to make various mechanical instruments. This phenomenon probably results from the more perfect organisation of the organ on which such or such an art depends, and not at all from the understanding ; for these individuals do not know how to read books which treat of the principles of the respective arts ; they are even disturbed at being desired to learn the principles." (*"Trate du Goitre et du Cretinisme."* Paris, 1800, p. 133.)

I have mentioned many cases in my work on Insanity (pp. 120-133), and in that on Phrenology, where I speak of destructiveness and acquisitiveness. Idiots, although mischievous, are not objects of punishment ; yet it is rash to say that all means of correction are useless. They ought, at all events, to be prevented from doing harm to others ; and as they cannot be left to themselves, there ought to be houses of security for such unfortunate individuals.

There are cases in which it is extremely difficult to decide whether there is or is not will. "Persons," says Dr. Rush (*"Diseases of the Mind,"* p. 268), "who are inordinately devoted to the use of ardent spirits, are irreclaimable by all the considerations which domestic obligations, friendship, reputation, property, and sometimes even by those which religion and the love of life can suggest to them. An habitual drunkard, when strongly urged by one of his friends to leave off drinking, said : 'Were a keg of rum in one corner of a room, and were a cannon constantly discharging balls between me and it, I would not refrain from passing before that cannon in order to get at the rum.'

"There are many instances," continues Dr. Rush, "of persons of sound understanding, and some of uncommon talents, who are affected with the lying disease. Persons thus diseased can neither speak the truth upon any subject, nor tell the same story twice in the same way, nor describe anything as it has appeared to other people. Their falsehoods are seldom calculated to injure anybody but themselves, being, for the most part, of an hyperbolical or boasting nature, and not injurious

to the characters and property of others. That it is a corporeal disease I infer from its sometimes appearing in mad people, who are remarkable for veracity in the healthy state of their minds, several instances of which I have known in the Pennsylvanian hospital. Persons affected with this disease are often amiable in their tempers and manners, and sometimes benevolent and charitable in their dispositions. Lying, as a vice, is said to be incurable. The same thing may be said of it as a disease when it appears in adult life."

The time will come when several malefactors will be declared insane, who are now punished. The only difference, however, will perhaps be in the aim of their confinement, viz., they will be shut up in order to be prevented from doing mischief, instead of being shut up with the view of making atonement to justice. The laws of Nature are severe, but they are just. General order must never be allowed to suffer for the sake of one or several individuals. Even these persons, however, must, as much as possible, be allowed to enjoy their natural rights. In a prison at Berlin (Stadtvoigtey) we found a boy of an unfortunate cerebral organisation: the forehead was low and narrow, depressed immediately above the eyebrows, much hollowed sideways about the eyes, but large and prominent about the temples. His countenance indicated slyness and malice. Dr. Gall said that such individuals should not be left at liberty, but ought to be kept in an establishment for security. The registers, when referred to, proved that the boy from infancy had shown the most obstinate propensity to steal. Such individuals, indeed, become more incurable upon every relapse. In such cases all means of correction should be tried first, and if these are found fruitless it should then be declared lawful to keep them for life, but to treat them with humanity. They ought to be considered as persons affected with a disease pregnant with danger to society. In general nothing but amendment of conduct should entitle malefactors to return to the society which they have disturbed.

Intellectual idiotism is commonly understood; but there is also a moral idiotism. Some individuals may possess intellect and strong animal feelings but very weak moral sentiments, which seldom, if ever, enter into activity, so that such persons constantly follow their animal propensities. They are deprived of sufficient moral motives and cannot be considered as accountable beings. Society has no other right but that of preventing them from disturbing others.

II. *Illegal Actions of Madmen.*—Madness is everywhere allowed to take away guilt; but its nature is not sufficiently understood. The most important points to be attended to are that it may be general or partial; that the feelings, as well as the intellectual faculties, may be deranged; and that general and partial insanity may be continual or intermittent. General and continual madness is easily distinguished, but partial and intermittent insanity is less known than it ought to be.

My ideas on these points are detailed in my work on Insanity, and I refer to it for a fuller development of the subject. Individuals under the involuntary influence of these faculties through disease are to be treated as patients, and cured—not as criminals, to be punished.

ON ILLEGAL ACTIONS WHICH ADMIT OF EXTENUATING MOTIVES.

It is impossible to weigh exactly the motives which may produce illegal actions. In examining whether an action be just or unjust we commonly think only whether it is conformable to the law or against it. Yet, as long as legislation intends to punish, the degree of guilt attributable to the individual cannot be entirely overlooked; for, otherwise, an idiot who assassinates would be liable to the punishment of a sane person—in short, extenuating motives would not in any case be admitted.

Violent passions and affections—such as anger, fury, jealousy, rage, &c., are considered as a transient madness, and are justly admitted as extenuating motives. But it ought to be known that some persons may feel internally an excessive excitement of these affections but yet restrain the outward expressions of them; nay, that such persons sometimes suffer even more than those who manifest their anger externally, and who tear their hair or stamp with the feet, &c. Shame, despair, and many secret affections darken the spirit of man as much as sudden and violent passions, and they derange equally the state of health and the judgment.

Moreover, the same exciting cause will act violently on one person and scarcely make an impression on another, according to their natural constitutions. Certain kinds of food—principally liquors—excite differently the individual dispositions of different persons. Wine or brandy renders one courageous and quarrelsome—another eloquent, sincere, amorous, sorry, gay, &c. The highwayman Peter Petri, a companion of Schinderhannes, seemed to be insensible in his common state; but when he had taken several glasses of brandy he behaved like a tiger, and attacked friends and enemies indiscriminately. We know the history of a woman who, after drinking some glasses of brandy, felt a strong involuntary desire to become an incendiary. Illegal actions done during drunkenness—at least the first time—should find in it an extenuating motive. The guilt is greater if the effect of spirituous liquors be known and if they be not avoided.

The most intricate situation, with respect to extenuating motives, is when one faculty in particular is extremely active in individuals. This may happen with regard to every power. If it be the case with a superior faculty, such as benevolence or reverence, the individual may be said to be fortunate. Yet, in the same way, every other feeling—for instance an insatiable desire of glory—may govern the whole conduct of some persons; and again, every animal propensity may become excessively active. This state is not insanity—the individuals are able to distinguish the influence which excites them, and have power to restrain it, and are therefore answerable for their actions; but their situation is an unfortunate one, for they are called upon to maintain a dreadful struggle with their ruling propensity. I know of a family in which the desire to drink liquors is hereditary—the grandfather and the father have killed themselves by hard drinking; and the grandson, when only five years of age, manifested the same inclination. There are similar examples with respect to acquisitiveness and destructiveness. The question, then, is, whether and how far the innate dispositions, when in this manner excessively strong, are to be considered as extenuating motives. At all events, it is certain that not only violent and sudden affections, but also various other

excitements ought to be considered as extenuating; and I have no doubt they will be admitted by degrees as they are understood.

Let us examine a few examples among the infinite number which might be quoted. A first lieutenant was inspired with a passion for the wife of a private in his company. This virtuous woman steadily refused his propositions and importunities without saying a word of it to her husband. One day, at exercise, the lieutenant treated the husband very ill, and ordered him several times to be bastinadoed. As the husband complained he was treated as stubborn and mutinous, and forced to be silent by fifteen other blows. His unfortunate wife told him the intentions of the lieutenant. From Thursday to Sunday he meditated and projected the death of his wife and children. He admonished his wife to confess, and to go to the communion table: he did the same. He was always mild, a good father, and an excellent husband; but now he excelled in these qualities. On Sunday, after dinner, he proposed to his wife to take a walk with him. He conducted her under the sallow trees planted along the glacis of the citadel at Breslau, and, whilst caressing her most tenderly, he pierced her heart with a dagger. He went back in haste, that he might not be prevented from sending his two children into heaven. He hoped to find in them intercessors before God. He killed them with a little axe; placed them on the bed, their arms crossed; then went directly to the guard, with a countenance of satisfaction, and told what he had done. "Now," added he, "may the Lieutenant of— make love to my wife. She and her children are secured against seduction and dishonour. They will be obliged to me for their happiness, and pray for me in heaven." The court-martial, at Breslau in Silesia, did not think of extenuating motives, but even aggravated his punishment, by depriving him in prison, and at the moment of execution, of the presence of a clergyman, who might encourage and prepare him for death.

The work of Crichton on Insanity contains several examples of this kind.

"Catharine Hanslerin, forty-five years old, was an inhabitant of Donauworth. She had been twelve years married to a man of a severe and unyielding temper, and, excepting a fever and some slight causes of indisposition, was a tolerably healthy woman. About the end of the year 1785, she was detected stealing milk in the village where she lived. She solicited, in the most earnest manner, that the circumstance might be concealed from her husband, whom she dreaded. It was promised but not observed. At first he was told of it in an obscure way, but he afterwards discovered the whole truth.

"The detection of the fraud made a deep impression on her mind, not only on account of her good name, but also on account of the treatment she was likely to receive from her husband. In consequence of this she became low in spirits and melancholy. She had confessed, but it did not relieve her mind. She prayed often without knowing what she said. She had been frequently seized with violent headaches, during which she was not conscious of what she did.

"Her husband, when he heard of her stealing, beat her severely. After this ill treatment she went to bed, trembling for fear, and dreading worse usage the next day. Her daughter, a little girl seven years old, came to her bedside and prayed with her. She had formed the resolution of leaving her husband, and asked her daughter if she would stay with her father. This the girl refused to do, as she was afraid of him. After praying devoutly, early in the morning she left her husband's house, and took her daughter along with her, and also her infant, that was only two months and a half old. As she was about to depart, she again asked her daughter if she would not rather live with her father. The girl answered she would rather die. The thoughts which this answer occasioned in the mother's mind, the misery and distress which

surrounded her, the fear of what might happen to her children in case she died, and at the same time her own ardent wish to finish her existence, all these thoughts caused her to form the barbarous resolution of drowning them.

"The infant she took in her arms, and being arrived at the banks of the Danube, she caused her daughter to kneel down and pray to God to deserve a good death. She then tied the infant in the arms of the girl, blessed them by making the sign of the cross on them, and threw them both into the river. She afterwards returned to the village, told what she had done, and was executed."

"A young woman, twenty-three years of age, was sent to the house of correction at Onolbach, 1755. She was received with blows and stripes. This treatment made so deep an impression on her mind that she began to detest life, and in order to get rid of it determined to commit murder. She thought that by so doing she would have time allowed her for repentance, which she knew she could not have were she to destroy herself. She premeditated her design in cold blood, and accomplished it on another woman in the following manner:—

"One Sunday she complained of being ill, and requested to be excused from attending Divine service. A simple and half-fatuous girl was allowed to attend her. She convinced this girl that there was no hope of their being relieved from their present miserable situation but by their both consenting to die, and she proposed to the girl to kill her first. The girl was soon reconciled to the proposition: the only condition she made was that her companion should not hurt her. She stretched herself out, and the murderess accomplished the horrid crime of cutting the girl's throat.

"Upon being asked, in the court of justice, what could have induced her to commit so horrid a deed as the murder of her fellow-prisoner, she answered, 'Fear of the sharp blows and pain she knew she had to sustain in the house of correction.' She thought within herself, if I take away my own life my soul is lost for ever, but if I murder another, though in that case I also must forfeit my life, still I shall have time to repent, and God will pardon me. When she was asked whether she had no hatred against the deceased, or if she had ever received any ill-usage from her, she answered that the deceased had never done her an injury, and if anything vexed the deceased she always came to her to make her complaints. Upon being asked if she slept well after having committed so horrid an act, she answered, that she prayed to God before going to bed, and slept well, and when she awoke she again prayed. She seemed perfectly calm and collected during her trial, until it was explained to her that she had drawn down the eternal wrath of God upon herself: then she wept bitterly. The physician ascribed the crime to despair, and *tædium vitæ*; but the law would not understand the hint."

There is a similar fact mentioned in the journal which is published at Leipsic under the title "*Zeitung für die elegante Welt*," (N. 92, 1st Aug., 1805). Amongst a great number of malefactors confined in the prison of Torgaw, and presented to Dr. Gall, there was a woman who had drowned her child, a boy of four years old. Dr. Gall examined her head, then took the hand of Professor Loder, who was present, and put it upon the organ of philoprogenitiveness, that he might examine its size. When the prisoner had retired, Gall said that that organ, the organ of murder (as it was then called), was in this woman small, and that in general her head was well organised. He desired to be informed of her character and capacities principally with respect to her crime. The magistrates said that this person was born of poor parents, whom she had lost early, and that she had received no education. When grown up she became a servant in the village. Everyone was satisfied with her conduct and behaviour. Unfortunately she was seduced and had a child. This being to whom she gave life was the cause of her misery. She was dismissed from service, and no one would receive her on account of her child. For a long time she did not know how to endure her situation. She loved her infant with the most tender affection, though she had reason to detest his existence. Finally, a poor peasant and his wife had

pity on her: they kept the child in their house, and took care of him for three years. The mother found a place, and her behaviour was very exemplary.

The child increased and gave great satisfaction to the adopting father, who loved him very much. This was enough for bad tongues to say that the peasant was his father. Satisfied with his conscious innocence he despised the wicked imputation, but this was not the case with his wife. To keep peace at home he was obliged to give the boy back to his mother. She begged her master and mistress in vain to keep her: in vain she represented to them that she had served with exemplary assiduity and fidelity. She was discharged in the most severe season. All the wealthy peasants treated her with the same severity. She sold whatever she possessed to feed her child and herself. He decayed through cold and misery. In this situation she prayed to Heaven to let them both—herself and him—die. Her maternal affection was overpowered by an internal voice, which said aloud that the only means of saving them was the destruction of her child! She preferred to see him die suddenly, and in a moment of despair she carried him to the River Elbe and precipitated him into the stream. Exhausted, she fainted away; and was found in this situation. As soon as she recovered her senses, she accused herself. During her detention before trial, namely, a whole year, she behaved very well; she manifested distinct and deep repentance of her deed, which, however, she did not consider a crime. The clergyman who visited her from time to time said she was not ignorant, but that she was mild and very docile. The superintendents gave excellent testimonials of her good conduct. These different motives determined the Court of Appeals to change the first judgment, according to which she ought to have been beheaded, and they condemned her to confinement for life, without being severely treated. Here she learned to write and to read, and her whole conduct was orderly.

From this narrative of facts, it is evident that her organisation was not in contradiction with her manner of feeling and thinking, and that she deserved the benefit of the application of extenuating motives.

There is no illegal action which has greater and more just claims to be treated with equity than child-murder. In various countries penal legislation is too severe in this respect. I am far from excusing a crime when it is voluntary; but I contend also for extenuating motives whenever they can be admitted. Legislators and judges are commonly more or less severe, according to their own manner of feeling rather than according to philosophical principles. Several say, is it possible to imagine a more barbarous and inhuman action than that of a mother, deaf to the cries of nature, destroying her child at the moment when he seeks for aliment from her breast? Others reply, that because infanticide is a crime against nature, and because the hearts of all mothers revolt at the idea of it, it is impossible that it can be committed except in a moment of derangement, and in a state of delirium.

Infanticide impresses us with the idea of barbarity and atrocity with the greater force, because it seems natural that the love of offspring should prevent such an action. It is true nature has endowed the greater number of women with this benevolent propensity; but in women, as well as in females of animals, this propensity has different

degrees of energy. Certain cows do not suffer their calves to suck; some pigs, cats, rabbits, &c., kill their young, while other females of the same kind of animals cry for several days, and refuse to eat, when they are bereft of their offspring. It is a lamentable truth that this difference of motherly love exists also in mankind. All women do not desire to become mothers; some consider their pregnancy as the greatest misfortune. Many mothers seek various pretexts in order to remove their children out of the house. There are others, who being freed from shame, reproach, misery, and many inconveniences, by the loss of their illegitimate children, yet shed tears for a long time after at the remembrance of them; others, on the contrary, see their legitimate offspring buried without a pang. Thus it is beyond doubt that natural love of offspring is very weak in some women. It is therefore wrong to believe that infanticide is a more unnatural act than any other murder.

I have examined thirty-seven child murderers, and in thirty the organ of philoprogeny was very small. It does not follow that a mother in whom the organ is small must necessarily destroy her offspring: my object is only to observe that this sentiment is not strong in every mother, and that if females in whom it is weak are exposed to various unfortunate circumstances, they are destitute of a great motive to combat the internal sensations which may impel them to this crime.

Almost all laws against infanticide are framed on the supposition that this crime, when not committed in a fit of rage and hatred, is always premeditated. But is it true that these two are the only affections which exclude premeditation? Different actions of our sex may be cited in answer to this question. How often does not the sentiment of honour, which is even preposterous, dispose man to hazard his life. Several have destroyed themselves for having lost a woman they loved. Others despair from disappointed ambition, or from the loss of fortune. Our sex, however, is the strongest; we are seldom destitute of all resources, or deprived of all hope of finding a companion for life. How different is the situation of an unfortunate woman. The intellectual faculties of the female sex are commonly weaker; hence they have less will to resist their stronger sensibility, and stronger affections and passions. Their sentiment of honour and shame is cultivated from infancy, exercised and exalted; and we require of young, timorous, inexperienced and sensible creatures, when the most dreadful event overwhelms them, to be cool, calm, and reflecting. The complaints of pregnancy, and many terrible thoughts during it, weaken the bodily strength, increase irritability, and disturb the mind. When the critical moment arrives they are most frequently alone, without consolation, overwhelmed with grief and weakened; how, then, can we expect that their judgment should be sound? and if such an unhappy mother destroy the feeble existence of her offspring perhaps in a fit of delirium, how is it possible to confound such an action with the most horrible of crimes?

Moreover, men and women are more irritable at certain periods. In my work on Insanity, I have treated of these periods of irritability in the article on Fits: it coincides with the period of the menses, and their delivery happens at the same time, viz., when the mother would have had the tenth periodical return. Thus it is natural that at this period

the unfortunate woman should feel her situation more strongly, and be more inclined to take a fatal resolution.

Our sex can never be exposed to such a misfortune ; and if, as it is the case in certain countries, we, the legislators, think that it is not expedient to require satisfaction from the seducer, and if we fear to be unjust against perfidy, why do we fear to be indulgent and humane towards the frail and disappointed female ? It is even conceivable that such an unfortunate mother may continually think of the ingratitude and perfidy of the father of her child : that she may consider how he has deceived her in the most infamous manner ; how he is the cause of her ignominy and misery ; how he forgets his forfeit, whilst, in some countries, the laws do not afford her any protection against him ; and how his stratagems are styled merely love intrigues. May not indignation trouble her understanding, and excite derangement of her mind.

Indeed, if it were not so difficult for a mother to take such a desperate resolution, infanticide, the result of illegitimate pregnancies and of perfidy on the side of seducers, would be much more frequent. Hence it is but just to take into consideration the internal conflict which may have deranged the senses of a child murderess, and to appreciate all extenuating motives. The ideas on infanticide which Dr. Hunter has detailed in a letter to the Royal Society of London, deserve the attention of every criminal legislator. I agree that it must be punished as murder when it is committed with premeditation, with mature reflection, in the complete use of moral liberty, without an urgent provocation, and through mere depravity of morals. In this case the legislator deserves all thanks for protecting the child who is without support and defence. But it is important to know how to distinguish the different circumstances which accompany this action, and there can be no doubt that very often infanticide admits of many extenuating motives.

Lying-in hospitals, where a woman with child is taken in and brought to bed without being obliged to say who she is and whence she came, very frequently prevent infanticides. In countries where such establishments are wanting child murder is more frequent than in countries where they exist. These institutions, however, tend so much to weaken the motives to moral restraint furnished by the obligation to support and to cherish offspring, that it may be fairly questioned whether the evils they produce in this point of view are not greater than those they prevent in the other.

In order to prevent child murder, there is a law in certain countries which obligates pregnant girls to discover their situation to some accoucheur or midwife. If they do not fulfil this formality they are supposed to have the intention of committing infanticide. In other countries the proprietors of houses are answerable for pregnant girls who live in them. They are thus required to know the state of their locatories.

Unfortunately, legislators are often in the same situation as physicians who attend incurable diseases : they try uncertain means rather than do nothing. The law which obliges women to intimate their state of pregnancy is in contradiction to nature. It is not necessary to mention that there is no need of such a law with respect to girls of the town :

these have lost their bashfulness, and will go to the lying-in hospitals to be delivered. Such a regulation, therefore, must be intended for timorous, bashful, and decent women who have been seduced. Now, the feeling of honour and bashfulness is considered as the best safeguard of female virtue, and is constantly cherished accordingly. Nevertheless, when such a girl falls, she is required, under pain of punishment, to make her shame known. There are men of mature age who would not, without the greatest reluctance, confess certain diseases to their most intimate friends. How, then, can the law be so severe on females for not confessing a circumstance which they are taught to look upon as more disgraceful than any disease? Besides, when we consider that such unfortunate girls are frequently actuated by a strong feeling of the ignominy and misfortune they bring on their family by their misconduct, we ought to recollect that their obstinacy in concealing their state may, in truth, be allied more nearly to virtue than to crime.

Thus, if extenuating motives are in any circumstances to be admitted, in no cases will they be more truly applicable than in those of infanticide.

In my work on *Insanity*, I have shown that suicide in many cases is the effect of a corporeal disease. It then admits extenuating motives. Criminal legislators, when better acquainted with it than they commonly are, certainly will modify the laws upon the subject. These very rarely are of much efficacy in deterring those who wish to end their days, and are no punishment for them after death; but it is not a matter of indifference to whole families to have the stigma of alliance with a malefactor forced upon them, when in fact they have only had the misfortune to be connected with a diseased individual. For details on this subject I refer the reader to my work on *Insanity*.

The considerations examined in this Appendix tend to show that legislation in every branch ought to have only one aim, viz., the general happiness of mankind, and that of each individual as far as it is compatible with the former; that penal legislation, in particular, ought to be corrective; that in prisons, the inhabitants of which are to be sent back into society, all possible means of correction should be employed; that capital punishment might be abolished, and the crimes for which it is inflicted prevented, by proper establishments. As punishment, however, is still the object of the penal code, I have treated of the different degrees of guilt which may be implied in criminal actions, and of some illegal actions that admit of extenuating motives, such as suicide and infanticide. From this Appendix, too, it may be inferred how important and necessary for legislators and judges is the study of man.

PREFACE.

THAT the various states of the mother's mind and body, before the birth of offspring, go far toward determining their health or debility, amiableness or ill nature, intelligence or stupidity, and all their other mental characteristics, is a momentous truth which all prospective mothers should fully understand, and which renders child-bearing inconceivably momentous in its influence on human destiny. To the elucidation and enforcement of this eventful law of nature, this work is devoted. It teaches mothers what regimen and conditions, in them, will secure the best constituted children; shows how to provide beforehand for a safe and easy delivery; teaches husbands what duties they owe their wives during pregnancy and nursing; gives directions respecting infantile regimen, and the early habits and management of children; and, last but not least, it shows how to prepare girls to bear a far higher order of children, as well as how to rear them after they are born; that is, it shows how to fit them for the great function of the female, namely, CHILD-BEARING and REARING. It moreover, in doing this, analyses female beauty. In short, it reflects upon this whole subject the sunlight of Phrenology, Physiology, and Magnetism; and as such, supplies a connecting link between the author's other works on man's social relations. Thus, his "Matrimony" treats SELECTION, COURTSHIP, and MARRIED life phrenologically; his "Hereditary Descent" applies the laws of transmission to the perfection of the ORIGINAL CONSTITUTION of offspring, by showing what unions will produce the most highly endowed germs of humanity; while his "Love and Parentage" teaches husbands and wives into what states of mind and body they should throw themselves in order to stamp the highest order of mental and physical organisation upon prospective offspring, or how to PARENT offspring. This work crowns the climax, by teaching mothers how to CARRY children, that is, how to manage themselves while fulfilling the highest and only SPECIFIC relations of the female as such, namely, the maternal. "His Physiology," "Self-Culture," "Memory," "Religion," etc., then complete this range of subjects, by showing how to conduct the physical, intellectual, and moral education and government of the young in accordance with the physical, mental, and moral laws of our being. When mankind understand and obey the laws of love, matrimony, generation, maternity, and education, will the millennium open upon our benighted world in very deed, and our race be regenerated and infinitely exalted, but not till then. Right education can do much, yet infinitely more when its subjects are endowed by NATURE with strong physical, high moral, and powerful intellectual capabilities, than when they are weakly vicious by CONSTITUTION. These reproductive and educational laws, understood and applied, will almost banish sin and suffering from our earth, restore to all mankind the garden of Eden in ten-fold luxuriance, and render our world a literal paradise of holiness and happiness. Man, so far from being a base-born son of perdition, "is created in the image and likeness of God" himself, and all required to

restore to him his primitive god-like capabilities and perfections, is RIGHT GENERATION, REARING, and EDUCATION. Prospective mothers, be conjured, by all the ecstasy of maternal joy with which splendid children will swell your exalting souls, and by all that untold shame and anguish with which their inferiority and depravity will rend your souls perpetually, to LEARN and FULFIL infinitely-momentous relations.

Some condemn this subject as improper and injurious ; but if it be so incompatible with female purity to study these maternal relations, how much more so to FULFIL them ! Away with such prudery ! It is a relic of squeamishness, as unnatural as it is injurious, and fast passing away. Whether the author's MODE OF PRESENTING this subject is or is not judicious, is another matter. Of this, mothers are his judges, because they have lost their fastidiousness, and yet retain all their true delicacy ; but neither girls nor old maids are proper umpires. Thousands of mothers, after having heard his lecture on this subject, have exclaimed, " Oh, I would have given the world to have known this at my marriage !" LOVE OF OFFSPRING is one of woman's predominant and most charming characteristics. Hence her hungering and thirsting after this species of knowledge. Nor should the maiden blush to learn how to fulfil those maternal relations which are as much a necessary consequence of marriage as heat of fire. For what but to bear children was woman—was the female AS SUCH—created ? For what else was the conjugal instinct ordained ? Nor should any female ever be led to the hymeneal altar till she knows how to manage herself at this period. My daughters must understand this whole subject thoroughly. None are marriageable till they do. Nor can young women learn anything of equal value to themselves or their prospective offspring, or neglect to learn anything equally at their peril. To show women how to bring forth and bring up a higher order of human beings, instead of those imbecile and depraved offcasts which throng our earth—to save mothers from those pains and premature deaths now so incident to maternity—are these pages sent forth. May they make better MOTHERS and better HUSBANDS of all who read them.

MATERNITY.

SECTION I.

PHYSICAL RELATIONS OF OFFSPRING TO THE MOTHER.

EVERY THING MUST HAVE ITS MOTHER.

MATERNITY is the door through which all that lives enters upon its terrestrial existence. As earth is the common mother of all those endless forms of life within and upon her, so every vegetable, every animal, every human being, has each its own specific mother. Thus the fruit tree is the mother of those seed-bearing fruits which reproduce their kind, while the pulp, or edible portion, is to the seed what its mother's milk is to the infant animal—a deposit of nutrition, to feed and moisten it till it can take root, so as to sustain independent life. And thus of all berries, nuts, and the seeds of every tree and shrub that grows; while the straw of grains, grasses, weeds, and herbs are their veritable mothers, and the edible portion of grains and seeds is to the chit or germ what the maternal breast is to animal and man. Potatoes, onions, bulbous roots, etc., all have their mothers, and, in turn, become mothers; and thus of all that grows upon the face of the whole earth.

This maternal law likewise governs every species, every individual of the animal kingdom. The female fowl is the mother of the egg, and the fish of the spawn, by which all feathered, all finned, all the reptile tribes, reproduce their kinds; and these eggs and spawn, besides containing the life-germ, likewise embody, in common with fruits, grains, roots, and seeds, a nutritious deposit, in form of the yolk, to feed the embryo during the process of hatching. All lower forms of life are equally governed by this maternal law. So are all higher. Every individual of all the mammalia tribes—horses, cattle, dogs, lions, tigers, swine, sheep—all four-footed beasts and creeping things, are offsprings of their specific mothers, and, where nature has her perfect work, receive nourishment from her life-giving milk.

All human beings, savage and civilised, past, present, and to come, likewise owe their existence to this maternal instrumentality. Who of us all but owes an eternal debt of gratitude to our mother for, at least, bringing us into the world, if not for nursing and caring for us till able to take care of ourselves? Heathenish wretches, they who neglect their own mother, even though she may abuse them; and let us all cling to and cherish our mothers with filial piety, nor fail to administer to their every comfort to our utmost capacity.

INTIMACY OF THE RELATIONS OF CHILD TO MOTHER.

Nor is it unimportant to the recipient of life, who or what is its mother. On the contrary, "like mother like offspring." That law, "EACH AFTER ITS KIND," so fully explained in Hereditary Descent, applies to maternity quite as forcibly as to parentage. Be the mother vegetable, or tree, or creeping thing, or fowl, or brute, or human, what she bears will partake of her structure, form, and nature, mental and physical, both general and specific. This is a necessary institute of nature. How could it be otherwise? How incongruous for a tree to bear a brute, or a human mother a lion! How wise, how promotive of happiness, this law that "like bears like."

Nor does this maternal law of similarity govern the various orders, genera, and species of the vegetable and animal kingdoms in their general peculiarities merely. It likewise extends even to all the MINUTIE of their respective characteristics and relations. Not only is the offspring of the human being also human—endowed with all the physical organs and mental elements of humanity in general—but it likewise takes on all those minor shadings and phases which characterise the mother. That same blood which sustains and re-supplies the organs of the mother forms and

nourishes those of her embryo. The blood is the grand instrumentality of all nutrition, of all formation, of universal life. All those materials out of which all parts of the infantile body are formed are conveyed to their respective places of destination by means of the blood. And since it is the grand messenger and instrumentality of life, as is this blood so is that life which it produces. Now, since the child is formed out of its mother's blood, and since the mother must be like her own blood, and the child like the same blood, of course mother and child must be alike, because both are like the mother's blood. True, the nature of the father is faithfully represented in the seminal germ, as fully shown in "Love and Parentage;" yet the child's partaking of this nature does not prevent its taking on that of the mother likewise. The reception of the paternal nature in no wise expels or even smothers that of the maternal. The former may be stronger in some cases than the latter, but what there is of the latter will be there, and all there. Indeed, this apparent exception proves our rule; for, when the maternal nature is weak, and, therefore, but faintly impressed upon her progeny, does not this debility of these maternal qualities, in both mother and child, establish the perfect reciprocity of the inter-relation existing between them? This is one of the very proofs of our law, and shows mothers how, by **STRENGTHENING** this or that quality, as occasion may require, in themselves to transmit it, thus enhanced, to their progeny. Indeed this is the great thought, the prevailing moral of our work.

The fact that the various conditions of the mother—vegetable, animal, and human—while bearing, affects the progeny, is so palpably apparent as to have impressed itself, though only indistinctly, upon the public mind. Why do we plant the largest and fairest ears of corn, and raise our seed-grain—seed everything—on our richest fields? Because the better the maternal stock is fed the fairer the progeny, and the better adapted to reproduce still fairer and better grain. Why are we so very careful to feed well, and not to over-work, and especially over-draw, our breeding mares during the entire period they are with foal? Because, setting a great value on colts, experience has taught us that the various states of the mother during carriage materially affect their size, beauty, and usefulness. Mothers, especially, evince extra care for them at this period, and see that they are doubly cared for; yet those who appreciate this point most far underrate its influence on the unborn progeny.

Is, then, the human mother an exception to this universal law of the maternal states as influencing progeny? Is she not even its highest example? Is it not a feature of this law that the higher the grade of vegetable or animal, the more intimate this relation between mother and progeny, and the more her states of body and mind affect its physiology and mentality? Why do vegetable and brute mothers cast their seed and young the sooner the lower they are in the scale of being, and carry them longer, as a general thing, the stronger and more perfect the animal or vegetable? So that the progeny may imbibe more of its mother's strength, and become the more perfected at the very starting point of life. But to argue the fact of such relations is superfluous; and that the reciprocity is **PERFECT** between the states of the mother and embryo will be seen as we proceed. Suffice it to sum up this point by applying to it that law of **UNIVERSALITY**, demonstrated and often referred to in the author's works, that where cause and effect govern a **PART** of a given class of functions, they govern the **WHOLE** of that class. Nature never works by piecemeal. What she does at all, she does by **WHOLESALE**. If **ANY ONE** state of the mother, however extreme, during carriage, produces the least effect on her offspring—and who does not **KNOW** that it does?—then every **CONCEIVABLE** state of the maternity affects the embryo. Either the whole, down to the minutest item of health, intellect, and feeling, or else nothing. If any one state of the mother's mind or body causes or induces a corresponding state of the child's mind or body, then must every possible state of the maternity similarly modify the original nature of the offspring.

APPEAL TO PROSPECTIVE MOTHERS.

Bear it then in mind, ye mothers of our race, that as you are while bearing every child, so will be that child. Every pulsation of health in you, will throb through their veins. Every pang of grief you feel, will leave its painful scar on the forming disk of their souls. Every flash of sweet and pleasurable emotion you experience, will sweeten and beautify, not their conduct merely, but stamp the original impress of amiableness and goodness upon their inmost souls. Every intellectual effort you put forth, will render them the more thoughtful by nature, the more fond of study, the more clear-headed, contemplative, intelligent and talented. And every exercise

of anger, every feeling of temper, every item of crossness and fretfulness in you, at this period, will it not brand this hating and hateful spirit into their inmost souls, to haunt them as long as they exist, here or hereafter? Will you, then, render them demoniacal, when you can make them angelic? Will you even give this eventful subject the go-by? What other compares with it in its momentous bearing on your and their present and eternal health, virtue, and happiness? Why have mothers thus neglected it? And will you still continue to render YOUR OWN DEAR CHILDREN devils incarnate—and that by your own sinfulness—instead of imbuing them with the spirit of love and goodness, by cultivating the heavenly virtues in your own souls? Hear, O ye mothers of our race! Learn the mighty import of these eventful relations you are COMPELLED to fulfil. Turn a deaf ear, ye who will, and, worse than the neglected ostrich, torture your children, and, through them, your own selves, with satanic predispositions; and, when grown, flay them alive, in vain attempts to beat out of them by the cruel lash, what your own selves burnt into their inner natures in embryo; but ye who are true to your maternal relations, will pause—will pray for light, and eagerly clasp to your maternal bosom, whatever will enable you to stamp a higher and holier impress upon your prospective little ones. Oh, I do admire the motherly in woman—the love she bears to her darling infant! Everything which appertains to this subject, sweeps the most powerful chord of woman's soul with, to her, the most thrilling of all notes. Woman, married and single, I KNOW I SHALL HAVE YOUR EYES, EARS, AND INMOST SOULS. NOTHING ELSE DO YOU EQUALLY DESIRE TO LEARN. NOTHING ELSE COMPARES WITH THIS IN INTRINSIC INTEREST, OR IN ITS BEARING ON HUMAN DESTINY.

SECTION II.

THE NOURISHMENT OF THE EMBRYO.

THE EMBRYO'S REQUISITION FOR NUTRITION.

The maternal function, vegetable and animal, is composed of two departments—the RECEPTION of the germ of life, and its NUTRITION. How infinitely much depends upon the former—upon the mental states of both father and mother when they unite to stamp the impress of life upon issue—the author has shown in “LOVE AND PARENTAGE;” as well as how much depends on the former, and how much upon the latter—subject which prospective mothers are most solemnly bound to investigate. NOURISHING the life-germ, till it has acquired sufficient strength to sustain independent life, is the second great maternal function. Nor is a mother less necessary here, than in generation itself.

As no living thing can be generated without maternal agency, co-operating with paternal, so no vegetable or animal can be reproduced without a mother to NOURISH it during the first stages of its existence. What would become of the embryo seed, grain, root, fruit, or animal, if separated from its mother the moment generation had taken place? The entire time between the blowing and seed ripening of all forms of vegetable life is one continual drainage of maternal nutrition for the embryo. Pluck a flower or head of grain as soon as impregnation has been effected, and what becomes of the seed? Tear the brute or human ovum from the mother the moment parental intercourse has taken place, and how soon it dies. Fowl, fish, reptile, may at first seem to be exceptions, but, observe, all eggs and spawn are furnished by the mother with a nutritious deposit, in the form of the yolk, the sole object of which is to feed the embryo till able to eat for itself. Why does the maternal stalk of grain, straw, grass, weed, beet, bulb, etc., fade and die as soon as it has ripened its seed? Because its entire stock of nutrition—and it puts forth its every energy to augment that stock at this period—is drawn from it by its ripening seed, and in order to such ripening. The sole object of the life of the animal and vegetable mother after impregnation, is to thus nourish the embryo seed. Every leaf, every root, every branch, every item of growth is for this purpose, and this only.

AMOUNT OF NUTRITION REQUIRED.

So, too, the draft of the animal embryo on its mother for vitality, is even greater. The latter does not, indeed, like the former, die the moment she completes her first reproduction, because her life is required for subsequent ones, but her embryo's draft

on her life-power is as much above that of vegetable seed on its mother, as animal surpasses vegetable.* And it is indeed a general law, that the higher the order of vegetable or animal, the more exhausting the reproductive process. Thus a single vegetable often reproduces millions—and the more the lower the grade—and the inferior animals, fish, toads, frogs, etc., multiply hundreds and thousand of times faster than horses, cattle, elephants, tigers, lions, monkeys, or man, because the higher graded the offspring, the more life it requires from the first for the formation of organs, and imparting to them the required impetus in the start. Is it not reasonable that the greater the number of the embryo's organs, and the more numerous and powerful its functions, the more sustenance it requires to draw from its mother, both to form these organs, and to support the requisite power of function till independent life is established?

But why dwell thus? Why amplify a principle which needs only to be stated to be admitted? Because I wish to impress, not merely the law itself, but also its BREADTH and POWER. Only think of it? Over two hundred and fifty bones, and five hundred and twenty-seven muscles, besides heart, blood vessels, lungs, liver, digestive apparatus, glands, eyes, ears, &c., &c., throughout the entire system of organs which make up the body! And every one of these organs the embodiment and utmost condensation of nutrition! Mark, also, that all organs, to become strong, must be EXERCISED. Hence that great amount of muscular motion put forth by the child before birth. And it takes far more vitality to sustain this exercise than merely to form the organs. In short, this bearing function is one of the most exhausting in nature. And the higher the grade of animal, the more it draws on the mother's vitality, because the more power is required with which to begin life. Hence the higher the animal the more slowly it propagates. Accordingly the human mother is ordained by nature to bear slowly, to wait for the reception of the germ of life till she has attained the age of from fifteen to twenty years, and to wait for a second until she has weaned the first, which, at the shortest, cannot be much less than two years; and evidently the order of nature is to nurse children some two or three years, which would separate births some three or four years, because this process is so exhausting as to require all this time to recruit so as to prepare for another.

THE FEMALE SECRETION

Furnishes an additional illustration of the amount of nutrition required by the embryo; for what is the secretion but the life's blood of the mother—the very essence of nutrition—secreted by the very organ which nourishes the embryo, and imbibed by the carrying and nursing process, yet discharged, because a surplus, when not wanted for these the specific purposes of its creation? And in general, the greater its abundance and health, except when in diseased excess, the more perfectly the embryo is nourished during gestation and nursing. This secretion is only an excess of nutrition over and above what the mother requires for her own self, so that the embryo may have that abundance of vitality which it must have, or starve to death before it comes into life.

Still another proof of this law is the HEARTINESS of mothers at this period, provided their general health is good. Though weakly mothers are often qualmish, sick at the stomach, languid, and troubled with all sorts of ailments, yet, mark, this is NOT THE ORDER OF NATURE. On the contrary, truly healthy women, whose female organs are healthy, and functions vigorous, have BETTER health at this period than at any other; and all would have if they would bring a fair degree of constitution and health to the fulfilment of these relations.

THE BEARING PROCESS INCREASES APPETITE.

This statement is rested on the experience of all healthy mothers. Let the lower classes of Irish, German, Welsh, Arabian, Indian, and other hale, hearty females settle this point experimentally. Let even any really healthy woman say whether she has not more appetite and better digestion, does not sleep better and breathe more freely, at these times. And let the woman, who at these periods is so weakly, full of aches,

* The fact that many other females, as the horse, cow, elephant, lioness, etc., carry their young quite as long as the human mother, may seem to be an exception, yet mark, the latter are again prepared for the reception of another life germ in a few days after delivery, while nature requires the human mother to wait till after she has weaned her last, which, in case nature had her perfect work, would probably be years, so that the multiplication of man is slower than that of any other animal.

and deadly sick at the stomach, remember that these pains are not nature's curse stamped upon child-bearing, but the penalties of her previous violation of the laws of health, aggravated at this period because of the greater draft on her vitality, which her previous debility prevents her from supplying.

And why should not all the vital functions naturally be more vigorous at this period? The mother has to eat, digest, breathe, exercise, sleep, &c., for herself as much as ever, and for her child in addition. Behold, then, the beauty of nature's provision for an increase of the vital functions in mothers at this period! What else could be expected? A beautiful adaptation of increased supply according to increased demand.

Nor let mothers neglect the great practical truth taught by this principle, but let all the intellect, all the maternal yearnings of their nature, avail themselves of its advantages. Let them, by every means in their power, enhance the flow of vitality in themselves, that their dear prospective child, instead of literally starving for want of life-power, may have all the support it can receive. Any surplus nature will evacuate by that secretion instituted for this very purpose. Too much can do no manner of damage. Too little weakens and stunts the tender bud in its first start, from which it can never fully recover. To look at this point in the light of a general law :

ALL VERY YOUNG ANIMALS REQUIRE EXTRA CARE.

If you want good cabbages, onions, or beets, or corn, or anything, keep it well weeded WHILE YOUNG. All practical gardeners are my witnesses that this is the secret of good gardening. The reason is this : if the young plant is choked and robbed of nourishment in the start, no after attention can ever make it any more than barely tolerable ; whereas, if well weeded at FIRST, it acquires that headway which carries it through finely, however much it may be subsequently neglected.

Good practical farmers bestow extra care and food upon their CALVES and COLTS. Young stock, if neglected the first winter, NEVER RECOVER FROM THE CONSEQUENT STINT, but if well fed and sheltered the first winter, subsequent neglect is not minded. A practical farmer related to me the following anecdote :—

"I had a mean calf in the fall, sired by an inferior male, and apparently worthless. I took extra care of it during the winter, and in the spring it eclipsed all my neighbours' calves so that I sold it for more than double the going price." And he certainly has now the finest yearling colt I ever saw, just by observing this rule. He also took extra care of it during the first summer. This law holds true of lambs, chickens, and every young thing, and the younger the more true. And this principle requires not merely that they be well cared for the first winter, but the previous summer. Indeed, the younger they are the better they require to be fed and sheltered, because the weaker they are, the less able to withstand cold, hunger, storm, &c.

Of children this is quite as true as of animals. Why this shocking mortality among children under two years? This principle answers : Their systems have not yet acquired sufficient vital power to resist infantile ails, yet, if they can be got through the third year, their systems become so established as to ward off disease. And the younger they are, the less they can withstand the causes of disease. Oh, mothers, if I could only impress this one truth upon you, I should save many a darling child from a yawning grave, and many a bereaved mother from a broken heart !

But, mark, this law applies with redoubled force to children BEFORE BIRTH. Better half starve the calf and the colt the last part of its first year than the first part, and better stint it the first year than neglect its mother before its birth. The earlier this starvation the worse, and far more detrimental before birth than after. As adults withstand cold, fatigue, deprivation of food, and all other hardships, vastly better than children, and half-grown children better than young ones, so even infants are injured far less by too little clothing, food, and air, than while in the foetal state. Is this not too obviously REASONABLE to require additional proof? Nor do any of us at all realise how important is a full supply of vitality to the young vegetable, animal, child—everything.

Prospective mothers, do be entreated to ponder well this law, and apply it to your own selves while carrying your dear ones. You are compelled, by an institution of nature, to breathe for them, eat for them, exercise for them, every thing for them as well as yourself. All the vitality they can possibly have they must obtain from you. Every other source is cut off. Suppose, then, you have not enough for them and yourself. You inflict upon them all the horrors of semi-STARVATION and SUFFOCATION, and of protracted deprivation of food and breath. Does such deprivation after

birth debilitate and disease them, and not far more so before? **THE YOUNGER THEY ARE THE MORE FATAL THE CONSEQUENCES!** Has nature taken so much pains to provide the female with this extra supply of nutrition, a part of which is evacuated in her monthly discharges, and a part by increasing digestion, sleep, etc., when such extra supply is of no special consequences? Does nature take such extra pains to do what, when done, is of little account? This secretion, when not required for child-bearing and nursing, is exceedingly inconvenient, as every woman practically knows. Would, then, nature burden her thus for nothing? Does not this fact show how **IMPERIOUS** nature's requisition for this extra supply at this period? And by as much as this demand is imperious, **BY SO MUCH IS ITS DEFICIENT SUPPLY FATAL** to offspring and mother, because it leaves the former weakly, small, languid in all its functions, and only half made—a **SLACK-BAKED** specimen of a tried-to-be-and-could-not specimen of humanity, exposed to be blown into the grave by the least adverse breeze, having a name to live while it is almost dead, and at the same time leaves its mother so far exhausted as to expose her likewise to disease and death. Mark, as bearing with momentous import on this point, the physiological law that

WEAKNESS INVITES DISEASE.

As long as the system is supplied with a full head of vitality, that vitality keeps at bay, restores prostrate organs, and secures—is—health. But let this font of health run low, and it leaves weak organs doubly exposed. Diseases, which a full supply of vitality would eject from the system, or at least bury up, a sparse supply allows to gain ascendancy, and master what little life-power remains. Vitality is the city, sentinel, and soldiery. When abundant, it stations its protecting corps all around and upon the wall of life, and fills the citadel completely with guards the most faithful and powerful, so that the least approach of disease of every kind is hailed and expelled. Be it that the gates are all open—be the exposure of disease what it may—this fullness of vitality is both watch-all and cure-all. But, when vitality is low, the weaker organs are left peculiarly exposed, the citadel of life is feebly guarded, **WHILE ITS GATES ARE WIDE OPEN**, so that disease finds ready access, sacks, and destroys it. This point is immensely important. How is it that some men retain their health half a century of habitual drunkenness? Does this being soaked in alcoholic poison do no injury? Aye, but their full supply of life-power casts out disease as fast as alcohol introduces it. So of exposure to miasmas, confinement to unhealthy occupations, etc. And this shows why what does a person no perceptible harm at one time, at another prostrates him with sickness, or hurries him to his grave. Before, this life-power fortified him; now its absence invites disease to enter, ravage, and destroy.

Prospective mothers, in view of this palpably apparent law of health, I lay the solemn unction to your own souls. Say, have you not, by having so little vitality at this period, brought forth children so feeble that slight exposures blew out the flickering rush-light of life? Oh, if mothers only knew how many infanticides they had thus committed, instead of sending missionaries to India and China to preach the wickedness of child-murder, they would preach to themselves and their neighbours the great practical truth before us! **MORE INFANTICIDES ARE COMMITTED IN OUR ENLIGHTENED (?) CHRISTIAN (?) COUNTRY THAN IN ALL HEATHENDOM!** **MANY READERS HAVE ACTUALLY PERPETRATED THIS HORRID CRIME—ignorantly, of course—yet did this save your child?** And is ignorance of such momentous truth, when attended with such direful consequences, no crime? The slow starvation and suffocation of your own darling child, till it becomes too weak to live!—what is more horrible? O ignorantly cruel, wicked mother! You richly deserve that your lacerated soul bleed thus at every pore. **YOU SHOULD NOT HAVE KILLED YOUR CHILD. SEE TO IT THAT YOU MURDER NO MORE.**

In 1844, while practising Phrenology in G., Mass., two married women called upon me for phrenological examinations. As I always remark also upon the physiology, when occasion requires, I said to one of them whose vital apparatus was too weak to support even herself, "Allow me, madam, to give you one item of advice, to you all important—namely, never to become a mother; because you have barely sufficient vitality to keep even your own self alive—much less to give birth to a living child; and this extra drain would almost certainly jeopardise your own life." The next day her friend called to state that she was then some three months advanced, and that my remark made her feel most awfully, because her only child, born fourteen years before, died at birth, and the father was inexpressibly anxious for issue and now had hope. I replied that if I had been aware of her situation I should certainly never

have made the remark, true though it was, because it was calculated to alarm and discourage her, which was especially prejudicial; yet that I should be glad to talk with her, because I thought I could yet give her that advice which, rigidly followed, would save herself and child. They accordingly called. I explained to her fully the physiological law involved, yet added that if she could enhance her vitality, and husband it ALL, she might bear a living child; and was confirmed in this decision by the fact that her appetite and general health had IMPROVED since she had been in this way. I told her that this single fact held out the star of promise, yet warned her that she must pay the utmost attention to her health; must lie down every day; must not do a stroke more work than barely to get what exercise she required; that she must be much in the open air—it was then June—and eat easily-digested food; masticate thoroughly, etc.; that she must have no care of the family, as such, but be simply an uninterested boarder, etc. She replied that her husband earned their living by day's work, and was just getting something ahead for a home; that she had been much expense to him by sickness, and hated to saddle him with a servant's hire while she was able to be about the house; that she could ill afford time even to lie down during the day, etc. I answered emphatically, "Madam, THIS IS A CASE OF LIFE AND DEATH, to your child at least, and probably to you, too. YOU MUST DO AS I SAY, or you will surely MISCARRY, and probably die yourself. Take your choice. Would not your husband rather hire help, and have a living child, than have no heir to enjoy his home and property?" She replied, "Yes, but—" and stopped. I followed, "Yes, but it is the one or the other, which is for you to say in ACTION."

Being in an adjoining town the next November, and feeling a deep interest in her case, I called upon her, and found her in a small kitchen full of the smoke of burnt fat, frying dough-nuts. "Good woman, what did I tell you?" I exclaimed. Her unborn child was still alive, and I besought her, at this eleventh hour, to follow my advice. My next news from her was, that she had been delivered of a still-born child, which died three days before its birth; and that she is extremely feeble. She is now dead; and her working thus at this time, was just as much suicide as if she had died of poison. She committed CHILD-MURDER, and on her ONLY CHILD. She blighted her husband's last ecstatic hopes, and turned his only joys into an agony of sorrow. She broke his heart by killing his dearest wife, as well as his only child, and all because too parsimonious to hire help, and too short-sighted to see that even ECONOMY, to say nothing of the life of mother or child, required that she be relieved of family cares and wearisome drudgery, just for the balance of her time only.

Mothers, know you no like cases? Have you not even perpetrated them? Or, if your dear child did not die before birth, did it not soon after? or, at farthest, barely drag out a precarious existence for a few months, only to fall victim to some form of infantile disease, because you did not endow it with sufficient life-power to resist even trifling disease? Oh, prospective mothers, do be entreated to pause here, and ponder well this momentous truth—the ABSOLUTE necessity that you furnish an abundant supply of the life principle to your precious charge during the entire period of its carriage—and then ask yourself whether you have enough both for yourself and it. If any doubt remains—if your own vitality runs low—take timely warning from the following allegory:—

A traveller started alone on a nine month's journey, and took with him barely enough food, though used with the utmost economy, to carry him through; nor could he obtain any re-supply on the road. But, improvidently, he did not husband his sparse supply of meal, but wasted much without baking it, carelessly let fall on the road many pieces of bread, and, to crown all, TOOK ALONG A COMPANION, whom he might just as well have left behind, and fed him all along their journey. But for this last imprudent act he might, after all, have had food enough to carry him through; but this told the fatal story. Their food failed them. He starved himself—he starved another to death, first by wanton waste, and then by dividing his sparse supply.

Reader, hast thou seen no kindred instance of folly and wickedness? Know you no mother, herself possessed of barely sufficient vitality to live long, between hawk and buzzard, load herself down with an embryo child, completely exhaust her vital powers, fall into a rapid decline, and fill a self-dug grave; whereas, but for such child, she might have lived, or have still lived if she had economically husbanded what little health and vitality she had? And her child, rendered weakly and sickly before it was born by its mother's debility, if it barely lived a few brief days or months, kept mother, father, all concerned, in perpetual fear for its death, and finally yielded up its feeble hold on life?

Another phase of this doleful picture. See you that sickly mother, fast sinking into a premature grave, perhaps of consumption, or nervousness, or female complaints, or some other forms of disease, who was well when she married, and till she had her first child, which was smart and healthy? But this shook her constitution to its centre. She became pale, emaciated, debilitated, and afflicted with female complaint, and various other ills. Yet they only crippled her, but not disabled her. She still worked, though in pain; but hardly aware that she was not still able to endure as formerly, thinking that, perhaps, after all, it was only laziness, and being very desirous of saving all outgoes for extra help, and helping her husband to lay up something for the future, worked on as hard as ever, and far beyond her strength. And, worst of all, she did more sewing, and more washing, and more scrubbing, than was at all necessary, merely to have her house, and all about it, look just so very nice, and clean, and orderly, and array her dear babe in fashionable, highly-worked frocks, whereas plain ones would have answered every purpose, except maternal vanity, even better.

Again she finds herself in the bearing state, and much more sick at the stomach, more nervous, and full of all sorts of pregnant ills than before, and wonders why in the world she suffers so dreadfully—is so different from what she was before. Her husband is, perhaps, building, or carrying on some enterprise which requires her to do for hired men, though barely able to drag one foot after another. In perpetual torture she carries that child. Having barely sufficient vitality to keep the wheels of her own life from stopping short, she divides this little with her embryo babe, and thus STARVES BOTH! Her system, too weak to resist the ingress of new diseases, and even to keep out what previous weakness had introduced, is besieged on all sides, and gives away—now here, then, then there, and anon yonder—till her time arrives; and a most dreadful time it is. But the life-power, though sunk to the lowest point, here rallies, summons every energy, and taxes every function to its utmost, and, after suffering all but death, carries her through. Yet she is completely exhausted; though gradually recovers, after a long lingering on the confines of death.

But her child is small, shrivelled, squallid, and extremely feeble. Though it has almost robbed its mother, yet it could rake and scrape barely enough of the materials of life to form only an imperfect organisation, and just keep the fire of life from going out.

Added to all this, its mother's aggravated and complicated diseases find their way into its daily food. It drinks in poison from its mother's breast. It lives on death. Gripping pains and infantile disorders cramp its stomach, interrupt its sleep, and render its young life, otherwise so quiet and happy, a torture. And, to cap the climax, officious nurse, or meddlesome aunt, or fussy granny, determined not to let nature have even the small chance of restoring it left, keeps dosing it, night and day, with this tea, and that drug—castor oil, of course, included—till its feeble powers barely suffice to keep soul and body together. Yet, wonderful the power of nature, it still lives! It would still weather the cape of death, if its frail bark were not forced upon the quicksands by over-nursing.

Its mother, also, lives—a marvel that she does—because the life-power clings with desperation to her young organisation. COMPELLED to take some rest, because utterly unable to work, her constitution slowly recovers—the drugging doctor to the contrary notwithstanding—and a hundred dollar fee must be paid to him for interfering with nature, and another hundred for incidentals; whereas a moiety of it paid out for help, so as to have allowed the mother time to rest, and kept her up while carrying her child, would have brought her safely through, saved her constitution from the utmost verge of ruin, and given her darling babe a fair hold of life in the start, so that it would have grown finely, been intelligent, and withstood the current of infantile complaints. But no, they could not afford to be thus penny-wise.

Let us turn to the husband's barn-yard. There is his old mare, worth, perhaps, twenty dollars, turned out to do absolutely *nothing*, yet it is well fed every day, at a greater cost than would suffice to hire a girl to do house work. She was treated very carefully all summer, was used only in light work, because heavy drawing might produce a sad loss—that of a—c—o—l—t! For two or three months before her time, the lazy beast is never harnessed, because her pampered excellency would not “come in” quite as well for it. And the hired men are charged to pay the horse-mother extra attention, while at the same time the human mother is made a pack-horse—a perfect family drudge—notwithstanding her sickness in addition to her pregnancy, to these very hired men! And the human mother must work, and keep working—slave, and keep slaving—must toil her very life out all day, and then worry all night, with

cross or sick children, up to the last hour of her time, and even after her pains have come upon her—because *possibly* they may, after all, prove to be false—and it is so necessary for her to work—so *much* better that she work an hour too long, than leave off and rest a minute before compelled to do so! Out upon this extra care to stop up the spigot, while you knock out the head—aye, stave the whole barrel to pieces! Oh, blindness without excuse! Oh, folly! thickened up with unpardonable guilt!

But to return to the sick mother and child. After a world of anxiety, and labour, and expense, both mother and child slowly recover. But no sooner is this down-sick woman able, by straining the point, to sit up half-an-hour than she must take her SEWING. Nature must be allowed no chance to rebuild her wrecked constitution, but just as fast as she obtains the least surplus vitality must that surplus be eked out in work, and very likely work which it would be just as well all round if left undone. But as she must still keep help, because extremely weak, she gets some rest, though her infant is very wearisome, her remaining child restless, and her husband too completely engrossed in business to give a single sustaining word through the day, and sleeps too soundly at night to relieve her in the least from her night watchings. Poor, neglected, self-abused, and husband-abused woman! And is this, indeed, the suitable return you get for bearing children? My soul bleeds for you! I would fain lay violent hands upon that horse-caring but wife-killing dolt. I would shake enough paltry business, or dollars, or stupidity out of his head to leave room for one warm feeling, one right idea, about wife and children. But, no; that pitiable victim of neglect, racked all through with pains—a deadly weakness paralysing every limb and function—more dead than alive—and, above all, *lonely in mind*, and completely broken in spirits—barely living long—yet every night or two, brute like—ay, worse than any brute—he must assault her, commit a perfect outrage upon her person, and heap on new fuel to those fierce fires in her sexual department, lit by his own excessive lusts, which are burning up the little life left to that miserable martyr to child-bearing. Yet still she lives. Her original hold on life was strong, and hence she is so long in dying. But she is too weak, and has too many and aggravated female complaints to again receive the germ of life.

She is, moreover, a continual bill of expense, to the serious and perpetual annoyance of her driving husband, who loved her once, and sort of pities her now, yet is becoming a little weary of her, and she feels it. But that poor, dear child, racked with pain, cries till complete exhaustion compels a few minutes' respite, only to give it strength for a fresh onset. It grows no better. Oppressed with its mother's diseases, both hereditary and by nursing, and so weak withal it barely makes out to live till warm weather, when teething and bowel complaints, or some other infantile disease, which, if naturally strong, it would have mastered at once, bring it down, and the doctor is called in to kill it off scientifically. Yet, well that it is dead. For the first time it sleeps now. Peace to its cold remains! Better dead, else it would have lived. Yet the *colt* is alive, and grows finely.

But, oh, that agonised mother! That dear babe, which she carried for nine long months in perpetual misery; which she bore in agony worse than death itself; which roused her from so many half-waking sleeps, when so completely exhausted—rendered doubly dear to her by its very sickness from birth—yes, that darling little pet is dead, and cold, and buried! And she, too, wishes she lay cold in death by its side. Life has no charms left, and death no terrors. But she has not been sufficiently tormented. Wait a little longer.

Her enterprising husband is, however, really getting into a very fine business, though he has made several bad debts, and would have had more money if he had done less business. Yet his wife and children are nothing—unworthy of one minute's fond regard, or casual word, or look of sympathy—though he did shed one tear at his child's funeral. But his colt grows finely; and since money is the only thing needful, drive, drive—stew, stew—hire, hire—give notes and pay notes—puff, blow, crack, break, fail, and at it again. I mistake—his wife is not wholly neglected, but is made a very poor port in very bad storms, till at length she becomes completely used up, and all broken down throughout every department of her whole nature. One of the main timbers of life has already given way. One spoke after another in the wheel of life breaks, the tire loosens and runs off, it strikes a stone, only a small one, goes to pieces, and she slides gradually into a welcome grave—a child-bearing martyr to her own suicidal ignorance and her husband's thoughtlessness, parsimony, and superior business talents. But that colt is becoming a fine horse, and its mother receives another furlough, with extra feed, because she promises another.

As the simpleton who thought little of his wife, but everything of his daughter, comforted himself on the death of his wife thus, "What though my wife be dead, my daughter Dorothy can now have her clothes," so these stock-caring but bereaved husbands have this great consolation left—namely, "Though my wife and child be dead, yet only just see what a magnificent span of colts I have raised!" Aye, and if you had taken half the care of bearing wife that you took of breeding mare, what splendid children you would have had, and mother alive to take care for them and you.

These husbands now brush up, and sally forth after another victim, and are beset by lots of caps, all eager to follow in the footsteps, because he is so respectable, so intelligent, so rich, and so extra-excellent a husband! This is a great country, and full of great fools and greater sinners.

Not that these particularly good and smart farmers take one item too much pains with either colt or mare. A fine horse is worth all the pains required to rear it, for without such pains colt and mother would fare worse than child and mother. He cannot have a good colt without all this pains, and has sagacity enough to see it. Yet where are his wits—where his conjugal love and parental affection—that he does not see that a similar treatment of his wife is indispensably necessary to secure a fine child? No, this colt-care is all just as it should be—is underrated rather than overdone; but in the name of even common humanity and common sense, why this senseless, this cruel, this criminal neglect of wife and child?

Husbands and fathers, do stop your drive, drive, hurry, hurry, tew, tew, long enough to learn your duty to your wife while bearing your children. See you those dear little birds? They have built themselves a pretty home, and the female is filling it with eggs. How charming those little attentions her mate lavishes upon her. How completely devoted and exquisitely tender. Thereby he renders her all happiness and sweetness, and this stamps the impress of loveliness upon her embryo eggs. Now comes incubation. How near her he keeps. How sweetly he warbles in surrounding branches—thus charming her tedious hours, and making her happy by notes of love. She hungers and he feeds her. His entire time, from "early morn to dewy eve," is devoted to her. Nor storm, nor wind, nor scorching sun, nor love of flight—nothing can allure or drive him from her side. As the delightful period approaches for the birth of all he holds dear on earth, oh, how his glad soul leaps for joy. They emerge, and he is electrified with parental ecstasy. And now how busily and delightfully he employs himself in feeding and sustaining both exhausted mate and darling little ones. Is he too busy in building, or farming, or speculation, to notice them? Does he do *anything else*? Every moment, every energy, are they not surrendered WHOLLY to her? Even the coarse-grained gander—can fences, can hunger, can anything but impossibilities keep him long at a time from the side of his dear mate? Approach their rude nest at your peril. And when his dear ones begin to peep in their shells what joy, what devotion. Go, thou indifferent husband, and take warning and instructions from your *gander*. One would think you could hardly tear yourself from your wife's side at these soul-ravishing periods. Yet, alas, for her and her charge, how seldom are you there? Oh, no—you must attend to your pressing BUSINESS. Instead of taking care of her your enslaved wife must take care of herself, her precious burden, and her house filled with your workmen besides, or else with a pack of rowdy children, which craze, worry, and torment her very life out of her, or perhaps both.

But what is it that your wife now requires? *Relief and recreation first*. She begins pregnancy worn almost out by day-drudgery and night-watching; yet you put your mare into "good condition" by extra rest and feed *before impregnation*—for the utility of which see "Love and Parentage"—and after it, she must do nothing for days or weeks, because this is the only way to get a good colt; yet not one of your poor wife's outward burdens are taken off, though her inward are thus immensely enhanced. To household burdens already crushing, without rest, without sympathy, you load her with this most exhausting burden of all. Her former burdens were all she could possibly endure. She was breaking down under them; yet repined not, because she bore them for one she dearly loved, and you therefore thought she felt them not. But you force upon her this second burthen, without relieving her strained energies in a single other respect. *How can you be so thoughtless*? Your gander is less a brute than you, and would teach you, but you are too stupid and too busy to learn. He is a better conjugal partner than you are, and more true to the masculine office.

"But do not be so severe on me, I never saw this matter in this light before," you apologetically answer. Aye, that's it. Why not seen it in this light? Is cloudless

noonday sun more palpably apparent than that this view is the only correct one. How could you fail to see it? *You did not duly love your wife, or you would have thus seen it.*

"Yes, but I get everything wanted in the family—buy her nice dresses, rich furniture, etc."

Aye, but you are *indifferent* towards her, and this cause of your inattention to her is even more cruel than the neglect itself.

"But what would you have me to do?"

Duly love your wife, and this will suggest all the rest. If you cared a tithe as much for her as for business, these things would have forced themselves upon your attention beforehand, and have told you what to do.

Yet, as you wish to learn, I will be more specific. What is it that your wife requires at this period? Just what her foetal child requires, and that is, first, *vitality*. What it requires, and about all it requires during the first few months, is, *abundance* of that animal energy derived from sleep, food, fresh air, etc. Without this, it must begin the race of life under every disadvantage, and always lag behind. Vitality is the sole motive-power of every organ of mind and body. It is to the organs what steam or water is to the machinery; and as the latter moves slowly and feebly, or briskly and powerfully, according as this head of power is high or low, so of all the bodily organs—so especially of the brain. The first great condition of *health* in children is this maternal vitality. The paramount condition of talents in them is this same vitality. In short, maternal vitality is the alpha and omega required. Furnish this, though you deny everything else, and you lay a deep, and broad, and solid foundation for life, health, talents, morals—everything; but refuse this, and all else goes for nought.

Be it, then, your paramount concern, to *enhance your wife's vitality*. True, you cannot eat, breathe, and sleep for her, *but you can relieve her from family cares*, and thus allow her time for that rest which nature will compel her to take. If you cannot breathe for her, you can, at least, get her out of the stived-up kitchen into the fresh air, so that what breath she does get shall do her some good. You can persuade her to rise early; can provide others to see to restless children during the night, so that her sleep shall not be interrupted. And when she awakens refreshed, instead of sending her into the smoky kitchen to get breakfast for you and all hands, you can proffer her your fond arm—she will not refuse you—and take a refreshing promenade before breakfast, and an exhilarating ride after it; and then insist that, whenever she feels the least appetite for food or sleep, she shall be furnished with every help to it. You can do a thousand such little things, which circumstances and a high order of love will prompt, and thus give her nature time and facilities for providing an increased supply of vitality, adequate to her own and child's demand; so that her pregnancy, instead of causing such deadly sickness and complete prostration, shall really revive her constitution, and bring her to her accouchement full of that life-power which alone can carry her through, as well as secure a healthy issue.

"But I am a poor man; how can I afford the time, the extra help, and the horse-hire, to execute these ends, which I admit to be desirable when practicable!"

You can afford all this far better than to *lose your wife*, or have her or her child sick. Help is less expensive than doctors. Reference is now had to this matter in a *pecuniary* point of view, merely. Granted that you are poor, *the more so the better you can afford to pursue this course*. Are you not too poor to render wife and child sick, and then to pay doctor's bills, and funeral expenses? If you were rich, you might better afford to have your wife work in the kitchen; but you are too poor to make her sick for the time being, and break down her constitution for life, by kitchen drudgery while pregnant. Relieve her then, and she will make it up ten-fold, by subsequent ability to labour. And is not this carrying your child enough, in all conscience, for her to do, for the time being? Already is she loaded clear down to the water's edge; why sink her, by imposing additional freight?

By one other most effectual means you can relieve her labours; by requiring *less to be done in the family*; by putting up with many a cold dinner, and persuading her to leave every thing not absolutely necessary undone—to let household matters slide—and do only what she is abundantly able to do, and let the balance go. Most of your wants are purely artificial. "Man needs but little," and at this period should want still less; and then should mostly help himself, allowing his wife to do barely enough for exercise.

You thus perceive the imperious necessity of a full supply of vitality, that your forthcoming child may be healthy, strong constitutioned, full of life-power, and possess strength of brain and mind. What can be done to secure it?

Rigidly observe the laws of health. You should study Physiology. No woman should ever approach the hymeneal altar, or suffer herself to be put into a way to bear a child, till she knows how to manage herself during this eventful period. Oh, if fashion-loving women would appropriate to physiological and other studies, and preparations for bearing children, the time and money they now squander on chasing the butterfly of French fashion, how incalculably more happy would they be, and how infinitely superior the children they would bear, to those puny Liliputians they are now bringing into the world! The accursedness of these fashions God only knows. Be entreated, O prospective mothers! to sacrifice to-day's fashionable glitter upon the altar of your prospective child's eternal good. You need not sacrifice one single comfort, but multiply them all. I ask only that you do not expend in perfectly non-essentials, that life-power so absolutely indispensable to your own future well-being and your child's forming capacities.

Sleep much. The restorative power of sleep you know too well to require amplification here. Nothing does a pregnant woman require more imperiously, or more in quantity. How clearly does nature point to this necessity. How sternly and perpetually does she urge you to sleep, and also to take relaxing lounges, on sofa and bed, though not tired enough to sleep. Giving yourselves abundant sleep and rest at this period will alone, with due feeding and breathing, carry you safely through incredible labours, even during pregnancy. Bear this in mind, and every day, whoever may call, however pressing your work, or however well you may feel, take an hour's sleep before dinner, and another hour's lounge after it. Especially, let nothing disturb your night's rest.

Retire early, and if children cry, be entreated to lodge them in some room where they will not disturb your repose. Oh, I wish I could impress upon you the importance of sleep, and the evils of its deprivation, its ruinous effects on you—on your prospective babe. Do heed and practise.

Let your food be nutritious, yet easy of digestion. As you have to eat and digest for your child as well as yourself, you especially require to take every advantage in aid of this function. Waste none of your stomachic energies, either on innutritious food, or on clogging digestion by overloading your stomach, or any violation of the dietetic laws; and you will be an infinite gainer if you study these laws, merely to guide you in this eventful matter.

Yet the great difficulty is, not to eat enough, but to *digest* what you eat; to convert it into good chyle for nourishing yourself and unborn infant. But this is not the place to develop the laws of digestion, or give full directions concerning it, but to point its *importance*. The author has written another work, entitled, "*Physiology, Animal and Mental*," the express object of which is to give those *practical* directions as to food, bathing, recreation, sleep, and the other conditions of health required by all, and especially by pregnant mothers. That book will tell you in detail what you require to do.

BREATHE COPIOUSLY OF FRESH AIR.

Imperfect ventilation is bad for all, and doubly bad for prospective mothers. They must breathe for two. If she remains mostly within doors, and in heated rooms, where the vitality of the air is mainly burnt out, and what there is is highly rarefied, so as doubly to reduce its life-imparting oxygen, how can she inhale oxygen enough, even for her own self, much less for her child, too? Hot stived-up rooms are bad for all, but ruinous for bearing mothers. *Be much out of doors*; air your bedroom, and open its door at night. *Off with all corsets*, so as to give your lungs full play, and wear perfectly *loose dresses*. Than compression here, nothing can be worse.

But many women are so ashamed of themselves, that they girt their protruding abdomen, and house themselves as though they had committed some disgraceful crime, and must hide it under stays and within doors. Shame on your prudery. For what were you created a woman as such? Simply to bear children, *and for nothing else*. Then why be ashamed to be seen while fulfilling your destiny—your *only* destiny as a woman? Do you not know, that all pure-minded men and women regard you with redoubled interest at this period, and sympathise with you? These maternal relations materially enhance your feminine attractions: nor do any but those who are adulterers at heart, look upon you with any other feelings than that of increased respect and pure regard. They instinctively admire in you this fulfilment of your natural destiny. Hence you should take pride in appearances, rather than strive to repress them. Or, more properly, you should neither pad nor lace, but just let nature have her perfect

work. And since your being in this situation enhances your attractiveness, and also the happiness of others on beholding you, why not appear abroad *all the more*? Why not glory in your prospects, instead of sneakily trying to hide them under a bushel? The current idea that women must not appear in society at this period is all stuff. Such prospects are her *pride*, not her shame; so that she should appear in street and drawing-room, church and lecture-room, just as much then as ever, if not more. Say, common-sense readers of both sexes, are not these views every way correct? Then it becomes your duty to draw prospective mothers *into* society, instead of frown and shame them back within the lonely, stifled precincts of their own chamber.

Another reason for their appearing in society, founded on the child's mentality, will be given as we proceed.

REGULAR EVACUATIONS ARE PARTICULARLY IMPORTANT.

Torpor of bowels, produced by foetal pressure on the rectum, is one of the prospective mother's great annoyances, and still greater evils. The special attention of mothers is invited to this point. Nor should they fail to secure peristaltic regularity beforehand, so that, when they are in this state, this function may be kept regular with the more ease.

Other like directions, touching scarcely less important functions—such as bathing, keeping up the tone and action of the skin, &c., are scarcely less important; yet the object of the book is to call attention to the importance of these subjects, and incite mothers both to study physiology and to take extra care of their own health at these periods, rather than to go into detail of the modes and means of securing this vitality. Prospective mothers, do be entreated to give this whole subject of the abundant supply of vitality to your unborn child, the attention it deserves. You can give your child only what you have, and if your fund of life-power is weak, how can it be anything else?

SIGNS OF MATERNAL QUALIFICATIONS.

Yet this law has one exception. As some trees grow poorly because all their energy runs to bearing, while others bear little but grow rapidly—as some cows, sheep, etc., are always poor while pregnant, yet bear fat and fine young—so some women naturally rob themselves of vitality, and thereby, though weakly, furnish a good supply to their embryo; that is, they are good bearers. And this is an excellent quality, if not carried to extremes, so as to completely exhaust the mother, and thus ruin her constitution.

This shows why some women will be very feeble and down sick during their entire time, so that you would think their offspring must be too weakly to live; yet it proves to be a fine healthy child. It also accounts for the converse fact, that some prospective mothers, though remarkably healthy, bear very puny, small, delicate children. In the former, the placenta is so vigorous as to rob the mother of life to bestow it upon the child; while in the latter, its feebleness leaves the mother well supplied, yet gives but little to offspring. As the food and vitality of some cows go mainly to milk, so as to keep them always poor, while those of others go to beef and fat; so of the human female, as to both carriage and nursing. Nor is it probably difficult to tell even before marriage, and from visible signs, whether a given woman will, in this sense, be a good or poor bearer—whether she will involuntarily rob herself to feed her child, or starve the latter while she revels in health and looks fresh and rosy. There are undoubted signs by which this matter can be predicted beforehand, with perfect ease and certainty. Why not, since we can generally determine this identical point in cows, or that which involves it; namely, whether they will be good for milk; and thus of all females? And why will not those same signs which enable us to determine the one, also apply equally to the other? They will, only that we have not yet learned to apply them. But men *will* learn. Whether a given young woman will make a good or a poor child-bearer and nurser, is too practically important not to be scanned by this utilitarian age. And let females remember that their *maternal* qualifications, as such, or to use a plain term, because it exactly expresses the sense intended—their *breeding* qualifications, *as such*—are more easily and more generally observable than they suppose. And though cotton breastworks and circum-virioning bustles may mislead green ones, by there appearing to be something where there is nothing, yet the real state of your maternal department is perfectly apparent to the first scrutinising glance of the well-informed physiologist.

RATIONAL OF FEMALE FASHIONS.

I see I shock and offend many, but do not scorn my book till you have read a little further. I have an object—and that object is your own and your children's highest good—in making this personal allusion. And first, I beg to ask, if cotton padding and pelvic distenders are so very vulgar, why, in the name of all that is modest, do you wear them? If it be so decidedly vulgar to name them, how much more so to wear them!

Yet it is not surprising that women pad and bustle themselves off thus; nor that young modest girls do this, "because it is their nature." Because the entire attractiveness of the female as a female—all that is beautiful and lovely in woman as such—consists in these indices of her being a good child-bearer. You spurn this idea, but wait and examine it. Indulge me in a little plain talk; not by any means for the talk itself, but on account of the *philosophy*, and the momentous *truths* taught by that philosophy.

THE CONSTITUENT ELEMENTS OF THE FEMININE.

In what, then, does female beauty consist? In female perfection, of course. But what constitutes this perfection? A fitness to fulfil her destiny; for in this consists all beauty, all perfection. Then what is that destiny? What is the primary, paramount function she was created to subserve? Not what subordinate offices she can attain, and good effect, but what is the *great*, the specific, the *one* cardinal end she was ordained to fill? Everything in nature has one *paramount* function, and but one. The heart subserves one *primary* end, the lungs another, the eyes, ears, and other organs, each another. And thus of every genera, every species, every individual—every part of every thing in nature.

Then what is woman's one great destiny—her primitive end—her paramount office—her controlling function? What the rationale of her being? In short, why was she created a woman, instead of anything else? I ask not now why she was created a human being, but why she was created a human *female*? She was created a female simply to bear *offspring*, and rendered a *human* female solely to bear human beings. *Maternity* is the one destiny and function of woman—that for which she was created. All the other ends she is fitted and required to subserve, are secondary to this. And she is the most beautiful and perfect woman, who is fitted by nature to bear the best children; while those who are the least fitted for this end, are, *therefore*, the most homely.

Of course, woman will raise one general hue and cry against this doctrine. She will affirm that this detracts from her high ends and exalted capacities. But consider a little. Let not mere prejudice determine so important a question. Let your natural *adaptation* decide it. This umpire is final, and its decision too palpable to be mistaken.

What answer do woman's anatomical conformation and physiological constitution give to this question? I speak not of her anatomy as human being, but as a *woman per se*. She has bones, muscles, limbs, eyes, and other organs, like those of men; but these are common to both sexes, whereas our ordeal has exclusive reference to her *sexual* anatomy and physiology. That this points to child-bearing as its paramount and only function and destiny, is too apparent to be argued. This granted, does it point to anything else? I pause for a reply. What one organ and function of the female, as a female, has primary reference to any other end?

The female pelvis is constitutionally larger, relatively, than that of man. This is the great and final test of whether a given skeleton is that of a male or female. Man is broadest at the shoulders, from which central point he tapers both ways; while woman is widest at the hips, because her maternal function requires the concentration of her power at this point.

Why this greater pelvic development? Because it contains these very child-bearing organs; and the larger it is, the larger these organs; and the larger and more vigorous they are, other things being equal, the better children will she bear, consequently the more perfect the woman, as a woman. The female anatomy, then, settles the question absolutely in our view; because the only distinctive point of difference between the female skeleton and that of the male, is that which adapts it too, and fits it for, this sole end. What can be more conclusive than this argument, drawn from her *anatomical adaptation*?

Turning from the anatomy of her bones to that of her fleshy organs, we find this confirmed. For what other end were these organs created, but to receive, and mature, and bring forth, the germ of humanity. Absolutely nothing.

If it be urged that the female breasts constitute an exception, the answer is, that they confirm our argument. For what were they created? What destiny do they subserve, other than the nourishment of the infant? And is that not an integral part of the child-bearing function? We use this term child-bearing in the general sense of bringing up, as well as bringing forth, children, and consequently mean, that the sole destiny of the female, as such, is to BEAR, NURSE, AND EDUCATE, till they are capable of caring for themselves—concentric ends, of course, included.

"But," it is here objected, "woman is certainly adapted by nature to become a WIFE, quite as much as a mother." Aye, but a wife solely that she may become a mother. The whole philosophy of love and matrimony centres in, and appertains to, propagation. All these delicate attentions, and pure exquisite feelings of oneness and love, are instituted for the purpose of fitting and inclining them to become parents. Nature brings them together in wedlock SOLELY that they may unite in propagation. Nature's only end in instituting love is propagation, just as much as the ultimate end of eating is nourishment. Neither love nor marriage have any other natural adaptation. They are not primary institutes of nature, but secondary to that one end of both the masculine and the feminine creation—namely, the continuance of the race.

Fair readers, pout and pooh at this institute of nature as you will, it is nevertheless true, and you know and feel it. It accords with your inner consciousness, as well as your perception of adaptation. And you may as well admit this point first as last—may as well know what your natural destiny is, that you may know how, and be fitting yourself to fulfil it. I have not rashly put forth this principle. On the contrary, it has burdened my mind for years, and is one of only two points which I hardly dared to bring forward. The other will be forthcoming in due time—my moral courage being ready for the sacrifice, as soon as time and strength will permit me to present it effectually.

Nor have I brought forth this view of woman's nature to lower her in the scale, but to elevate her; for, though limiting her to mere babe-bearing and nursing might, at first, seem to confine her to a very insignificant destiny compared with that of man, yet he does nothing more important, if equally so. The magnitude of this destiny it is not possible for the human mind to conceive. What causes, wielded by man, equally affect human happiness and destiny here and hereafter? What condition equally determines the fate of individuals and the race? How far the mother, in her distinctive capacity as mother, controls human health and power of body and brain, has just been seen. How far she likewise determines, by the same means, human virtue and vice, talents and imbecility, moral propensities and animal propensities, will be seen hereafter. What one function, throughout universal nature, is as important as the maternal—the seed-bearing, the animal-bearing, and child-bearing? What other does nature take such extra pains to secure? To what other does the natural destiny of every vegetable, tree, animal, and human being, point with equal force as the *paramount* function of herb, brute, and man? What if there were no mothers? What other calamity could equal this? Our RACE cut short, and all the capacities of every one of its prospective myriads, throughout all coming time and eternity, of enjoying and accomplishing covered with the mantle of oblivion!

I said no calamity could equal this. I except one—the destruction of all the males, of the horrors of which the women of Benjamin, when their men were nearly all slain in battle, give a faint idea. I would not put the feminine function above the masculine, or woman and her destiny above man and his, yet I would put her and her natural destiny at least on a PAR with his. Is this degrading her? I tell you, women, you infinitely underrate the maternal function—its power over human weal—its importance in the scale of being—and, therefore, when I circumscribe you to this destiny, you wrongfully accuse me of lowering you. If this function were a trifle, and your only destiny, then indeed might you properly complain; but not all the encomiums ever lavished upon woman at all compare with the exalted character implied in this her maternal destiny. In the language of our motto, "She is queen on earth who produces the highest order of children." Voting, legislating, public speaking, swaying the destinies of nations, wearing crowns and diadems—all are trifles compared with bringing forth and bringing up superior children. Was not Washington's MOTHER quite equal to Washington himself? Could we have had him without her? Does the world owe him a greater debt of praise and thanksgiving than her? and him, because of her? Then why accuse me of detracting from your importance, relative or absolute, by limiting you to the maternal destiny?

Nor do I put forth this definition of woman to expose her to ridicule. No; I

worship the true woman in general, and the maternal function in particular, too devoutly to make light of either. I set too high a price on woman's susceptibilities to wound them, except to benefit her. I also love her too well not to tell her the truth, and the WHOLE truth, as a means of perfecting her. Man is the one to tell woman her faults, and how to perfect herself, and the woman to tell man his. The order of nature is for man to mould woman into the image he loves, and for woman to mould man. *Love to the feminine* dictates every word of this book. And the paramount labour of my life—my one "heart's desire and prayer to God"—centres in woman's improvement. This is the grand focus of all my lectures—all my writings—all my life. But to obviate her faults, and improve her virtues, I must teach her her *nature*, and this is precisely what I am now attempting. I would disclose the true philosophical necessity of the feminine, the rationale of woman, the ADAPTATION, and therefore sphere. I would show her, in the light of her philosophical adaptation, that her one specific function is to bear children; that by perfecting this one constituent element of her nature she may thereby and therein perfect the quintessence of her inmost self. Till she fully understands her natural use, how can she fit herself for that use? Nor can she possibly improve her maternal capabilities without therein proportionally enhancing every female charm, and heightening every female virtue; for in this one point centre all her attractions—all her perfections. This is the mainspring of her nature, which keeps all her subordinate powers in harmonious action. It impaired, she fades; it destroyed, she dies; it improved, she shines forth in new splendours. *Maternity*—this is her holy of holies—this her decalogue. Then what good can I do her at all to compare with enforcing this very point under discussion, that *child-bearing*, nursing, feeding, training—education, and accompanying ends included—is her specific and only natural use? that maternal excellence is the embodiment of female charms and perfections? And what truth can she learn of equal practical moment to herself—to the world? Be not then offended: nor will any but squeamish prudes whose glory is their shame, and whose sole excellencies are faults. No true woman but will see the intellectual force of this philosophy, and feel the internal consciousness of its truth. "Am I then your enemy, because I tell you the TRUTH?" Sensible women will prize me the higher, and help me the more. As to those sounding brasses and tinkling symbols—who are only what the silk-worm, milliner, and dressmaker has made them, polished off by boarding-school glitter—why, it matters as little what they like and say as what the fluttering insect likes and does. They are perfect inanities. They have the outward form of women, but are too deficient in feminine soul or character to weigh a feather in the scale. They are mere motes on the sun-dial of time, and tolerated by nature only because their room is not now wanted. Better them than nothing, though not much; but as fast as true woman require their places will they vanish like the morning cloud and the early dew. Let them pout and turn up their minny noses, or laugh, or praise, will anything they can say or do affect ME, or interrupt TRUTH? Flutter on ye apologies for your sex! Fashionable things—what are ye to the mountain torrent, the ocean wave, the fierce winds? Yet is anything I have said calculated to offend anyone of correct and enlarged views? But whomsoever nature's stern truth, delivered in her oracles of adaptation, offends, let them be offended.

FEMALE BEAUTY—IN WHAT DOES IT CONSIST?

On this point many men have many minds. Some fancy small, others large women; some tall, others short; some plump, others spare; some one colour of eyes and hair, others other colours; and so on to the whole end of tastes, for most of which there is indeed no accounting. "How could he ever have fancied her, for I could not?" says one; and the latter thinks the same of the tastes of the former. Yet is there no fixed standard of female beauty? There is, and our principle develops it. SHE IS MOST BEAUTIFUL WHO IS CAPACITATED TO BEAR THE BEST CHILDREN. All in woman as such, which ever does or ever can excite the normal admiration or love of man, is INDICES OF MATERNITY.

But, you ask, what have ruby lips, a sweet mouth, fine teeth, a sweet breath, flowing tresses, expressive eyes, alabaster skin, finely-moulded limbs, an enchanting form, and the whole round of feminine charms to do with their making fine mothers?

Much every way. No woman can bear an exquisitely-organised child without being exquisitely-organised herself, in accordance with that great hereditary law that like begets like; and all these are but so many signs of such exquisiteness. Such women are fine-grained and susceptible, and will bear highly-organised children.

Does not beauty in a child enhance its excellence, and does not beauty in the mother promote beauty in her offspring? Tell me not, then, that these—that any other elements of female beauty—bear no necessary reference to the female function.

That men in general admire a full development of the pelvis in woman is too apparent to require a moment's argumentation. WHY? Solely because it indicates a large female apparatus, which, other things being equal, of course contributes materially to child-bearing. It surely contributes to the NOURISHMENT of the embryo, the importance of which has just been shown to be paramount. A large pelvis indicates capacity to carry a large child; and good sized children, and of course adults, is certainly a great desideratum. It also indicates a large placenta, which, other conditions being the same, will of course secrete proportionably more blood from the mother, and impart more vitality, and more of all the conditions and materials of foetal formation and power. And this has been shown to be a paramount requisite of superiority, mental and physical, in the prospective child. And this is the reason, and the only reason, why a large pelvis is an element of female beauty.

It also, of course, facilitates parturition—another of the maternal functions.

PHILOSOPHY OF BUSTLES, CORSETS, EXTRA SKIRTS, ETC.

This law that man constitutionally admires fulness of pelvis, because it promotes this great function of the female, gives the only true philosophy—the real rationale—of bustles, corsets, extra skirts, &c. “These things have their philosophy?” it is inquired. “A rationale for all these fashionable accoutrements?” Yes, verily. In all her extravagances fashion is perfectly philosophical, and that philosophy is based in this very rationale of female beauty we are developing. And I call up philosophers, and fashionables of both sexes, as witnesses of the “fixed fact” that the female fashions, in all their variations and mutations, PUFF OUT AND ADORN THE PELVIC REGION. The philosophy of the hoops of Queen Anne's time was to keep the bottoms of the dresses flaring, because pregnancy does the same. This fashion was attractive, because it promoted what maternity promotes; that is, it filled out the skirts. This attractiveness was what rendered it fashionable.

And what is the philosophy of tight lacing? For this most accursed of all fashions, which has slain more women in a score of years than the sword has men in a century—stifled more children than the Ganges—has its rationale, and that is this: by rendering the waist small, it increases the apparent size of the pelvic development by CONTRAST. Mark the fact, that this lacing has always extended down just to the very point which the early stage of child-bearing distends.

The bodice waist, too, in its infinitesimal forms, has its philosophy in this law of female beauty; namely, it ADORNS, and at the same time fills out the pelvic region. In other words, it enhances a woman's apparent beauty, because it makes that part seem large and fair which when large and full indicates an excellent child-bearer. Of course our fashion-following females, ever so make-believe modest, never think of this, and will frown daggers on me for this unpardonable insinuation against their delicacy. Being thus broadly accused of thus swelling out and setting off their pelvic region, so as to make-believe they all prepared for receiving and developing the germ of life, will torture their sorest corn beyond endurance. But it is true nevertheless. Yet very few except the Parisian fashion-makers know this. In that city, no way noted for female modesty, do all these fashions originate; the following of which makes, and the neglect of which breaks, our women. Why, in the name of all that is sensible must shameless PARIS—must the Court of the TUILERIES, the most openly wanton in the civilised world—alone give birth to the fashions of the civic world? Because it is thus unblushing. The entire study there is to present woman in her most voluptuous, because this is her most attractive light; and all the ton—all the pride of civic female life—is to dress here as female voluptuaries in Paris dress! Monstrous, yet true. Blush, oh, American mother and daughter, yet own the corn, till you pluck it out!

I know this will cut to the very quick. I mean it shall. Not that I love to torture woman's fine sensibilities, but that I would probe this gangrene of female folly to its core, and lay it open to public inspection; nor that I would lower woman in man's estimation by exposing her weaknesses; but that by pointing out these faults I may obviate them, and thereby infinitely ENHANCE her in his regard. Since she will make herself such a laughing-stock, let me turn it to a practical advantage.

I know this philosophy of the bustle, and its substitutes, will be denied by nearly all females, and indignantly spurned by many even of those who are deservedly esteemed for their fine sense and taste, but their pouting does not alter the FACTS.

Besides, the burden of proof is thrown on them by this self-evident rationale of the bustle, and there it must rest till they remove it, by giving some other more satisfactory explanation of it. That men love large pelvic realities and if they are wanting, APPEARANCES of fulness of the female abdomen, is not to be questioned, nor that he loves them because they indicate child-bearing capabilities. Now, till she can show some other more PLAUSIBLE motive for dressing thus, we are compelled to adopt this; and we are confirmed in it by the fact, that she is so intent on adapting herself to his tastes—to dress as he likes to see her dress.

But mark, it is not the most virtuous of men—the most pure-minded and elevated—who thus extol these artificial forms, but those fashionables who are known to be no better than they ought to be. For her to so far forget true modesty and propriety, and do this unblushingly what should crimson her face with the deepest shame, to please RAKES—ah, that is the riddle—woman, can you solve it?

"But why, by probing so exceeding tender a point so aggravate woman's keen sensibilities as to make her dislike you, and break your influence over her?"

Because it involves this mighty moral, that by dressing thus, woman is blasting herself, by weakening her female organs, in the most effectual manner possible. Nothing could possibly make such perfect havoc of this specific female function—child-bearing—as the way she dresses her abdominal region. She hangs all this extra clothing upon her hips and bowels, and this of necessity presses down her female organs, gradually *displaces and disorders* them, and thus weakens and diseases that specific function, the perfection of which constitutes female perfection, and the impairment of which blights the very essence of female nature, and with it every female charm and function. But for this mighty moral—if dressing thus were only a piece of foolery—if it did not stab her beauty, her utility, her inner self, in the most vital part possible—I should have held my peace. But for years has this momentous truth been struggling for deliverance. Thank heaven, I have now done my duty. I shall thereby stop a few women from loading the pelvis with such a huge pile of clothing, weakening them by excessive warmth and perspiration, and displacing them, which is the most effectual way of deranging her maternal organs and functions, and thus deteriorating herself as a woman, and her offspring as human beings. To hang this pile of extra skirts on her shoulders by straps would be most detrimental; but to girt her pelvic region by tying them tight enough to stay on, of necessity displaces both bowels and all the adjacent organs, and is one of the greatest causes of inducing those female complaints which are so almost universal, and so very fatal to female charms, and to human offspring. Be entreated, foolish wicked woman, if you will still continue to pile on these enormous loads of extra clothing, to at least hang them by straps upon your SHOULDERS, instead of as now, by strings upon your hips, to the perpetual girding of your abdomen.

Call this trifling if you will, but it is one of the greatest curses of civic life. Licentiousness, in all its forms and degrees, is nothing in comparison with the evils it is inflicting upon mankind, because that nothing more effectually ruins its victims, or their issue, and is less universal. If it did not damage woman in her child-bearing relations—in the very heart of her nature—if it did not so effectually weaken her female apparatus as to rob her offspring of vitality, and thus produce all the evils ascribed to imperfect foetal nutrition—I would have let her dress on as now. But though I could have borne to have seen her inflict trifling damage on the outskirts of her nature, yet how could I endure to see her ignorantly stabbing herself under the fifth rib, yet hold my peace? nor merely stabbing herself, but inflicting upon her prospective issue the very worst evil it is in her power to inflict? Can I endure to stand coolly by, and see her strangle infants by the million, so that they may die a lingering death, and so that the remainder has barely vitality enough to survive, and are poor, puny specimens of humanity, in mind and body? No, I cannot longer hold my peace and see women dress thus, and thereby commit suicide and infanticide on this scale, commensurate with civic life. I am COMPELLED thus to "cry aloud and spare not, whether ye will hear or whether ye will forbear." I have done my duty, and done it faithfully, yet tenderly. Women, do yours, by looking this truth fairly in the face.

I know I shall put you in an awful predicament, because so few women have any pelvic developments left, and would appear so ridiculously if the form of their dress corresponded with that of their persons; and also, because they will now be ashamed to make believe in a delicate situation, just to appear interesting, for this will now press upon the corns of their modesty. The dilemma is indeed inexpressibly trying;

but it will turn the current of female attention toward actually ENLARGING her abdominal organs, instead of making them SEEM large by dressing thus ; and no good will ever bless our race at all to compare with this, as no evil approximates towards this injury to the female consequent on dressing thus.

COTTON AND PLAITED BREASTWORKS.

The great law involved in our subject, that woman pads and bustles off those very parts which child-bearing enlarges, shows why she pads and finifies her breasts. Their full development facilitates one part of the maternal relations—the nourishment of the infant. Man admires fulness here because it promotes maternity, and woman, instinctively, as well as experimentally, conscious of such admiration, pads and plaits, and fixes off these parts with her utmost ingenuity. Woman, shame on you, to make believe so much where you are so little ! And the fact that American women generally are so flat-breasted, shows how miserable their maternal qualifications. Fulness here, besides indicating good nursing qualifications, as such, also betokens a vigorous female apparatus in general. Other things being the same, the fuller the breasts the better the mothers. Not that the largest-bosomed women will bear the best children, or the smaller the breasts the more inferior the offspring, but that, taking a given woman, she will be better as a mother if full-breasted than that same woman would if small-breasted. Yet a small-bosomed woman may bear better children than another whose mammæ are large, because she may exceed the other in other qualifications, which more than compensate for this deficiency ; yet this flat-breasted woman, if full here, would be a better mother, and, of course, a more perfect woman, than she now is.

This point has been introduced mainly in order to enforce on woman this great practical truth, that the shrinking of her bosom, from month to month and year to year, is a sure sign that her female apparatus, as a whole is waning, and she becoming less and less capacitated for this great function of her nature, child-bearing—that is, she is becoming a less and still less perfect woman, as well as less attractive—that the various states of the breasts and womb are reciprocal—that the flaccidity of the former indicates decline in the latter—is evinced by the fact that the former swell during maternal carriage, and are firm during virginity ; but fall and lose their tension and elasticity by commerce, even when maternity does not follow ; so that here is an infallible test as to whether a given woman has or has not ever “known man.”

LET WOMAN BE WHAT SHE WOULD SEEM.

She bustles off her pelvis and cottons of her breast-works so as to make-believe to have large pelvis and bosoms, and be fitted to bear fine children. And these parts should be fully developed. Indeed, this is indispensable to female perfection—not a sign merely, but a constituent ELEMENT of such perfection. Then how much better to fill out these parts by internal development, instead of hoisting false colours ! If it is so desirable—if it enhances her charms to thus APPEAR to be fully developed in these only two female parts which it is the entire object and labour of fashion to fill out and set off—how infinitely better to actually FILL out these parts by INTERNAL development instead of external show.

But, you ask, HOW can this be done ? BY PROMOTING YOUR HEALTH—BY INCREASING YOUR VITALITY. These were created for the express purpose of imparting vitality to offspring. Hence a greater amount of vitality is concentrated in them than in any other portion of your system, and the more you augment that vitality—that is, the better your health—the more will that flow to and enlarge these parts, relatively.

To return from this seeming but not actual digression. We have shown that one of the first offices of the woman is to supply vitality to the embryo, and that a full development—a large abdomen, placenta, womb, bowels, &c.—are essential to such manufacture and secretion of such vitality. By increasing the health and vitality, therefore, you enlarge these female developments, and thereby enhance all the charms of your sex. If, therefore, I have mortified your Approbativeness by either tearing off your bustles and cotton pads, or making you ashamed while wearing them, I have more than made the loss good by showing you how to SUPPLY the loss of the outward resemblance by the inward reality ; and this will gratify your Approbativeness in the most effectual manner possible.

To illustrate : You are a young woman. Of course it is your great pride, and should be your paramount desire and aim, to become a perfect female as such. How can you do this ? First, by rendering yourself healthy—by increasing your vitality,

and THUS developing your breasts and pelvis. Not that this is all; yet it is all that appertains to the female FIGURE—to the PHYSICAL woman. Refinement, exquisiteness, goodness, &c., are elements of perfection in the MENTAL female—of which in its place—yet reference is here had to the female form AS SUCH. And I repeat, that by developing these female organs you develop the constituent element of female bodily perfection. And this can be done by improving the health.

On the contrary, whatever impairs your health, first flattens your breasts and abdomen, and narrows your hips, and thus attacks the very citadel of your beauty and all your charms, as well as proportionally unfits you to bear children, because you have not sufficient vitality and nourishment for them and yourself. Be persuaded, O women, to heed and practise the great practical truth involved in this law, nor practise or allow anything to impair your health, both because it fades all your charms, and unfits you for your only mission and destiny as a woman.

Does sewing injure your health? Then you are very foolish for sewing, because every hour diminishes your attractions—not their outskirts, but their CONSTITUENT ELEMENTS. Rather go poorly clad, poorly fed, poorly housed, poorly everything else, than be a poor woman as such. Besides, if you wear less bustles, skirts, and cotton, and put fewer stitches into your breast-works and waist-works, you could support yourself by far less sewing than it now requires—especially if you should lay aside other fashionable yet useless accoutrements. No, you must work thus hard, and break down your health, not to live, but to be FASHIONABLE, and this to be ATTRACTIVE. But infinitely more attractive would you be if more healthy though less fashionable. I protest that all this extra dressing actually DETRACTS from female beauty, instead of enhancing it. A good-looking woman, when adorned least is most adorned. All these extra fixings detract from her beauty by hiding it. Her attractiveness consists, not in exhibiting the art of the milliner, but the qualities of the WOMAN, as such. If she be plain, fashionable attire makes her look still plainer by contrast. This attempt to conceal her deformities only reveals them in the more bold relief. Simplicity of dress will set off your natural charms to far better advantage than all these fashionable flummeries. You could sew abundantly to supply all your REAL wants, and clothe yourself in the most truly attractive habiliments with half the money and stitches you now take, and thus save you health, and, of course, your charms.

EFFECT OF THESE FALSE APPEARANCES ON THE YOUNG BRIDEGROOM.

Yet this bustling and padding, however they may aid a girl who has small pelvic and mammal developments in exciting the love of a husband, they do not aid her in RETAINING it. If they enable her to cheat him into the belief that she is something where she is nothing—and that in these specific embodiments of female beauty—what effect will the naked truth have upon him? If he is green enough to be caught in her snares, his first introduction to her as his wife will show him that what he thought was food for love was only cotton above and hemp below. Such disappointment, and in an ESSENTIAL respect, will reverse his love. Seeing no charms on which love can feast, piqued at having been outwitted, and angered at thus having been gulled, he hates where he would have loved if he had found what he had a right to expect. She has thus poisoned her matrimonial cup in the outset; and a life of dissatisfaction on his part, because of her barrenness of female charms, and of soul-breaking disappointment on hers, because she has lost the one thing she desires on earth—his love—is the legitimate finale of her appearing to be what she was not. More than half our unhappy marriages have this for their chief cause. Husbands do not disclose their barbed arrow; wives cannot imagine what they can have done to thus change their love from that tenderness and enthusiasm evinced before marriage to present indifference or disgust. Let me tell you. *You have undressed—you have small breasts and abdomen—you are inferior women physically.* It is not possible for them to love you, because your female developments—your only female charms, as such—are insignificant; whereas, if you had full breasts and ample abdomens, you would retain the love you have excited.

"But," nearly every female will object, "I don't want this carnal love. If a man cannot love my mind instead of my person, my mental beauties instead of my sexual, I don't want his love." Aye, but remember that these outward female developments are infallible tests of inner feminine loveliness; that the physical woman is but a symbol and type of the mental woman; that you cannot have a perfect female mind and character without having as perfect a female figure, which, as already proved, involves

a large and vigorous sexual apparatus. Have I not already demonstrated this law of reciprocity, as existing between the mental and physical sexuality of women?

"But," it is objected, "ill health shrinks both the pelvis and breasts, and thus detracts from female beauty." It equally detracts from the mental loveliness of women. The mind flags with the body. Physical disease fades the emotions, substitutes irritability for sweetness, and, though calculated to awaken sympathy, makes us feel conscious that mental loveliness, however great by nature, wanes as health declines, but revives as health restores the sparkling eye, lively tongue, gushing emotion, intensity of feeling, &c. Yet for proof of the great law here involved, of reciprocity between the outer and inner man, and beauty of form as indicating and accompanying corresponding beauty and perfection of mind, the reader is referred to my other writings. It is not possible to disorder or debilitate the female sexual organs without therein and thereby diseasing or paralyzing the *mental* woman, nor to be a perfect mental woman without being proportionably perfect physically. Full breasts and pelvis, therefore, imply corresponding strength and power in the mental feminine department of your nature, and smallness and flabbiness of the former, that your mental attractiveness as a female are weak.

TRUE MODE OF INCREASING THE BEAUTY OF GIRLS.

The paramount desire of mothers touching their daughters is to see them well *married*, and in order to this they strain every point to enhance their attractiveness. But they pursue diametrically the wrong course. They dress them to death on the one hand, and press them forward in studies on the other—at the same time violating every cardinal law as to diet, exercise, respiration, &c.—and thus blight their charms by enfeebling their bodies. The present fashionable mode of bringing up girls interdicts, in the most effectual manner possible, nearly everything calculated to develop the female as such, and substitutes artificial foolery for the natural charms of female excellence. It not only does not fit them for their sole natural destiny, but nothing could possibly be contrived which would so effectually unfit them for becoming mothers, or, by consequence, efface the primitive rudiments of beauty. Mothers, if you would render your girls perfectly enchanting, give them perfect *health*. This is the first, second, and third condition of female beauty. We have already seen that maternal health is the best condition in child-bearing, and therefore in beauty; then make this health as *paramount* a feature of their education. Especially let them *run*. The more they romp, the more perfect women they will become, because this very wildness is a primitive condition of health. Have no fears that their becoming tomboys will militate in the least against perfect female propriety and delicacy when they become women. Love will bring out this female accomplishment, and the more perfect the romp the more material will there be for it to polish. But keep them cooped in the house all their lives, and penned up in a fashionable straight-jacket, and how is it possible for them to get any physical basis on which to rear the superstructure of attractiveness? Let girls be girls—be wild and free as colts—till at least eighteen or twenty. Let them take no thought about their appearance, or even try to be pretty, for this only spoils that natural simplicity which infinitely excels the attractiveness of art.

BLIGHTED LOVE WEAKENS THE FEMALE ORGANS AND CHARMS.

But the worst evil of keeping girls within doors and pressing them on in their studies is that, besides robbing their bodies in general and pelvic organs in particular, it preternaturally excites their nerves and brain, and thus causes them to get in love prematurely. Of course these young loves must be broken off, *and this blights the organs of their sex*, and, of course, the constituent condition of beauty.

For example: Take a woman of fair health and attractiveness for our subject. Engage her affections, and you thereby quicken the action of all the organs, all the functions of her sex proper, and thereby enhance her every female charm and virtue. (For the full exposition of this law and its reason see "Love and Parentage.") Then break that love, *and you cripple all the female organs and functions*, and, of course, break down the very elements of female attractiveness, because of the perfect reciprocity which exists between the mental and the physical sexuality. This reciprocity compels you, when you blight her love, thereby and therein to impair the *physical* organs of her sex.

Abundant proof of this law, founded on universal experience, is the fact that when mothers lose their husbands or children they almost invariably experience concomitant

female difficulties—falling of the womb, unhealthy uterine discharges, &c., for the first time, if perfectly healthy in these parts before, and a great aggravation of them if previously diseased here. No exceptions to this rule occur except where the female apparatus was peculiarly strong before, so that the grief was not adequate palpably to disorder it. Inquire, and you will find the concomitants of domestic grief and female complaints uniform. Since, therefore, the reversed action of the social faculties in one case causes uterine complaints, similar reverses of affection, and, of course, of love among the first, must produce female weaknesses or disorders, and thus blast woman's charms. So will disagreement between husband and wife, provided true love previously existed.

APPEAL TO MAN.

In view of this law, behold, O faithless man, what wholesale havoc of all that is loving and enchanting in woman's mind and person you are affecting by trifling as you do with her affections! If you but realised how effectually you thereby blight the very soul and essence of the woman as such, and thus diminished your pleasures in woman in general, as well as in your wife in particular—for while you have prostrated and diseased the female organs of A's wife by calling out only to blight her love while young, B has been doing the same damage to the girl you have married or may marry—it does seem that you could not thus wantonly trifle with woman's love. It is not permitted to man or devil to do a greater evil. Even if it were confined to the suffering females and their young husbands, no other evil could equal it: yet it is not. Blighting her love weakens her female organs, and this impairs her offspring, and diseasing this department of her nature diseases unborn generations. This trifling with woman's love is not, then, after all, so very trifling a matter. It may be sport to your fiendish soul, for none but fiends incarnate will thus call out only to blight the confiding love of woman; but it is death to her and her prospective issue, or at least an essential damage to both, and, if not literal death, no thanks to you. You drilled and charged the rock, and if the explosion only tore off a piece instead of blowing it all to shivers, it is not because you did not take the very means to do all this damage to lovely woman and darling children. Whatever else you do or omit, be entreated never to pluck the central gem from a single woman's crownlet—never to girdle this vine of female loveliness at its root—never to tear out this heart's core of woman's inner soul.

And woman—mother and daughter, married and single—be entreated to keep your affections from being blighted by every means in your power. Nor is this difficult. Take an independent stand. Instead of allowing your gushing affections to go forth just for the fun of it, put yourself on high ground. Let men see that however intelligent you may be in conversation—however moral, or religious, or literary, or domestic—however you may give forth all your other feelings and excellencies, yet that not one expression or emotion of love can be extorted from you till your choice is made and *preliminaries are settled*. Let men see that you hold your love as the choicest treasure of your being, not to be conferred, even in the smallest degree, except upon an affianced husband; and this very dignity—this high-toned stand—more than everything else, will bring men upon the bended knees of confession and solicitation. This is the very thing they most prize. This will exalt you in their estimation incomparably above all other charms or excellencies, for it strikes the very highest chord of his being. Any man who is worth having—and you want no others—will “go and sell all that he hath” to obtain such a woman. But, as long as you hold yourself “dog-cheap,” by showing anxiety to love and be loved, by yielding to his advances and reciprocating love feelings with him before he has declared any matrimonial intentions—especially as long as you allow love to be put upon a partially animal basis, so long will he be content to let things remain in this forward state. As long as you seize the bait as far as he proffers it, and even run with it to show that you have swallowed it, he will feel—“A fish thus easily caught is not worth hauling up, yet I like to have her sport with the hook; and when I’ve done playing with her, I’ll cut the line. May be it will trouble her to digest all she has swallowed.” Yet, if she had paid no regard to his love-tale till he proposed matrimony—which he would have done if his intentions were sincere—and if they are not, you want nothing to do with him—your high stand would soon have brought him to his bearing. Nothing disgusts a man quicker than undue forwardness in a woman. Nothing so exalts her in his eyes as reserve during the settlement of the matrimonial preliminaries. Women lose many offers by evincing too great a readiness to love and marry. And this extra

readiness on your part spoils him after you get him. It puts you in his power, because he has obliged you by marrying you. Women, over-anxiety to marry is the great maelstrom of your affection and matrimonial felicity.

EARLY MARRIAGES AND YOUNG MOTHERS.

This imperious requisition for abundance of maternal nutrition, rebukes severely the prevailing custom of early marriages, or rather, of premature maternity. It does not say at what age a girl should marry, but it does say that *no* female should become a mother till *fully matured*. Till her own organs are formed, and growth completed—till she has spread, filled up, and become consolidated—and her life-power overflows, and becomes almost painfully abundant—none of it can safely be diverted. Especially is it dangerous to make so powerful a diversion as that required for foetal nutrition, because it induces that robbery of mother and child already shown to be so fatal to both. That this bearing process is most exhausting has already been shown. That none but full-grown and healthy females can furnish the required amount of nutrition is apparent from the entire tenor of the work thus far. What consummate folly, then, for young *girls* to rush into the hymeneal embrace, and thus endanger premature maternity, and consequent exhaustion, disease, and an early grave. A wrinkled, worn-out, superannuated woman, having every appearance of being forty-five, applied to me for physiological advice, under a complication of female complaints, anxious to know whether there was any hope left of her rising above them. I was surprised to learn that she was only twenty-six—that she had ceased bearing. And on inquiring to what she attributed the premature failure of her functions, she replied, "I married at fifteen, became a mother at sixteen, and am an old woman at twenty-six, when I might have otherwise have been just coming into my prime." Few married women but have suffered from this same cause. The number of mothers and of children it has hurried into premature graves is beyond all human computation. How many of you, mothers, owe your wrinkles, your prostration of the life-power, your pains, and your aggravated diseases to this cause? Then sound the alarm. Put girls upon their guard. Warn them of the imminent danger they incur. Above all, keep your *daughters* from incurring this evil. Old age will overtake them quite soon enough without thus hurrying it railroad speed.

In view of this law of nature, what shall we say of those foolish girls who, not content to wait for the natural appearance of that function which transforms them from the girl to the woman, use every means to hasten its advent, that they may become early *marriageable*! Mothers hasten this period often by artificial means in their daughters, so that they may be earlier in market. To such, "early ripe, early rotten," applies with redoubled force. It is like plucking green fruit, so as to hasten its maturity; but what is it good for when ripe? Several years too soon is this period hurried on by all those hot-bed influences of boys' and girls' parties, puppy loves, in-door confinement, boarding-school fooleries, late hours, hot drinks, bad diet, impaired health, and thousands of other like things. Wait and *grow* before you attempt to ripen. Let nature choose her own time; yet better late than early, because the later before this function appears, and the later before it takes its final departure, and leaves you a superannuated, wrinkled old woman, exchanging the rich foliage of young beauty for the sear and yellow leaf of withering age.

TIGHT LACING—ITS RUINOUS EFFECTS ON OFFSPRING.

That this practice inflicts the very worst form of ruin on woman, as a mother, and on prospective offspring, is rendered evident by every page of our work. No evil to mother or child can equal that of curtailing the supply of vitality to both; and nothing can do this as effectually as tight-lacing. If it were merely a mark of female folly and ignorance, or if its ravages were confined to its perpetrators, it might be allowed to pass unrebuked; but it strikes a deadly blow at the very *life of the race*. It girds-in the lungs, stomach, heart, diaphragm, etc.; it cripples every one of the life-manufacturing faculties, impairs circulation, prevents muscular action, and lays siege to the very citadel of this child-bearing function. By as much as abundance of vitality, air, exercise, and good digestion, are required in the mother, by so much is this practice murderous to both child and mother, because it stifles them all. It allows so scanty a supply of vitality to the embryo as often to prevent its entering the world alive, and if it does, to hasten its death; by most effectually cramping, inflaming, and weakening the vital apparatus, it stops the flow of life at its fountain-head. It slowly, but surely, takes the lives of its tens of thousands before they

marry, and so effectually weakens and diseases as ultimately to cause the death of millions more. No tongue can tell, no finite mind conceive, the weakness and misery it has occasioned, or the number of deaths, directly and indirectly, of young women, bearing mothers, and weakly infants it has occasioned, besides those millions on millions it has caused to drag out a short but wretched existence. If this murderous practice continues to rage for another generation as it has done for the last, it will bury all the middle and the upper classes of women and their children, and leave our race to be perpetuated by the uncivilised, and the coarse-grained, but healthy lower classes. Most alarmingly has it already deteriorated our *race, as a race*, in physical strength, in power of constitution, in energy, in talents. Reader, how many of *your* weaknesses, pains, headaches, nervous affections, internal difficulties, and wretched feelings were caused by your mother's corset-strings? Such mothers deserve the universal execration of their children—of all.*

Moralists, Christians, reformers, philosophers, and philanthropists, of all sects and grades, come, let us unite our moral force, and present a frowning front to this *race-ruining* practice. Let us point the finger of derision at all tight-lacers. Let us insist upon "*natural waists, or no wives.*" What is as desirable? Yet what is so destructive of this gem of paradise as lacing? Men, in particular, should root out this practice, because they introduced it. Woman laces tight to please the *men*, not herself. As soon as we cease to enforce on her this practice, she will abandon it. And be assured that you look incomparably more maternal, more womanly, more interesting, and every way more acceptable, to all of correct taste, when dressed in your loose gown—allowed to hang upon your shoulders—without anything, or at least anything but a loose belt, at the waist.

"But I do not dress tight," says one: "Nor I," says another: "Nor I either," says a third—"this practice is now obsolete."

This is not so, as the following test will prove. Any woman dresses tight whose dress parts far enough to show its hooks and eyes. And how few dresses but do this? It is not mere corset strings that do this deadly mischief, but *all* compression of the vital organs—whatever interrupts perfect freedom of breathing or motion.

Bearing women, be entreated to allow not the least tightness of your clothes from the shoulders downward. Do not even tie or girt your clothes tight enough to stay on, but let them depend in flowing looseness from your shoulders. I call your attention to the great discomfort you experience from even a trifling pressure, and how great your relief when you unloose them at night. Now, all this is full of meaning and of warning. It is nature's admonition not to prevent the free motion and enlargement of your whole frontal region. Compression would not inflict this uneasiness if it were not exceedingly injurious to you—to your precious charge.

REQUISITION FOR HEAT, MUSCLE, BONE, NITROGEN, ETC.

Though vitality in mothers is the paramount condition of health in offspring, yet it is by no means the only thing required. *Animal heat* is scarcely less important. I say animal heat in contradistinction from artificial. It is not enough that the mother warms herself by fire, she must keep a full supply of *internal* heat. Specific directions for doing this will be found in "*Physiology, Animal and Mental.*" Let prospective mothers who are troubled with cold hands, feet, skin, etc., or feel chilly, inquire out the cause—whether a want of carbon, consequent on impaired digestion, or a deficiency of oxygen, consequent on imperfect respiration, breathing a vitiated atmosphere, etc., or feebleness, or oppression of the heart, and consequent impairment of the circulation—and obviate the effect by removing the cause.

MUSCLE.

A full development of the muscular system of child is most desirable. Few things are more important than a strong and active muscular system. The materials for its formation must, of course, be furnished by the mother. This requires her to do two things—to *exercise* her muscles habitually, not merely in light work, such as sewing, walking about the house, etc., but in something which requires her to put forth much strength, and that often. But as we shall hereafter point out another imperious demand for muscular power in mothers, when treating of delivery, we take leave of this point here by recommending one other promotive of muscularity in both mother and child—namely, a diet composed mostly of wheat, either boiled, cracked,

* For a full exposition of the evils of this practice, see "*Tight Lacing,*" price 3d.

or coarse ground, without bolting, because it contains a large amount of this material for the formation of muscle. Yet prospective mothers should, if possible, avoid fine flour bread. Lean meat also contains muscle, yet I am not partial to a meat diet, especially at this time. The vegetable, and especially the fruit kingdom, will furnish both muscle and such other materials as the child requires, quite as well as the animal; yet better to obtain these materials from meat than not to have them. And if meat is omitted, its place must be supplied by food rich in fibrin.

Nitrogen enters largely into the composition of all forming organs, and therefore the mother's food should be rich in this substance. Milk contains it in considerable quantities, and it is easily soluble. So do fruits. My impression is that cocoa and chocolate also contain it, and are especially good for prospective mothers.

But probably no one article of diet is as well adapted to women in this situation as *fruit*—particularly berries of all kinds, peaches, and good pears. They should almost live on them; and sweet fruit is doubtless preferable to sour. Fruit is cooling, aperient, nutritious, full of the materials required by the forming child, and withal delicious. Prospective mothers will do well to live on wheat and fruit almost wholly.

OFFSETTING THE MOTHER'S EXCESSES AND DEFECTS.

To one other most important application of the great law already presented—namely, that the embryo takes on most of those ingredients which abound most in the mother, special attention is invited. To again illustrate the law, that its mighty import may be fully perceived and felt: Suppose a naturally strong-muscled mother to exercise her muscles but little at this period, her child will have but feeble muscles; whereas, a mother whose muscles are naturally feeble, if she puts forth much healthful muscular exertion at this period, will render the muscular element more abundant in herself than is natural to her, and this will endow her child with more of it by nature than she originally possessed; and thus of digestive power, the respiratory function, nervous susceptibility, &c.

Now what your children require, and *all* they require, in order to become perfect and powerful physically, is *vigour and balance* of all the bodily functions. Behold how this law enables mothers to secure so great a desideratum! Suppose, then, your skin is naturally weak; by taking special pains to excite it by friction, right bathing, &c., you can so quicken this function for the time being in yourself, as to send to your forming child abundance of the skin-forming material, together with cutaneous activity and thus remedy in your child this defect in yourself.

Or suppose your lungs are weak, but muscles good. Your child will be almost certain to inherit a good muscular system, even without your taking much extra pains to cultivate it in yourself; and if you employ every means to invigorate your lungs, its lungs will be stronger than yours, and its muscles as strong; so that this want of balance in yourself will be obviated in your offspring.

Having thus clearly stated the law involved, and mode of applying it, we urge upon prospective mothers to learn wherein they are defective, and to offset such defects in their children by the cultivation in themselves, at this period, of their weaker functions. This law puts it in the power of mothers to render their children far better every way than themselves. Be entreated, prospective mothers, to learn your maternal defects, and then to supply them at this period, so that your prospective children may be marred with none of those defects, nor pained with any of those diseases which afflict you, but shall be *perfect* men and women in all their bodily organs and functions. In short, study and apply this whole subject of foetal nutrition, offsetting, and development, and you can bear children far better by nature than yourselves.

MARKS AND DEFORMITIES.

If proof were wanting that all the various states of the mother's mind and body stamped their impress upon the forming character of her child, the fact that mothers frequently mark their children before birth furnishes such proof. But this point is universally conceded. It only remains, therefore, to inquire *how far* these maternal states affect the child. Nature's answer is, "*all or none.*" And our object in entering this new field of inquiry is to re-rivet the great thought of the book—the perfect reciprocity existing between mother and child—by showing that certain emotions and states of the mother's mind actually change and distort even the child's bodily shape, so as to occasion deformities and monstrosities. Medical men have long and ably discussed this question, and finally decided both against it and the *facts* in the case.

because they could not see *how* such maternal states of mind can affect the foetal form. To deny what we see because we cannot *explain* it, is not exactly philosophical. We ought rather to admit nature's facts, even though our limited reasonings cannot comprehend their mode of production. Let us look first at a few of these facts, and sum up with an attempted solution or rationale of them.

A physician of considerable science and talent, who resides near Philadelphia, after expressing his disbelief in the doctrine, and opposing it strenuously, related the following fact, in proof and illustration of it: A woman, some months before the birth of her child, wanted some strawberries very much, which she could not obtain; and fearing that this ungratified desire would mark her child, and having heard that the mark would be on the child just where she touched her own body, put her hand on her hip. *Before the child was born* she predicted that it would have a mark, told what the mark would resemble, namely, a strawberry, and *where* it would be found, namely, on the child's hip, and when the child was born it had a mark resembling a strawberry, and on its *hip*. He also mentioned several other similar cases, but still maintained that there was nothing in this doctrine.

An aunt to the author, while riding out with her sister, saw some strawberries spilled by the side of the road, which she wanted very much. But her sister, who was driving, only laughed at her, and drove on, turning a deaf ear to her entreaties to stop, and to her apprehensions that the child would be marked. The child *was* marked, on the back of its neck, with a cluster of red spots, in shape resembling spilled strawberries.

At Frye village, Mass., in 1844, the author saw a Miss Eliza Chickering, who had an extra thumb, resembling, with the true thumb, a lobster's claw. Its joint and muscles caused it to work inward, so as, with the thumb proper, to be a close imitation of a lobster's claw; and, during her youthful days, it and the thumb were of a bright red, like a boiled lobster. The history of it, as given by her mother, is this: She bought a large, fine lobster, while *enciente*, and left it for a moment, when it was stolen. She was disappointed in the extreme by the loss, and could not replace it; and this lobster's claw on her daughter's hand was the consequence. Of late it has lost its redness.

Wm. H. Brown tells the story of his having a mark on one of his legs resembling a mouse, and that his mother, while carrying him, was in a room in which a mouse was confined, which they were trying to kill, and which, jumping up under her clothes, frightened her terribly.

In Philadelphia, a lawyer has on his forehead, and running up in his hair, a dark, dingy-coloured mark, elevated, and covered with hair, which he said his mother supposed was caused by her being much frightened, while carrying him, by a mouse.

My father relates the following as having occurred in my native town: A woman rode by a tree full of ripe wild plums, common in that region, which she craved very much, but which she could not obtain. Her child, born some months after, had a fleshy appendage hanging from the thumb, resembling a wild plum, and hanging by a stem of flesh.

The author knows a little girl marked on the forehead with a bright-red excrescence resembling a cherry, caused, as its mother says, by her longing one evening for a cherry, the last of the season, which she tried in vain to reach.

An old neighbour of the author was wont to show us boys the cherries on his arm, which almost covered it, caused, as his mother supposed, by her disappointed longing after that fruit.

The author's wife has often seen the thumb of an infant, a younger playmate of hers, preserved in spirit, and found among the mesentery, it having been separated from its stump before birth. Some months before the birth of this child the mother saw her husband's thumb cut off by an axe, which excited her feelings to the highest pitch.

Joshua Coffin relates the following of one of his playmates, whose face, neck, and body were spotted, as if some liquid like wine had been spattered on him. His mother accompanied her husband, a deacon, to town, to procure wine for communion, a taste of which she wanted very much, but for which she durst not ask. While going home the cork got out, and the wine was spilt all over her new white dress. The mortification caused by soiling her dress, and the disappointed longings after the wine, marked her child with the spots alluded to.

A Mrs. Lee, of London, Canada West, witnessed from her window the execution of Burly from the jail window, who, in swinging off, broke the rope, and was

precipitated to the ground, with his face all black and blue from being choked. This horrid sight caused her to feel awfully; and her son, born three months afterwards, whenever anything occurs to excite his fears becomes black and blue, or livid-like, in the face, an instance of which the author witnessed.

Dr. Curtis, the young but gifted lecturer on Physiology, relates the case of a woman who witnessed, from a distance, the burning of Pennsylvania Hall, and whose son, born some three months afterwards, has a spot which resembles a flame of fire streaking up in different places; and several highly interesting facts of this kind will be found stated in the work entitled "Mental and Moral Qualities Transmissible."

In Woodstock, Vt., several years ago, a pregnant mother visited a menagerie, and became deeply interested in the animals she saw. Some five months afterward she gave birth to a monster, some parts of which resembled one wild animal, and other parts other animals. It died soon after.

There is a child now living in Boston, whose countenance bears such a strong resemblance to a monkey, as to be observed at once. The mother visited a menagerie while pregnant, and while there a monkey jumped upon her.

James Copeland, forty-four years old, is below par in intellect, and under guardianship, and quite inferior to both parents in intelligence. He is good-natured, quite mechanical, and very fond of whittling; understands how to do most kinds of work, but is quite slow, and very particular to have everything in proportion and order; can count money but poorly, and does not put the cash value to any kind of property, though he distinguishes between good and poor cattle, and looks behind him while eating, probably fifty times each meal. His parentage on both sides is good; and his idiocy, and looking behind him when eating, were caused by his mother's fear lest she should be surprised by an idiot who lived near her, who often tried to frighten her. At table she usually sat with her back towards the door, and often turning round, while eating, to see if he was not making his appearance. She apprehended the fate of her son before he was born.

I saw a man in West Randolph, Vt., who was somewhat deficient in mind and body, occasioned, as is supposed, by his mother being frightened and thrown from a wagon some months before his birth.

Mrs. Dyke, a feeble, nervous woman, who had borne no children, though she had been married twelve years, while pregnant, on a gun being fired under her window, sprang up, exclaiming, "That broke my back!" Some months afterwards a child was born with its backbone actually broken—dead, of course. The father went to my informant, a lawyer, to get a writ to take up the one who fired the gun, whom he cautioned not to fire it, lest it should produce abortion.

Mrs. Butler, of Williamstown, Vt., was the town bully for twenty-three years, and whipped every man in it who offended her. She was a strapping great woman, tremendous in point of strength, and was fined some five hundred dollars for assaults and battery on men. All who knew her feared her. Her only child is a fool, and very fierce and ferocious, and now confined in a cage mostly, underground, chained, and fed as if a pig. His strength is tremendous—so great that he will hold a crowbar out straight, with one hand, by grasping it at one end.

Mr. —, of W., Vt., is club-footed, produced by his mother's being thrown from a wagon before his birth. His second son was born some three months after he had injured his foot, which his wife dressed and rubbed daily. The other children were not thus marked, though their mother feared they would be, and suffered everything in consequence. Her other children she feared would be marked, but the one that was malformed she did not fear would be. So it seems that the mere fears of mothers that their children will be marked do not affect the matter, or rather, mothers seldom mark those they fear they shall.

The following comes so fully authenticated as to leave no doubt of its truth. Magnetism will explain it: see the theory and facts adduced in this section.

A Mrs. —, living in H., Vt., loved a cat very much, and the cat reciprocated this attachment—that is, one had magnetised the other. She lived in a house with an old woman, who disliked the cat, and would frequently cuff it off the table and out of the way. Many a family quarrel was occasioned by one liking and the other hating this cat. At length she moved away, but the poor cat was not taken. Her husband went back for the balance of their things, and she charged him over and over again, and with great earnestness, to bring the favourite cat. The old woman told the husband that the cat was sick and pining and refused to eat, and advised him to kill it. Finally he took it out behind the barn and beat out its brains. On going home, his wife, the

first thing, accused him of having *killed the cat*. He denied it repeatedly and positively, and she as positively asserted that he had killed it, and thrown it out back of the barn; for, said she, "*I felt the blows and saw the mangled cat thrown out behind the barn,*" and took on terribly after her favourite cat, so as to be almost beside herself. Her child, which she carried at the time, when born resembled a cat in the looks of its head, with its brains knocked out, or head bent in, and died in a short time.

Dr. Chaplin delivered a woman in Abington, Mass., of a malformation, resembling a hideous idol which she saw at his house. He has it preserved in spirits, along with other malformations, also caused by maternal frights.

In 1847 I visited a family in which was a boy and girl that could not speak plainly. The boy was the worst, and underwitted. Their mother said that while carrying him, the daughter, who had before talked plainly, was taken with the scarlet fever, that destroyed her speech, which aggrieved her exceedingly. This affection of her girl, by affecting the mother's mind, incapacitated her boy from talking.

Mrs. K., of Cohocton, N.Y., while carrying a child, longed for gin, but could not obtain it. The child cried almost incessantly for six weeks, as if in perfect misery. Nothing afforded relief till gin was given it, which it clutched eagerly and drank with perfect greediness, and which stopped its crying, and from being a most miserable object, became healthy.

Every close observer will meet like cases everywhere, and among the rich, probably because their mothers were rendered the more susceptible by being nervous. Some more recent medical authors have openly avowed this doctrine, and Dr. J. V. C. Smith, the able editor of the "*Boston Medical and Surgical Journal*," a liberal and highly scientific medical work, avowed it in a conversation with the author, and cited cases to prove it.

But there is really no end to facts of this class—incontestible, irresistible facts—establishing the great principle already laid down that the state of the mother's mind affects the child's form of body, even far enough to produce marks, malformations, and monstrosities.

But it is neither necessary or desirable to multiply facts of this kind, especially since they are so numerous and palpable, that those already given will, doubtless, suggest analogous ones to every reader. And the more so, as the policy of this work is not to swell its pages with all the facts that might be collected on every point—facts that scores of volumes could not contain—but to state its doctrines clearly, and bring forward a few cases as illustrations mainly, and of such a character, that the reader will be able to recall many other similar ones as having occurred within his knowledge.

Besides, the belief is general, and pervades all classes. What husband, who has the true feelings of a husband, but exerts his utmost energies to get for his wife whatever she longs for; and who does not know that things, at other times injurious, if longed for, are harmless, and even beneficial? Not that I would, by any means, encourage the whim of pregnant women, or facilitate their taking this advantage of their husbands, but I would have *real* longing, those that are too strong to be subdued by force of will, gratified.

EXPLANATION OF THESE MARKS.

Magnetism furnishes a rationale or solution of this class of facts. It shows that particular mental natures assume corresponding material forms. Thus the tiger mentality always clothes itself in the tiger shape, and the nearer any other animal approaches to the tiger type of mentality, the nearer its outward form resembles that of this animal. The monkey tribes approximate toward the human in mentality, and, therefore in shape, and the ourang outang still more nearly in both. This law of correspondence between shape and character is uniform and perfect.

Which, then, governs? Do given mentalities take to themselves their respective physical forms, or do these forms control the characters? Does matter govern mind, or mind matter? To argue this point here would be out of place; but my own conclusion, based on extensive observation, comparison, and reflection, is, that the mental character of everything—vegetable, animal, and human—determines its shape. That is, specific mentalities take on each its respective bodily form. Consequently, if you could infuse the mentality of the elephant into an embryo swine, its shape would proportionally depart from that of the swine, and approximate toward that of the elephant.

An illustrative fact. An elephant was walking through a street in which was a sow

with pig, which he hit a slight rap with his trunk to remove her. One of her pigs can now be seen in the medical college in Albany, preserved in spirits, having its snout elongated and gristly, and formed like the trunk of an elephant, and its feet and other parts approximating toward the elephant shape. Other like specimens of brute malformation are to be seen in other places, and at least establish the fact of such malformations.

I reason on this matter thus: The elephant imparted a powerful charge of his magnetism to this sow. This elephant *magnetism* or mentality she passed off to her embryo pig, which caused it to assume the elephant *shape*, just as tiger magnetism or mentality causes it to assume a tiger shape, or human mentality clothes itself into human form.

Another fact reported to the author, by a woman of superior natural abilities, and an eye-witness of the fact, so that no doubt of its authenticity need be entertained: A woman, about four months advanced, was on a visit to her native town, on the northern shore of Lake Erie, and stopped at her father's. A fishing excursion, in a row-boat, and in the night, was proposed, and which she was persuaded to join. The fish were to be caught with a spear, while asleep in the water, and were discovered by means of a torch. The kind of fish caught have a gristly snout that turns upward and backward, thus forming a kind of hook, and often weighs twenty pounds. She took a seat in the middle of the boat. A large fish, probably frightened, leaped from the water clear over the boat, and right before her face, uttering, as it passed, a kind of snort or wheeze peculiar to the fish when it jumps out of the water or is captured. This frightened her terribly, so as actually to sicken her for several days. Her progeny, when born, proved to be a monster, half fish and half human, without a mouth, but having a nasal appendage like that of the fish alluded to above. Its lower extremity resembled that of a fish, and every few minutes it would spring and throw itself up a foot or more from its pillow, and at the same time utter the same noise made by the kind of fish alluded to. Having no mouth, of course it could not be fed, and lived only about twenty-four hours. Being a monster, it was refused Christian burial, and was interred in the corner of a field.

Now, as animals can magnetise men, and men animals, did not this fish magnetise the woman, and thereby impart to her of its fish magnetism, which she, of course, imparted to her embryo, thus causing it to assume a part of the magnetism, that is, of the *nature* of the fish, and consequently of its form of body?

And this theory is strengthened by the fact that the magnetiser imparts of his magnetism to the magnetised, and the latter is impregnated with his nature. Thus, being magnetised by one who has a headache, toothache, or rheumatic affection, will cause the magnetiser to lose his headache, toothache, &c., and the magnetiser to receive them. Hence, being magnetised by a well person, generally invigorates the magnetised, but frequently exhausts the operator. Being magnetised by an intellectual person brightens up the ideas and quickens the flow of thought; but being magnetised by a slow, or an easy, or a good, or a bad person, makes the magnetised slow, or easy, or good, or bad. That is, the one magnetised, receives of the mental and physical nature of the magnetiser.

This theory is introduced, not because it is fully adopted, but because it explains these and kindred admitted facts better than any other, and shows that the embryo might be so related to the mother as to receive marks and deformities from her mental and physical conditions. But, be it true or false, the point at issue, namely, that marks and deformities are of frequent occurrence, and caused by the mother's state of mind, cannot well be doubted. Nor do physicians who dispute this doctrine pretend to deny its facts. They are compelled to admit them, and yet they evade them by saying that they are anatomically impossible.

"But," say the doctors, "this point being admitted, still, its promulgation will render all our women miserable merely with fright, fearing lest any unusual thing they see should mark their children. Better keep them in ignorance of this principle, and deny it stoutly, so as to quiet their fears." Rather tell women the facts of the case, and let *knowledge* put them on their guard. Properly to fortify mothers on this point is to spread light, so that they may know what to do and what to expect. Besides, to make women believe that these things do not mark their children is utterly impossible; for the whole community, high and low, intelligent and ignorant, are compelled either to believe in the doctrine, or else deny the evidence of their own senses—to disbelieve what they see and feel. Hence, since this fear cannot be prevented, let it be properly directed. Let them know what conditions will prevent

their feelings from marking their children, and how to avoid feelings likely to do injury.

But, by another method still, should I advise mothers to avoid these evil consequences—namely, by *strengthening their nervous systems*, by air, exercise, and preserving and invigorating their health. It is not the strong, healthy, and robust that mark their children, but the weakly, the nervous, and those easily impressed—that is, easily magnetised. But, if our women would follow the advice given in preceding sections, so as to keep up a full tide of health and vigour, they would seldom mark their children, because they themselves would seldom be impressed with these foreign influences, but would generally resist them.

SECTION III.

INFLUENCE OF THE VARIOUS STATES OF MATERNAL MENTALITY, OR THE PRIMITIVE CHARACTER OF OFFSPRING.

THE CHILD'S MENTALITY DERIVED DIRECTLY FROM ITS MOTHER'S.

But, however much may depend on the *physical* nutrition of the embryo, more depends upon its being well supplied with food for the development of its *mind*. All that the child gets it obtains from its mother. And as all its material for the formation of bone, flesh, and organ, must be furnished directly by her, so all the materials for the formation of nerve and brain must come from this same maternal source. In fact, she must supply its entire *mentality* as well as its entire anatomy.

Then, however important that she furnish it with vitality, is it less so that she supply the materials for intellect and soul? And as she cannot supply the former unless she possess them herself, can she the latter? Can she whose intellect is dull, and whose feelings are obtuse, bear smart, strong-minded children? Be it even that the father is highly mental, and stamps his cerebral image upon them, that mentality must be *fed* from day to day with its appropriate food, or it will become nearly starved before it is born. Hence it requires a superior mentality in *both* parents to produce highly-endowed offspring.

But to canvass this whole subject of the various states of the mother's mentality on that of offspring—in the light of *facts*, yet to attempt to *prove* this point—seems to be superfluous; for who that has observed or thought upon this subject but admits it—but mainly to *impress it deeply* upon mothers—to brand into their inmost souls an ever-present consciousness that their states of mind and feeling, whilst carrying their children, will be faithfully dagueretyped, in all their shades and phases, upon those children, and remain there for ever, growing clearer and deeper as the existence progresses.

The real philosophy of this whole matter is this—the blood is the grand porter of the entire system. All the materials for forming the embryo, bones, muscles, organs, nerves, and brain, are derived directly from the mother's blood. And since the foetal blood is secreted directly from the heart's blood of the mother, of course all the ever-varying states of her blood enter into the formation and organic constitution of the child's body and brain. So, too, all the mother's mental states affect her own system throughout. The brain is the organ of the body quite as much as of the mind. It generates all those influences and powers which keep the entire system in motion. It holds perfect control over the entire body. All its states ramify throughout the whole system. A disordered state of the mind does far more to disease the body than that of the body the mind, and remedial agents applied to the mind are far more potent than those administered to the body merely. The absolute tyranny with which all the states of the mind lord it over heart, lungs, stomach, muscles, nerves—in short the whole body—to break down and build up—to expel disease and to invite it—to promote and retard digestion, circulation, &c.—to drive off fatigue or induce it—to even protract life and to cut it short—is beyond computation. This great practical truth, how little is it realised!

Now this law applies with the same power to the body of the embryo as it does to that of its mother, and to its brain and nerves as to hers.

Does it not seem reasonable—is it not accordant with all we know as appertaining to this subject—that in exactly the proportion in which the mentality as a whole, and each of the faculties in particular, abound in the mother, will they be woven into the texture and tone of the child's constitution? As plants obtain from the soil just those

qualities which abound in the latter, so, if the mother, while carrying one child, has her Combateness unusually excited, that child will take on most of the combative spirit, because it abounded most in the mother at this particular period—no matter whether it be naturally large or small in her; but if, while carrying another, Benevolence should be powerfully wrought up, it will take on a proportionate quantity of goodness and humanity, and thus of the mother's intellect, or wit, or fears, or devotion, or acquisitive, or vain, or amiable, or any other temporary characteristics. In short, while the parentage—that is, the stamping of the original impress of life—may be called the warp of the child's physical and mental constitution, the mother's states of mind and body, during carriage, are the woof of that warp, and variegates its colour, texture, tone, durability, and primitive constitution, in accordance with itself. This is the inquiry to which we now address ourselves.

The state of Hagar's mind while carrying Ishmael, and his hating everybody, and being so hateful, as well as the ugliness and ferocity of the Ishmaelites, throughout the whole history of that fighting nation, is in point, and by it the Bible undoubtedly designed practically and powerfully to enforce this law.

"And when Sarai dealt hardly with Hagar she fled from her face. And the angel of the Lord found her by a fountain of water in the wilderness, and said unto her, Thou shalt bear a son, and he will be a wild man; his hand will be against every man, and every man's hand against him." (Gen. xvi.)

Mark, Hagar became insolent, because likely to become a mother, and Sarai became jealous: so that a most desperate and perpetual quarrel sprang up between them, till finally Sarai became outrageous, and drove Hagar out into the wilderness to starve, and this WILD-erness babe was "WILD," and both hated and was hated of everybody—the very state of the mother's mind giving direction and character to the child.

What historical fact can be stronger, or more in point? Why should so succinct a history as the Bible was there giving, stop to detail minutely this case, unless it designed thereby to teach this identical moral truth, this great practical law, of the material relations we are endeavouring to enforce? Does the Bible waste its pages on mere narratives, devoid of moral bearing? And is it not surprising that its pretended expounders never preach from this text, or enforce this truth? Do they proclaim the WHOLE council of God? Could they disseminate more momentous truths?

Take the mother of Samuel as an opposite example. Her mind was in a peculiarly devout frame all the time she was carrying him; and had his exalted piety nothing to do with her devout state of mind? Was it not this maternal devotion which sanctified him "from his mother's womb;" did the Bible mean nothing when it put this and that so nearly together? Did it not intend to relate them by cause and effect? Where have been the wits of Bible commentators, great and small—book commentators and pulpit commentators, and the endless army in all ages of Bible defenders and expounders—that they have not seen and iterated this mighty truth, worth more than ship loads of their old sermons and new ones, their big commentaries and little ones, and all their sectarian dogmatism to boot, and a thousand-fold better calculated to regenerate and save mankind, and make them better by *nature*, so that they would have less "original sin" in them to be beat out of them by preaching, and be more ready recipients of all religious impressions?

And, as if this were not enough, it caps the climax by a minute account of Mary's happy frame of body and holy state of mind all along before the birth of Christ. She was "in the hill country," quaffing copiously the invigorating breezes of Judea's balmy clime—telling her friends how happy her vision had made her—and full of heavenly joy and spiritual exultation. "My soul doth magnify the Lord, and rejoice in God my Saviour!" is her rapturous exultation. Read Luke's account of this matter, and especially her song. Would a cross or diseased mother have been as well fitted to give birth to this embodiment of divine goodness and love? Does holiness of soul and sweetness of temper in the mother during carriage have no influence in moulding the prospective infant into a state of loveliness and goodness, and her warring passions leave no Satanic marks upon its then forming mirror? Out upon that clerical stupidity which has failed to perceive this Bible truth, or else upon that mealy-mouthed squeamishness which has thus far shrunk from proclaiming it. Episcopalians pray for "all women in the perils of childbirth." Then why not preach to them on the responsibilities of childbearing? I hate this pretending to teach man's moral duty, yet leaving out such cardinal and momentous obligations; for what one of them ever opens his dumb-dog mouth on this point? But, leaving them to glory in their shame, let us look to profane history.

Who was the greatest general of modern times? Who chose martial life from innate love of it, and at twenty-three planned so wisely, and fought so bravely, as to be lifted over the heads of tried veterans, to sway the mighty armies of war-loving France? *And what was the state of his mother's mind while carrying him?* On horse-back, exercising queenly power over her spirited charger and subordinates of her husband, and *commingling with the army.* Had her state of mind nothing to do with his "ruling passion, strong in death?"

Mary Queen of Scots, while carrying that timid fool of a monarch, James I., saw the wild ragings of infuriated Destructiveness draw the naked steel and plunge it through its fallen victim. Oh, horrid sight! One of her friends, weltering in his gurgling blood, gasps and dies in her palace, in her sight, while pregnant! And her son—a paragon of conflicting emotions—trembling and fainting at even the sight of an undrawn sword, timid as a hare, a prey to mere whims, yet tyrannical and vindictive. Did her fright have no hand in causing his timidity?

In 1806, Mr. Purrington, near Augusta, Me., committed the most shocking murder on his wife and nine children, by beating out with an axe the brains of all but one boy, into whose back he struck the axe while escaping, and completing the tragedy by cutting his own throat with the razor. This, of course, terribly alarmed all the women in the neighbourhood, for fear their husbands might commit a similar outrage upon them; and the mother of a friend of mine suffered everything from fear lest she should be murdered; and this friend, born six months after, has suffered more, she says, than tongue can describe, from fear of being murdered; and now, though nearly forty, and compelled by her business—a seamstress—to go from house to house, she can hardly endure to sleep alone, lays and thinks by the hour together how she shall escape if attacked, and is startled by the least noise, so as to be obliged to get up and go downstairs and kindle the fire. She says she has a friend, born in the same place, and a month or two younger, who is afflicted by the same foolish fear, and whose mother suffered similarly from the same cause.

The brother of a friend of mine was very much afraid of being killed, and when crazy, he often exclaimed, Oh, don't kill me! don't!" with as much anxiety as if he were about to be murdered. His father was a notorious drunkard, and when drunk, would beat and abuse his wife, and try to kill her. Once he drew a large knife on her, and when she fled, he followed her up into the garret, where she hid herself among the rubbish, so as barely to escape with her life. While thus standing up in continual fear of being killed, this son was born; and this same fear of being killed always haunted and tormented him, till he finally took his own life.

In Charlestown, Mass., I saw an idiotic girl, rendered such by her mother's having a severe and long-continued fever, by which she was confined some three months to her bed, which terminated only by the birth of her child. In the same time, she buried two children in one grave, and had other troubles, which she said had rendered her *completely miserable.*

While lecturing in Nantucket, in 1844, an anxious mother brought a whimpering daughter to me for professional examination and advice. The first error I pointed out, though it was but slight, she burst into a flood of tears, and cried and kept crying, though sixteen years old, so that I was compelled to suspend the examination. I found almost no Combaticiveness, Destructiveness, Self-Esteem, or Firmness, and perfect pusillanimity and inefficiency, along with the most exquisite susceptibilities, and extreme Veneration and Spirituality. Yet the mother had great Firmness, and full Combaticiveness and Destructiveness. The child was totally unlike her mother, yet I knew she could not take her tameness from her father; so that I saw it must have come from her state during carriage, and requested her sometime to enlighten me on this point, and bring her daughter, as I supposed facts to do her good would be elicited. Her sad story was to the effect that, well off and genteelly educated, she married against the will of parents and remonstrances of all, one of whom she supposed to be a good man; that she was married at his father's, and that, after packing and locking her trunk, and putting her key in her pocket, she dressed for the wedding, leaving the dress which contained the key behind; that after the wedding, on finding her trunk locked and key gone, she was for telling her husband, but his brother and sister seemed very desirous that she should not, and broke open the trunk for her, which astonished her; that the next morning he ordered her up, and because she did not mind instantly, broke out upon her in a fit of rage and abuse; that then the dreadful reality burst suddenly and fully upon her mind, and she gave completely up to soul-crushing despair, refused to see any of her old friends, because so ashamed of

her blind obstinacy, and did nothing but read the Bible and cry most of the time from morning to night, day after day, for one whole year, till this child was born; that, when a babe, the least unpleasant word or look would make her cry piteously for hours together; that, when older, if spoken sharply to in the morning, she would go away by herself and sob and cry, heartbroken, all day long, and was always pensive, yet learned to read in the Bible at five years of age, and was so taken up at this infantile age with this book that she cared for no other. She could not sleep without the Bible under her pillow, or the Testament clasped to her breast. Behold the perfect contrast between her natural disposition and that of both parents, which shows that it could not be parentage; but its perfect accordance with the state of her mother's mind during pregnancy shows that it was wholly *maternal*.

Since then I have observed scores of cases in which mothers, naturally forcible, but whose spirits were crushed at this period, bear children with weak Combateness, Destructiveness, and Firmness. These faculties were crushed in the mother by the tyranny of the husband, or some other cause, so that, being dormant, they were but feebly represented in the child. They were weak in the mother's mind at that period, though strong by nature, and this left them as weak in the children as though they were naturally small in the mothers. Yet if these faculties had been excited in these mothers during their pregnancy they would have abounded in the children.

Mrs. D. remarked, for the thousandth time, many years ago, that she could trace minutely, in the great diversity of character and disposition of her numerous children, just those very states of mind she was in while bearing them. She was happy while bearing her first child, and it is peculiarly beautiful and amiable. But her husband began to drink, and this overclouded her sky, and awakened her displeasure, and her next child corresponds to this state of her mind. Then came poverty, and that severe buffeting of the waves of adversity, which called out all her force-imparting and unamiable traits, and this is the character of those born during this sad period—and thus of her other changes—so that she reads in their characters the history of her life and feelings while carrying each one.

A husband and wife moved to Sharon, near Lake George, when it remained an unbroken forest. Having no neighbours, they got out of provisions the first year; and before they could raise any, they could barely obtain sufficient sustenance to support life, and that by eating roots, boiled bark, etc. Their child, born under these circumstances, and now living, is the very picture of despair—poor, dyspeptic, hypoy, and feeble both in body and mind. But they put in a large crop of wheat, which the influx of emigration enabled them to sell at great prices, so that they had abundance, and cleared some 3,000 the second year—every thing going prosperously. The next child, born under these auspicious circumstances, is a fine, manly, strong, noble-looking, energetic, and highly-talented man, and a real steam-engine for driving through whatever he undertakes. His mother told him the cause of his brother's debility, and charged him to let him want for nothing.

About 1798, Hezekiah B., of H., Vt., a very passionate, blustering man, and *very* angry, when angry, but soon over, becoming deeply exasperated by something his wife had done, came into the house at a door opposite to where his wife was kneading bread—her back being toward the door—and emptied a most abusive vial of wrath and splutter upon his wife, who, turning round to reply, was so overcome by her feelings that she choked for utterance; and for one hour she kept kneading that bread, so stifled by the overflow of her feelings that she could not speak; her back, meanwhile, being turned toward the door and *from* her husband. Three months afterwards her son Solomon was born; and though he has always lived in the house, and worked on the farm with his father, and has a wife and child there, yet, till he was thirty-five years old, he never spoke the first word to him. Finally, one day, being at work in the field with him, and wanting very much to ask him a question, he involuntarily came up with his face toward his father, and, turning short round, so as to present his *back* to him, and then walking from his father, he made out to speak to him for the first time in his life. And now, whenever he addresses him, he turns his back to him, for in this way only can he address him, though he has tried his utmost all his life to do so while facing him, but all in vain. When a boy, he sat peaceably on his father's knee only once.

These miscellaneous cases will serve to establish the great law of the transfer of the mother's mentality at this period to her offspring. Both to warn mothers, as well as to enforce this law, let us examine a few groups of these facts.

A young lady married an enterprising mechanic. Not long after her marriage, her

husband got into a collision with one of his apprentices, and they finally fell into a regular battle. So desperate and formidable was the fight of the apprentice, that the young wife became alarmed for the safety of her husband, and with a terrible spirit of revenge and fury rushed to her husband's rescue; and she said afterwards that she hardly knew what prevented her from killing him outright. Within six months from that time she gave birth to a male child, whose only cry and roar was that of frantic rage. I recollect to have heard of this misfortune at the time. Some thirty years afterwards I lectured in a destitute part of the Empire State, and after the meeting, in compliance with an urgent request, I spent the night with this family, who recognised me as an old acquaintance. The evening, until a late hour, was spent in tracing the histories of the two families, and at the time memory did not recall her misfortune in her first child. In the morning, in descending the staircase, I was arrested by the sudden outcry and frightful snarling or maddened yell of that son. I stood for a moment almost petrified with horror, but the memory of the past brought relief; and, had I not recollected the above facts, I should not, I could not, have imagined what it was that made such a frightful outcry. The idiot had lived to be a man in size, but gave no other demonstrations of intellect than this frightful maddened cry. On coming down, the mother, with a downcast look, stated the condition of her child, and I well recollected the cause to which at the time it was attributed.

Mrs. D. rented a part of a house from a woman who had a saucy, selfish, haughty girl. Assuming a most imperative, authoritative air, because her mother was landlady and Mrs. D. her tenant, this girl often obtruded into Mrs. D.'s apartment; was insolent, overbearing, and teased and tantalised poor Mrs. D.'s life almost out of her, and this many times a day. Mrs. D. was then carrying a child, which, when an infant, was as cross and spiteful as a little witch, and cried unmercifully; and now grown-up, she has a proud, bold, imperious air, as though queen of all around her, is ungovernable and violent tempered, torments the very life out of all those around her, and is the exact counterpart of the girl which tantalised her mother. Mrs. D., a fond mother, has been so tried by her as, though kind to her, to hate her most thoroughly. Mrs. D. has active Combativeness and Destructiveness, yet a great deal of real goodness, and stamped the former on this daughter more than on her son—a sweet, noble boy—because these feelings were thus perpetually awakened while carrying her, and thus sent in that relative proportion to the child in which they abounded in the mother at this time.

Mrs. M'C. bore a promising son during Bonaparte's triumphal career. His life and character intensely interested her at this period—so much so that she got and read all the books she could find out of all the libraries—public, private, and circulating—and cherished a sort of hobby or passion for his character and exploits.

This son is now a brilliant lawyer in Boston, a splendid speaker, excessively fond of the martial, and a most enthusiastic admirer of *Bonaparte*. He has read all he can hear of respecting him, has filled every nook and corner of the house suitable for a picture with his likenesses, battles, etc., and turns all his conversation into something relating to the hero of his soul. I have this narrative from the mother and sister's lips.

Does it seem necessary or desirable to follow out this branch of our subject in detail? Have we not both abundantly *proved* and *enforced* the maternal law, that when the mother's combative and cross-grained feelings are habitually provoked while carrying a child, it will infect the *then existing* state of her temper? But, before summing up, let us look at the converse.

OTHER FACTS.

A very superior woman, yielding to her mother's earnest entreaties, married a most inferior and every way depraved man, toward whom her repugnance was extreme. She submitted gently to her fate, with lamb-like resignation, and her first child, inheriting all its mother's power of constitution, along with all her meek resignation, was a perfect specimen of angelic loveliness. So complete a paragon of sweetness and amiableness, as well as beauty, has rarely been born. She died in childhood of excessive doctoring. Her mother has large Combativeness, and full Destructiveness, yet lulled them to sleep, with the conscientious idea that she was a lawful wife, and must bear from her husband whatever stripes he chose to inflict: so that this lamb-like goodness was not hereditary—the father being a domineering, violent-tempered man—but was caused by the mother's subjugation. Her mother, seeing her mistake,

urged her to seek a divorce, and slightly rallied her resistance, and her next child has a little less amiableness, yet is an uncommonly sweet-dispositioned young woman. She obtained a divorce, and married again. Meanwhile, her health had suffered from poisonous medicines, her nerves became preternaturally excited, and accordingly her next child is quite spirited, cross-grained, and totally unlike any of her sisters.

Becoming aware of the great maternal law under discussion, the husband took every means in his power, while she was carrying her next child, to render his wife happy in feeling—arranged a visit from his father and mother, then at the West, which was peculiarly agreeable to her—placed a horse and carriage at their disposal, in which they took many pleasant rides—dismissed domestics who were not agreeable to her, and relieved her from previously oppressing cares—took many walks, and had many sweet talks with her—sustained, soothed, and humoured her, and did all he could to render her situation as agreeable and mind as happy as possible; and she has often said that she was in an unusually pleasant frame of mind during that period. This state she has transmitted to the next child, who is peculiarly sweet-tempered, affectionate, pleasant, and every way lovely, and a perfect contrast to her sister next older, born before these parents understood this law.

But in case any one part of our subject is true, all is. If either excessive fear, or anger, or sweetness, or gloom, or any one characteristic of the mother's state of mind at this period, is stamped upon the constitution, all is. The whole or nothing. And that a part is, every mother is the witness. Thousands of times, while examining the heads of children, have I predicated correctly the state of the mothers' mind and body, previous to their birth—founding my predictions solely on the developments of these children. The varying dispositions of large families furnish a correct history of the mother's state of mind and body while bearing them, written not on tables of stone, but engraven, as with the point of a diamond, on the tablets of their inner being—not only stamping all their feelings and conduct through life, but perpetuating itself in generations yet unborn. What family but furnishes a living illustration of this law?

Momentous indeed, then, is the responsibility of mothers as mothers. If their educational responsibilities incalculably affect human happiness and destiny, how much more these *maternal* relations? How many tremble when they put their hands to important papers, notes, mortgages, etc., and well they may; yet what pitiable trifles all these things compared with stamping these sons and daughters of immortality with the die of character and consequent destiny—goodness or loveliness, ugliness or amiableness, etc.—*for ever!*

Prospective mothers, by the love you bear the children of your bodies and souls, be entreated to cultivate in yourselves, at these eventful periods, those dispositions and states of mind which you would delight to witness in them. More than language can express, every day and almost hour of your lives, lovely dispositions in them contribute to your happiness; and sourness—a cross, grieved, teasing disposition in them, torment you your life long; and thus of your grandchildren. And this, and inexpressibly more, as regards yourself, to say nothing of them, depends upon your putting yourself into an agreeable frame of mind at this period. And, bear in mind, that this your frame, so far from being trifling, or transient, is to be *woven into their inmost being—to form a constituent part and parcel of their very natures!* What, though outward things do provoke, is not this mighty motive sufficient to bear you far above these trifling irritants? I have closely watched mothers at this period, and found them instinctively to guard their precious charge from blows, etc., by instantly and unconsciously folding their protecting arms upon it, and parrying danger from this part, let it strike whatever else it might. I have likewise observed, that when not too jaded out by fatigue, and fretted by outward privations, they naturally cherish a calm and happy frame of mind, and that placidity and quiet just shown to be promotive of angelic sweetness and purity in children.

Nature favours this state of mind thus. She has made children the most desirable treasure mothers can possibly possess. The real sincere feeling of the true mother is this: "Oh, I had rather give birth to one dear child, than accomplish all other possible ends, and enjoy all other conceivable good!" We have already shown that to bear children is the great destiny of woman as such. In beautiful accordance with this law, nature has made her pleasure in the prospect of becoming a mother commensurate with this her paramount destiny—that is, incomparably surpassing all other. True, other feelings are often allowed, by women who are not true to their natures, to stifle this feeling. Some women, actual monstrosities in nature, in violation of this cardinal

law of female being, hate to bear children, and even destroy the germ before it sees the light—of which in its place. But does the first cry of her fresh-born babe thrill every nerve of her body, every fibre of her soul, and should not the prospect of becoming a mother naturally tend to fill her with a calm and happy flow of feeling? How she delights to talk about her prospects—*especially to a sympathising husband!* recount all her signs, and indulge a happy reverie of contemplation concerning it. Say, mothers, have I not here drawn the veil from the inner consciousness of your being, and disclosed the maternal altar decked in its sacrificial robes? And it is fitting that this should be thus. Nature would not be true to herself if she did not implant this strong maternal yearning in every female. It would be like rendering food absolutely requisite to life, yet giving us no relish for it. But this maternal yearning is to child-bearing what hunger is to our need of food—attracting and compelling us to eat with resistless force. It is this maternal yearning which induces in mothers this happy frame of mind so promotive of goodness in offspring.

Be ye persuaded, then, O mothers, at this forming period of your child's mentality, to yield to that elevated current of feeling which your situation induces. How happy will it render you for the time being—how happy will it render your prospective heir to immortality, and you in it throughout the remainder of your being! Why let little things trouble you? Why not rise in the dignity and power of your situation into a mental atmosphere so exalted, so spiritually-minded, that what provokes you at other times shall only confirm your serenity?

"But I have my family to see to. I am worn down with labour by day and watching by night, and have squalling children under my feet, so that, however desirable this calm and holy frame, I cannot compose myself till I can attain it," say bearing mothers.

Better that your family live on bread and water at these periods, and you have lovely children, than that you do all the work you now do—most of which, strictly speaking, is intrinsically useless—and have ill-natured ones. What are clean rooms and furniture, high-seasoned dishes and many of them, and all the property you do or ever will possess, in comparison with a sweet or crabbed child? Mothers, remember this. While "after the manner of women," you are solemnly bound to attend to *this*, and give all else at all incompatible with it the go by. "One thing at a time." Let these household trifles sink into merited neglect, while you attend to your *great* mission. Why leave dollars to gather pennies? Do what else you can without conflicting with this, but give your whole soul and body to this as far as it requires either, nor let anything else interfere. Your cooking, and scrubbing, and dressing, and dish-washing, and sewing duties—what are they when they conflict with your maternal? As the latter is the paramount function of your being—that expressly for which you were created—of course your sacred duty is to let them all go while you are employed at this.

Suppose an employer hires a servant mainly and expressly to do a given kind of work—yet as there are times when he cannot be doing his work, but can do incidentals, his employer explicitly requires that as far and as long as the *paramount* work requires he shall give up wholly to it all his time, all his energies, and attend to these incidentals only when he cannot fulfil his paramount and specific service—suppose, when this paramount work was required to be done this servant should plead, "I have this, that, and so many other things to attend to, that I really cannot take time and energy to attend to it."

Now your child-bearing mission has already been shown to be *the* mission of your being—the destiny of your creation. Will you then, when fulfilling it, pile care after care and labour after labour upon yourself? Do this in the very best manner possible, and the others only as mere incidentals of life.

Besides, if you had borne your first children just right, they would probably have been so sweet and obedient, as well as so healthy, as to have enhanced that holy state of mind required by your existing situation, and bearing this one right will relieve you hereafter. Do this *one* duty, and "all other things shall be added unto you;" but she "that committeth this one sin is guilty of *all*."

DUTY OF HUSBANDS TO THEIR WIVES AT THIS PERIOD.

But has the husband no part nor lot in this matter? Though nature interdicts his exerting a direct influence on the forming character of his child, after he has stamped it with the *first* great impress of being and character, yet does she not allow him to mould it *through the mother*? Nay, does she not *require* his co-operation? What under the whole heaven is as agreeable to her at this period as his caresses and

consolations? What can exert as calm and heavenly an influence over her mind? To be beloved by the father of her dear babe is the true wife's all in all. No other thing at all compares with this in its soothing, happyfying, soul-ravishing influence on her mind. And if these things be done in the green tree, what shall be done in the dry? If a husband's fondness is her soul's idol in general, how much more so now! If to be told, at other times, in sweet accents, how much he loves her for other charms, is so enchanting, with what overflowings of joy does she hear, "I love you always; but oh! I love you now as the prospective mother of our dear little babe! My whole soul is melted with parental tenderness for it, and in conjugal love for you, as carrying it in your sacred embrace, nourishing it with your own heart's blood, and infusing into it your own lovely spirit. In the holiest and sweetest relations of our being we united to give it existence, and you are now maturing this precious germ of humanity and immortality. You were lovely always. You are tenfold more enchanting now."

And is it not natural for husbands, who love their wives at all, to love them most at this interesting period? Have we not *proved* that the entire loveliness of woman, as such, consists in her *maternal* charms? He does love, should love, the blushing maiden much; but should he not love the bearing matron more? He should dote upon that confiding bride, who forsakes father and mother and cleaves to him, and bestows upon him every feeling of her soul, every power of her nature; but should he not love this same being far more, and with a far higher order of love, when she is fulfilling these most endearing relations? Indeed, have we not already proved that as the charms of woman consist in her maternal elements, so man, in virtue of his nature as man, loves woman most when fulfilling the maternal relations? "Husbands, love you wives" always, but lavish upon them one perpetual flow of tenderness and devotion while they are thus perpetuating your name and race upon the earth.

Oh, who can duly prize a lovely child! What, in comparison, is the gold of Ophir, the honours of nations, the crowns of the whole world—what all other earthly goods? What husband, then, can duly love her who bears them, and while thus bearing? She who bears her husband one fine child is therefore entitled, in spite of all her faults, to all the gratitude and love of his being, as well as to the thank-offerings of his race. Nor will any true husband—any real man—ever cease to love her, who, having participated with him in the holiest rites of their being, crowns him with all a father's glory and happiness. Who but a flint-hearted gelding, emasculated of every manly virtue and feeling, can ever cease to love her who has borne him even but one child, and love her more and more by every new object of parental love? Certainly, who not riddled of every masculine feeling but will be doubly enamoured of her maternal charms, and chant anthems of perpetual love to her, while carrying within her the sacred casket of all his joys and treasures?

Husbands, at the bar of this great law and duty and pleasure of the masculine, how stand you with your wives at this tender period? If they imploringly lean on you for support, do you always uphold and console them? When their situation, in conjunction with previous disorders and exhausting family burdens, renders them peevish and whimsical, do you forbear with and pity them, or do you not rather lay up against them, as heinous sins, actions and sayings consequent wholly on their existing situations? Oh, how many of you cruelly wrong your pitiable instead of blameworthy wives, by taking offence where reason and humanity, as well as conjugal tenderness, require you to overlook with love! They can no more help these feelings or actions than the wildest lunatic, and are no more responsible, but deserve all love—still more pity. Though they may scold like seven furies, and be as ugly as Satan, return only the kiss of love, remembering that it is not they who do it, but the child you gave them. It so affects the organs of their sex, and these organs their nervous systems—the reciprocity between which is perfect, in order that the mentality of the mother may be conferred on the child—as to cause these outbreaks of petulance or passion by purely mechanical means. Where is your love? Where your magnanimity? Where your manhood, even? Defunct all, unless you love her all the better for her temper—considering its cause—and do your utmost to assuage it. Nor is there any telling how much the husband can do, at these eventful periods, to soothe her irritability, calm her excited nerves, dispel gloom and all unfavourable emotions, raise her flagging spirits, and put her mind exactly into the state required. Then, of all other times, should he clasp her fondly in the arms of his love, cheer up her spirits, strengthen her, lavish upon her every attention, do everything for her comfort, and enclose her in the lambent flame of conjugal love.

Call this soft, weak, extravagant, or what you like; it is the softness of nature,

the weakness of strength, the extravagance of utility—of your, her, and your offspring's highest good. See to it that you fulfil this ordinance of high heaven. This imperative duty you alone *can* fill. By the value you set upon sweet-dispositioned children, be entreated to do what no other being can do, to sweeten and soothe your wife's feelings at this period, pregnant with so much happiness to all concerned.

Nor does your duty end here. You are most guilty if you let your wives overwork at these times. Yet how many of you actually *add* to their burden, already crushing both health and spirits, by requiring things in the matter of cooking, sewing, and domestic work, which you could dispense with about as well as not. You require too much done about house—things of more imaginary than real use. Be entreated to dispense with all artificial wants, and see that they take that *rest*, by day and night, already shown to be so absolutely necessary. Or, if you must have just so much work done, *hire* help. Your wife will repay it a hundred-fold in the long run, by preserved health, and bear you a far higher order of a child besides.

Upon the importance of recreation, at this period, I have already spoken. To see that she has it is one of your first duties. And you must recreate with her—walk, ride, laugh, play, stroll, lounge, visit, and make merry. Oh, how sadly, wickedly, husbands fail in these essential respects. How far higher an order of children they might have, by employing these and such other means as intellect and love will suggest to each, according to their means and circumstances.

BAD-TEMPERED CHILDREN TO BE PITIED.

In this irritability of the mother at this period will be found probably the greatest existing cause of ill-nature in children. That ugly boy, always provoking his sister, saucing his mother, quarrelling with his mates, tormenting dumb brutes, perhaps cursing and fighting, is, after all, probably the more to be commiserated the worse he is, just as he would be if he had inherited a white swelling or excruciating cancer. Granted that he is so very provoking, and pesters the very life out of you, yet did you not as parents, or as his mother, saddle on to him, while powerless and completely in your control, those very passions which are the thorns of his as well as your life, and which you are thus vainly endeavouring to punish out of him? "*Dyed in the wool*" by your *own hands* will you thus beat him "as in a mortar with a pestle," to rid him of these "fast colours?" He is but the passive agent. Suppose you punish the *real* cause, your *own self*. Rather, suppose you supersede severity by forbearance, and take warning for the future.

An irritable mother in C., N. H., brought her daughter to me, with a spirit completely broken down by her unmanageable daughter. She said that this daughter was a perfect mule in even trifles; that she would sit sometimes all day, nor could anyone get her to do anything, not even to comb her hair; that without any cause she would become angry, and remain sulky and speechless the whole day; often plague the very life out of her little brother, and when told to stop, declare that she had not spoken to him since morning; that when dressed for church, she would often strew her clothes all about the floor, dishevel her hair, etc.; that neither reasoning, nor persuasion, nor anything they had tried, made any impression on her; that she was the very worst girl, in nearly all respects, she ever saw, and would not have thought it possible for as bad a one to exist till she saw it, etc.

I asked her what her own state of mind was while carrying her. She said she never was in as bad a state; that she then had the very worst of servants—impudent, lying, thievish—which provoked her almost to death, so that she was about crazy; that she changed them, but met with no better luck, and much more to this effect. Reader, put this and that together.

Mark, especially, that this girl had not her full senses, and the mother, at this period, was so confused as to cloud her intellect. I have seen many like cases; but of this in its place.

Now I submit whether the mother was not mainly guilty for branding this badness and stupidity into her inner being thus effectually? And is not this unfortunate-dispositioned child more sinned against than sinning? I asked this mother how she could be thus severe on her daughter, now that she knew that this *child could not help* receiving this nature, and from her accuser too.

I doubly pity bad-tempered children, and am trying to teach parents how to avoid these thorns of their being. The principle of discussion teaches us

HOW TO SECURE AFFECTION IN CHILDREN.

How dear, how charming, are affectionate children! Oh, how I love to have my little ones steal on tiptoe to my side, and imprint the warm kiss of filial love on my care-worn, fatigued brow! How I love, at table, to have that little dear at my right say, "Father, I want to whisper to you;" and putting those sweet lips to my cheek steal a filial kiss. I love to have them hang affectionately about my neck, and clamber up lovingly on my knee. How can so delectable a result be secured? By reciprocating love with our wives while they are carrying these dear pledges of our love.

But how it does annoy me to see children always picking, snarling, and finding fault! How their angry tones grate on my pained ear! Behold, in these pages, the panacea of the one and the guarantee of the other.

Both the great maternal law under discussion, that the child takes on the *existing* states of the mother's mind at this period, and also some of the specific facts already cited, prove that extreme solicitude and anxiety of mind on her part will unduly develop her offspring's cautiousness. I have seen children by thousands rendered so irresolute and cowardly as to be literally spoiled by excessive maternal anxiety. To detail cases, where there are so many, would almost mock our subject. They will be found everywhere, in any required abundance and aggravation.

This state of mind is indeed most unfortunate—a perpetual curse to its luckless victim. Then be entreated, mothers, not to indulge in yourselves a state of mind so foolish, and yet so self-torturing to them. To particularise.

You dread your prospective confinement. Every day and almost every hour you indulge this dread. Why? Does this lessen your prospective pains one jot or tittle? Does it not increase them by unnerving your mind and body beforehand, instead of fortifying both against them? If these fears did the least good you might have an excuse; but since their whole influence is evil, and only evil, and that continually, why indulge them? Rather rise above them than succumb to them. "Take no thought for the morrow; sufficient unto the day is the evil thereof."

But there is a way of rendering parturition comparatively easy, and never hazardous—of which in its due place. Use these means, and you may anticipate your confinement with pleasure, instead of dreading it with pain.

Nor let fears about husband, or children, or property, or anything whatever, disturb the placid flow of happy feeling. Especially disperse these merely whimsical fears, that are as senseless as injurious, by offsetting them with cool reasoning. Rise above such nonsense by putting yourself into that exalted state already described.

HOW TO ENDOW CHILDREN WITH SUPERIOR NATURAL INTELLECTS BEFORE BIRTH.

Talents in children, next to goodness, are their fathers' joy and mothers' "heart's desire." What a world of pains do mothers take to render their children smart and prodigies of learning! The best of teachers and schools from three years old and upwards are provided. And how many crowd their children into premature graves by so doing! Yet listen to a far more effectual way to render your offspring intellectual prodigies. The exercise of her intellect will increase its amount in her for the time being, and, of course, enhance its flow to the child, in accordance with that great maternal law already presented, that every faculty of the mother's mind flows to the child in proportion to its existing abundance in her at this period. Innumerable and most striking illustrations of this law have fallen under the author's observation. The perpetual recurrence of *facts* observed in his extensive professional practice from day to day, and year to year, for almost a quarter of a century, have forced him to believe this to be a law of child-bearing as much as to believe in his own existence. The admirer of Napoleon, already specified, is one of these cases. And the law is in perfect accordance with the entire facts and principles presented in this work.

To one class of facts, illustrative of this law, and generally considered as such, special attention is invited—to *precocious* children. I have never seen one that did not illustrate this principle. One case must serve for all.

A most excellent doctress, while carrying her first child, was in daily and quite extensive practice—receiving patients instead of visiting them; and, being highly intelligent, brought a great amount of intellect to the analysis of her cases, in the treatment of her juvenile patients. Her child was a perfect prodigy. Its bright eyes would often light its countenance with almost superhuman intelligence, and its capacities were indeed surprising. But its brain consumed its body. It declined, lingered, and finally died of brain fever, not, however, till its precocious brain had literally spent the entire energies of its system.

To examine this subject in the light of specific faculties. Mrs. S—— was naturally averse to arithmetic, and very poor in calculation—this organ is small in her head—and her husband was quite as deficient in this respect in both head and character. He failed in business at the east, and went west. Here his eyes failed him, so that he could not apply them to keeping books. His ambitious wife, determined to help him to rise in the world, applied her whole mind to keeping his accounts, answering his letters, &c., and as they soon secured a large business, her calculation was perpetually employed, for she kept his accounts in first-rate order. Meanwhile she gave birth to a fine daughter, who had a most extraordinary talent for computing numbers in her head and acquiring arithmetic.

Observe that both father and mother were *poor* in figures, so that her superior calculating powers were not hereditary. From what source, then, could she have obtained them but from the mother's vigorous *exercise* of calculation while carrying this arithmetical child? Is not this cause adequate to the effect? And ascribing it to this cause is in perfect keeping with all the laws, all the facts, set forth in this work.

She also taught music at this period, and this daughter is a splendid singer and performer on the piano, and often composes superior music impromptu.

She also excels in composition. Though only nine years old, yet her letters are really beautifully indited. I speak from personal observation. This was doubtless exercised by her mother's answering all the letters, and doing all the writing of a large business. Indeed, the child has a splendid intellectual lobe, far superior to either of her parents, caused, doubtless, by the intense action of the mother's entire intellect at this period. The case of a son, born soon after, and carried under similar circumstances, is almost equal proof of the maternal law that the vigorous *exercise* of maternal intellect as a whole, or of any special intellectual faculty, during pregnancy, will render the exercised faculties far more powerful *by nature* in children than in their parents. Neither of these children took after either of their parents, yet the natural talents of both bear a close resemblance to the state of the *mother's* mind during their carriage.

In 1843 I visited the native place of Zera Colbourn, the greatest of modern calculators and arithmeticians. A Mrs. Grimes knew his mother well, and related the following fact touching her state of mind before his birth. She obtained her living in any part by weaving figured cloths, such as diaper, and other like work. This required a great exercise of calculation, for she often invented and copied new figures. But she undertook one figure which troubled her exceedingly. For several days she tried, and kept trying, to work out the problem, but in vain, till she was on the point of giving up wholly. It even kept her awake at nights, so intent was she in studying it out. At length one night, after lying awake the whole night, she solved the problem, which was to the effect that so many threads woven thus, and so many more woven thus, etc., would bring the required figure. She rose in the morning, without having slept during the night, and wove the figure at once without any difficulty, because she had during the night deciphered it all out of her head.

Meanwhile she was pregnant with this arithmetical prodigy, which, in his day, astonished the entire civilised world. Attention was first drawn to his wonderful arithmetical powers by his often standing, before he was three years old, and saying to himself, "So many of this, and so much of that, make so much of the other." That is, he showed not only extraordinary arithmetical powers, but of *that particular species* which his mother exercised so vigorously before his death. I think her study occurred within two months of his birth.

Mrs. Pendleton, in her "Parents' Guide, and Childbirth made Easy"—a work written by a mother to mothers, and deserving extensive circulation—gives the following facts in point:—

"The mother was past forty years of age, of an energetic temperament, active habits, and self-educated. For some months previous to her fifth child she had become a convert to the belief in the transmission of mental and moral qualities. To test the truth of this belief she exercised her own mental powers to their full extent. She attended the lectures of the season, both literary and scientific; read much, but such works only as tended to exercise and strengthen the reasoning faculties and improve the judgment—the domestic and foreign reviews, history, biography, etc. She was also engaged in the active duties of a large family, in which she found full scope for the exercise of the moral sentiments, but never allowed anything to disturb the equanimity of her temper. When her time came she was in labour two days. All her

suffering, however, was forgotten at the birth of a son, with a head of the finest form, firmest quality, and largest size, with the reflecting organs of a Bacon, and the moral ones of a Melancthon. A head, in short, on which nature had written, in characters too legible to be misunderstood, strength, power, and capability; and of whom it is already said, 'He is the youngest of his family, but will soon become its head.'

"But it may be said the number of women is small who would be willing to encounter the extra pains and perils of childbirth, induced by the training of the last example. To such we can only say, that when they discover the minds of their children to be "unstable as water," with scarcely understanding enough to distinguish good from evil, and not firmness of character sufficient to pursue any steady course through life, in the anxiety and unhappiness which such conduct occasions, they must reap the punishment of their own want of moral and physical courage at the time when the exercise of those qualities would have been transmitted by them to their offspring. It is, however, my firm conviction that if women would study the structure of their own bodies and the functions of its different organs, and acquire some knowledge of the principles of obstetrics, they might escape a great portion of the present dangers and suffering of child-birth; but in the present system of female education, that branch of knowledge which would enable them to raise a family of healthy children with success appears to be most neglected.

"There is no question," says Dr. Elliotson, 'that the cultivation of any organ or power of the parent will dispose to the production of offspring improved in the same particular.'

"It is well known," says Walker, on Intermarriage, 'that the whelps of well-trained dogs are, almost at birth, more fitted for sporting purposes than others. The most extraordinary and curious observations of this kind have been made by Mr. Knight, who, in a paper read to the Royal Society, showed that the communicated powers were not of a vague or general kind, but that any particular art or trick required by the animals was readily practised by their progeny without the slightest instruction.

"It was impossible to hear that interesting paper without being deeply impressed by it. Accordingly, in taking a long walk afterwards for the purpose of reflecting upon the subject, it forcibly struck me that the better education of women was of much greater importance to their progeny than is imagined; and in calling on Sir Anthony Carlisle, on my return, to speak of the paper and its suggestions, he mentioned to me a very striking corroboration of this conclusion.

"He observed that many years since an old schoolmaster had told him that in the course of his personal experience he had observed a remarkable difference in the capacities of children for learning, which was connected with the education and aptitude of their parents; that the children of people accustomed to arithmetic learned figures quicker than those of differently educated persons; while the children of classical scholars more easily learned Latin and Greek; and that, notwithstanding a few striking exceptions, the natural dullness of children born of uneducated parents was proverbial."

Other examples of the cultivation of faculties in the mother during pregnancy, as rendering these faculties stronger in offspring than in their parents, might be adduced; but is not this law too apparent to require further proof or enforcement? What intelligent mind can examine this subject, in the light of either its facts or principles, without the full conviction of its truth?

And if one intellectual or moral faculty can be increased in the child, by being exercised in the mother, all can. This period, so frequently employed throughout the work, applies here with its greatest power, because this is the great point of character.

And now, mothers, behold in this law the possibility and the means of endowing your children, either with any specific talent, or with superior natural talents as a whole. To render your prospective children musical, or mathematical, or eloquent, or literary, or methodical, or deep reasoners, or superior composers, or authors, or editors, or wits, or critics, or mechanics, or poets, or naturalists, etc., you have only vigorously to exercise the faculties required by these callings in yourselves before their birth. And I appeal to you to say whether a knowledge of this fact is not of incalculable value. Will you not be persuaded to study it in its various ramifications, and apply it to the augmentation of the talents and morals of your children?

SECURING BALANCE IN OFFSPRING.

To one application of this law special attention is invited. Many children are just about spoiled—not for want of talents, or morals, but for want of balance of faculties.

They lack *harmony* of character and *consistency* of judgment. Their opinions are one-sided and conduct improper, because some faculties are too strong and others too weak.

They are full of imperfections, and effectually crippled and marred throughout their whole being, because of these constitutional distortions, inherited from their parents.

Mothers, have you no such idiosyncracies? You are not as likely to see them as others; yet are you not *sensible* of having many faults? And would you transmit these faults to your prospective offspring if it were possible to avoid it? Behold in this maternal law the *means* of rendering your future *children* far more perfect than yourselves. Are you rendered imperfect and unhappy by excess of Cautiousness—by groundless fears and halting procrastination? You have only to fortify yourself at this period against these fears, and at the same time to cultivate resolution and courage, and your offspring will not be cursed with so weakening a predisposition. Are you excessively fond of praise, or property, or deficient in devotion, or taste, or memory, or conversational powers, or Causality, or Tune, or any faculty of mind whatever? Behold in this law the means of supplying these defects, and obviating these excesses in your prospective offspring.

What you require to do, then, is this: Learn from Phrenology which of your talents are too weak, and *assiduously cultivate* them at this period. A phrenological and physiological examination of yourselves, with special reference to this point, would be of incalculable service to you. And the author may yet conclude to append a table to this work, with a view to facilitating the marking of a maternal chart, by way of directing mothers what faculties given individuals should more especially cultivate in themselves, in order to the perfection of the offspring.

But while expounding this maternal law, and in order to its complete impressment, let us take a little broader view, and develop a law of foetal formation, more practically important to mothers, as showing them how they should manage themselves at this period than any other.

THE REGIMEN REQUIRED AT DIFFERENT STAGES OF ADVANCEMENT.

To state, as well as illustrate, this law by facts. In Watertown, N.Y., the author saw a child whose looks, actions, and shape of head, bore a close resemblance to those of the monkey. The organs at the root of the nose were immense; Causality was wanting, Approbativeness and the animal region were large, and the head sloped back from the perceptive organs to the crown of the head, except at Imitation, which was large; and the first position the child attempted was to catch hold of the table, or anything else, and *swing by the hands*, analogous to the monkey's climbing with its hands. Some three months before the birth of the child the mother visited a menagerie, and was particularly impressed with a fine monkey, which so engrossed her attention that she could not keep her eyes from it, and it appeared equally interested in her. What struck me most was the resemblance of the child's head and *phrenological developments* to those of the monkey, they being only those of the monkey enlarged, with which also its *cast of mind* harmonised.

A young woman called at our office for professional examination. Her head was very large, and brain extremely active, while her body was weak and health poor. Her mind was so far above the common run of her associates that they failed utterly to appreciate her, and she felt no sympathy with them. She therefore led a miserable life, because, first, she was on a mental plain so far above those about her; and, secondly, because she had so great a preponderance of brain over body. Her case interested my sister so deeply that she requested her to call again, to talk over the state of her mind, with a view of suggesting some remedy. She called, and on my sister's inquiry, "What age was your mother at your birth?" was answered *forty-six*. This solved the problem. Her mother had become so *mentalised*—to coin a new word—by age as to have imparted to her far too much mind for her body; yet this was not the case with her other children, because the mother's mind had not yet predominated so much over her body as now.

A range of converse facts bearing on this point is to this effect, that "the youngest children are generally the smartest." The reason is, that since the animal is relatively stronger in youth than in mature age, and since children take on the respective qualities of parents existing in the latter when the former received being and character, of course the eldest children, born while their parents were yet wild, rattle-brained, frolicsome, impulsive, and swayed by various animal passions, are more animal and less intellectual and moral than the younger children, who are born after the higher faculties of their parents have assumed the reins of government.

About ten miles south-east of Adams, N.Y., the author saw an idiotic girl, who talked, walked, and acted every way like a drunken person. The father, in accounting for it, said that about three or four months before the birth of the child, as he and his wife were riding home on horseback, in the dusk of the evening, she became very much frightened, and thrown almost into an hysterical fit, by seeing a drunken man by the side of the road have a fit, in which he lay and rolled back and forth from head to foot. The first position into which this child was known to put itself, was to throw itself on its back, and roll back and forth exactly like this drunkard. She walked like him, talked like him, and looked like him. On examining her head, I found large Combativeness, Destructiveness, Self-Esteem, Firmness, and perceptive and social organs; but small Causality, Comparison, Benevolence, Veneration, Conscientiousness, Hope, Marvellousness, and Ideality—an organisation which harmonised entirely with her character.

Dr. Kimball, of Sackett's Harbour, showed me a lad having a splendid intellectual lobe, whose mother was called, by the sickness of her husband, to leave her native village and go to New York. On arriving there she found him convalescent; and, being there, she staid some time to see the city, with which she was delighted immeasurably, and of which she often spoke after her return. Seeing so much of the world, and of men and things that were new to her, seemed to give to her mind a new start, and the child born four months after, was prodigiously smart, and had a towering intellectual lobe. Other facts, of a similar bearing, might be stated in any required abundance; but these will suffice to illustrate our principle, which is, that during the first four months of gestation, the PHYSICAL system, and the PROPENSITIES and PERCEPTIVES take their size and tone; but that the MENTAL apparatus, and with it the REASONING and MENTAL faculties, are formed, and their size adjusted AFTER THE FIFTH MONTH. Hence, during the first portion of gestation, mothers should take much exercise, and keep up a full supply of physical vigour—the materials then most demanded by the embryo—but after the fifth or six month, or while the TOP of the child's brain is forming, they should study much, and have their moral faculties called out in a special manner, so as to furnish an abundance of these materials at the time when they are in greatest demand by the child.

This theory is supported by the following concurrent testimony: First—when causes like those mentioned above arrest or retard the growth of the foetus, about or before the sixth month, the PROPENSITIES and PERCEPTIVES are found fully developed, while the coronal region is small, and the reverse results from opposite conditions.

Secondly—by the formation and growth of the brain from first to last. At first only its BASE is developed, and it forms not all its parts equally, but its base FIRST, to which is added layer after layer, UPWARD and FORWARD, as it becomes more and more developed. The skull, at birth, is also much larger, relatively, at its base than at the crown, but the top of it grows much faster, relatively, AFTER birth, than the base; and it is developed, not proportionally and simultaneously in all its parts, but most coronally and anteriorly.

Thirdly—the mentality is successively developed in harmony with the same law. The animal passions are much stronger in children than in adults, because the reciprocal relation existing between the body and the *propensities* is much more intimate and powerful than that existing between the body and the coronal region. Hence, during childhood and youth, while the body is most vigorous, the reasoning and moral faculties make poor headway against Acquisitiveness, Combativeness, Destructiveness, Appetite, &c.; in middle age both the basilar and the coronal region are strong; but as age advances and the body wanes the mental and moral gain rapidly on the animal, overtake them, subject them, and pass them, causing men to take their highest pleasure in things that partake of a moral and intellectual cast. Hence, children rarely feel the importance of study till they are fifteen, because intellect is yet immature; but taking a new start about that period it wakes up a new existence, and progresses more in acquiring knowledge, extending and deepening the range of thought and studying into first principles in a year than the whole time before; and, as the bodily vigour decreases, mental power and energy increase. Milton began to rear his eternal monument of fame, "Paradise Lost," when fifty-seven, and old and decrepid at that; and most works of genius, the chief merit of which depends on clearness and power of thought, have been written by men whose physical powers, and with them their animal propensities were waning, and whose remaining energy, therefore, was consumed by their coronal region.

And death itself illustrates this principle, by extinguishing the fires of animal

passion first, and letting those of the intellect and the moral sentiments go out last ; thereby rendering our descent to the grave much less painful than if torn from life and its pleasures while the *appetite* for them retained all its former energy, and at the same time preparing us for that great *moral* change sought by the truly good, in which the moral sentiments will maintain complete sway over the propensities—a principle rich in philosophic beauty and most beneficial in all its multifarious bearings on the happiness of man, but more fully demonstrated in the author's work on "Education and Self-Improvement."

To repeat, then, with emphasis, let the *moral sentiments and intellect* of the mother be called into habitual and vigorous exercise during the latter stages of pregnancy, by books, lectures, and agreeable conversation and associations, attending meetings, &c., and let everything calculated to vex her, or excite her propensities, or disturb her equanimity and serenity of mind, be removed, and her condition rendered as agreeable, as wholesome, and as happy as possible. And let husbands remember that in this respect merely they owe a most important duty to their wives and their posterity. "Be ye wise."

In summing up this whole subject of the states of the mother during pregnancy, as affecting her children, both physically and mentally, let me beseech prospective mothers to *study* it thoroughly in all its complicated ramifications. All contemplated in this work is to develop some of the *fundamental laws* which govern the maternal relations, so as thereby to put you upon the track of observation and reflection. So far from having exhausted this theme, I have only just opened it. A world of detail remains for you individually to search out and apply according to the maternal defects of each mother, and to the virtues and capabilities with which each would endow each child. And remember that "*every little helps*"—that even trifling improvements in yourself will stamp the inner nature of your child the more favourably. Let mothers talk over this whole subject among themselves, and exchange experiences and suggestions. Especially, let them instruct their *daughters* and *young female friends*. Put young women upon the look-out, so that when they come to fulfil these relations they may be already informed what regimen in them will secure the best of children. As this child-bearing function is the *one great* destiny of woman, so the study of its conditions is the *paramount* study of all women, young and old—at least, till they are past bearing, and *what* study is equally important in itself, or appropriate to the female sex ?

And now, mothers, behold the length, and breadth, and sweep of this law ; and while you behold, tremble in view of the infinite power for good it puts into your hands. Tremble—rather exult. Let your souls leap for joy, in view of the potential influence placed by this law at your disposal. You prize your children beyond all expression or conception. Your souls are bound up with theirs in all the intensity of maternal yearnings. It would give you pleasure to be rich, to be fashionable, to be praised, to be comfortable in this world's goods ; but no other thing—not everything else combined—would pour into your soul a perfect overflowing of joy as rich, or pleasure as delightful, as would angelic children. Sweet, amiable, and affectionate—pure in their morals, refined in their tastes, quick and correct in all their mental operations, adorned with every virtue, marred with no defects, and as happy as angels—would not every day and hour, every manifestation of excellencies, thrill through your whole soul, and render you perfectly happy ? Bear this in mind, that while most of the other pleasures of life are temporary, and can be enjoyed only at particular seasons, the delightful emotions awakened in the parental bosom by magnificent children are perpetual. Every day, every hour enhances them. Every look you cast in their sweet, beautiful faces, every bright scintillation of the quick, free intellects, every exercise of the heavenly virtues, renews your pleasure. Flowers give us pleasure, food gives us pleasure, friends give us pleasure, pictures give us pleasure, doing good gives us pleasure, so does doing well. Music, poetry, knowledge, conversation, thought, wit—all our faculties give us pleasure ; but there is something in the feelings which a tender mother cherishes for the child of her own flesh and blood, which she has carried, borne, nursed, and cared for from darling infancy—there is a concentrated joy growing out of a mother's relations to her child—by which superior children confer on their mothers the very acme of bliss.

On the contrary, nothing will aggravate a mother's feeling as deeply and as perpetually, as children that are cross-grained, ultra, imbecile, cunning, and selfish. Mothers, have you duly considered this point ? And now that your attention is called to it, revolve it over in your minds. Is any pain, any sacrifice which will improve the

original stamp of your children, too great to make, by way of conferring this source of pleasure on yourselves? For your own sake—merely as a matter of selfish interest—what can you do, throughout the whole course of your lives, which will confer more and more exalted happiness upon yourselves?

But you are not the only ones to be blessed by good and cursed by bad children. To say nothing of the happiness of your husbands and society at large—points which involve a great amount of happiness—consider for a moment the bearing of this momentous law on the destinies of your children themselves. It is left for you to decide whether your children are to be cursed with a malignant disposition, or blessed with a happy one—whether they are to be the indwelling of any or all the virtues, or of any or all the vices, and which. And, what is more, you are *compelled* to decide this matter. Willing or unwilling, you are obliged to stamp upon your prospective offspring the impress of goodness and talents on the one hand, or sinfulness and misery on the other. It is not one of those matters which can receive the go-by. A *necessity* exists. If you do not determine this matter for yourselves, you must determine it by leaving it to its own course. And oh, with what ecstasy of maternal joy should you hail this ordinance of nature! Look—behold! heaven opens—a commission is sent down from the august courts of eternity, directed and delivered to you in your own persons, conferring on you the highest prerogative of heaven—that of bearing good or bad children, as you will, and possessed of just such kinds of goodness or badness as you please. As rulers and presidents are empowered to form their own cabinets so you are both empowered and commanded to form the cabinet of your children's mentality. And infinitely does your power exceed that of kings and courts; and if anything on earth should fill you with joy, surely this should. Angels might feel themselves infinitely honoured to fulfil your maternal commission—to wield the destiny you wield—to form immortal spirits into whatever image they chose. What other ends of life are not the merest trifles when compared with this? Should you not concentrate, in this grand function of the female, every energy of your being? Should you not, all the way up from girlhood, have a "single eye" to this, your paramount duty and destiny? Should you not make every possible preparation, before these relations overtake you, to fulfil them aright when they do come? Preparation for maternity—should not this be the grand preparation of every young woman before marriage, and its fulfilment "the one thing needful?" Now, the *wedding* is the great object of our young women. They put forth every energy to secure this object, until it is attained. And after the great nuptial day is appointed, what hurrying, and bustling, and buying, and fixing, and sewing, and worrying! If a king were about to visit them that would be the merest trifle compared with the advent of this, their Messiah. Every thing else must give way. This must be, not first among equals, but the *very* first. Yet the wedding day, and even the marriage itself, is only the outside gate to this splendid mansion of woman's being. But for maternity, matrimony would be a comparative trifle to woman; and, as many thousand times more pains, more labours, and expenses should be incurred, in fitting out this paradisiacal mansion, than in constructing the outside gate, so every young woman, from the first dawn of womanhood, should make it her labour of all labours, her preparation of all preparations, her anticipation of all anticipations, her end of all ends, her alpha and omega, her internal and external, her all in all, her very life and soul, to fit herself for discharging these maternal relations. And after she has entered the gate of marriage, and has been enthroned by her husband queen of this maternal palace, oh, how should every energy of her being be directed and expended upon the formation of that dear prospective spirit—the germ of humanity—that son or daughter of God himself—that image, and likeness, and embodiment of divinity! She is called upon to become a co-worker with the Creator of the human mind and soul. He places the materials of humanity at her disposal, and requires her to work them up into such human subjects as she may choose. He has ordained the maternal laws, and extolled her as their executor. He has done all that even a God *could* do to enable every human mother to bring forth perfect human beings. He commands them, in the name of this maternal law, and entreats them by all the yearnings of a mother's love, to endow their offspring with all that is lovely, all that is noble, and all that is great, while He adjures them, by the same means, not to corrupt their pure spirits with wrangled passions, nor cripple them with intellectual or moral incapacity. Awake, O prospective mothers, from this ignorance, and stupidity, and foolery of the past, to the exalted destiny thus imposed upon you! Long enough—oh, too long—have you trifled away your time, and your feelings—your whole souls—in chasing this phantom, Fashion! than which nothing

could equally unfit you for bearing fine children. Satan himself, aided and abetted by all his privy councillors of malignity, could not have devised or executed a system of female education, and habits, and associations every way as utterly ruinous to the health, as depraving to the morals, as deteriorating to the intellect, as that system imposed on woman by the fashions, and pursued by our middle and upper-class females, as if it were the only real object of life. What we have said about tight-lacing illustrates this remark in one particular, and nearly everything which fashionable females essay to do or become is of the same child-ruining piece.

How long shall these things be? How long shall women spoil themselves, spoil their issue, and spoil the race, just to be fashionable? How long shall woman waste her whole being on these insignificant nonentities, when such momentous destinies are hers to wield? If woman's office in the economy of nature were insignificant, this expending of her time, her money, her very self, in ribboning, and padding, and bustling, and curling, and painting, and flirting, and playing fool, might pass unrebuked; but since she fills an office more exalted, and wields destinies more momentous than archangels, what earthly language can express her folly or her guilt? If to bury one small talent is wicked, oh, how awfully criminal to turn such a talent to such a use! Girls, young women, bearing-women—women as a sex—do be persuaded, entreated, implored to learn, and then fulfil your maternal duties and destiny. Our world is soon to be regenerated—the decree hath gone forth—the millennium, ordained from everlasting, is at hand. But a little longer is our world to be scourged with physical suffering, so universal, so aggravated, with intellect so crippled and distorted, with vices so many and so monstrous, with all the godlike capabilities of humanity thus perverted and depraved. Words utterly fail to express either the inherent capabilities and perfections of humanity, as it came from the hand of its Maker, or its present state of corruption and distortion. But the regenerating process has commenced. Heretofore, society has not been in a fit state to render highly-organised human beings happy. Too much sickness and vice—too many graters of all the finer susceptibilities of our nature—have everywhere abounded, to allow a higher order of human beings to enjoy themselves, because there was so much more to lacerate their keen, pure, delicate susceptibilities, and torture high-toned moral feeling, and outrage correct and powerful intellectual perceptions, than to gratify those thus exquisitely organised. But this will soon have passed away for ever. Society will soon be in a state to delight instead of torture those thus delicately constituted. What we therefore now require, is highly-organised children, adapted to the progress of the race, and calculated to put it upon a still higher pinnacle of goodness and happiness. And you, prospective mothers, must furnish them. To you, and you ALONE, we look. From no other source can this the great salvation come. Others can carry forward other departments of human reform and improvement. The temperance reform, and prison reform, and governmental reform—the social, religious, educational, and other reforms—will be vigorously prosecuted by others; but it remains for you to regenerate and purify the original stock of humanity—to uproot the very germs of depravity, and plant in their stead the seeds of virtue and talent. Oh, mothers, sleep no longer over this momentous subject. We implore you to render our earth again more lovely than Eden, and its occupants more holy and happy than those of Paradise. First, then, apply every energy of your being to the acquisition of light on this subject. Learn precisely what your destiny requires you to do, and then fulfil it. Address your whole selves, soul and body, to their fulfilment—to the bringing forth and bringing up magnificent children—and then proclaim these things to every prospective mother whom you can possibly reach. Let your one passion be, not rich furniture, or fashionable dresses, but FINE CHILDREN, and a regenerated world will pour forth thankofferings and hosannas, in their highest strains, hereafter, for ever.

SECTION IV.

DELIVERY—ITS PAINS LESSENED.

SEVERE LABOUR-PAINS UNNATURAL AND AVOIDABLE.

Though the great thought of this book—namely, that the state of the mother's mind before birth similarly affects offspring—is now developed, so that we might with propriety here suspend it; yet a few general remarks on DELIVERY AND NURSING will

doubtless enable prospective mothers to lighten materially those agonising pains too often consequent on childbirth, and relieve themselves of many of the burdens of nursing. Not unfrequently these pains are more terribly severe than those of death itself, and in general, in civic life, they are indeed dreadful.

But this is not the worst of it. The pains themselves do far less injury than the DREAD of them, because the former pass off with the mother's confinement, while the latter stamps the impress of fear and terror upon the PRIMITIVE CONSTITUTION of the child itself, which embitters its whole life with indefinite apprehension of impending calamity where there is none. He who can essentially mitigate the pains and dread of parturition, will render incalculable service to mankind.

But to dwell on the FACT of these pains, or on the injury they occasion mothers and children, is not our purpose, because they are too palpably apparent to require it. We therefore pass to the inquiry.

Many think them ordained by God, and rendered inevitable by the Fall. They interpret, "I will greatly multiply thy sorrow and thy conception: in sorrow shalt thou bring forth children," as pronouncing special judgment upon Eve, and through her upon universal woman, for tempting Adam; and hence infer that there is no obviating them.

But is this opinion tenable? Not at all, either in the light of philosophy or fact. It is in direct conflict with both. How ungodly to sentence all women for one sin of one woman! Or if the Deity should pass so unrighteous a sentence, would he not execute it? "Hath he said and shall he not fulfil?" Since this sentence was passed upon all women *alike*, of course there is no absolute need, as far as this sentence is concerned, that one should suffer any more than another. If these labour-pains were really the fiat of the Almighty, would He be so doubly unjust as to impose, as a special judgment, so much *more* pain on one than on another? And the fact that some have so easy a delivery is positive proof that, in spite of this judgment, *all* might have as easy time as *any* now do. Since the labour-pains of some women are so trifling as not to be worthy of a second thought, therefore this sentence, passed upon those of easy delivery just as much as upon any others, will not prevent *every* woman from having as easy a delivery as any woman that ever has lived or may live. The idea that women are *compelled* to bear children in sorrow is contrary to nature, disproved by fact, and a practical libel on the character and government of God. Nor can any reasonable construction be put upon this passage other than as simply declaring what was then a fact; for if it curses woman with severe labour-pains, it curses *all women equally*, whereas some have but little pain and a rapid recovery.

Though I do not believe in "childbirth without pain," yet I do believe that where nature is allowed her perfect work, these pains will be too slight to deserve a moment's consideration, and especially to awaken previous apprehension. One of my female friends says she would "rather bear a child than have a tooth drawn." I have seen many women who have done all their own nursing and all the housework for their families during their confinement. How slight the sufferings of many Irish and German women at these times! How many of them are up and about the house the very next day!

Women in uncivilised life suffer less, and recover even sooner. Dr. Rush, speaking of child-bearing among the Indians, says, "That nature is their only midwife; their labours are short, and accompanied with little pain; each woman is delivered in a private cabin, without so much as one of her own sex to attend to her. After washing herself in cold water she returns in a few days to her usual employment; so that she knows nothing of those accidents which proceed from the carelessness or ill management of midwives or doctors, or the weakness which arises from a month's confinement."

"The wonderful facility with which the Indian women bring forth their children," say Lewis and Clark, in their well-known journal, "seems rather some benevolent gift of nature, in exempting them from pains which their savage state would render doubly grievous, than any result of habit. One of the women who had been leading two of our pack-horses, halted at a rivulet about a mile behind, and sent on the two horses by a female friend. On inquiring of one of the Indian men the cause of her detention, he answered, with great appearance of unconcern, that she had just stopped to lie-in, and would soon overtake us. In fact, we were astonished to see her, in about an hour's time, come on with her new-born infant, and pass us on her way to the camp, apparently in perfect health."

Washington Irving, in his work entitled "Astoria," relates a similar incident in

the following language: "The squaw of Pierre Dorion (who, with her husband, was attached to a party travelling over the Rocky Mountains in winter time, the ground being covered with several feet of snow) was suddenly taken in labour, and enriched her husband with another child. As the fortitude and good conduct of the woman had gained for her the goodwill of the party, her situation caused concern and perplexity. Pierre, however, treated the matter as an occurrence that could soon be arranged, and need cause no delay. He remained by his wife in the camp, with his other children and his horse, and promised soon to rejoin the main body on their march. In the course of the following morning, the Dorion family made its appearance. Pierre came trudging in advance, followed by his valued, though skeleton steed, on which was mounted his squaw with the new-born infant in her arms, and her boy of two years old wrapped in a blanket, and slung on her side. The mother looked as unconcerned as if nothing had happened to her; so easy is nature in her operations in the wilderness, when free from the enfeebling refinements of luxury and the tampering appliances of art."

Mr. Laurence also tells us that "the very easy labours of Negresses, native Americans, and other women in a savage state, have been often noticed by travellers. This point is not explainable by any prerogative of physical formation, for the pelvis is rather smaller (by itself an unfavourable circumstance) in these dark-coloured races, than in the European and other white people. Simple diet, constant and laborious exertion, give to these children of nature a hardiness of constitution, and exemption from most of the ills which afflict the indolent and luxurious females of civilised societies. In the latter, however, the hard working women of the lower classes in the country, often suffer as little from childbirth as those of any other race."

Stevens, speaking of the Araucanian Indians, says, "that a mother immediately on her delivery, takes her child, and, going down to the nearest stream of water washes herself and it, and then returns to the labours of the station."

That one cause of the easy delivery of these robust women is the small heads of their children, consequent on the deficient mentality of both parents, is undoubted. Yet, does not the larger chest and shoulders, consequent on the larger bones, muscles, and vital apparatus of these children of the forest, render their parturition as difficult, in itself, as the larger heads of the children of civilised life? Is not the chief difference in the *mothers*? Is not the great cause of these excessive pains of childbirth in the *feebleness* of civilised women, and the easy parturition of Irish, German, and Indian women, in the *robust health* of the latter? Its cause is not that woman in the higher walks of life is doomed to "bring forth in sorrow," but that she *outrages every principle of health*, from the very cradle. Else why this difference against city ladies, as compared with healthy country women? Though some robust women have hard times, and some sickly ones rather easy ones, because of the difference in their forms, the size of the father, and especially of his head, yet, in general, the more healthy any given woman, the more easy her delivery; and as her health declines her labour becomes more painful and dangerous.

Now I press the great fact here involved upon the observation and reflection of women, and submit whether health does not lessen the pains of delivery, and feebleness of constitution aggravate them? Remains there any doubt on this point? Is it not founded on reason and sustained by fact?

The general fact that health lessens labour-pains is too palpable to require proof, yet few realize to what *extent* these pains can be diminished by observing the physiological laws. I can read in nature no *absolute necessity* for much pain. On the contrary, all her functions are pleasurable; and shall this form an exemption? Unless she has made provision for rendering this function more agreeable than painful she has not been true to herself and her uniform laws. If even savages, with all their necessary privations and exposures of health, can bear children with so little suffering, how much easier could civilised women, aided by all the lights of Anatomy and Physiology, render this operation. The idea that civic life is necessarily detrimental to health, is preposterous. All the knowledge, property, advantages, everything we possess over them, confer on us the means of becoming more healthy than they. If we are not so, ours is the fault.

Since, then, severe and dangerous labour is not the ordinance of nature, by what is it caused? By those *outrages of the laws of life and health* perpetrated by women in civilised life. And most of them are inflicted by that tyrant goddess, *Fashion*.

The injury done to children by tight-lacing has already been shown. Its aggravation of labour-pains is incalculable. It fills the whole system with fever and

disease, and especially the female organs; and beyond this, what could more effectually enhance all the pains and perils of child-bearing? It stifles heart, lungs, and stomach, and thus exhausts the vital powers as to leave too small a supply of *strength* to carry the patient through this period. In conjunction with loading the hips with enormous loads of surplus clothes, it relaxes and disorders the muscles employed in this function, and aggravates the pain and dangers of parturition beyond calculation.

The want of fresh, invigorating air, the excessive warmth of our coal-heated rooms, the ruinous posture of seamstresses, and indeed of most of our women, the imperfect circulation, digestion, perspiration, and exercise of almost all civilised women, aggravate, in the most effectual manner possible, the sufferings of this period. It would not be possible to devise a course every way calculated to render labour dreadful and dangerous as the habits of our women, from the very cradle, now are. Late hours, late rising, excessive intensity of feeling, bad eating, bare arms and necks, thin shoes, refusal to labour, while the abdomen is made to sweat like rain with supernumerary skirts, and a thousand like enervating habits, completely ruin the constitution of our women, and they pay the dreadful forfeit in "the perils of childbirth." These and kindred causes disclose an effectual mode of obviating labour-pains.

Animal vigour is the great guarantee against them. A powerful constitution will proportionately obviate all danger and lighten these pains, so that you can render this function more and still more easy in proportion as you improve your health. Observe that this principle involves a complete principle.

Reference is not now made to improving the health during pregnancy merely, but mainly during *life*. The former will aid as far as it goes, yet this is the grand point we would rivet upon your minds: *provide beforehand* against these pains by invigorating all the bodily functions. This provisionary process should be begun in girlhood, and continued till the child-bearing period ceases. The education of girls should be conducted with *special* reference to this point. Since girls should be educated with primary reference to fitting them to bear fine children, and since those very conditions of maternal health requisite to bear healthy children facilitate and lighten delivery, of course their education should include fitting them for easy delivery. But, to canvass a few items:—

A VIGOROUS MUSCULAR SYSTEM.—Already has the requisition for powerful muscles in mothers been pointed out as a means of endowing their offspring with a strong locomotive apparatus. This muscular system is the chief instrumentality by which delivery is affected. By what means is the child urged from its pent-up inclosure in the womb through that narrow pelvic orifice, and, in spite of all other obstructions, forced into the world? Solely by *muscular contraction*. Then, other things being equal, will not delivery be more and more easy the more powerful these muscles?

And what is it that causes prolonged difficult labour? Mainly insufficiency of these muscles. They are too weak to expel the child. Yet, if allowed to remain, it would remain till too large to be expelled, so that nature labours and does her utmost, often for many long days and nights in succession, but in vain. Every labour-pain strains these muscles to their tension, yet even then does not make progress. As a weak team, stuck with a heavy load, strains every nerve, yet each trial, while it still further exhausts, leaves the load as fast as before, so every pain fatigues these muscles, but fails to advance the child, and recourse must be had to that horrible alternative of artificial delivery by instruments; whereas, if the mother's muscles had not been so weak, they would have been controlled with such power as to have expelled the burden. Ninety-nine cases in every hundred of excessive labour-pains are consequent on weak muscles or debilitated health in mothers. Indeed, every case has one or both these causes. All nature's operations are *perfect*. Not one case in millions—not one from the beginning to the end of time—would ever occur if nature were allowed her perfect work.

Wrong presentations may be cited as exceptions, yet they are not. Every single instance of wrong presentation is caused by some *interference with nature*, and can therefore be avoided by woman's observing the laws of nature. Who ever heard of them in uncivilised life, or among healthy Irish or German women? But do they not occur most frequently in "high life"—among our fashionable ladies? Why? Because they depart farthest from nature's requirements, and violate the laws of health most, whereas they might and should be the most healthy, because they enjoy the greatest advantages for promoting health. This wrong presentation is a natural

consequence of abuse of health, and might be wholly avoided, unless this abuse were perfectly outrageous and long continued.

What our women—what our girls require more than anything else, by way of preparing them for easy delivery, is *vigorous muscular exercise*, such as housework, gymnastic exercise, invigorating walks, rambling over hill and dale, and everything calculated to develop their *muscular system*. Not that I would make them mere kitchen drudges, but I would have them work right hard several hours daily, just for exercise and health, and this will do up all the housework really requisite to be done. Washing is excellent exercise. And every woman in high life and low, who has not already ruined herself by fashionable indolence, should take right hold of hard work till comfortably tired, for, besides developing her muscles, it will promote all her vital functions.

Women should especially play much. This is as natural to them as breathing—rendered so in order to develop their muscular and vital powers. Nor would it decrease, but rather increase, in middle age, if women were not generally crushed by unhappy marriages, the death of children, broken constitutions, etc. Nothing is more promotive of health, and therefore of easy delivery, as well as of briskness and snap in children.

Dancing, too, is most excellent exercise for girls and women. It may be excessive, or unreasonable, and therefore injurious; but properly practised, nothing is better. Oh, I do wish some of this prim, sedate, stiff-jointed, inert, laded, starched-up, artificiality, could be shook out of our women! They think they must be just so exact, and precise, and citified—must check every rising of that wild, free, frolicsome disposition so constitutional in girls—must always ride in spring and covered carriages—must never be caught climbing fences, or ranging fields, or at work in the kitchen—must rarely laugh, but only smile—must retain all the gushing sympathies of their nature—and must be passive nonentities, except in fine sewing, and on the piano. Oh, I abominate this strait-jacket restriction under which our women are brought up, because it ruins them as mothers, and enhances all the sufferings of childbirth. It just spoils them. Come, women, snap these fashionable restraints, and give yourselves that freedom so promotive of the specific functions of your sex. Do take exercise. Suit yourselves as to the what, how, and when, but take exercise in some form, and a great amount of it. This will so strengthen your muscles that when you come to your accouchement, your uterine and abdominal muscles will play their part to perfection, so that a few efficient pains will deliver you.

And you who have these dreadful times be entreated not to put your girls into the way of suffering in like manner, by confining them within doors, and bringing them up so very delicately and fashionably. I have already discussed the necessity of girls taking muscular exercise in order to develop their vital apparatus—but I now urge it on the ground of its *lightening the pains of delivery*. Make them work, and work hard. Forbid them sitting much for the purpose of sewing, music, study, or any thing else. Keep them much out of doors. Supply them with small hoes, spades, and hatchets, that they may cultivate flowers, gardens, shrubbery, etc., and learn the use of tools; and allow them to scale fences and climb trees. Only give them a chance, and they will find ways and means to take exercise in any required abundance, and this will guarantee them a safe and easy delivery.

The entire system of female education is fundamentally wrong, and *must* be re-modelled. Girls must be taught *things* more, and books less, must be *shown nature*, and be educated *on foot*, instead of being confined to the schoolhouse and the piano. Make them children of nature, not of art. Let them be girls till twenty, nor once think about rendering themselves attractive by dress or starched-up manners. Develop their *bodies first*, and this will give them clear and strong minds, as well as obviate all the perils and most of the pains of childbirth. Oh, when will the true nature of woman be understood and developed by education? May this book aid the result.

THE MIDWIFE'S OFFICE.

My remarks here shall be brief, but pertinent. Let *nature* do all, and art “stand silent by.” All noise and bustle and parade have a most injurious influence on the mother's mind, and thus retard delivery, by awakening her fears. Making a great ado does no sort of good—does not promote delivery one iota—but it does excite the mother's fears, and unnerve her, and this renders her labours far less efficient and speedy.

The mother's first requisite at this period is *resolution*. She should be encouraged to grapple with her destiny with the spirit and determination of a heroine. She should feel that she *can and will* discharge her burden, and that without any great difficulty. Instead of breaking down under it, and feeling, "Oh, I can never get through and live!" she should enter right into the spirit of it, as though it must be done, and the more energetically she takes hold of it, the sooner and the more easily she can despatch it. The assistance afforded by a courageous state of mind is incalculable. It renders every spasm far more efficient than it would be without such mental aid. She should bear down upon herself, and strain with a strong mental determination to expel her load.

But if she sink under labour, it will be far more painful and protracted, because the muscles will be in exactly the state of a man lifting at a load which he thinks far beyond his strength. "I can't," always palsies; "I can and I will," always nerves and propels. Incalculably can mothers promote easy and successful delivery, by this spirit of determination and courage. And all the influences that surround them should be of this nerving, encouraging, inspiring aspect.

Every attendant—and they should be few, and of the right stamp—should be cool, calm, quiet, perfectly self-possessed, and enter into the operation as though they would speed it onward. But all this flying from room to room, and fussing, and fixing, and preparing, and bustling about, flusters the mother and retards delivery. Two or three immediate attendants are all-sufficient on ordinary occasions. It may perhaps be well to have others within call, yet in almost all cases the less done the better. Nature must do *all*. Let her have her perfect work, and it will be well done. But all interference is very bad for both mother and child. The simple fact that artificial delivery is so extremely difficult, and access to the child by way of pulling it into the world so almost impossible, as well as detrimental to the brain and mind of the child, is admonition positive to leave this matter to *nature*. And every honest accoucheur will bear witness that all common cases should be left wholly to nature, and that meddling with uncommon cases only makes them worse. Instrumental delivery ought never, need never, be resorted to. It is an outrage on mother and child, and may *always* be avoided by a due preparation of the mother beforehand.

"But," it is asked, "after nature has done all she can, and the final crisis has come when the mother must die unless the child is taken from her by force, what shall we then do?" I answer, such cases need never occur. A due physiological preparation of the mother beforehand will always prevent them. And when worst comes to worst, relax the parts by the warm sitting-bath, which may be advantageously taken for days and weeks beforehand, in even ordinary cases. On this point I do not claim originality; but my full conviction is, that the water practice is the *all and in all* at accouchements. The following is from the *Water Cure Journal*, a periodical with which every bearing mother should be familiar, edited by Dr. Shew, whose repeated visits to Priessnitz, long and eminently-successful practice, physiological and dietetic knowledge, and strong common sense, place him among the very first water-cure doctors.

"The following remarkable case might by many be reckoned as one forming an exception to the general rule, as to what would be the general result under similar circumstances. In reality, striking as the case is, it is only an exemplification of what has frequently been proved, that it is possible for women of ordinary health so to live that childbirth and the period of pregnancy can be rendered comparatively free from pain and suffering.

"A lady of this city whose name, from motives of delicacy, we are not at liberty to mention, of seventeen years of age, small form, with very good constitution, was lately with child, and passed through the whole period as follows: She took regularly a shower bath every morning, exercised every day, wet or dry, in the open air, and when by any means the amount of exercise was considerably less than common, a quick bath was taken before dinner, and regularly a sponge or rubbing bath was used before going to rest. *Sitz* baths were taken daily, and the body bandage worn much of the time. No permanent chill was allowed to take place. The evening *sitz* bath seemed to have a decided effect in causing sound rest. The bowels were kept free by clysters of cold water whenever these were necessary. Very plain vegetable and farinaceous food and fruits constituted the sole diet. The meals were light, and for three months previous to confinement, the supper was always omitted, so that only two light meals were taken daily and no food between times. Drinking of water is a powerful means to reduce the inordinate craving appetite with which many are afflicted

in childbearing. In the case of this lady, no other drink than pure soft Croton water was taken during the whole time.

"As the expected time drew near, one morning, while in the sitting bath, labour commenced. The pains were prompt, and in about twenty minutes a fine healthy child was born. In about ten minutes more the after-birth came away, followed with but little flowing of blood. The patient was allowed to rest for a short time, after which the body was sponged over and quickly made dry and comfortable. Wet clothes were laid upon the breasts, to prevent inflammation and undue swelling of the parts. A wet bandage was also placed about the abdomen, covered with a dry one, so as to be of comfortable temperature. The sponging, rubbing, and bandages were the means of reducing the feverish excitement caused by labour, and of soothing the body in a remarkable degree, so that sweet and quiet sleep soon followed. On the third day, water having been used, as the case seemed to require, in the meantime, the woman walked into the open air without injury, but on the contrary with benefit. Daily exercise, however, was previously taken in the sick room, which was at all times kept well-aired.

"In this remarkable case there was not a single scar left upon the body, it being the first child, and the amount of suffering was by far less than is often experienced in mere menstruation by women who do not bathe regularly and adopt a generally correct hygienic course. Physiologically as well as morally, 'Wisdom's ways are ways of pleasantness,' and happy is that mother who understands nature's laws, and who has in them a confidence sufficient to live accordingly.

"It may be objected in reference to the above case, that it would be unsafe for most females to attempt to carry out a similar course to the one described. This is not true. Every individual, old or young, sick or well, and of either sex, should have at least a daily bath. Who would think of leaving for a single day the face and hands unwashed? Those who have adopted daily bathing, know well the comfort and advantages arising from it. Nor is a rigid vegetable, farinaceous, and fruit diet, as was used in the above case, a dangerous one, as many suppose. On the contrary, such a diet judiciously selected, is highly conducive to bodily vigour and comfort, and renders one, in all cases, far less liable to disease of every kind. All who will in every respect take a judicious course, similar to the one described, will, as certainly as the sun shines, render their sufferings in child-bearing very much less than by any other possible means that can be adopted; and in most cases, so great will be the benefit derived that, comparatively speaking, child-bearing will be unattended with suffering and without pain.

"The condition of the child in this case was not less remarkable than that of the mother. It was healthy and vigorous, and as a natural result was far less liable to disease than children generally are. It is not at all natural for one half of the race to die under five years of age. If mothers and children were universally managed as in the case above, mortality of infants and children would be comparatively unknown.

"On the 16th of September, 1845, Mrs. Shew gave birth, under peculiar circumstances, to a child. Her ancestry on both sides are consumptive, so that she inherits a strong predisposition to that disease, and has, in fact, for years had much to contend with in reference to the condition of the chest. Pleurisies, inflammation of the lungs, cough, and hemorrhages she had at different times, and is constantly liable to affections of this kind. She is likewise naturally of very delicate frame and extreme nervous sensibility, and it has been only by exercising great care in everything that pertains to health that she has now for a number of years, with two or three exceptions, kept free from the outbreaks of disease, and has enjoyed what would ordinarily be termed good health.

"The summer of 1845, it will be recollected, was very tedious and hot. The whole season the drought was severe, and there was scarcely a shower to refresh the earth. It was, therefore, very depressing to the health. However, by daily bathing and being much in the shade in the open air, wearing usually a part of each day the wet girdle to refresh the system, using the cooling hip bath and injections now and then, as occasion required, and partaking lightly of food but twice a day, Mrs. S. passed through the summer remarkably well; but more than once during the season certain things transpired that were very much against quietude, peace of mind, and mental repose so necessary in the condition she was then in.

"At length her expected time drew near. By the exercise of great prudence and care she was enabled up to the very last to discharge the ordinary duties of overseeing the household affairs of her family, and to walk and ride daily and frequently for exercise, or as business called, in the open air.

"I must here mention that one of my respected preceptors in medicine, and a man who is scarcely second to any other in his thorough acquaintance with medical lore, gave it as his decided opinion that, from the extreme smallness of the pelvis, Mrs. Shew could never give birth to a full-formed living child. The expedient of causing premature birth, or the still more horrible one of destroying the child, seemed to him inevitable, either of which Mrs. S. could not for a moment listen to. That the labour must be exceedingly severe was evident enough to all. But she was resolved to let nature take her own course whatever it might be.

"Labour came on at evening of the 15th of September, the weather being yet hot and sultry. Mrs. S. would not listen to the proposal to have medical aid besides myself, nor would she consent to have any nurse or female attendant of any kind. Ordinary servants only were to bring water, and to do whatever of like service was necessary.

"The labour pains went on, becoming exceedingly severe, and continued until three o'clock in the morning, at which time she gave birth to a large, healthy, and well-formed female child. Almost immediately the after-birth was expelled, followed by most frightful flooding. The night was, I confess, a long, dark, and dismal one to me. There was, I knew, in my wife's system, and always had been, as well as in her family, a strong tendency to hemorrhages. I understood perfectly well the different modes resorted to in these dangerous extremes. Cold applications are, the world over, the means relied upon. As to the mode of applying the cold, I had resolved, in this case, to take a different course from any I had ever heard of. I had procured a large hip bath with a good back, in which a person could be placed in a sort of half-reclining position, with the head supported upon pillows. Instead of applying the cold by the stream from a pitcher, by wet cloths and the like, I had resolved that if flooding came on I would take Mrs. S. in my arms, and instantly place her in this hip bath; and thus, as I believed, I could more quickly chill the whole of the pelvic viscera than by any other means. Be it remembered that wherever there is hemorrhage, whether from the lungs, stomach, bowels, or womb, there is great heat in and about the part from which the blood issues; and the quicker and more effectually this heat can be abstracted, and the parts chilled, the more certain are we to arrest the flow by the constringent effect of cold upon the open vessels. As for the SHOCK of the douche, or pouring of water from a height, so much in vogue, I believe that, so far as the shock is concerned, it is better avoided. If I am not mistaken, THAT only tends to keep up the flooding. The cooling should be passive, and not violent.

"Having everything in readiness, I took Mrs. S. in my arms, and before she had time to faint entirely I placed her in this hip bath of cold water. The water covered her from the knees over the whole abdomen, and no sooner had these parts come in contact with the water than it seemed, as if by magic, the flooding ceased. The water revived her, and in a few minutes, before she had become much chilled, I raised her carefully and laid her in bed, put wet cloths about the abdomen, and wrapped her warmly in blankets. The feet were cold, as they generally are in severe hemorrhage. These parts, and from the knees down, I rubbed briskly with the warm hand to restore the natural warmth. I kept good watch that she should not become too warm, as in that case flooding would be apt to return. It was not long before Mrs. S. fell into a sound sleep, in which she rested for some time.

"I have regretted much that I did not at the time write down the notes of this case—that is, of the remaining part of the treatment to be spoken of. From the severity of the labour and the loss of a large amount of blood, Mrs. S. said she felt a greater degree of weakness than she had ever before experienced, a sense of sinking of the vital powers, and an oppression at the heart, with which she was before unacquainted. The sleep I have spoken of did her much good, and was of all things the most desirable. Still she was very weak, and after-pains set in, growing more and more severe. Her system being so highly sensitive, I expected this, and resolved upon the use of the hip bath. I would here remark that the objection that would be raised by almost any practitioner to this procedure, here as well as in the flooding before spoken of, would be that the position, the raising up a person in this weak state, and placing the trunk of the body in an upright position, would be likely to cause a return of the flooding. This objection, I admit, would have greater weight were it not for the fact that the water acts so powerfully to check that symptom. Still, there is nothing like the danger, even without the use of the water, that there is supposed to be. And persons are found everywhere—in fact, it is almost a universal thing in

childbirth, that females are required to lie day by day in too warm beds, thus debilitating the body by the heat caused by the fatigue of remaining much in one position, and by the unnatural position of the brain. Females thus become debilitated, nervous, restless, and are kept back day after day, and often for weeks, and all for the want of what may be called good nursing; and then in this debilitated state, when they do begin to get about after the ninth day, as superstition has it, the opposite extreme is practised; too much is done at once, a cold is taken, inflammation of the breasts occurs, or falling of the womb takes place, or perhaps a powerful hemorrhage. I repeat, that in my practice, as a rule to which there can seldom be any exception, my patients of this kind sit up, even if it be but one or five minutes at a time, the first day of the confinement and onward. The sitting up to REST the patient—that is, to rest from the fatigue of the lying position—is one of the best means that can be adopted. The bed is at the time aired and becomes cool, so that when she returns to it the change back is salutary, and the reclining position becomes one of rest. The patient should be taught not to overdo in this matter, for every good thing has its abuse as well as use. I had now, in Mrs. Shew's case, a good opportunity to test fully the powers of water and good nursing. There were in her mind no prejudices to overcome—no lack of confidence, no superstitious yet good-meaning old women about us, to whisper their fears and prognosticate evil. There was nothing in the way, and what was better than all the rest, Mrs. S. had herself a good knowledge of the principles that should guide us in the management of such cases.

"After Mrs. Shew had slept, as before-mentioned, and the after-pains had commenced, I administered the hip bath. These pains, as well as hemorrhages, are attended with internal heat; but as regarded the general system, Mrs. S. had now a feeling of dread of COLD water. The objects in view in the use of the hip bath and frictions were to lull the pain, and to invigorate the system by the tonic effect of the water and friction. I laid a folded blanket in the bath, in which was put a small quantity of tepid water, of such temperature as would produce no unpleasant sensation. Blankets were also used to wrap about the feet and limbs, and the whole surface, except the parts exposed to the water. Reaching my hand under these blankets, I commenced rubbing the spine, abdomen, and other parts; and, as the surface became accustomed to the water, I dipped the hand into that which was of a little lower temperature, and at length lowered the temperature of the water in the bath gradually, by adding to it cold water. In a short time the pains ceased. The bath was continued some fifteen or twenty minutes—possibly a little longer—and then Mrs. S. was placed comfortably in bed. It was indeed truly wonderful to behold the change produced by this bath. Besides the removal of all pain, it seemed as if her strength was increased tenfold, all in the space of less than half-an-hour.

"The after-pains returned frequently during the day, and as frequently they were combated with the hip bath and frictions. At least as many as ten times, and I think more, through the day and evening, I administered these baths, every one of which appeared to do an astonishing amount of good. Besides the removing of after-pains and the tonic effect of the baths, there was another palpable one: at times, sharp, cutting pains were experienced in the bowels, caused by flatulency. The bath removed them like a charm. The urine was found to pass freely, in consequence of the bathing and drinking; and the soreness so much felt in these cases was all removed.

"As Mrs. S. grew stronger the water was used somewhat colder, but all the time of moderate temperature. She slept very well during the night, having little or no after-pain. In the evening she sat up, bore her weight, and walked a little about the room.

"In consequence of more than usual fatigue, I did not awake the next morning until between six and seven o'clock. I confess I was not a little surprised, on awaking, that Mrs. Shew had left the room. This was only twenty-six hours from the birth; and she had taken her child in her arms and gone down to the kitchen. She felt that she was perfectly able to do this, and acted accordingly, on her own responsibility. She was, however, very careful this day; took but little nourishment; and in three days' time we moved to the large house, 56, Bond Street, Mrs. S. walking up and down stairs numbers of times during the day, overseeing things as they were moved, and so every day onward. Bathing was kept up as usual daily, and she partook now, as was her usual habit, of the plainest food, and but twice per day, using no other animal food except a trifling quantity of milk, and no other drink except pure water.

"The second day after the birth of our child, a worthy old gentleman, one of our

patients, from New England, called upon us. He inquired kindly respecting Mrs. S.'s health, he having seen her much in the summer, and in a few minutes she met him in the parlour. He raised his hands, and in astonishment exclaimed, 'This is indeed bringing things back to nature!'

"In conversation with one of the first medical men of our city, or of the world, I described this case of Mrs. Shew's, and also others of like results. He said that he could not conceive it possible for a woman to get up and go about with anything like safety, in twenty-four, or even forty-eight hours, after childbirth. I admit that, as a rule, women could not under ordinary modes of treatment; but, at the same time, asked him how it was that the Indian women were so little troubled with these matters. I then said, 'Our patients practice bathing daily—bathing continually; drink no tea or coffee to weaken the powers of digestion, constipate the bowels, destroy the relish for food, shatter the nervous system, and impair the soundness of natural and refreshing sleep; their modes of dress do not distort and debilitate their frames; and instead of remaining mostly within doors, according to the foolish customs of civil life, they go regularly and often in the open air, thus gaining strength by means of those natural and powerful tonics—exercise, pure air, and light.' He admitted that such modes, persevered in, must produce powerful effects of some kind, and added that he intended always to sustain good health by means of the shower bath, the daily use of which he had adopted with the greatest benefit.

"I hold that, strong and enduring as are the Indian women, this generation even may, if they commence in early life, become more hardy and strong than are those daughters of the forest, whose habits are in many respects unnatural and detrimental to health. But all this requires an amount of knowledge that few yet possess.

"I could add numbers of cases of childbirth scarcely less striking than that of Mrs. Shew; and if the reader has any doubts of the authenticity of such narrations, I ask him to take the names and residences of my patients, and hear their stories for himself. Persons who have experienced the invaluable, untold, and apparently miraculous effects of cold water, will not hesitate to make known the blessing of the new system."

Would that I could duly impress upon mothers this cardinal point—to prepare themselves beforehand, by *fortifying their health*, instead of unfitting themselves by health-ruining practices from the very cradle.

Bleeding at such times is most pernicious, for it weakens mother and child by withdrawing the life-blood from both. They require nothing so much as *blood*. Granted that it is impure, does taking away a part purify the rest? Abundance of *pure air* is the thing for cleansing the blood.

To chloroform there exists strong objections. Its stupefying influence on the child must be most detrimental, because, since its brain and nerves are exceedingly weak and susceptible, they are easily injured for life, whereas adults readily throw off such injurious influences. It must deaden the child's nervous susceptibilities quite as much as the mother's; and can this be done without seriously impairing its cerebral constitution?

Nor is there any need of it. The previous preparation recommended in this work will carry mothers through this period without any such stupefaction. Still, if women will enhance their pains by abusing health, and then resort to chloroform, let them—theirs, and not mine, be the consequences.

MALE AND FEMALE MIDWIVES.

Until within about two centuries, male accoucheurs were wholly unknown. Women alone presided at births. And the alleged origin of this modern custom reflects no special credit upon it. Its propriety is questionable, because it is directly in the teeth of that native female modesty so innate as well as necessary to woman. Let those who know testify to the extreme reluctance with which young mothers submit, in their first confinement, to be handled by doctors. It is perfectly revolting to their finer sensibilities. This is not the result of prudery, but of natural modesty. And that modesty—the great safeguard of female virtue—it does much to annul. It breaks the ice, and paves the way for familiarity with other men than their own husbands; and that not a few doctors take advantage of it and the confidence required by this custom to excite improper feelings in women, and to gratify unhallowed passions in themselves, is more common than husbands suppose. These husbands, before and at accouchement, persuade, and scold, and almost force their wives to allow the doctor to make his observations—of which there is no sort of need

in one case in hundreds—and the bars of virtue thus torn down, both the doctors and others find subsequent access too often allowed, whereas, but for her having been thus “broken in,” nothing on earth could have induced her to have tolerated the least familiarity.

And, what is worse, women must lay all their female complaints before the doctor, and talk much about their private matters, of which physicians can take advantage to excite impure desires. Husbands, look well to this matter.

Besides, till every feeling of instinctive modesty is worn away, the presence of strange men around the lying-in bed has a damping, depressing influence on the mother's mind, which materially retards delivery. She tries to suppress her spasmodic efforts, and this stifles the operation. Yet the presence of husbands is admissible, and even desirable, as it sustains the mother; but this turning out husbands, because their presence is improper, yet admitting doctors, is strange.

And why are not women quite as well qualified as men to officiate on such occasions? They have smaller and softer hands, more tact, more of the child-loving instinct, which is an important pre-requisite, and especially more tenderness and quickness of perception, together with personal experience—the most important preparation of all. How infinitely better does this experience fit mothers to preside, than all the learning of the schools does men? This book-learning unfits men for accoucheurs, for it induces them often to resort to instruments where nature, left to herself, would do the work far better, and save the mother and child.

What our women want, mainly, is *self-confidence*. They can do all that is necessary, if they only think so. Of course it is presupposed that women of intelligence and nerve become practitioners. They next require anatomical *knowledge*; for I would not have ignorant women placed in so important a situation. They should be thoroughly *prepared* for this important office; and, accordingly, our women have a strong craving for anatomical knowledge, which is instinctive, and should therefore be gratified. This craving is implanted partly for the very purpose of fitting them for this and other like healing offices. Nor is there a shadow of reason why they should be denied access to colleges, or to any of the advantages proffered to medical students. Nor is the day far distant when, unless medical colleges are opened to them, they will have one of their own. Indeed one is now in progress. That heroine who recently graduated at Geneva College purposes to go to France, and after thoroughly preparing herself, to establish, in connection with others, a college for the education of doctresses, with special reference to fitting them for midwives. Her advantages as present matron of the lying-in hospital at Philadelphia eminently fit her to lead off in this much-needed reform.

That women are far better adapted than men to prescribe for female complaints is apparent. The number and aggravation of female diseases are incalculable and most frightful. And many of them are caused by the ignorance of girls, and their consequent careless exposures in the early stages of menstruation. And this ignorance is occasioned mainly by the fact that *men* must be consulted; and girls have so shrinking a repugnance to disclose anything to men, on this to them delicate subject, that they prefer to suffer in silence. Meanwhile the disease, easily checked in the start, becomes incurable, and a short life of suffering is the consequence of men assuming this department, which belongs exclusively to women.

Besides, severe medicines are far less needed than appropriate *PHYSIOLOGICAL ADVICE*, which our women are especially fitted to give. Sympathy and unreserved disclosure of all symptoms—a feeling of perfect freedom, as if at home, and talking to a friend—are indispensable; yet, between men and girls, this never can and never should obtain, but is easy and natural between female practitioners and female patients. This point is especially important.

Female physicians would also disseminate preventive instruction, which men will not, or, at least, do not. Girls should be put upon their *guard*. Many mothers have brought their daughters to me for advice, whose health had been ruined by improper exposures at the first menstruation, which a little knowledge would have prevented. Oh, it is a pity and a burning shame that girls are allowed to arrive at puberty without even suspecting its approach, or knowing one thing in regard to this all-important subject, in which their health and even their lives are so intimately concerned, as well as their child-bearing function. Mothers, why will you let them approach this crisis without instructing them what to do, and especially guarding them against injurious exposures? Let your own experience attest the practical importance of this kind of knowledge, and on no account fail to talk familiarly with

them concerning it. Girls and women *must* have light on this subject. Misery and premature death enough have already occurred in consequence of that mock-delicacy in which it is enshrouded. Away with this squeamishness, and look this whole ordinance of nature fairly in the face.

There is one other call for female physicians even greater than any yet named. Pregnant mothers, especially before their first confinement, have a strong craving for sympathy—for some intimate female friend, with whom they can talk over all their symptoms and signs, and from whom receive cheering advice. This requirement of bearing mothers it is not possible for doctors ever to fill. Women alone can freely confer with each other concerning it. Nor is the day far distant when this great desideratum—*female* practitioners of medicine and midwifery will supplant male accoucheurs.

Harriet K. Hunt, of Boston, one of the if not the very first female physician, in America, and the pioneer of female practice, justly remarked that no one thing would do more to restrain the licentiousness of husbands than female physicians. At present these erring husbands feel safe from exposure, because they know their wives will not expose them to doctors, whereas they would tell all freely to doctresses.

ABORTION.

That this mother-ruining as well as child-destroying practice prevails to a most alarming extent is a mournful fact. Few realise how many mothers, here in this Christian (?) land, do and take what is expressly calculated to produce miscarriage, and taken with that specific and sole object. Many unmarried women, who stand high in public estimation, have perpetrated this heinous crime, in order to hide their shame. Married women, too, by hundreds and by thousands, have dealt out death against their own bodies, and the FRUIT of those bodies. It seems so revolting, so unnatural, such an outrage of every principle of our nature, that its perpetration evinces both consummate ignorance and total depravity combined. Touching this subject, the "Parent's Guide" thus remarks:—

"The practice of procuring abortion, or to use a less offensive expression, inducing a miscarriage, has of late become so common, that it requires to be placed before the public in all its naked atrocity. From the increasing number of unprincipled persons who publicly advertise this destructive practice, it is evident that it is extending to a fearful degree throughout our country. Some knowledge, therefore, of the dreadful consequences attending such utter violations of nature's laws, may be useful. That the act of procuring abortion is a crime of the deepest dye, on a par with that of murder, no argument can controvert; nor can any, except the weak-minded or the vicious, be persuaded to the contrary. Is it possible that any woman of sane mind can look upon her living child, and admit for a moment that it would be a greater crime to deprive it of life by violent means then, than it would have been while in a state of embryo? Many early married, unreflecting females, to avoid the cares and responsibilities of a large family, allow themselves to be deluded by the miserable sophistry that there is no harm, previous to quickening, in taking the most deadly drugs, or in making use of the most violent means, to procure abortion. Let them not, however, thus deceive themselves, for whatever apparent success may, for a time, attend these atrocious practices, retribution is sure to follow such gross violation of nature's laws. The moral and physical institutions of a wise and just Creator cannot be thus outraged with impunity—effect follows cause as unceasingly here as in any other department of organic life.

"Scarcely any misfortune to which humanity is liable is more to be dreaded than a natural tendency to miscarriage. How often has it been the bane of an otherwise happy existence? Its uniform evil effect upon the general health of the sufferer is well-known and admitted; and yet, strange perversity, an incredible number of females, in all ranks and conditions of life, are found, who in their pitiable ignorance are willing, often for slight personal considerations, to risk a constant liability to this constitutional evil, and thereby commit, in an indirect manner, the crime of self-murder. Among several cases fresh in the memory of the writer is that of Mrs. W——, a woman highly respectable for her piety, and in some respects good sense, having borne four healthy children, and thereby acquired a priceless treasure. Some plausible demon incited her to the use of these unhallowed means, to avoid, in the cant phrase of the day, a too numerous family. After five years of success, she is now a helpless ruin, totally prostrated in her nervous system, and entirely blind. And again, these days of modern refinement have given rise to another baneful practice. The newly-married

youthful couple, must for a season enjoy the butterfly-life of gaiety proper to their condition in the present improved scale of existence, to do which, it is absolutely necessary to avoid the inconvenience and cares of offspring. This can only be accomplished by encouraging—harmlessly and for the present only, mind you—a miscarriage, forgetting that this outrage upon nature can only be inflicted by incurring the heavy liability to the mother of permanent and irreparable injury, or perhaps laying the train for a premature death.

"Thus it is with the family of R.—, or, more properly speaking, thus it is with that lonely, unhappy, because childless couple, who, in their early marriage day, long years ago, threw away, like the unbelieving Jew, the pearls that would have enriched his tribe.

"In England," lately remarked a native of that country, 'every mother feels proud of having reared a large family of healthy, joyous children—ten or fifteen being no unusual number. While the American mothers, I observe, generally have small families, particularly in the higher classes of society.' An old and experienced physician present significantly referred the speaker to the advertisements of professed female physicians, remarking that these fiends in human form escaped unwhipped of justice, because the patronage they received enabled them, when prosecuted, to employ the best legal defence in the country; and that their practice being principally confined to the wealthy portion of the community, many a dark deed of iniquity has been concealed—the patients in such cases preferring any amount of suffering, or even death, to the public exposure which must ensue in bringing the criminal to justice.

"In a subsequent conversation, this physician stated to the writer, that many distressing cases of this kind had fallen under his observation—cases in which it was clear to the experienced eye of the physician that the patient had most ignorantly tampered with her constitution, interfered with, and interrupted the natural functions of her system. For after giving birth, at regular intervals, to healthy children, the young and vigorous mother suddenly becomes sterile. Years pass, during which frequent indispositions occur, leaving behind them a constitution strangely shattered, and a nervous system in ruins. The misguided sufferer at length perceives the dreadful results of her practices, and desists—pregnancy ensues, but the whole term of gestation is one of painful debility, and at its close, in the effort for relief, outraged nature denies the necessary energy; the patient sinks to the tomb, another victim to the Molech of selfishness, leaving a family of young children motherless, to grow up in ignorance, and tread the same path of error, which led to her destruction."

The very painful and dangerous consequences which attended an unsuccessful attempt at abortion, is thus given by an eminent practitioner of this city:—

"Mrs. M— was the mother of two children, and had been suffering severely for the last fourteen hours from strong expulsive pains, which, however, had not caused the slightest progress in the delivery. I was likewise informed that, about four hours before I saw the case, Dr. Miner, an experienced physician, had been sent for, and, after instituting a vaginal examination, remarked to the attending physicians that, 'in all his practice, he had never met with a similar case.' Dr. Miner suggested the administration of an anodyne, and having other professional engagements, left the house. Mrs. M— was taken in labour, Monday, Dec. 18th, at 7 o'clock, P.M., and on Sunday at 7 o'clock, P.M., I first saw her. Her pains were then almost constant, and such had been the severity of her suffering, that her cries for relief, as her medical attendants informed me, had attracted crowds of people about the door. As soon as I entered the room she exclaimed, 'For God's sake, doctor, cut me open, or I shall die; I never can be delivered without you cut me open!' I was struck with this language, especially as I had already been informed that she had previously borne two children.

"On assuring her that she was in a most perilous situation, and at the same time promising that we would do all in our power to rescue her, she voluntarily made the following confession:—

"About six weeks after becoming pregnant, she called on one of these infamous female physicians, who, hearing her situation, gave her some powders, with directions for use. These powders, it appears, did not produce the desired effect. She returned again to this woman, and asked her if there were no other way to make her miscarry. 'Yes,' says this physician, 'I can probe you; but I must have my price for this operation.' 'What do you probe with?' 'A piece of whalebone.' 'Well,' observed the patient, 'I cannot afford to pay your price, and I will probe myself.' She returned home, and used the whalebone several time. It produced considerable pain, followed by a discharge of blood. The whole secret was now disclosed. Injuries inflicted on

the mouth of the womb by other violent attempts, had resulted in the circumstances as detailed above. It was evident, from the nature of this poor woman's sufferings, and the expulsive character of her pains, that prompt artificial delivery was indicated. As the result of the case was doubtful, and it was important to have the concurrent testimony of other medical gentlemen, and as it embodied great professional interest, I requested my friends, Drs. Detmold, Washington, and Doane, to see it. They reached the house without delay, and after examining minutely into all the facts, it was agreed that a bilateral section of the mouth of the womb should be made.

"Accordingly, without loss of time, I performed the operation in the following manner: The patient was brought to the edge of the bed and placed upon her back. The index finger of my left hand was introduced into the vagina as far as the roughness, which I supposed to be the seat of the *os tincae*. Then a probe-pointed bistoury the blade of which had been previously covered with a band of linen to within about four lines of its extremity, was carried along my finger, until the point reached the rough surface. I succeeded in introducing the point of the instrument into a very slight opening which I found in the centre of this surface, and then made an incision on the left lateral portion of the mouth, and before withdrawing the bistoury, I made the same kind of incision on the right side. I then withdrew the instrument, and in about five minutes it was evident that the head of the child made progress. The mouth of the womb dilated almost immediately, and the contractions were of the most expulsive character. There seemed however, to be some ground for apprehension that the mouth of the uterus would not yield with sufficient readiness, and I made an incision of the posterior lip, through its centre, extending the incision to within a line of the peritorial cavity. In ten minutes from this time, Mrs. M— was delivered of a strong full-grown child, whose boisterous cries were heard with astonishment by the mother, and with sincere gratification by her medical friends. The expression of that woman's gratitude in thus being preserved from what she and her friends supposed to be inevitable death, was an ample compensation for the anxiety experienced by those who were the humble instruments of affording her relief. This patient recovered rapidly, and did not, during the whole of her convalescence, present one unpleasant symptom.

"At my last visit to this patient with Dr. Forry, she made some additional revelations, which I think should be given not only to the profession but to the public, in order that it may be known that in our very midst there is a monster who speculates with human life with as much coolness as if she were engaged in a game of chance.

"This patient, with unaffected sincerity, and apparently ignorant of the moral turpitude of the act, stated most unequivocally to both Dr. Forry and myself, that this physician, on previous occasions, had caused her to miscarry five times, and that these miscarriages had, in every instance, been brought about by drugs administered by this trafficker in human life. The only case in which her medicines failed was the last pregnancy, when, at the suggestion of this physician, she probed herself, and induced the condition of things described, and which most seriously involved her own safety as well as that of her child. In the course of conversation this woman mentioned that she knew a great number of persons who were in the habit of applying to this physician for the purpose of miscarrying, and that she scarcely ever failed in affording the desired relief; and, among others, she cited the case of a female residing in Houston Street who was five months pregnant. This physician probed her, and she was delivered of a child, to use her own expression, 'THAT KICKED SEVERAL TIMES AFTER IT WAS PUT INTO THE BOWL.'"

Against this deed of death nature most solemnly protests, by rendering it so ruinous to the general health of the mother, and especially so destructive of her sexual apparatus. So intimate is the relation between mother and child, that it is not possible to destroy the life of the latter without doing fatal violence to that of the former. When she effects this destruction, by taking powerful medical poisons, such as strong decoctions of ergot, tansy, etc., she equally poisons herself; for how can this poison be administered to the child, except through her blood? And how can that blood be so effectually poisoned as to quench the life of the child, without therein and thereby proportionably poisoning her own system throughout? And the only reason why this fatal draught does not destroy her own life also, is her greater power of constitution. Now, is it possible, in the nature of things, to poison it to death without thereby palsying, crushing her own life-power? All abortive medicine this reciprocity between mother and child equally condemns.

It passes the same sentence of maternal suicide upon every and all other possible means of producing miscarriages. Does not probing do as great violence to her sexual organs as to its life? The relation between it and them is perfect, so that whatever injures the one correspondingly impairs the other also. And since the relation existing between these organs and her entire physiology and mentality is also perfect, in order that it may take on all her existing conditions of mind and body, of course whatever impairs it correspondingly injures not only her sexual apparatus, but through it her entire nature. And when this violence is so extreme as to cause infantile death, it must necessarily be suicidal to her. Oh, if mothers only understood this law of intimacy, they would no more dare to attempt abortion than suicide, because they would know that the former necessarily involved the latter. Leaving the horrible crime of infanticide entirely out of the question, I ask, prospective mothers, how you *dare* to take no small part of your *own* life? I press it solemnly upon your *consciences*, whether you had not rather let nature take her course, even though you may be unmarried, than stand before the bar of your God, and eternal retribution, a partial or total *suicide*. God forbid that you perpetrate this unpardonable crime, in *addition* to that of child-murder, for you cannot commit the latter without rendering yourself, in part or in whole, amenable for the former. All the shame, all the pains, all the cares, all the troubles of child-bearing are trifles compared with these two monstrous sins. May God Almighty deliver you from such heaven-provoking enormities! No other deed so outrages Philoprogenitiveness, Conscience, Vitativeness, Benevolence—every law of health and morals, as well as every ordinance of nature and command of God—or will insure a terrible retribution here and hereafter.

RECOVERY FROM CONFINEMENT.

Those who come to their accouchement with good health, need have no fears of a lingering or painful "getting-up." The better the general health the sooner the recovery, and the less liability to those complaints incident to confinement. General attention to the laws of health, too, is a far more effectual remedy than a resort to dosing and drugging. Women at these periods need neither emetics nor purgings. The water treatment here, as in labour itself, is incomparably superior to the old practice. Nursing is required far more than doctoring. Or, rather, what the patient requires mainly is to let *nature* do her own work in her own way. Such exposures are calculated to bring on a relapse, should be sedulously avoided, and this is the main secret.

One single principle will suffice to prove that the drugging system is most pernicious—its influence on the child. That the mother's milk is the child's natural food, will presently be shown; and that *all* medicines taken by the mother are secreted directly from the mother's system into this milk is an established fact. Hence, all physic administered to the mother similarly affects the child also; and all drugging of infants, must, in the very nature of things, disorder and poison their systems. You cannot doctor the mother without therein and thereby doctoring the child; and against all medical interference with the child's system, in the name of nature, I unequivocally protest. No more effectual method of injuring the extremely susceptible systems of infants can be devised. I solemnly warn mothers and nurses against it; and this, of course, interdicts all administrations of medicines to nursing mothers.

"But her bowels require relaxing, or checking, and this or that systematic difficulty requires to be regulated." Then relax, restrain, and regulate by *food and water*; directions for doing which will be found in "Physiology, Animal and Mental." The idea that medicines can remove disease or restore to health is preposterous. These are nature's *exclusive* works. She does this partly by medicated *food*, herbs, &c., and hence all medicines should be *eaten in food*, and form part of our diet. The medicated herbs, &c., should *themselves* be eaten, not their decoctions, extracts, &c., be taken in a concentrated form. This healing law applies with peculiar force to nursing mothers. And of all remedial agents, I consider fruits the best, as they certainly are the most palatable.

RELAPSES.

As the mother's system is now unusually susceptible to foreign influences, any violence done her brings on a relapse, which is usually more painful and dangerous than the confinement itself. Suppose such a disaster has befallen her, what is to be done? First, ascertain its cause. This will generally be found in one of two things—over exertion, or colds—and usually the two combined.

What is then to be done? Resort to the opposite extreme. If over exertion caused it, take extra pains to keep the whole system quiet, and let tired nature rest. Indeed, she requires rest, calm, quiet sleep, more at this period than any other thing, a right diet not excepted. Her system has put forth a mighty effort, is exhausted, and therefore requires rest. Whatever is calculated to vex or perplex her is always injurious, and especially detrimental in relapses. All should be pleasurable, and she rendered as happy as possible.

But if, as is most probable, the relapse was caused by cold, *break it up as soon as possible*. This can best be effected by producing *perspiration*. Cold consists in suppressed perspiration, and can therefore be cured by and only by *restoring* perspiration. And for effecting this, water and friction are by far the best instrumentalities. But for the full presentation of this subject, the reader is referred again to "Physiology."

A most affecting instance of the destructive consequence of the bleeding and calomel practice recently fell under the author's observation. Mrs. M., confined with her sixth child, recovered very rapidly for about a week, when, on her mother's coming to see her, she sat up most of a cold, raw April day, took a chill, and sent toward night in considerable haste for her doctor—a great lancet and calomelite. He put her, to use his own words to me, "the usual treatment in such cases"—that is, bled and salivated. Meanwhile the child had to be nursed, which alone reprobates this practice. "But," continued he, "she was attacked with a severe rheumatic affection, which settled in her limbs—especially knees." Her own story satisfied me fully that the poisonous *calomel* produced these most excruciating rheumatic sufferings, under which she gradually sank; yet, having a powerful constitution, the wretched patient suffered beyond all endurance, but finally yielded to the deadly poison, and died a martyr to calomel, universally lamented, and an irreparable loss to her husband and family.

The too early dismissal of her nurse also doubtless contributed to this sad result. Mothers should not be too strong too soon. They often retard recovery by being too smart, and by sewing as soon and as long as they are able to sit up. Let your sewing do. Dismiss all family cares. Consider yourself fully entitled to a long holiday. And as soon as you are able to be "up and doing," instead of *working*, *recreate*. I would not recommend that you keep your bed an hour longer than is really necessary, of which fact judge for yourselves, but I insist upon your riding and walking out, seeking amusement, chatting pleasantly with friends, &c., instead of taxing your weak system with labour. This "keeping the bed nine days, till the parts unite," irrespective of the patient's state of health, is granny's whim. Some are able to be up and about in two or three days, while others require to keep their beds as many weeks or months. Nor can any other one judge for them, but each must decide for themselves. Yet in general there is more danger of getting about too soon than of keeping confined too long.

On the diet of recently-confined mothers very much depends. It should be much as that already recommended before confinement—nutritious, yet easily digested. Wheat boiled, cracked or ground, and made into bread or puddings, in connection with sweet fruits, eaten freely, and perhaps milk and cream, will probably be found the best general diet. In meat, gravies, and butter, I do not believe. They are too strong and too heating.

Porter, so much used by many English women, I regard as particularly injurious to both mother and child. It contains considerable alcohol, and this is rank poison to infants. It powerfully irritates and stimulates the child, whereas it requires sleep and quiet. Cocoa contains all the nutrition required, and has a very soothing and quieting influence on the mother and child—exactly what both require. This drink probably stands unrivalled. If the grease it contains is objectionable, let it cool and skim, and re-warm or drink cold; but as a drink for nursing mothers, it far surpasses tea or coffee, neither of which they ought ever to take. Fresh air, wholesome food, and as much exercise as can be taken without injury, are the panaceas of confined mothers.

The author does not claim to be a nurse. He is perfectly aware that women instinctively understand this subject better than men, and hence proposes only to offer a few general suggestions, based in physiological principles too often overlooked by nurses. Yet though women have more child-caring instinct than men, they generally err in one essential respect—they *OVER-NURSE*. They too often literally *KILL WITH KINDNESS*. This their excessive Philoprogenitiveness, too generally ungoverned by intellect, predisposes them to. Their love for the new comer exceeds

their knowledge of the best mode of managing it, and hence they devise a thousand things for its comfort, which are most detrimental. But to begin with its proper treatment from birth.

Is not cutting the naval cord done too soon? What harm can accrue from leaving this connection unsevered for some minutes? On the contrary, would not a decided benefit result therefrom? The more of the mother's blood the child can retain the better. Now by leaving the umbilical cord uncut a few minutes, it is obvious that more blood will be propelled from the mother into the child, than will be withdrawn from the child to the mother. At least till all pulsation in this cord has ceased, it should not be cut. This is too apparent to require proof.

In Ireland, the custom prevails, of not only not severing the connection at once, but of gently pressing the blood along from mother to child; and I have known several cases of children born nearly dead, evidently resuscitated by leaving this connection unsevered for some time; whereas if it had been cut immediately, they would have died. We commend this point to the careful consideration of midwives. Still, care must be taken lest the child take cold.

Washing should be performed just as soon as possible after the naval cord is cut, and done as rapidly as a due regard to tenderness will allow, in water nearly blood-warm, followed by rubbing with the hand. A case came under my own observation where the nurse was so long in washing and dressing a child, that it took a cold from which it did not recover for several weeks, and probably will never wholly get over it.

To wait to put on the common under and outer clothes now used is altogether wrong. **WRAP THEM IN A WOOLLEN BLANKET.** They are usually **OVER-DRESSED.** I would have them kept warm, but this *clothes can never do.* Their own internal heat must warm them, or they must remain cold. All that clothes can do is to retard the escape of heat—not to create that heat. But they are generally dressed too warmly; then the room is usually kept too warm; and they are often kept under an excess of bedclothes too much for them even if naked. And all in consequence of the extra Cautiousness and Philoprogenitiveness of mothers and nurses. This weakens their skin, induces too great perspiration, and exposes them to colds. Be persuaded not to over-clothe, and lay them on a bed instead of under bedclothes, for that clothing which suffices them when awake, is all-sufficient when asleep.

"A dose of sweet oil" must of course be administered immediately on their being dressed. This is both utterly unnecessary and especially pernicious. The simple fact that the first nourishment received from the mother is aperient, is proof positive that no other purgation is needed. Since nature has thus provided for moving their bowels why make any additional provision? The fact that nature always takes this work in hand shows that art should not interfere. What proof can be stronger? What needs to be done nature will do, and the fact that she always undertakes it is ample guarantee that it will be *well* done.

Besides, all such medicines only induce the very constipation designed to be removed. It is in the nature of all aperients to tighten the bowels afterwards. This is an absolutely necessary consequence of all purgatives. How especially palsyng, then, to the weak and highly susceptible bowels of infants. It disorders them always, and in the very constitution of things. They are always left worse than they would have been without any aperients. Let nature alone, and she will move the bowels in due time, unless the mother is very much disordered. Or if, in extreme cases, art should be required to quicken her movements—which I exceedingly doubt—tepid water is aid enough, and leaves no palsyng influence behind. Not a few of the colics, and stomach aches, and kindred complaints which distress children have their origin in sweet oil. I repeat, give no medicines to either mother or child. Yet, if aperients should be needed, let the mother eat opening food.

That its mother's milk is the only natural food of the infant is perfectly obvious, from the fact that nature has made provision for no other. She never fails to make ample provision, and that of the very best kind. And that provision she has made in the mother's milk. It is perfectly adapted to the nutrition of infants. It contains just the element required for sustaining life, and developing all the organs, and in the most soluble form possible. Nothing can exceed the adaptation of the mother's milk to infantile nutrition and growth. That child is really to be pitied who has not an abundance of such nourishment. The fact that they have no teeth is negative proof of a positive character that solid food is not adapted to them. As the specific object of teeth is to masticate solid food, of course the latter should not be given till the former appear in sufficient abundance to masticate.

Of course, in case the mother's milk is insufficient or diseased, better that infants be fed than starved. Solid food rather than none. Yet mothers who have taken first-rate care of their health, all along up from girlhood, will always have an abundance of milk, for nature, left to herself, always provides a surplus instead of allowing a deficit. The reason why so many mothers have too little milk, is their previous destruction of health, and injury of their female organs. Whatever impairs the health, and especially the digestion, lessens the quantity and impairs the quality of their milk. That they, in common with the impairment of the female organs, diminish the size of the breasts, has already been shown, and whatever lessens their size diminishes their efficiency. Of course there are human, as well as other females, who, though healthy, give but little milk, because their vitality, though abundant, is mainly retained for their own personal use, just as there are others who run so much to milk as to keep themselves poor. Yet there are few females who would not, if healthy, give milk enough for a child. The chief cause of deficient milk is too little vitality. Keep this abundant and this difficulty will rarely occur. And those who, though healthy, furnish too little milk, can always be selected before marriage, and by those very signs which indicate good milking capabilities in stock. Good milking capabilities are one important sign of female perfection, and as easily predicted of the human as brute females for the signs of both are the same.

Large breasts generally indicate good nursing capacity. Fleshy, corpulent women form a partial exception, because their breasts are composed proportionably of fat, yet a practised observer can easily see how much allowance is to be made on this score. A large pelvis is also generally accompanied by a good supply of milk. It is strange that all—men especially—cannot designate a good and a poor female at a glance; and one who is a good female will rarely if ever fail in this important respect.

Large breasts, therefore, are quite important in a candidate for matrimony, and small ones indicative of other defects besides poor nurses. Let me, then, again urge upon our young women and bearing matrons, to take that care of their health which shall secure round forms and full breasts. Mark, moreover, that at every step of our progress, from the very commencement of this work, we find requisition after requisition for MATERNAL HEALTH. This is the *paramount* maternal requisition. Will not our women learn wisdom from this "line upon line, and precept upon precept" of nature?

But where the maternal nutrition is not adequate to the infant's demand it must, of course, be fed. Fed by WHAT? That which most nearly resembles its mother's milk. In this respect, goat's milk probably stands foremost. Yet cow's milk answers a good purpose. And when fed, it should be as warm from the cow as it can well be, and always from the SAME COW, and that a young and healthy one. It should be diluted with one half water, and be given blood-warm, yet heated by the water put in instead of by the fire, because the latter causes a skin to rise which contains some of the most nutritious materials of the milk. Neither arrowroot, nor barley or ricewater, nor any of the gums, equal NEW MILK, of which the economy of nature is abundant guarantee. And this milk is better given from the sucking bottle than with the spoon.

Times of Nursing is another important matter. Most mothers err exceedingly in giving their children the breast too often and irregularly, or whenever they cry. Very likely their crying was caused by over-feeding, and consequent flatulence or colic, and they only increase the difficulty by trying to obviate it. The child will tell, by other palpable signs besides crying, when it needs to nurse, and it is ample time to nurse it when it asks earnestly for the breast.

But this whole difficulty can be completely obviated by nursing the child at *specified* times. How often is less material than regularity. A time for everything, and everything in its time, is a fundamental law of nature, and one which can be employed with special benefit in child-nursing. Nature is perfect clock-work. Then should not that part of it which relates to the management of children be regulated by the clock? PERIODICITY should be faithfully observed in everything done for them. They should be bathed all over every day at one specified hour, put to sleep at just such and such intervals, and nursed by the clock. Nor was it in the power of Astor, with all his millions, to confer on his descendants as great a legacy as every mother, however poor, can confer on her children by observing this regularity. And it should be continued through childhood and through life, for nothing will contribute more to health, happiness, and virtue.

And the relief this practice affords mothers alone entitles it to observance. Take sleep as an example. Put your child to bed from the first at given times, and you

can soon ascertain within a few minutes how long it will sleep, and this will give you just such hours every day to yourself to ride, or make calls, or to do what you please.

Mothers generally keep themselves at home from evening meetings, lectures, &c., whereas they might just as well go as not. Suppose you put your child to bed in the evening at seven, or a quarter before, you can easily so arrange it that it shall sleep soundly till nine, or half-past nine, and then, after nursing and playing a little, put it to bed for the night, nor nurse it again till five o'clock next morning. It will soon become so habituated as to fall asleep, awaken, and require nursing at these particular times, and NO OTHERS, and this course will save mothers more than half the burden of the extra trouble they now impose on themselves, besides the incalculable benefits it will confer on the children. Mothers who have not tried it can form no conception of the utility of this policy.

Every four or five hours is probably often enough. Suppose you nurse at five, nine and a quarter, a.m., one and a half, five and three quarters, and ten, p.m. Yet my own full conviction is that once in five or five and a half hours is better, and then you might say five, ten and a half, four, and nine and a half. Or, if you prefer three and a half hours, say at five, eight and a half, twelve, three and a half, seven, and ten; or if four hours, say at five, nine, one, five, and nine and a half. Yet every mother can adopt such other times as she likes best. They will do better on five hours or over than less than four. Yet their systems will soon adapt themselves to whatever times may be appointed. Hence, whatever times you select, be REGULAR.

Of course their bathing, which should be continued through childhood, should also be regular; and I would suggest nine o'clock in the morning as best, and sleep soon after, and again about one.

Their under garments should be changed often, and special attention be directed to the skin.

Most mothers consider crying as necessary as eating. Far otherwise. Such crying is a sure index that some of nature's laws have been violated, and the child accordingly distressed. The saying, "That is a good child which is good with good tending," is based on ignorance. The order of nature is that children should not cry at all. Infants sleep most of the time till their mothers disorder their own stomachs, and thereby derange their children's, and this occasions that pain which causes them to cry. They rarely, if ever, cry for crossness, but generally on account of distress. Of this distress there is no need, nor, of course, its boisterous effects. How instinctively does their crying awaken our pity. Why? Because we are intuitively conscious that they suffer. The order of nature is to render them happy, and this will prevent their crying. Those mothers who are tormented with cross children deserve the blame themselves. They are ignorant who do not know how to manage their children so that they will rarely cry. Strange that girls and young mothers enter upon married life without one correct physiological idea upon this subject, so intimately connected with their happiness.

And when the child does cry, they jolt, toss, rock, and dose or stuff it, which only increases its discomfort and consequent cries. They must give it this tea and that medicine, which, in the very nature of things, increases the distress. Catnip tea, provided it is very weak, is not particularly detrimental, yet warm water, sweetened, is perhaps better. Try it when your children are cross, and you will find it to act like magic.

"But," urge you, "my child is cross, spiteful, and angry." And do you not know that temper always accompanies sickness, except where it is so severe as to cause prostration? Are not children always peevish and irritable when unwell? Hence your objection becomes my argument. And if they are naturally ill-natured very likely you entailed it upon them before they were born. Yet even this pre-supposes that your own feverish state of body caused your and their petulance, so that they are to be pitied instead of scolded.

Against such rocking, jolting, trotting, and carrying children I protest. They do no good, because they do not remove that bad feeling which causes the crying. But they do prevent rest, which would cure both disease and crossness. Infants require to be kept still and quiet most of the time. As soon as they need exercise they will contrive ways and means to take it of themselves.

Our suggestion, that children are often seriously injured by over-care and fussing is doubly true when they are sick. Of course parental anxiety is extreme, and one resource after another is tried in such quick succession that each nullifies the effect of the preceding remedy, and every one only increases the disease. The fatal error is the

supposition that MEDICINES can cure. This is impossible. NATURE ALONE can remove disease and effect a cure, and the less she is interfered with the better. Do too little rather than too much. In general medicines kill many more than they cure, even of adults, and tenfold more children. Their systems are exceedingly susceptible, so that medicines take a powerful hold on them, and therefore cannot but derange and weaken their organs. The more powerful medicines are almost certain death to them. Doctors are utterly unfit to prescribe for them. "Old Granny medicines" are far better, that is, less injurious. But the water cure is the treatment of all others for them. Still, if medicines must be taken, let the mother take them, and the child then nurse them from her.

Yet the art is to KEEP them well. And this can always and easily be done. They will never be sick unless mother or child palpably violate the laws of health. These laws every mother should understand. Oh, when will our girls give to PHYSIOLOGY a part of that time and energy now worse than wasted on dress?

Nursing children when the mother is angry has a pernicious influence on them. In some nations mothers make it a superstitious practice to nurse only when in a quiet frame of mind. All the feelings of the mother are faithfully transmitted to her milk. How, will be seen in "Physiology." All her mental troubles her nursing-child feels. Mothers, observe that when anything occurs to make you feel bad you will soon find them begin to worry and cry, just as, before birth, it causes unusual motion in your womb. Placidity of mind is peculiarly desirable during the whole time of nursing.

Nature requires that children nurse considerably longer than the feebleness and diseases of mothers now render it expedient that they should. As most mothers now are, probably one year is quite long enough; yet my own conviction is that if the mother and child were kept in a perfect state of health, they should nurse till three or four years old. Yet our mothers generally are so full of disease that, in from six to nine months, infants imbibe quite as much disease as they can sustain. Yet here, too, all depends on the state of the mother's health. The better it is, the longer they should nurse.

THE EDUCATION OF INFANTS.

This point is one of great practical importance—sufficient to require a volume for its complete elucidation. Yet we are compelled to treat it cursorily.

Few realise to what an extent infantile minds are susceptible of development, and how much they can be taught. Every day and hour their minds can be sharpened up and expanded by maternal actions, looks, and expressions. Even before they can understand the meaning of words, they feel the full force of intonations. Mind constitutionally quickens mind, and the more the mother or nurse puts forth the more they imbibe.

In view of this truth I protest against the common baby talk with which children are dosed. It consists in saying very silly things in a very silly manner. My great objection to it is that this silliness must of necessity be uttered in flat, foolish intonations, and these similarly affect their tender minds. But if the operations of the mother's mind are sensible and vigorous they will stir up the child's similarly. Every look, every intonation, affects them in like manner.

But the great end of infantile training should be to retain their normality, or naturalness of feeling. At first all their feelings are pure and right, and in accordance with the natural fitness of things. But society is in a wretchedly perverted state. Heaven-wide, and most unaccountable, is man's departure from the basis of his nature. And this mental distortion is imparted even to infants. How often they are scolded, and their tender souls calloused to good impressions, and their pure feelings harrowed up by the distorted faculties of those around them! Most children are soured, perverted, and spoiled, before they are three years old, by the irritability and evil passions of others. It is to this distortion and perversion of their faculties that special attention is invited. They should never be chided. If they evince temper it is because their physiology is in an irritated state, and this inflames Combativeness and Destructiveness. Cure their bodies and you will cure their tempers. Be gentle and sweet to them and you will find them apt copyists of whatever patterns you set them. Would that mothers and nurses could be made to feel the importance of their always being lovely, amiable, and good to infants, as well as the evils of all warring, unkind, passions in themselves. Would that they could but realise how much their future characters depend on the direction their minds receive in the cradle.

Much more might be said, and better said, on this fruitful theme of the manage-

ment of infants; yet the great thought which the book was written to develope is—not the management of infants—but THE STATES OF THE MOTHER'S MIND AND BODY, AS AFFECTING THE CONSTITUTIONAL PHYSIOLOGY AND MENTALITY OF OFFSPRING. Since, therefore, this infantile training is only a secondary matter, it has been thus cursorily treated. As woman is best adapted to give its details, all we have attempted is the statement of some of those fundamental physiological principles which govern the matter, which, though imperfectly presented, will doubtless be of no small service to some mothers in their nursing capacities. Future editions may possibly present this part of our subject more fully. We specially commend it to the observation and study of mothers, and, moreover, EARNESTLY recommend young women to make it an integral part of their educational course. Than how to CARRY children they can learn nothing more important than how to NURSE them.

FEMALE BEAUTY—ITS ELEMENT AND PERFECTION.

This work, while developing those elements requisite for maternity, has incidentally devolved the constituent elements of female beauty. Those things render a woman beautiful which capacitate her to bear fine children: nor can a single condition of beauty be named which does not promote maternity. And every condition of female beauty is beautiful, because it promotes and indicates superior child-bearing capabilities, and in just that proportion. This principle we have already proved, and applied it to a few physical elements of beauty. It remains to continue that application to some other elements, so that the reader may follow it out into its various ramifications.

A handsome set of teeth indicates balance and proportion of organisation; for when the teeth are well-proportioned—that is, handsome—the whole of the physiological conditions will also be well-proportioned, and this, of course, as already shown, is an important maternal condition of bearing a fine child.

On the contrary, irregularly-formed teeth indicate a want of such balance, and of course maternal imperfection, which is liable, unless counteracted, to be transmitted to the child.

Rotundity of features, or a filling out of face and figure, is another essential ingredient in female beauty, while a thin-faced, sharp-featured, angular, scrawny form, with her sharp bones, and there deep cavities, is destructive of it. Why? Because such fulness—unless caused by dropsy, or some other disease, which can be easily discerned, and causes homeliness instead of beauty—indicates abundance of that vitality already shown to be so essential an element of child-bearing perfection. As such vitality wanes, this plumpness gives place to irregularity, of which starving furnishes a pertinent illustration; and in proportion as this condition of beauty wanes does the maternal capacity decline. This coincidence is no mean proof of the law here involved. And that fulness of breasts, so essential to the nursing department of maternity, is also promoted by this same vitality, and consequent rotundity. So is that abdominal and pelvic fulness already shown to be so promotive of maternity and so essential to female beauty.

Bright, clear, and expressive eyes constitute another indispensable condition of beauty. No woman can be handsome with vague, dull eyes. Why? Because such eye-snap indicates soul, as well as condensation and sprightliness of mentality, whereas a dull eye accompanies tameness and flatness of body and mind, obtuseness of feeling, and vacuity of mind. Of course the former, other things being equal, will have smart, sprightly, bright, whole-souled children, that are all life, animation, and pathos, as well as clear-headed and efficient, while the latter will of course have soulless dough-heads, with little mind and less feeling.

A fine, soft skin, and fine hair, contribute materially to beauty, and no less to maternal excellence, because they indicate a fine-grained and exquisite organisation in the mother, and this guarantees a superior organisation in their children—a condition in children of paramount importance as to talents, morals, everything.

Auburn-coloured hair has heretofore been considered a mark of beauty, so much so that painters have copied it into their finest pictures. This indicates the utmost susceptibility of organisation, intensity of feeling, and fervidness of imagination, together with refinement, purity, memory, and extreme ardour of affection—all of which contribute materially to maternal excellence. Light skin and eyes, and a florid complexion, generally accompany this temperament, and add to both beauty and maternal excellence.

Fine glossy black hair also indicates extreme activity and power of brain and nerves, clearness and strength of mind, high moral excellence, a thought-manufacturing

cast of mind, discernment, judgment, literary capabilities, and a *fine* and *strong* organisation combined. All these physiological and mental conditions are essential to maternal excellence, and therefore are elements of feminine beauty.

Grace and ease of motion are indispensable accompaniments of female beauty, and equally so of maternal excellence, because they indicate and accompany a superior muscular organisation, the importance of which in child-bearing has already been shown, and along with good taste and perfection of character, constitute elements of maternal excellence.

Perfection of form always accompanies corresponding perfection of character. This law we will not here attempt to prove, but will refer those who would understand the connection implied, both here and throughout this section, between certain physiological conditions, forms, etc., and corresponding mental characteristics, to a series of articles in the "*American Phrenological Journal*," entitled "*SIGNS OF CHARACTER*," as indicated by Phrenology, Physiology, Physiognomy, etc." At all events, such perfection of form indicates corresponding beauty of soul and perfection of mind—the inner man corresponding with the outer—and this is a most important element in maternal perfection—quite as essential to it as to beauty, and to the latter *because* to the former.

Strong social faculties add materially to that spirit and soul so requisite to female perfection. What is a woman without love? How can she be beautiful without being lovely, or lovely without being affectionate? Love requires a RETURN, and this implies that women should be LOVING in order to be lovely. And how much strong amative, parental, and connubial instincts contribute to the endowment of offspring, the author has shown in "*Love and Parentage*." Love between husbands and wives contributes immeasurably to superiority in children. Parents who cordially love each other have children decidedly better than either parent, whereas the children of those who dislike each other are inferior to both parents, for reasons given in "*Love and Parentage*." A cold-hearted woman is unfit for a mother as she is unattractive in society. Even if she possesses charms, she must first love in order to develop or manifest them. This mental condition of female charms, therefore, promotes child-bearing excellence. Here, too, beauty and maternity centre in one and the same condition.

A high moral tone contributes essentially to beauty, especially of expression. It adds a finishing touch to female charms. What is woman without it? It adorns and ennobles men, but woman doubly. Why? Because moral purity is a paramount human excellence, and therefore peculiarly requisite in woman, to fit her both to bring forth and bring up high-toned and pure-minded offspring.

Superior intellectual endowments enhance the charms of a woman, both because they guarantee intellectual children, which is a superlative condition of human perfection, and also superior educational capabilities.

Superior conversational powers and teaching capabilities are important female accomplishments, because, among other things, they indicate capacity to EDUCATE children, as well as to endow them with good speaking talents.

But it is not necessary to give further details. The entire rationale of all female attractiveness and beauty is embodied in the law under discussion. There is NO female charm, as such, which is not an index of child-bearing excellence; nor is there any one maternal excellence which is not a constituent element of female beauty and loveliness. Let the reader go over the "*POINTS*" of female graces, accomplishments, beauties, and virtues, and he will find the attractiveness or LOVEABILITY of every one of them to consist in the fact that they contribute to child-bearing.

Consequently she is the most beautiful, the most lovely, the most perfect woman who is capacitated to bear the best children, and because thus capacitated; and everything which enhances this capability therein, and their proportionally, enhances female loveliness and excellence; whereas all that diminishes such capability, therefore, decreases female attractiveness. In short, woman is rendered attractive that she may become a mother, and the more perfect a mother the more attractive. Women who would enhance their loveliness—and this is the great passion of woman, that alone which makes her dress fashionably, adorn herself, and appear pretty and taking—will find the key of self-adornment in this book; and *true* women will spare no labour to increase both their beauty and their maternal excellence.

FEMALE HOMELINESS AND DEFORMITY.

Some things in women strike every observer as objectionable, and render her homely. WHAT things, and WHY? Those things which indicate deficiency of maternal

qualifications, or that mar them, and BECAUSE of such defect or marring. This needs neither proof nor illustration, for it is necessarily involved in the preceding propositions, and forms the converse part of it. It is here introduced mainly as a text for exhorting women, by all that instinctive value they set on being beloved, as well as on their having no children, never on ANY ACCOUNT to let ANYTHING WHATEVER impair their maternal qualifications. Suffer anything, become anything, do without anything, rather than suffer this central charm of your coronet of beauty, loveliness, and perfection to be dimmed or plucked. This being the embodiment of your sex as such, guard it against all injury as you would guard your very life, and cherish it as the very soul and centre of your very existence.

WHAT IS WANTED IN A HUSBAND OR WIFE?

This eventful question is answered by the entire tenor of the work. Its centre, its focus, its one distinctive principle, tells every masculine seeker for a matrimonial partner that the ONE thing he requires is a good CHILD-BEARER. When he finds this he finds EVERYTHING ELSE: that is, those elements in a woman which are best calculated, taking him as he is, to produce the best children, are exactly those which are the most perfectly promotive of that love and connubial oneness which is the paramount element of conjugal felicity.

And the one thing to be sought by every female in marriage is the best possible FATHER for her prospective children—not provider for a family, but PARENT as such. And he who, taking his and her respective organisations into conjoint account, is capacitated to bestow on her the highest order of germs of humanity, is the one she can love best, and with whom live most happily, because this being the one natural rationale of marriage, he who can best fulfil this condition is therefore best adapted to fulfil all others. This is plain talk, but it is only the summing up of the book, and is exactly what every matrimonial candidate requires to know.



