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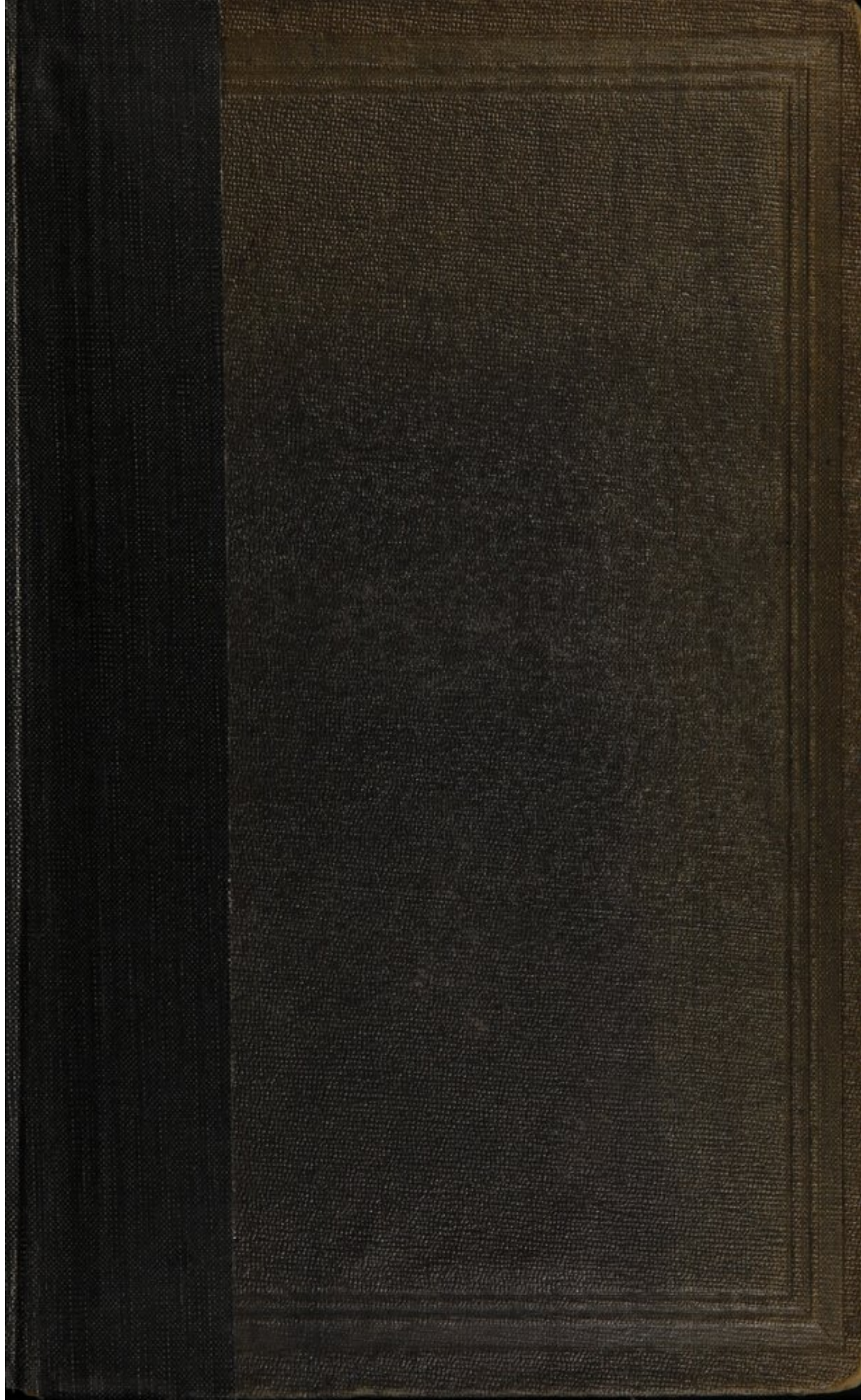
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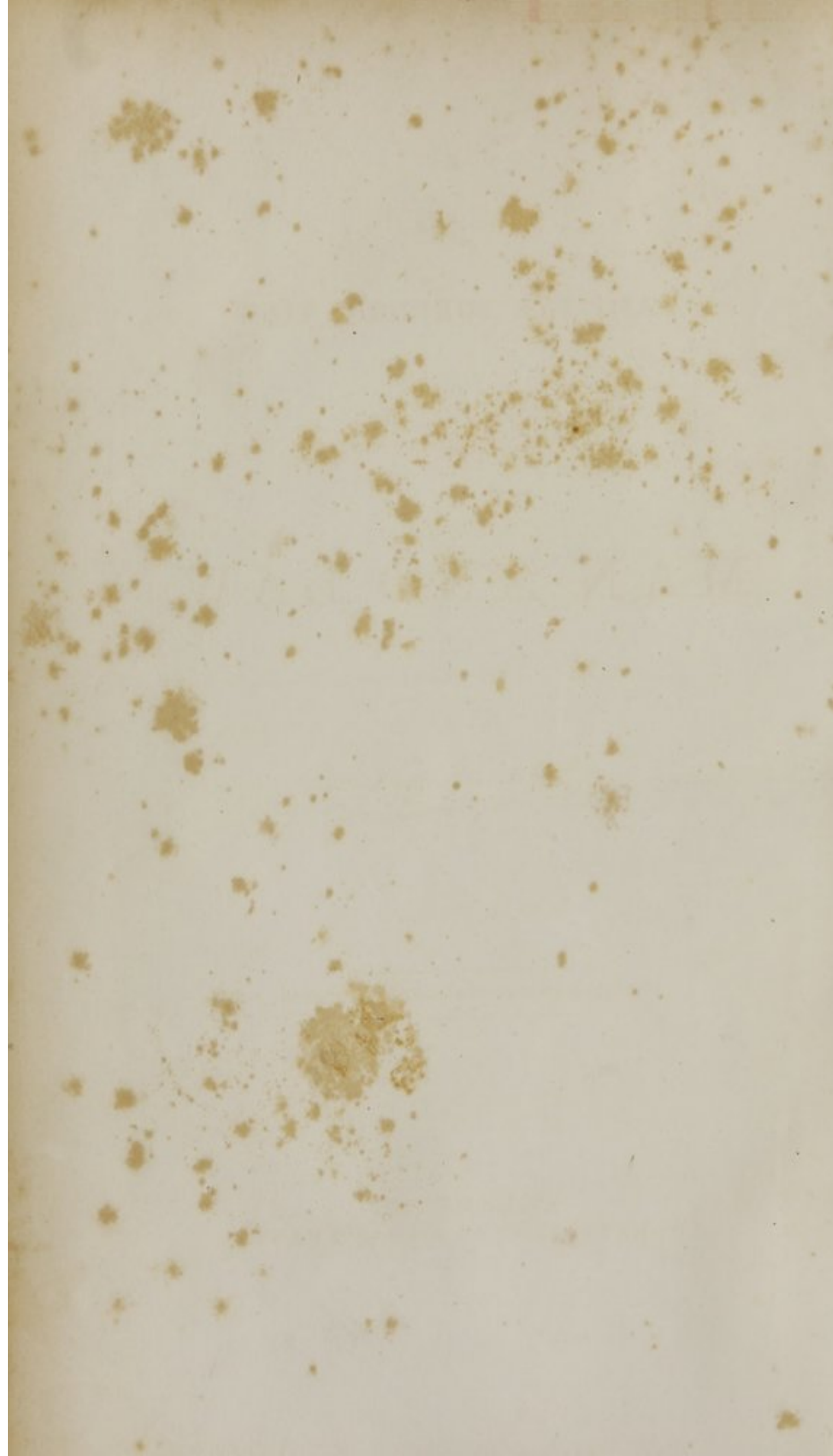
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A
FAMILIAR FORENSIC VIEW
OF
MAN AND LAW.

By ROBERT B. WARDEN.

"The sciences are of a sociable disposition."—BLACKSTONE.



COLUMBUS:
FOLLETT, FOSTER AND COMPANY.
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1860

Entered according to Act of Congress, in the year 1859,

By ROBERT B. WARDEN,

In the Clerk's Office of the District Court of the United States for the Southern District of Ohio.

FOLLETT, FOSTER & CO.,
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COLUMBUS, OHIO.

TO

HON. THOMAS EWING.

MY DEAR SIR:

I have begged permission to inscribe this work to you, because your eminence as a forensic expert is not that of a mere lawyer. You have acted on the faith of that saying of Blackstone, which I have selected as the motto of this volume. Whether at the Bar or in the Senate, in high office or in private life, you have preferred the comprehensive to the narrow. By your own example you have proven that philosophy and jurisprudence, great success in practice and great liberality in studies and pursuits, may quite harmoniously form the character. I thank you equally for that example and for the permission to inscribe my work to you. The former has encouraged me to offer my production to the public; the latter has enabled me to connect with that production such a name as may secure for it just estimation and fair criticism. More than this no writer has a right to ask.

Your much obliged,

R. B. WARDEN.

ERRATA.

Page 19, line 16, for <i>constrains</i>	read <i>constrain</i> .
" 112, " 18, " <i>needful</i>	" <i>needless</i> .
" 145, " 25, " <i>science</i>	" <i>art</i> .
" " 26, " <i>art</i>	" <i>science</i> .
" 198, " 3, " <i>Homeopathists</i>	" <i>Homœopathists</i> .
" 244, " 2, " <i>that</i>	" <i>the</i> .
" 266, " 11, " <i>cerebullum</i>	" <i>cerebellum</i> .
" 352, " 23, " <i>remember</i>	" <i>remind</i> .
" 400, " 4, " <i>marital</i>	" <i>conjugal</i> .
" 416, head-line, " <i>Tretin</i>	" <i>Cretin</i> .
" 494, " before <i>Impulsive</i> insert <i>Doctrine of</i> .	

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PREFACE.

As will be seen from the opening chapter of Book First, this work presents itself to general readers. It is not a law-book merely, though it is a lawyer's view of Man and Law.

A glance at chapters I, V, and VI, of Book First, together with chapters I, II, VII, and XXVI, of Book Second, may enable readers to conjecture what the writer has in view in his design at large. More careful reading of these chapters will reveal the fact, that the entire design of the work includes a yet unpublished Book. That Book will be conversant chiefly about Polity and Jurisprudence. It will deal with the development of Art and Law, with Forms of Law and Jural Forms (or Legal Formal Acts), and with other objects of interest in a Forensic View of Man and Law.

Although it is by no means necessary to include Book Third in the volume here offered to the public, I expected, when the printing of this volume was commenced, to make Book Third a part of it. This statement will explain some sentences which readers will encounter in Book Second.

When I entertained the expectation alluded to, I imagined that I should be able to condense the yet unpublished book so that it might appropriately constitute a mere division of a single volume. But I have discovered, that such condensation of Book Third, as would be necessary in order to make it part of this publication, would involve a great departure from the object of the work at large. On the other hand, the present volume is so complete in itself, and so independent of Book Third, that it may, with propriety, be presented as it is, and as though Book Third had not been part of my design.

BOOK FIRST.

INITIAL OBSERVATIONS.

BOOK FIRST

THE OBSERVATIONS

CHAPTER I.

FIRST APPEARANCE OF MAN IN NATURE AND ART.

ANY view of Man that promises to add to our ready knowledge of human nature, or to make us more diligent students of a rational Anthropology, may well be offered to the general reader. A forensic view of Man, by any competent observer, may alike increase our familiarity with human nature and add new attractions to the study of all that is worthy of respect in Anthropology. A forensic view of Man, as here intended, is, simply, a view of Man from the forensic stand-point. All may well participate in such an observation of the physical and psychical in Man as may be taken in a court of justice. Lawyers may, indeed, be chiefly interested in such an observation. But we shall discover, that all who are disposed to study human nature, with attention, with regard to what is real in the learning known as Anthropology, and with the purpose to discriminate the practical from the speculative in that learning, may with great propriety take part in a forensic view of Man.

How is it with a forensic view of Law?

Such a view is almost necessarily practical in its results. The forum does, indeed, to some extent, suggest the speculative in philosophy. If readers, of whatever class, will but participate in the intended observation, they

will find that principles of metaphysical philosophy, which simple speculation has discerned and theorists have made a part of jurisprudence, are applied to practice in the ministry of justice. So that here, as elsewhere, we may often find it difficult to draw the line between the so-called speculative and the so-called practical. But a forensic view of Jurisprudence and of Anthropology, must aim, at least, to attain to the real, practical, and practicable, in the philosophy of human nature. Thus a forensic view of Law will endeavor to discern the fitness or unfitness of all legal maxims, doctrines, and forms or modes of art. The fitness or unfitness of these maxims, doctrines, and forms or modes of art, must be determined with strict reference to the various knowledges of human nature which philosophy presents to our consideration. If we can but ascertain the truthful in the Philosophy of Man, we may ascertain the truthful in the Philosophy of Law. Now, all who live where Law exerts its forces have a vital interest in the question whether the forensic philosophy is or is not truthful. Thus, it would appear, all thinkers may be summoned to whatever view of Law fairly compares the forensic Anthropology with other forms of the philosophy of human nature. A fair and full forensic view of Law, I shall attempt to show, involves the comparison alluded to.

It is not, then, to lawyers only that this book presents itself. That some of its contents may chiefly interest the legal mind, and even may chiefly relate to the *practice* of the law, I do not wish to hide from any reader. But I do not look to lawyers only for the estimation of this humble offering to science. Thinkers of all classes are invited to become fair judges of this book.

As we proceed, we shall discover, that no single art, no single interest, exclusively engages our attention. Man, Law, Nature, Art, present themselves to observation in a court of justice.

To manifest the interest of such a view of Man and Law as that here offered, we need only to proceed directly to behold Man in a Court of Law; Law in the place of its enforcement; Art in the place of its nearest relation to Law, and active in the enforcement of the latter; Nature as supplying the forces and the substances in which the Art of Man gives application to the Law of Man.

The writer chooses to summon his readers into the place, where most of his studies have been, for some years, related to the practice of the Law.

We enter a building differing from all by which it is surrounded. However rude or mixed its architecture, the image of blind Justice with her sword and scales, which makes the highest point and the distinctive mark of the edifice, informs us of its purpose. And when we enter, all we see confirms the information.

It is true, that neither the axe, nor the sword, nor the wheel, nor the fagot, nor the rope, reminds us of the times when the ostentation of the armor of justice distinguished the place of judgment. The judge, plainly appareled, but raised above the rest, attracts attention by his place and voice; but no grim servant of the law attends him with the ensigns of its forces. There is present hardly an emblem of the might of Man, enforcing order through material instruments of Law. Only man's hand, only man's unweaponed hand, is here applied by his will to the enforcement of his law. But even if all the grosser forces, of which the axe, the wheel, the fagot, and the rope, are but types, were here,

"To fright the souls of fearful adversaries"

of the Law, we should still remark, that man's knowledge of his need, man's exercise of his capacity, man's gratification of his affections, alone enforce his Law. Without

the movement of man's will, and the might and cunning of his hand, when expressing that will, under the correction of reason, all the grosser instruments of law in place and force would only rot or rust. And here we find this man—without whom law would have no power save when miraculous enforcement should be made of God's commandments to His creature—busy in artful operations, employing the forces of nature in righting the wrong, in ascertaining the right, in enforcing the law.

The superiority alike of the Art and of the destiny of Man appears in all that we observe, and in all of which we hear, in this court of justice. The solemn appeals to man's responsibility to God, the solemn recognitions of man's destiny to know, and love, and be forever joined to God, by which the production of testimony, the arguments of counsel, and the reasons of judgment, are distinguished, show how the science and the art of law attest the noble destiny of human nature. Of this attestation we shall see more hereafter. At present let it suffice to note, that the science of the law—with which the art must be harmonious—appears to begin with God and to end with God; that it seems to be, as one has well suggested, the science of the steps which man makes towards the noble end already recognized.* But let us take, in this immediate connection, such an observation only as will show what is distinctly natural, and what distinctively belongs to Art, in what we here behold.

Hardly an object meets our glances, or attracts our scrutiny, within this building, or immediately connected with it, in which Nature, modified by Art, is not thrown into strong relief. And so we cannot carefully examine this forensic scene, without perceiving how it is connected with the wonderful variety of Nature, as she manifests herself

* (a) See Domat's beautiful *Treatise of Laws*, introductory to his "Civil Law in its Natural Order."

throughout the wide extent of earth and sea and air. The Nature, modified with reference to the pursuits of life forensic, is none other than the Nature which philosophers and poets have conspired to deify. We cannot here permit ourselves to worship Nature. Lessons taught with sharp distinctness daily teach the lawyer to distinguish well between the blind subjection of the Natural to the Divine and the Divine itself—between the action of the Voluntary and the action of the Involuntary. We are not in danger here of finding only Nature in the wonders worked throughout the sphere, with which this human life, by presence or by knowledge, is conversant. Yet even here, where human Art has built a temple dedicated to the Law, in which that Art is most conspicuously manifested, we may study Nature, conning with delight the lessons taught by science and by poetry alike of Nature's wonder-working sway. How Nature moulds the mountain; how she scoops the vale, and shapes the hill, and spreads the plain; how she indents the ocean coasts, and bounds the lakes, and guides the flow and fall of mighty rivers, or the dropping of the tinkling rills; how she provides, here flowers, and there tempting fruits; how she is circulating in the veins alike of men, and trees, and tender cereals; how she descendeth in

“ the gentle rain from heaven,
Upon the place beneath,”

and shineth in the sweet contention of the sun and air, which shall excel in brightening and blessing; how she is beautiful in human forms and powerful in human hearts, most mighty in a mother's love; how the ennobling passion for the Good, the True, the Beautiful, though Art, exalted by God's grace, do most ennoble it, is born of Nature;—all this we may study here with hearts not ill attuned for such exalting contemplations.

But what most concerns us here is that, in which Man's

life has greatest prominence. We have not yet noticed all in which the nearness, yet the numerical and specific difference of Art and Nature, may be studied in this place of judgment. If the architecture of the building has not perfectly expressed its meaning as a work of Art (as Art shall presently be defined), the operations of the human hand, the utterances of the human voice—all, in a word, which we behold “at bar,” within the building, speaks to us of Art not ill accomplishing its purpose, and again of Nature, clearly distinguishable from the merely artful, yet most intimately joined to Art.

An art, peculiar to the ministry of justice, rules each trial that we witness. The question to be tried is always made by written pleadings, ordered to conform to settled rules. The coming into court of parties and of witnesses, and the presence and duties in court of judges, lawyers, jurors, and attendant and executive officers—all these things are ruled by art. Little, indeed, is left entirely to the impulse of the moment. Witnesses are sworn to tell the truth, and jurors take the solemn oaths of triers, not alone when some one calls for such solemnity, but commonly, and as in course. In each case, we see the art peculiar to the ministry of justice making the same tests of testimony, subjecting to the like ordeal, claims of right or matters of defense.

In all this forensic art, the nearness yet distinctness and specific difference of Art and Nature are apparent. They are apparent in the part which body plays with reference to that performed by mind, when purposed acts occur; and they are equally apparent when unpurposed action of the body and unpurposed action of the mind fill up the intervals of purposed action. Presently, indeed, it will appear, that human life belongs distinctively in part to Nature, and in part to Art. But it will not appear that life, the natural, is or can be far removed from life, as life belongs to Art. But more of this hereafter.

What we learn from scrutinizing human life as here apparent, we must also learn from all that human Art has here assembled and combined. Nature, working ever, ever teaching human Art, and all the Art below the Art of angels, that the artful has its limits, and that Nature only yields to Art in one direction, to surprise and to subdue it in another; Art, subdued, surprised, and brought to nothingness in one direction, finding out another way to modify and to control the natural, and ever multiplying objects for man's characteristic affection for the Good, the True, and the Beautiful; this Nature and this Art are present in each feature of the place, in which we make our observation. In these grounds, which public spirit has set apart for health and for adornment, in the place where Justice is to be administered, we have the forms of vegetative life, which taste would set apart for such a purpose; and we have the art of man accomplishing what taste has pointed out as fit to be performed. The trees, the tender, trampled grass, with its neglected clover blooms, the paved and unpaved walks—these tell us how Nature and the Art of Man live neighborly together. The building, which arises in the midst of the restrained and disciplined vegetative life we have been contemplating—sculptured Justice crowning it with its distinctive ornament—its firm foundation and its various superstructure,—these again show the close intimacy which subsists between the artful and the natural. No particles of matter would cohere—no matter would be present—could we banish Nature from this scene, though here the Art of Man seems at a first glance most notably of all apparent, and though here that Art has certainly been busy, not without effect. Nature being banished, not one stone would stand upon another—not one atom would exist of all which we behold. Art being banished, tangled vegetation, poisonous productions mixed with wholesome growths, disorder where we now find order,

would convert the scene into a wretched wilderness. For Nature was designed to meet and to embrace, and even to possess, in some degree, the life of Man, and to confess the power, and obey the sceptre, of this highest of the earthly artists. So, complying, yet most mighty, Nature now submits, now checks; now owns the modifying power of Art, now teaches Art like lessons to the lesson taught at Babel. Light, enabling us to contemplate the scene, inviting us to enter and survey the works of human Art within the building, streams through manufactured glass; and shadows fall within the house from objects which the hand of man alone can shape. Air, purer in the grounds than in the building, owns the power of the artful, yet asserts its own natural capacity to limit the capacity of human Art. Nay, in the very shapes of human bodies, what the Art of Man can do is here apparent. What the mind may owe to Art, and how the mind is subject to the artful, we shall see more clearly in another place. Yet here and now we are prepared to own, that it is in Man—so wonder-working in the realm of Nature, modifying so incalculably all that Nature brings within his reach—that Nature is most liminary, and that Art finds most resistance. You cannot shape a man as you would shape a statue.

Returning thus to human life, as manifesting the exceeding intimacy yet the clear distinctness of the artful and the natural, we have occasion to reiterate, that it is in human life that we can best discern the nearness yet specific difference of Art and Nature.

What belongs in Man to Art rather than to Nature, we may best discover, by reviewing Man's original appearance in the Order of Nature and the Order of Art.

And so it is, that from this scene of Art, and of Nature modified by Art, sustaining Art, and setting bounds to Art, a view of human Art in its beginnings seems to beck-

on us. Let us near it. It will teach us many things, in which the intellect may find what the affections will embrace with interest.

In contemplating the beginning of human art, we contemplate the first appearance of Man in the Order of Art. This appearance is, if Genesis be not a fabulous and now discredited narration, the appearance of a single individual. Adam first appears in the Order of Nature; next, and almost simultaneously, in the Order of Art.

In distinguishing between the first appearance of the first of men in the Order of Nature, and his first appearance in the Order of Art, it may be necessary to define a little, and to repeat a little.

Nature, Art, and Law, are words familiar to abuse. They mean now this, now that, now nothing. I purpose no inconvenient strictness in their use in the present work. On the contrary, I may be charged with looseness in the use of the terms Nature and Art. I propose to distinguish between them, however, in accordance with what I understand to be their well established meaning, though not precisely according to the distinction which most frequently presents itself in current literature.

In view of the here intended distinction between the Order of Nature and the Order of Art, I ask the reader to invade with me the realm of Physiology. The Physiologists distinguish between the Organic or Vegetative Life of Man and his Animal Life, or Life of Relation.^b

The Organic Life of Man, although most intimately connected with the Life of Will, and constantly affected more or less by wilful acts and by emotions springing out of wilful acts, is quite Involuntary. It belongs, therefore, to Nature, which I would distinguish as the realm of the Involuntary. Nature, I would say, contains all inanimate

(b) Carpenter, Human Phys. 48.

things, all vegetative life, and all the involuntary life of animals. It includes the sum of the objects, forces, and changes, which involuntarily proceed and succeed, alter and stand related, in an order of which they have no consciousness. Its distinction is the absence of Will. Its action and changes are not obedience to Law. Whatever be the true characters of its forces, and howsoever God apply those forces, we feel safe in holding it to be subjected rather than intelligently obedient. If Nature may be thus defined—say, rather if the definition of Nature may be thus suggested—the Organic or Vegetative Life of Man, most evidently, is but natural. Its functions—or the groups or sets of its actions, “which, though different in themselves, concur in effecting some determinate purpose”—are directly concerned in the development and maintenance of the human fabric.^c

We have no present occasion to examine, with microscopical scrutiny, the several organic or vegetative functions. Of Digestion, Circulation, Respiration, and the like, we need take at present only a passing notice.

From the Organic Life of Man, Physiology distinguishes Animal Life, designating as the functions of the latter, those which render the individual conscious of external impressions, and capable of executing spontaneous movements.^d Of this Animal Life, a portion is apparently as involuntary as the whole of Organic Life. This portion of Animal Life, therefore, may be regarded as simply natural. But another, and this the highest, part of animal existence, is Volitional. This Volitional Life I would distinguish as the Life of Art.

For the purposes of the present work, Art may be defined as the intelligent and voluntary adaptation of means to ends; in contradistinction to Nature, in which, as

(c) Carpenter, 48.

(d) *Ib.*

already observed, we find only the involuntary relation, procession, succession, and alteration, of objects, forces, changes, and phenomena.

According to this distinction between Nature and Art, Man may be considered as having first appeared in the Order of Nature, but as having almost instantly thereafter appeared in the Order of Art. With reference to the same distinction, it is to be observed, that the Organic Life of Man may be regarded as constantly continuing in the Order of Nature, and as belonging to that Order only; and that the Animal Life of Man is active in the realm, and with the forces, of the simply natural.

If, allowing some little liberty to fancy, we imagine Adam looking his first look upon creation, we may be enabled to distinguish clearly between the Organic or Vegetative, and the Animal Life of Man.

The Bible does not more inform us of Adam's first impressions of the outward, than science informs us of the first impressions of the outward, in the history of infants. The scientific exegesis of the biblical account of Man's creation has large liberty of supposition. We may imagine Adam, when "man became a living soul," as standing in the midst of nature. Thus we best recognize one of the distinctive marks of our humanity, and thus do honor to the dignity of Man in nature.

"Godlike, erect, with native honor clad,
In naked majesty,"

the first of men may be imagined as facing first the objects soon to be his property, in that commanding attitude which marks him

"Lord of all."

At first, he stands upon the earth, unconscious of the outward as external to himself. Subjectively, a picture of

exceeding beauty is presented to his mind. Of the reality of which that picture is the appearance, he as yet knows nothing. Motionless except as his Organic life itself is motion, he is standing in the midst of motion and of rest. Silent in the midst of sound and stillness, he is inattentive to his thoughts, or does not think at all. As, thus visited by outward Nature rather than perceptive of the outward, Adam faces his destined dominion, he seems rather the most attractive form of the simply natural, than the Artist who is soon to modify the natural. We might almost fancy him some Plant of rare proportion and of various beauty, rather than the King of Animals and Lord of all the life below his own.

How much of Organic Life is active in the frame of Adam, while we contemplate him standing thus, unconscious of relation, it would rudely break the spell of our imagination to inquire. But in his breathing, in the circulation of his blood, and in the other operations of organic life, which most distinctively belong to what is dignified in man, the life of Adam at the moment of our contemplation is as simply natural as any thing external to his body. Will is not yet active in the first of men. Purpose is as yet unknown to his experience. Relation to the objects which surround him has not dawned upon his mind.

But soon a wondrous change appears in Adam. There was but now

"No speculation in his eyes."

But God has spoken to his soul—and he is looking outward on the loveliness of Nature. The outward smiles upon him. Nature offers him her sweet embraces. He moves, now slowly, now as if his feet were winged. Here he stoops to pluck a flower, there he reaches to the pendent clusters of the fruits of Paradise. His hand delights

him with the sense of touch, and, with its delicate prehensile power, ministers in countless forms to his delight. Here it brings an odor nearer, there caresses some rare form of animal existence, and there apart the interlacing vegetation, which had half concealed a prospect of some distant beauty. Man is full of life, and life is full of gratitude to the Source of life. Articulate and musical expressions of delight and thankfulness are mingling with the other sounds of Eden. The first hymn of Man to his Creator tones through Paradise.

We thus behold Man appearing in Nature and in Art. In Nature, in the involuntary life of his body and the involuntary receptivity and unpurposed action of his mind; in Art, in the wilful operations of his mind and the responsive action of his body. When Adam stands, more like a wondrous Plant than like a Man, his mind takes in what eye, and ear, and other organs, bring to it without its agency; but when he moves; when purpose guides his hand and gives direction to his feet; when he embraces pleasure as an object, or refers the Good to God; his mind is not receptive merely. It has grown active. It acts with purpose. Man appears in the Order of Art.

CHAPTER II.

THE BROTHERHOOD INVOLVED IN UNITY OF ORIGIN.

IT is not without a purpose, that I point to the appearance of a single individual, as the first appearance of Man in the Order of Nature and in the Order of Art.

From the beginning to the end of the studies here attempted, I would have the reader bear in mind the brotherhood of Man. A distinctively forensic view of Man may indeed well reveal contending human passions, warring human interests, the evil that stands hostile to the good in human life. But it will reveal far more than this. It will reveal the sentiment of kindness conquering contending passions, reconciling warring interests, exalting over evil that which is its opposite. It will display the generous and emulative struggle of the good to distance competition in conferring, as well as the most opposite endeavors of the heartless and the mean, in acquiring, what we call the goods of life. And, though I do not expect to find Man's motive for subjecting his participation in the life of Art to the restraint of Law, in the feeling of the brotherhood dependent on a common and consanguine descent from Adam, I may not conceal the value I attach to such a feeling, in connection with that motive, whatever it may be.

I am aware, that such writers as Agassiz argue, that the real unity of Mankind does not lie in the consanguinity

of a common descent, but has its basis in the participation of every race in the same moral nature, and in the community of moral rights, which hence becomes the privilege of all. I am aware, also, that such argument appears to be regarded as "just and powerful," even by learned advocates of the received doctrine touching human brotherhood.^a But I discover in the received doctrine much to make me cling to it in this forensic Philosophy, unless compelled by love of truth to give it up.

No small portion of the Good for which Man cultivates affection, grows out of the feeling of *kindness*, by which each individual feels connected with his fellow-men, when he considers them as derived, with himself, from a single pair, the parents of the human family. Nay, more. The enjoyment of this feeling of kindness is in itself part of the Good for which Man cherishes affection. Obedience to law, when law commands good neighborhood, seems easier—more "natural," as men would say—when neighbors can regard themselves as brothers, than when they have no assurance of a common origin. We are, indeed, informed that, rejecting the received doctrine, we are warranted in believing, that "men must have originated in nations as the bees have originated in swarms."^b And it may be thought, that he who becomes disconsolate on learning that he cannot trace his origin to Adam, may console himself with the reflection, that he belongs to the same *national hive* to which his neighbor appertains. But I discover many reasons for doubting whether he could indulge such a reflection. Amalgamation of the nations is so frequent as to leave us quite at sea, when we inquire into the national derivation of particular individuals. And only learned men—philosophers, philanthropists, cosmopolites—can scale the height, from which the signifi-

(a) Carpenter's Human Physiology, 835.

(b) Types of Mankind, 78, quoting Agassiz.

cance of a common descent from a single primeval pair, becomes lost to view. We, who live nearer the earth, discern it clearly. Travelers in climes most distant, find no region where the question, "Are not all men brothers?" loses its importance. In the common ways of life, the question never can be asked, and answered by the heart, without contributing to make men better satisfied with duty, kindlier in sentiment, more neighborly in conduct; in a word, more willing to maintain the Law.

A real value, then, resides in the received opinion, touching human origin and the existing human brotherhood. A forensic thinker will not easily surrender this opinion, when informed that the participation of every race in the same moral nature, and in the community of moral rights, which hence becomes the property of all, is a "bond which every man feels more and more the farther he advances in his intellectual and moral culture, and which in this development is continually placed upon higher and higher ground; so much so, that the physical relation arising from a common descent is finally lost sight of, in the consciousness of the higher moral obligations."^c For, a forensic thinker must remember, that the feeling of the brotherhood in question is not inconsistent with the consciousness of the "higher obligations" alluded to; and that, at the same time that it is powerful with those who feel the higher obligations, it is not less significant to minds which may not reach the height at which the value of the "higher obligations" best appears. And when the advocates of the novel doctrine of Human Unity existing in Plurality of Origin, inform us, that "while Africans have the hearts and consciences of human beings, it could never be right to treat them as domestic cattle or wild fowl, if it were ever so abundantly demonstrated that

(c) Carpenter, 835; quoting, perhaps, Agassiz, or perhaps a writer in the "New Quarterly Review."

their race was but an improved species of ape, and ours a degenerate kind of god;" forensic thinkers may admit the truth proposed, but they must see its painful suggestiveness. They must see how it suggests the eagerness, with which those who cling to property in Africans, have sought out scientific pretexts for denying that the negro race is of the same species as the white race. They must see how novel theories, asserting the original inferiority and specific difference of the negro type, may have contributed to that unhappy judgment, which alike perverted justice and ignored the history of our experiment in government—which alike violated our own constitution and degraded our pretensions to an elevated rank among the Christian nations—by deciding that a negro may be owned precisely as a horse is property. And so forensic thinkers will begin to think of all the mischief that may follow the abandonment of the received opinion, that all men are derived from a single primeval pair. Perhaps they may discover many doctrines more objectionable than the doctrine which denies the correctness of that received opinion; but they cannot carefully examine the relations of right and duty, by which individuals are connected in society, without discovering much to warn them against the hasty reception of the novel doctrine. Imperfect as the sanctions of all human law appear to be at present, they would be still more imperfect if the Christian doctrine of the unity in origin and destiny, which constitutes the brotherhood of man, should be surrendered to the scientific theorists, who now propose to stamp that doctrine as absurd.

While, therefore, not caring much to question whether a unity, which might, in the better days of philosophy, be nearly as striking as that of consanguinity, might have existed in the absence of consanguinity, I believe that the unity actually existing is more perfect than the supposed unity, which might have existed; and that, in a forensic

Philosophy of Man and Law, the real Unity has a greater value than could ever have been discovered in the Unity which might have been substituted for it. The existing unity connects the individuals composing the society of Man, by ties so tender, in an origin so noble, and a destiny so high, that we cannot come to speak of Law as affecting human intercourse without perceiving its importance.

But I have another reason for beginning this work with the recognition of the first appearance of Man in Nature and in Art, as the appearance of a single individual. The development and progress of Art and Law may best be comprehended, when we thus recognize the "first beginnings" of Law and Art.

But have I warrant for continuing to hold the doctrine rejected by Agassiz?

It was in Nott and Gliddon's "Types of Mankind," that the writer first encountered the doctrine already alluded to, according to which men were created in nations.

A work, for the production of which Agassiz is largely the creditor of the scientific world, has since appeared. In that elaborate and admirable work, Agassiz has not abandoned the doctrine just presented to the reader. On the contrary, he says: "It was a great progress in our science, when the more extensive and precise knowledge of the geographical distribution of organized beings forced upon its cultivators the conviction, that neither animals nor plants could have originated upon one and the same spot upon the surface of the earth, and hence have spread more and more widely until the whole globe became inhabited. It was really an immense progress which freed science from the fetters of an old prejudice; for, now we have the facts of the case before us, it is really difficult to conceive how, by assuming such a gradual dissemination from one spot, the diversity which exists in every part of

the globe could ever have seemed to be explained. But even to grant distinct centers of distribution for each species within their natural boundaries, is only to meet the facts half way, as there are innumerable relations between the animals and plants which we find associated everywhere, which must be considered as primitive, and cannot be the result of successive adaptation. And if this be so, it would follow that all animals and plants have occupied, from the beginning, those natural boundaries within which they stand to one another in such harmonious relations. Pines have originated in forests, heaths in heathers, grasses in prairies, bees in hives, herrings in schools, buffaloes in herds, men in nations!"

In opposition to this doctrine, love of truth, and interest in the production of a true forensic Philosophy of Man and Law, constrains me to adhere to the belief, that Blackstone and the Bible well distinguish Adam as our first ancestor.

I am quite aware of the apparent audacity of such a declaration. Not Agassiz only has rejected that account of the apparition of Man in Nature and in Art, which I determine to respect.

"After twenty years of observation and reflection," says Dr. Morton, "during which period I have always approached this subject with diffidence and caution; after investigating for myself the remarkable diversities of opinion to which it has given rise, and after weighing the difficulties that beset it on every side, I can find no satisfactory explanation of the diverse phenomena that characterize physical Man, excepting in the doctrine of an original plurality of races."^d

More stormy, but less powerful, is that assault on Genesis, of which the learned Nott is captain. He has done with the attempt "to conciliate sectarians, and to recon-

(d) Types, 305.

cile the plain teachings of science with theological prejudices." He has "no longer any apologies to make, nor favors of lenient criticism to ask." He nails "the broad banner of science" to the mast of the vessel, in which he departs from the harbor of received opinions.

Really, if life forensic had not taught the writer something of the limits in which scientific theories deserve acceptance, he might tremble at the thought of thus encountering the teaching of Agassiz, the assured conviction of Morton, and the stormy declamation of the learned Doctor, resident in Alabama.

We, who, for the most part, meet the scientific in the shape of sworn opinions, are taught some curious lessons, relating to the proper estimation of the scientific in opinion. We encounter science, making no pretension to be learned out of our own calling, save as a certain superficial learning in the other sciences is involved in a thorough knowledge of the law. But the superficial learning alluded to is not to be despised. It takes note, chiefly, of the relations of the arts and sciences. I call it superficial only as compared to the exhaustive learning, which those devoted to particular sciences acquire in their preferred studies. It enables us to stand erect, with knees quite free from knocking, in the presence of opinions, which, though arrogating scientific rank, are hostile to the common sense of men.

In thus encountering the arrogance of science, lawyers only claim, at last, the *common* right to judge of scientific theories, with some additions, drawn from practice in examining the testimony of experts, and from a general familiarity with rules of evidence and tests of testimony.

In presuming here to hold received opinions, notwithstanding a supposed scientific demonstration of their falsity, I arrogate nothing, which the intelligent reader will deny to me or to himself. I enter on this task with-

out the slightest pretension to learning, as learning is commonly estimated.

I pretend to no ability to try the scientific theories which aim to set aside the Biblical account of Man's creation, except as we, the jurors of all scientific controversies—we, the common, unpretending, undistinguished public, to whom scientific theories appeal for favorable verdicts—are supposed to have ability to hear the learned, and decide, from time, against or for whatever they advance against the common faith, or offer as additions to the sum of common knowledge. We may err. We know that we are liable to error. We know how often we have crucified the truth, while aiming only to make truth triumphant. We know how often we have been compelled to set aside our verdicts, and to accord the laurel where we had insanely ordered ignominy. But we also know, that learning has its answering follies and offenses. We cannot always trust to learning. Learning is but fallible and peccable, at last. We must not find a Living Buddha in each haughty teacher of the scientific. We must reverence the truth too much to take for truth all that the learned press upon us. Fallible, and sensible that we are fallible, we must not only strike, but hear; but we must strike as well as hear.

Considerations such as these are forced from time to time on the attention of all. But in the life of lawyers, they are constantly enforced. At bar, the lawyer often meets the learning of experts, so proud, so haughty, so insanely arrogant, as almost to defy all question; yet so baseless, so extravagant, so fanciful, or otherwise unworthy of reception, as to prove that learning is not seldom twin to folly. Lawyers often meet this learning as they should not meet it. Nay, they often rail at learning which deserves the highest honor. But their error will not seem quite inexcusable, when we consider with what

"Fantastic tricks before high Heaven,"

scientific theorists have moved the tears of angels.

Far from us be it, however, to regard Agassiz as unworthy of respect in his opinions. We may safely reject those opinions, but we cannot fail to honor him who holds them.

I adhere to the history of Man contained in Genesis, only so far as the purpose of the narrative, as I shall hereafter endeavor to explain that purpose, has controlled the language of the sacred writer. I shall treat as sacred, as connected with the dearest interests of Christian civilization, all that may be considered as the execution of the purpose, and the expression of the thoughts, with which the sacred writer was inspired.

This adherence to the Mosaic record of creation appears to me a warranted adherence, notwithstanding all that science has established or is likely to establish. I shall not, here, or in any part of the present work, undertake to vindicate the record against all objections. Many of the objections have been so well encountered elsewhere, that I have a right to consider them as quieted. Others, however, are so recent, or so recently presented in seemingly formidable shapes, as to call for some examination in a forensic view of Man.

We are not to be expected here to examine questions, which have been frequently examined by the learned and the competent, and quieted in favor of the commonly received opinion. We need not here examine the question whether the diversity of color now observed among types^e of mankind, is inconsistent with that commonly received opinion, according to which all human life began in Adam, and in her whom we consider as the mother of the human

(e) Of course, I use this word in its common sense, and not as Ethnologists employ it.

race. It is enough to know that Physiologists discover many theories, which may account for the diversity of color, without involving the surrender of the commonly received belief of men, respecting human origin. We may content ourselves with a single word in passing, so far as color is concerned.

It may not be absolutely puerile to suggest, that the learned may well busy themselves with the endeavor to answer the following questions: What was probably the color of Noah? What was the color of Noah's wife? Were this husband and this wife of the same color? If they were of different colors, were their varieties of color proximate or widely variant? Independent of the influences of parental ideas, what would be the colors of their offspring? What is the influence of parental ideas on the color and other peculiarities of offspring? What parental ideas may be attributed to Noah and his wife? What was the probable influence of physical nature—what the probable influence of religious sentiments and habits on those ideas? What is the true physiological theory of the influence of climate in deepening or varying color? When questions such as these shall have been carefully examined and fairly answered, we may begin to speculate on the question whether the observed diversities of human color affect the probability, that all the individuals known as men were derived from a single human pair. I will only venture to add, that I am unaware of any physiological reason for doubting that colors, which might afterwards be varied—paled or deepened—by moral or physical causes, may have appeared in the family of Noah and in their immediate descendants. What we consider as unalterable in color may not really be unalterable. We have no knowledge, justifying us in asserting positively, that color is unalterable.

But now we encounter quite another style of objection to the narrative in Genesis.

The objection which I shall first notice is presented by Agassiz. Agassiz cannot be attacked as many Ethnologists might be attacked. He has acquired the reputation of candor, while winning the renown of an exhaustive learning. We must deal with him as with no contemptible antagonist. And yet, on our allegiance to the truth, we must resist his theories when they resist the truth, which ages have received and Christianity continues to regard as vital.

In considering what Agassiz urges, we may well consider that the learned Dr. Nott and his consular associate, have urged to the same effect, in a book which I cannot but regard as slightly *missionary* in its character.^f The book alluded to seems to me too intimately related to certain local interests, to be beyond the reach of censure as to the spirit in which it is written; but I propose, nevertheless, to examine some of its theories.

The examination I propose may be, in some sort, forensic. We may consider, that we have erected a proper tribunal, in which we may try the following allegations:

1. There is no evidence, that mankind originated from a common stock.

2. There is evidence, that "the diversity among animals is a fact determined by the will of the Creator, and their geographical distribution part of the general plan, which unites all organized beings into one great organic conception: whence it follows, that what are called human races, down to their specialization as nations, are distinct primordial forms of the type of man."^g

Separating the issues which our denial of these propositions constitutes, we may first try the allegation, that there is no evidence that mankind originated from a common stock. Our denial of this allegation is equivalent to an

(f) *Types of Mankind*.

(g) *Ib.*—Sketch contributed by Agassiz, lxxv.

affirmation, that there is evidence that mankind originated from a common stock. Making such an affirmation, we may proceed as holding the affirmative.

Accordingly, we offer here the narrative in Genesis.

In offering this narrative, I do not overlook how a portion of its contents seems to be contradicted by such scientific demonstration as the learned and the pious quite harmoniously take for demonstration. And, as we shall see hereafter, I am not disposed to make a close construction of the narrative, except as it refers directly to the origin, the destiny, the duties of mankind. But I do insist upon the competency of the narrative, until impeached, to prove, that all the individuals of our own rank in being—that is to say, all men—are derived from a single pair.

Agassiz once encountered this testimony, by insisting, that Genesis must be considered as chiefly relating to the history of the white race, with special reference to the Jews.^h

But, having argued, that men originate in nations as bees originate in swarms, Agassiz must excuse us if we here impute to him a little want of candor. If he seriously holds, that *all* men originated in certain numeric proportions—might we not describe them as uncertain?—he cannot save the narrative in Genesis from conflict with his theory, by any such construction as he has attempted. Unless nationality may be discovered in a single pair—such nationality, I mean, as Agassiz contemplates—the narrative in Genesis, even if construed as pointing only to the Jews, must be rejected, if we are to take the theory presented by Agassiz.

I insist on no severe construction of the record. I would have it read, in this connection, just as it would be construed by the forensic expert. How forensic experts would construe it, I expect to show hereafter. It

(h) Agassiz, quoted in the "Types," 79.

may be considered for the present simply as a history of Man, presented to a portion of the human race for a religious purpose. As such record, we are to regard it as importing verity, above all frittering and frivolous construction, and quite unquestionable, until directly impeached, in so far as it relates to our descent from Adam; to establish that being, as I believe, the chief object of the earlier narrative in Genesis. I admit, of course, if science establish the falsity of the record in the particular, in which I characterize it as unquestionable, it cannot be sustained, and it ought not to be sustained. How, and by what species of reasoning the supposed revelation or inspiration of which the narrative is held to be the expression, may be shown to have no reality, I need not here inquire. For, I expect to show that the hostile theory which I am about to examine, so far from setting aside the narrative, confirms the faith it means to overthrow. At present, I only desire to say, that according to what seems to me the true construction of the narrative in Genesis, that narrative must be regarded as asserting that all mankind are derived from a single pair, and that to construe away this meaning of the narrative is wholly to destroy the narrative in all its parts.

I may best vindicate this construction of the narrative, by pointing in the first place, to the fact, that it is the received construction; and by reminding the reader in the next place, that it is generally regarded as a vital one.

To show that it is the received construction, I have only to direct attention to the terms in which Agassiz offers a quite opposite construction. For, he does not rely upon his own construction as a *received* one, but presents it as one of which he "would particularly insist upon the propriety."¹ But the learned Dr. Nott, having nailed to the mast "the broad banner of science," is quite explicit

(i) Types, 79.

on this point. He says, "it is really trifling with language to say that the Text does not distinctly convey the idea that all the creatures of our day have descended from the seed saved in the Ark."^j

Having thus ascertained what, indeed, is so notorious as not to need ascertainment, namely, that the received construction of the record we present is such as we have represented it, we now inquire, how does the received construction of this record stand related to essential doctrines of the Christian system?

All persons claiming to be Christians certainly do not assert, that mankind originated from a common stock. Not intending here to advocate the doctrines of any particular church, I must not argue here, that the unity of human origin is a doctrine absolutely vital in the Christian system, and essential to it. But, without offence to any, I may here explain, that not by Catholics alone, but by the largest protestant bodies, the unity of human origin is taught, as I have indicated, and that to catholicity, at least, the doctrine seems to stand in the relation of a vital part. "The Word of God," says one of the most eminent of living Catholics, "hath always considered mankind as descended from one parent, and the great mystery of redemption rests upon the belief that all men sinned in their common father. Suppose different and unconnected creations of men, and the deep mystery of original sin, and the glorious mystery of redemption, are blotted out from religion's book."^k

If the construction of Genesis here relied on is received, and regarded as vital, I may surely here content myself with pointing in addition to the language construed. The words of Genesis, as every reader will know on merely

(j) Types, 63.

(k) Connex. between Science and Revealed Religion, I, 137. Mœhler's Symbolism, Book I, Part I, ch. 1, 2.

consulting his memory, will bear no other construction than the received one. To restrict the history to a part of mankind would be to destroy it. It would be no more itself, than Niagara would be Niagara without the water and the rocks.

I conclude, then, that there is evidence, that all mankind originated from a common stock.

How is this evidence encountered, when we force our adversaries to admit, that, taken to be true, it proves what we continue to believe respecting human origin?

In the first place, our adversaries say, that our record is impeachable by evidence, establishing that all the animals below the rank of man must have been specially created in and for the zones or provinces in which we find them at the present day.

Speaking only for myself, yet speaking, as I hope, within the liberty of scientific exegesis which all churches recognize, I must object to the attempted impeachment on the ground, that to prove what is thus asserted by our adversaries, will not contradict our record so as to affect its integrity. This objection I will waive for the present, recurring to it hereafter. I mention it now, to indicate the liberality with which I feel enabled to examine the evidence here offered to impeach our record.

Agassiz tells us, that "natural combinations of animals circumscribed within definite boundaries are called *faunæ*, whatever be their home—land, sea, or river. Among the animals which compose the fauna of a country, we find types belonging exclusively there, and not occurring elsewhere; others, which have only a small number of representatives which they specially characterize; and again others, which have a wider range." He recognizes the "grand divisions of the animal kingdom" as "primordial and independent of climate." But species, he says, are "intimately connected with the conditions of

temperature, soil, and vegetation." He finds, in the arctic fauna, "a remarkable instance of this distribution of animals with reference to climate." This fauna, he informs us, "contains a great number of species common to the three continents converging towards the North Pole," and "presents a striking uniformity, when compared with the diversity of the temperature and tropical faunæ of those same continents."¹

"Though," he says, "the air-breathing species are not numerous here, the large number of individuals compensates for this deficiency, and among the marine animals we find an astonishing variety and profusion of forms. In this respect, the vegetable and animal kingdoms differ entirely from each other, and the measure by which we estimate the former is quite false as applied to the latter. Plants become stunted in their growth or disappear before the rigors of the climate, while, on the contrary, all classes of the animal kingdom have representatives more or less numerous, in the arctic fauna. Neither can they be said to diminish in size under these influences; for, if the arctic representatives of certain classes, particularly the insects, are smaller than the analogous types in the tropics, we must not forget, on the other hand, that the whales and larger cetacea have here their most genial home, and make amends, by their more powerful structure, for the inferiority of other classes."^m

"The large mammalia which inhabit this zone are—the white bear, the walrus, numerous species of seal, the reindeer, the musk ox, the narwal, the cachalot, and whales in abundance. Among the smaller species we may mention the white fox, the polar hare, and the lemming. Some marine eagles, and wading birds in smaller number are found; but the aquatic birds of the family of palmipedes are those which especially prevail. The coasts of

(1) *Types of Mankind*, lviii, lix.

(m) *Ib.* lx.

the continents and of the numerous islands in the arctic seas are peopled by clouds of gannets, of cormorants, of penguins, of petrels, of ducks, of geese, of mergansers, and of gulls, some of which are as large as eagles, and like them, live on prey. No reptile is known in this zone. Fishes are, however, very numerous, and the rivers especially swarm with a variety of species of the salmon family. A number of representatives of the inferior classes of worms, of crustacea, of mollusks, of echinoderms, and of medusæ, are also found here."ⁿ

Agassiz accompanies his "Sketch" with a tableau—of which the first column "represents the types which best characterize this fauna; viz: the white or polar bear, the walrus, the seal of Greenland, the reindeer, the right whale, and the eider duck."^o

On this description of the arctic fauna, I propose to make some observations.

By the argument of our antagonists, it is asserted that the animals enclosed within this fauna must have been created in and for it. Why? Are they so well adapted to the province, that their adaptedness proves that they must have been created for it? What is the quality that most adapts an animal for arctic regions? How is it—whatever it may be—discernible in the polar bear, the polar seal, the polar stag, the polar whale, the polar duck, or the walrus? Does it reside in magnitude? Is great size the test of adaptedness? Why then is the reindeer smaller than the elk? Why is the polar insect more diminutive than the insect of the tropics? Why are any of the arctic animals smaller than "analogous types" in other zones? But is diminutiveness the test? It may be so. Is not the Lap a dwarf and the Esquimaux a pigmy? But why, then, is the arctic whale so much of a whale? Why is not the reindeer smaller than

(n) Types of Mankind, lxi.

(o) Ib. lxii.

the common stag? Why is not the white bear smaller than the common bear? I conclude, that the size of an animal is not the test of its adaptedness to the zone in which we may discover it—or that, if I am wrong in this, the arctic zone contains large numbers of animals not designed to inhabit it.

Is color the test of adaptedness? I have no doubt, that white is more distinctively arctic than black. We find in the arctic fauna white bears, white foxes—and why not white whales, white walruses, white reindeers, and above all, white Laps and Esquimaux? If there is an arctic color, why are the arctic animals so various in color? *Have they wandered into arctic provinces from zones more favorable to their hues?* “If the animals of the North,” says Agassiz, “are less striking in external ornament—if their colors are less brilliant—yet we cannot say that they are more uniform, for though their tints are not so bright, they are none the less varied in their distribution and arrangement.”^p If animals originated in a common centre—say in Asia—and were thence distributed to arctic and to other zones, we may account for colors various yet faded, in the arctic plumage and the arctic furs. But if the arctic favors white, yet does not reject other colors, we cannot well account for the paling of the colors in the arctic animals. Why were their colors such as needed paling? Color cannot be the test of the adaptedness of animals to their peculiar provinces—or if it is, the arctic zone includes large numbers of animals which were not designed to inhabit such a zone.

And so I might proceed to speak of fur—of feathers—of the skin—and of the inner animal. No sensible man will attempt to say in what the peculiar local adaptedness of the animals of the arctic or other zones essentially consists. But if we cannot say in what the supposed adapt-

(p) Types of Mankind, lx.

edness is to be found, are we authorized to say that it exists at all?

Doubtless, some of the animals found in the arctic are, as we should say in ordinary conversation, better adapted to it than others. The bear is better adapted to the arctic than the insect. The walrus is better adapted to the arctic than the Lap or the Esquimaux. But what becomes of the theory we are examining if this be so? The animals which seem but ill adapted to the place in which we find them, must have been designed for some more genial province. "The arctic representatives of certain classes, particularly the insects," being "smaller than the analogous types in the tropics," must have been designed for the tropics. Or, if the arctic representatives of the classes referred to are of the standard size, the analogous types in the tropics may be too large, and may have been designed for the arctic. Or, if neither the arctic nor the tropical types alluded to seem well adapted to the province wherein we find them, they may have been designed for the temperate zone. On the other hand, the bear, the reindeer, the walrus, the whale, and the eider duck, appear to be at home in arctic regions. In the grand design of Providence, the arctic may appear to be their destined place. But does it follow, that they were created *in* the arctic as well as *for* the arctic? Is it less improbable, that by such means as we are yet unable to conceive, the animals alluded to proceeded to the arctic from the common centre of creation, than that among the animals designed for arctic regions some should be ill-adapted to their province?

Supposing that the animals, which in the arctic are inferior to their analogous types in other zones, are wanderers from other zones into the arctic, what are we to think of that design, according to which they were created for a zone to which they do not appear to be confined? Is it to be answered, that some animals are designed to wander

and some are designed to be fixed? Why, then, are not the wanderers made capable of meeting all that arctic rigor or the heat of the tropics can present to them? The Christian has a ready answer; but what answer have our adversaries? To the christian mind, all the deeper designs of God are simply wonderful, mysterious, inscrutable, except as revelation has assisted reason. But to "science" there is no inscrutable, no mysterious, no wonderful. It has the key to all the plans of God. It analyzes things divine and human. All is open to its vision—all is subject to its logic. Science, therefore, which attacks the mysteries of faith, cannot allege a mystery of science, in proof that christian mysteries are mere delusions. Science tells us—God designed all things for certain places and for certain uses. Science tells us—God most perfectly adapts all things to His design. Let Science, therefore, answer: Why did God, designing certain animals to wander, fail to make them equal to all changes to which their wandering must subject them?

(And, if it be said, that the animals which we find in the arctic without apparent adaptedness to the regions in which we find them, violated nature in departing from their province, why shall we not say, that the Lap and the Esquimaux violated nature in seeking arctic homes? This, parenthetically.)

Such were the terms in which, when I first encountered Agassiz's theory of the geographical distribution of animals, I felt permitted, nay, required, to meet it. Nor, since I have encountered other presentations of the theory in question by the same learned theorist, have I felt permitted or required to make any considerable modification or correction of the language, in which I have indicated my rejection of the theory. Perhaps a closer study of Agassiz's views might render it my duty to correct what I have submitted to the reader. But I have carefully read the

article contributed by the philosopher to the American Journal of Science and Arts, (Vol. 9, 369, New S.,) and the several chapters of his admirable "Contributions," which refer to this subject, without discovering the propriety of abandoning the position I have ventured to assume.

Nothing can exceed the care with which Agassiz proceeds to verify, or the emphasis with which he continues to repeat, that the physical influences under which animals and plants subsist cannot logically be considered as the cause of their diversity, since, 1. The most diversified types of animals are every where found under identical circumstances; and 2. "To maintain the contrary, would really amount to asserting that wherever a variety of organized beings live together, no matter how great their diversity, the physical agents prevailing there, must have in their combined action, the power of producing such a diversity of structures as exist in animals, notwithstanding the close connection in which these animals stand to them, or to work out an intimate relation to themselves in beings, the essential characters of which have no reference to their nature. In other words," he says, "in all these animals and plants, there is one side of their organization which has an immediate reference to the elements in which they live, and another which has no such connection, and yet it is precisely this part of the structure of animals and plants, which has no direct bearing upon the conditions in which they are placed in nature, which constitutes their essential, their typical character. This," he justly adds, "proves beyond the possibility of an objection, that the elements in which animals and plants live, (and under this expression I mean to include all that is commonly called physical agents, physical causes, etc.,) cannot in any way be considered as the cause of their existence." ^a Admit-

(q) Contributions, 33.

ting that the mediums in which animals live, and all physical agents at work in nature, have a certain influence upon organized beings, he nevertheless properly contends, that the physical influences alluded to cannot be regarded as more than modifying such diversities as, independently of the physical influences, and antecedently to their operation, distinguished animals, one from another. Nothing, let me repeat, can exceed the emphasis with which he contends that, since the animals and plants living together in the same region are greatly diversified, it were simply absurd to contend that physical influences have produced the observed diversity. Identical types, he informs us, occur everywhere upon earth under the most diversified circumstances. "If," he says, "we sum up all these various influences and conditions of existence, under the common appellation of cosmic influences, or of physical causes, or of climate in the widest sense of the word, and then look around us for the extreme differences in that respect upon the whole surface of the globe, we still find the most similar, nay, identical types (and I allude here, under the expression of types, to the most diversified acceptations of the word) living normally under their action. There is no structural difference between the herrings of the Arctic, or those of the Temperate Zone, or those of the Tropics, or those of the Antarctic regions; there are not any more between the foxes and wolves of the most distant parts of the globe. Moreover, if there were any, and if the specific differences existing between them were insisted upon, could any relation between these differences and the cosmic influences under which they live be pointed out, which would at the same time account for the independence of their structure in general? Or, in other words, how could it be assumed that while these causes would produce specific differences, they would at the same time produce generic identity,

ordinal identity, class identity, typical identity? Identity in every thing that is truly important, high, and complicated in the structure of animals, produced by the most diversified influences, while at the same time these extreme physical differences, considered as the cause of the existence of these animals, would produce diversity in secondary relations only. What logic!"^r

In the presence of these important teachings and this interesting argument, it is in vain that the philosopher calls our attention to such facts as that there is a definite relation between the size and structure of animals; that each type shows decided relations, within its own limits, to the elements of nature; that the aquatic Mammalia, as a whole, are larger than the terrestrial ones; that so are the aquatic Birds and the aquatic Reptiles; that in families which are essentially terrestrial, the species which take to the water are generally larger than those which remain permanently terrestrial; that the same relation is observed in the different families of Insects, which number aquatic and terrestrial species; and that "it is further remarkable, that among aquatic animals, the fresh water types are inferior in size to the marine ones."^s It is equally in vain, that, without attempting even to show in what the secondary relation of animals to their geographical distribution essentially consists, or how their relations are so necessary as to be evidently designed by the plan of creation, the philosopher insists, with repetition and with emphasis, that "every animal and plant stands in certain definite relations to the surrounding world."^t Once informed, that the physical influences to which the Polar Bear is subject cannot be regarded as sufficient to produce it, we may well inquire, are they sufficient to account for its presence in the Arctic? Once informed, that "what constitutes the Bear in the Polar Bear, is not its adaptation

(r) Contributions, 16-17.

(s) Ib. 49.

(t) Ib. 57.

to an aquatic mode of existence,"^u and that, like other animals, the Polar Bear has one side of organization, immediately referring to the elements in which it lives, and another which has no such connection; we may well inquire, was the side of its organization referring to the conditions of life in the Arctic, designed and necessary, or is it accidental, and due to altered habits in the animal? And we cannot regard ourselves as answered, when informed, that "a book has yet to be written upon the independence of organized beings of physical causes, as most of what is generally ascribed to the influence of physical agents upon organized beings ought to be considered as a connection established between them in the general plan of creation."^v For, until the writing of that book, we may still feel at liberty to doubt whether the great comparative size of some Arctic animals, for instance, and the comparative diminutiveness of other Arctic animals, as well as the diversity of colors perceived in Arctic animals, "ought to be considered as a connection established between them" and Arctic physical conditions, "in the general plan of creation," or as due to altered habits and a changed "habitat," in animals created in other zones and originally inhabiting quite different regions.^w

(u) Contributions, 50.

(v) Ib. 17.

(w) I have not overlooked the arguments of Agassiz derived from the observed community of structure among animals living in the same regions. Whatever force may be apparent in such arguments, when we attend only to what is observed in particular zones and provinces, we cannot concede to it any formidable force, when we consider the absence of any such community of structure in other zones and provinces. Indeed, I do not understand Agassiz himself as attaching much importance to the arguments in question. I would add, that what Agassiz presents on the subject of the Immutability of Species, seems to me quite inconclusive as an argument in favor of the theory I am endeavoring to show cause for rejecting, however valuable it may be with respect to the immediate purpose of Agassiz in presenting it.

CHAPTER III.

THE SAME SUBJECT CONTINUED.

BUT now I ask the leave of the learned and the pious to maintain, that, even if the evidence presented should require us to conclude, that all the types of animals below the rank of Man were created in and for the zones or provinces in which we find them now, the narrative in Genesis would be quite unimpeached by the showing supposed to overthrow it.

I ask leave, because I know that I cannot so maintain, without seeming, at first view, disposed to concede too much to science, and disposed to approach too boldly to the work of construing the inspired Word.

I am not disposed to concede too much to science. But there should be allowed to science all the room, and light, and heat, which normal scientific growth requires. And I feel disposed to admit, presently, a probability, which suggests the propriety of leaving science free to prove, that there were several centres of creation for the lower animals.

Nor am I disposed to approach with boldness, the task of construing the inspired word. Attacks are made on that word from every quarter and of every description. I propose to show that some supposed demonstrations of its falsity, do not approach its vital parts. This I can only do, in the given instance, by ascertaining what portion of

the narrative in Genesis may be regarded as importing absolute and literal verity, and what portion thereof, if any, is to be subjected to the full exercise of exegetical liberty; and by proceeding to such construction of whatever is open to construction, as will vindicate the narrative in its real integrity.

For the purpose of introducing the constructions on which I shall attempt to prove my right to insist, as well as with simple reference to homaging the truth, I admit that, without reference to the narrative in Genesis, the *probability* would be, that certain arctic animals were specially created *in* the arctic *for* the arctic. On the other hand, I must insist, that, equally without reference to the narrative in Genesis, the *probability* would be, that certain animals now found in the arctic, were created *in* other zones *for* other zones.

Can these two probabilities be reconciled with the Mosaic narrative? They are in harmony with each other—are they in harmony with Genesis?

To attempt to ascertain the true construction of the narrative in Genesis, without paying any attention to the question, what portion of the narrative has been construed with reference to matters of christian faith as well as with reference to the purposes of scientific exegesis, would be disrespectful to religious sentiment and otherwise objectionable.

Always under the correction of the learned, I purpose, therefore, to insist, that christianity has never taught, as of faith, that Genesis must be construed to make Asia a common point of origin for all the animals below the rank of man. Under the same correction, I propose to show, that the true canon of interpretation will not so construe the narrative in question, as to make it mean, that Asia was the common point of origin for all the lower animals.

That christianity has taught, *as of faith*, that the narra-

tive in Genesis is true, in all parts of its meaning, and to the full extent of its significance, I may admit without affecting what I undertake to prove. But I do not find that christianity has ever taught, as of faith, that the meaning of the sacred narrative, or its true significance, requires us to believe, that all the animals below the rank of man were created where man was created, and were thence distributed to provinces in which we find them at the present day.

I would not be understood to deny, that christian teachers, christian preachers, christian writings, christian conversation, have asserted as the meaning of the narrative in Genesis, that Asia was the common point of origin for all the animals below the rank of man.

It must not be forgotten, however, by the Catholic, who honors me with his attention, that a vast amount of construction of the sacred writings has been made on grounds for which the Church has never held herself responsible, and in respect to which she has conceded the liberty of scientific exegesis. "The interpretation of the Church does not," says Møhler,^a "descend to the details, which must claim the attention of the scientific exegetist. Thus, for example, it does not hold it for a duty, nor include it in the compass of its rights, to determine when, by whom, and for what object the Book of Job was written; or what particular inducement engaged St. John to publish his gospel, or the Apostle Paul to address an epistle to the Romans; in what order of time the epistles of this messenger of the Lord followed each other, etc., etc. As little doth the church explain particular words and verses, their bearings one to the other, or the connection existing between larger portions of a sacred book. Antiquities, in the widest sense of the word, fall not within the domain of her interpretation; in short, that interpretation extends

(a) Symbolism, 366.

only to doctrines of faith and morals. This much as to the extent of her interpretation."

"But now," he continues, "as to the nature and mode of the Church's interpretation; this is not conducted according to the rules and well-known aids of an historical and grammatical exegesis, whereby the individual seeks to obtain scientific insight into the sense of Holy Writ. On the contrary, the doctrinal contents of Scripture she designates in the general spirit of Scripture. Hence, the earliest œcumenical councils did not even adduce any particular scriptural texts in support of their dogmatic decrees; and Catholic theologians teach with general concurrence, and quite in the spirit of the Church, that even a Scriptural proof in favor of a decree held to be infallible, is not itself infallible, but only the dogma as defined. The deepest reason for this conduct of the Church, lies in the indisputable truth, that she was not founded by Holy Writ, but already existed before its several parts appeared. The certainty which she has of the truth of her own doctrines, is an immediate one, for she received her dogmas from the lips of Christ and the apostles; and by the power of the Divine Spirit, they are indelibly stamped on her consciousness, or, as Irenæus expresses it, on her heart."

On the consciousness of the Church, on the heart of the Church, we cannot suppose to have been stamped such a doctrine as that all the lower animals originated at a single point, and in one creation. Never was the christian mind concerned with such a doctrine. Scientific exegesis of the scripture may have concerned itself with the question, whether, according to Genesis, all animals originated at the point where man himself originated, but the Church did surely never so concern herself. No heresy directed her attention to such a question. No doctrine, which, even without the motive of defending truth against heretical opinions, she ever defined, included the construction of the

narrative in Genesis, so far as it relates to animals below the rank of man. With man, with human history, with human duty, and with human destiny, was she concerned.

Having thus shown the rule of interpretation in the Catholic church, I must proceed to show how Protestants have looked upon the narrative in Genesis.

Mœhler says of Luther: "They are far from duly appreciating Luther's views and spirit, who imagine that he absolutely believed that he could discover the true sense of scripture by an historico-grammatical interpretation. Nothing was more alien to him—nothing more at variance with his whole system: the very notion, that by human exertions we can win and appropriate to ourselves the knowledge of divine things, he held to be the acme of ungodliness. Learned interpretation was by no means his method for discovering the sense of the Bible, but only for obtaining for himself and others, an exegetical explication of the sense, engendered in man by the immediate and exclusive operation of the Deity." . . . The opinion of Luther and Zuinglius is further stated by the same writer, as follows: "God, by his own interior word of power, working with human co-operation, hath implanted his doctrine within us through the vehicle of the Sacred Scriptures. According to this interior word, whose working forms the christian consciousness, the outward word must, in its details, be thus explained."^b

What Calvin taught in this respect I do not know, except that I understand he, like Luther, "makes belief in the divinity of the Scriptures depend on the testimony of the Holy Spirit in the interior man."^c

But let us see how modern Protestant theologians have written on this subject.

"We may not stop," says Archbishop Whately,^d "to

(b) Symbolism, 386-387.

(c) *Ib.* 414.

(d) *Introduc. and Prelim. Dissert. Encyc. Brit.*

discuss the various objections (some of them more or less plausible, and others very weak) that have been brought—on grounds of science, or supposed science—against the Mosaic accounts of the creation, of the state of the early world, and of the flood, and to bring forward the several answers that have been given to those objections. But it is important to lay down the *principle* on which either the Bible, or any other writing or speech ought to be studied and understood, viz, with a reference to the *object proposed* by the writer or speaker.”

“For example,” he continues, “if we bid any one proceed in a straight line from one place to another, and to take care to arrive before the sun goes down, he will rightly and fully understand us, in reference to the practical object which alone we had in view. Now, we know that there cannot really be a *straight line* on the surface of the earth; and that the sun does not really *go down*, only our portion of the earth is turned away from it. But whether the other party knows all this or not, matters nothing to our present object; which was not to teach him mathematics or astronomy, but to make him conform to our directions, which are equally intelligible to the learned and the unlearned.”

“Now,” he proceeds, “the object of the Scripture revelation is to teach men, not astronomy or geology, or any other physical science, but Religion. Its design was to inform men, not *in what manner* the world was made, but *who* made it; and to lead them to worship Him, the Creator of the heavens and the earth, instead of worshipping his creatures, the heavens and earth themselves, as gods; which is what the ancient heathens actually did.

“Although, therefore,” concludes Archbishop Whately, “Scripture gives very scanty and imperfect information respecting the earth and the heavenly bodies, and speaks of them in the language and according to the notions of

the people of a rude age, still it fully effects the object for which it was given, when it teaches that the heavens and the earth are not gods to be worshiped, but that '*God created the heavens and the earth,*' and that it is He who made the various tribes of animals, and also Man. But as for astronomy and geology and other sciences, men were left, when once sufficiently civilized to be capable of improving themselves, to make discoveries in them by the exercise of their own faculties."

It will be observed, that Archbishop Whately not only recognizes the propriety of a scientific exegesis of Genesis, but lays down the rule to be observed in such exegesis of the Scriptural narrative. I am unable to find in any Catholic work in my collection, so distinct a statement of the principle, with reference to which the Scriptures are to be construed, in exegetical investigation. But the rule of Archbishop Whately I consider as the rule which Christian exegetical writers, of whatever school, have in general observed.

This is a point of so much consequence, that I must be allowed to illustrate it yet a little more.

One of the most eminent Catholic writers of the present day is the author of a work on the Connection between Science and Revealed Religion. He has argued for the unity of human origin, with learning and ability which few could bring to such a task. He constantly insists on the received construction of the narrative in Genesis, almost in every particular. We can see, that if he had laid down the rule of exegetical construction of the Scriptures, he would have done so far more cautiously than Archbishop Whately has laid it down. He would, in connection with the laying down of such a rule, have warned his readers, that it is vital to Catholic christianity, that Adam was the father of all men. He would have warned his readers to beware of all construction, which could touch

the doctrine of original sin, of nature, and of grace. He would have warned his readers against all constructions of the scripture, which could clash with the authoritative reading of the sacred text by its infallible interpreter, and by patristic exegesis. He would have argued the necessity of an infallible interpreter, as shown by the very necessity of such construction, and of limitations to the latter. But, however this might have been, had his Eminence discussed the question as Archbishop Whately has discussed it, we have only to observe at present, that he has, while holding the unity of origin of human nature as a vital christian tenet, treated some constructions of the Bible, not proceeding from the Church, yet departing from received constructions, as allowable. Of course, I do not mean to intimate that Cardinal Wiseman or any other Catholic ecclesiastic would allow validity to any private interpretation of the scripture, in respect to matters of faith, unless in harmony with what the Church itself has taught. But I do mean to say, that the Cardinal apparently regards as not of faith some generally received constructions of the sacred text, and entertains such new constructions, as, not clashing with the doctrines of the Church, are recommended, in the interest of science, by a fair and candid spirit of inquiry and of criticism.

Assuming, however, that Archbishop Whately's rule substantially agrees with the Catholic canon of interpretation in respect of scientific exegesis, I must now explain that the forensic canon of construction is in harmony with such a rule.

The narrative of a witness is, indeed, often rejected, because, in what is merely incidental to the main design of his testimony, he departs from probability. But, unless on cross-examination, he has been enabled to direct his mind to this portion of his testimony with a greater attention than he would have given to it if not cross-

examined, the construction of the merely incidental in his testimony will be far more liberal than the construction of what therein relates more closely to the merits of the controversy between the parties to the cause. And even if, on cross-examination, he is not enabled to give an air of probability to what he says of incidental matters, he may still escape all hostile criticism. For, all advocates and jurists know, the memory is often responsive only to demands, of which she recognizes the importance. Hence, no indictment for perjury can be maintained on testimony which was immaterial.

Considering the narrative in Genesis in a forensic light, we must regard it as the testimony of a witness not cross-examined. We must, until the witness is impeached, consider what he says as true. The attempted impeachment must be subject to the rule, that what the witness says as merely incidental to the purpose of his narrative, is to be construed with less severity, less rigor, less literalness, than what constitutes, or closely connects itself with, the thread of his narration.

Construing Genesis with reference to such a rule, I cannot look upon the narrative as having a more than incidental concern with animals below the rank of Man. So construing the sacred narrative, I cannot look upon it as forbidding science to establish, if it can establish, the probability, that there may have been several centres of creation for the lower animals. So construing the record, I cannot regard it as impeached by evidence, that the animals saved by Noah in the ark were only a portion of the animals now discoverable on the earth, as we at present know the earth; that there were other animals created after the deluge; or even that the deluge, though a universal one in the sense of universal as applied to the earth then known, did not visit some of the zoological provinces.

Suppose, in other words, that science raises a vehement probability that the animals below the rank of man were created in several centres of creation. That will not tend to contradict the record. For the record does not tell us that there was a single centre of creation for the lower animals. But suppose that science shall go further, and present a probability equally vehement with the former, that all the animals now found distributed over the surface of the earth cannot be connected with the seed saved by Noah in the ark. Will science then and thus necessarily contradict our record? I think not. It will establish, that there is what lawyers call a *latent ambiguity* in the use by the record of certain words, such as the word "earth," for instance; but it will not necessarily contradict, much less will it impeach, the sacred narrative.

It may be objected, that it is perilous to allow science thus to raise the presumption of a latent ambiguity, as to the use in our record, of words apparently importing the destruction of all the lower animals, and of language which has long been understood to mean that the flood was absolutely universal. But it is only perilous as all construction of the sacred narrative is perilous. It is only perilous as all exegesis of the Scripture may be perilous. If private judgment, as the Protestant asserts; if an infallible interpreter, as Catholics believe, continues competent to separate the vital and the inconstruable from what is matter of indifference and matter of construction, no construction such as that I offer can alarm the pious, or impose even upon the unlearned.

It is because I recognize the scientific probability that there were several centres of creation for the lower animals; it is because I can discern no religious value in the doctrine that there was but one centre of creation and distribution for those animals; that I desire to leave free scope for scientific exegesis of the Bible in this particular.

It is not because I fail to see the vitality, the beauty, or the certainty of the doctrine, that in Adam we must recognize the father of the human brotherhood.

I trust I have established, that I am at liberty, if apparently warranted by a fair exegesis of Genesis, to construe that narrative as I shall proceed to construe it. It remains to show the process of the exegetical investigation, to which I have resorted, and thus to vindicate the record from the attempted scientific impeachment now in question.

After God had said: "Let the *waters* bring forth the creeping creature having life, and the fowl that may fly over the earth under the firmament of heaven;" after He had "created the great whales, and every living and moving creature, which the waters brought forth, according to their kinds, every winged fowl according to its kind;" He "blessed them, saying: Increase and multiply, and fill the waters of the sea; and let the birds be multiplied upon the earth."^e And, on the next day, "God said: Let the earth bring forth the living creature in its kind, cattle, and creeping things, and beasts of the earth according to their kinds."^f Whatever indication we may find in this language that all animals below the rank of man were created in pairs, the language does not indicate that *Asia* was a common point of origin for the animals below the rank of man. If we are compelled to read with literal precision, that "the Lord God having formed out of the ground all the beasts of the earth, and all the fowls of the air, brought them to Adam,"^g we are not compelled to suppose that any of the marine animals were thus brought before Adam. And, when we compare the language of verse 19 of the second chapter of Genesis with verses 20 and 21 of the first chapter of the same, we find a variance as to the origin of the "fowls of the air."

(e) Genesis, i, 20, 21, 22.

(f) Ib. 24.

(g) Ib. ii, 19.

In the first chapter of Genesis, the waters bring forth the "winged fowl." In the second chapter of Genesis, God forms out of the earth "the fowls of the air." This variance, taken together with whatever astronomical or other science has really detracted from the literal accuracy of the two chapters referred to, leads me to suppose, that the theological construction of the Bible, in this particular, would much resemble the forensic. It is certain, that the history of lower animals and of all nature external to humanity, is only incidentally involved in what the Bible teaches us of man. It is certain that the history of man is only so far given in the Bible as religious purposes required such a history. It is equally certain that the true construction of the narrative must emphasise what is included in the purpose of the narrative, and that construction will abuse the narrative if it should emphasise what is but incidental to that purpose.

How can it be a part of the purpose to which I have alluded, to inform mankind that all the habitable earth was visited by the deluge? How can it be a part of that purpose to inform mankind, that all the animals of earth, as earth is known to us, were destroyed by the waters of the deluge, except as seed was saved with Noah in the ark? Why should we have had a revelation touching animals, their origin, and their distribution, and yet have had no revelation anticipating the discovery of Columbus? Why should we have had a revelation in zoology, and none in astronomy or in geology? It seems to me, we may consider that the deluge, though it visited all the earth then known, or then inhabited, and there destroyed all men and animals not saved in the ark, did not in truth visit arctic zones, or other regions then not visited by man.

To maintain this view, it is only necessary to be careful in our reading and comparison of the following passages: "And God seeing that the wickedness of men was great

on the earth, and that all the thought of their heart was bent upon evil at all times, it repented him that he had made man on the earth. And being touched inwardly with sorrow of heart, He said: I will destroy man, whom I have created, from the face of the earth, from man even to beasts, from the creeping things even to the fowls of the air, for it repenteth me that I have made them. But Noe found grace before the Lord.”^h “And the earth was corrupted before God, and was filled with iniquity. And when God had seen that the earth was corrupted (for all flesh had corrupted its way upon the earth), He said to Noe: The end of all flesh is come before me, the earth is filled with iniquity through them, and I will destroy them with the earth.” And again: “Behold I will bring the waters of a great flood upon the earth, to destroy all flesh, wherein is the breath of life under heaven. All things that are in the earth shall be consumed. And I will establish my covenant with thee, and thou shalt enter into the ark, thou and thy sons, and thy wife, and the wives of thy sons with thee. And of every living creature of all flesh, thou shalt bring two of a sort into the ark, that they may live with thee; of the male sex and the female: Of fowls according to their kind, and of beasts in their kind, and of everything that creepeth on the earth according to its kind: two of every sort shall go in with thee, that they may live. Thou shalt take unto thee of all food that may be eaten, and thou shalt lay it up with thee; and it shall be food for thee and them. And Noe did all things which God commanded him.”ⁱ “And the Lord said to him: Go in, thou and all thy house into the ark: for thee I have seen just before me in this generation. Of all clean beasts take seven and seven, the male and the female. But of the beasts that are unclean two and two, the male and the female. Of the fowls also of the air seven and

(h) Gen. vi, 5, 6, 7, 8.

(i) Ib., 11 to 14, and 17 to 22.

seven, the male and the female: that seed may be saved upon the face of the whole earth. For yet a while, and after seven days, I will rain upon the earth forty days and forty nights: and I will destroy every substance that I have made from the face of the earth." "And Noe went in And of beasts clean and unclean, and of fowls, and of every thing that moveth upon the earth. . . And after the seven days were passed, the waters of the flood overflowed the earth. . . . In the self-same day Noe, and Sem, and Cham, and Japheth, his sons; his wife, and the three wives of his sons with them, went into the ark: They and every beast according to its kind, and all the cattle in their kind, and every thing that moveth upon the earth according to its kind, and every fowl according to its kind, all birds, and all that fly, went in to Noe into the ark, two and two of all flesh, wherein was the breath of life. And they that went in, went in male and female of all flesh. . . . And the waters increased. . . For they overflowed exceedingly, and filled all on the face of the earth. . . And the waters prevailed beyond measure upon the earth: and all the high mountains under the whole heaven were covered. And all flesh was destroyed that moved upon the earth, both of fowl, and of cattle, and of beasts, and of all creeping things that creep upon the earth: and all men. And all things wherein there is the breath of life on the earth, died. And he destroyed all the substance that was upon the earth, from man even to beast, and the creeping things and fowls of the air: and they were destroyed from the earth: and Noe only remained, and they that were with him in the ark."j

The reader least familiar with forensic or other rules of construction, cannot fail to notice, that it was the wickedness of man, which, if I may so express my thought, moved God to think of man's destruction. It was man's

corruption which corrupted all the lower life upon the earth. How the corruption of the lower life was connected with that of human nature, and in what the lower life was in fact corrupted, we are not informed. That the animals which lived in the waters were not included in the sentence of destruction, is apparent. Why they were not so included, we are not informed. Was it merely because their destruction could not be effected by the means provided for destroying man and the lower animals inhabiting "the earth?" No, surely. God might have destroyed all life, if God had willed that all should be destroyed. Again: If man's corruption caused corruption of the birds, how did the dwellers of the sea escape corruption? Are we not to read the passages before us rather with reference to the design of God, than with a literal, precise, inflexible construction of each word? May we not reverently trace from word to word of what we read, the thought of God, distinguishing from it the thought, and modes of thought, of man? If we may, it seems to me, the reading of these passages is easy. Let us essay it. Thus: The wickedness of man involved to some extent a breach of the relation between man and all the lower life, with which his life contacted. The breach of this relation broke the order of the lower life as well as that of human life. All flesh connected with the human modes of life in this corrupt condition of the latter, shared the morbid and abnormal character of human life. When the corruption of this human life determined the Divine displeasure to destroy the life of man, all life corrupted by its contact with the life of man must share the fate of human life. But as one human family was saved, by reason of one man's continued obedience to the laws of God, so some parts of lower life, selected from the whole of lower life, were saved to be the meat, and to contribute to the use and pleasure, of the family preserved, and of their de-

scendants. The life of man did not so come into contact with the life of the marine animals as to affect the latter, with man's breach of what we call the laws of nature. Therefore, the marine animals were not included in the sentence of destruction. Now, did the life of man contact with all the life of lower animals, distinguished as terrestrial? Were men so multiplied at the date of the deluge as to have taken possession of all the earth? Was all the earth, as we now know it, covered by the waters of the deluge? What was "the earth" referred to in the sacred writings? Was it not the earth as known, explored, inhabited, when Moses wrote of it? Did it include an entire zone—did its boundaries extend to the farthest Eastern or the farthest Western shores—to the most northern North or the most southern South?

The reader will observe, that I do not deny that the deluge may have visited earth's remotest boundaries, as earth is known to us to-day. He will be pleased to bear in mind, that I do not deny that all the life of earth may have been destroyed, except as life was saved in Noah and with him. He will not imagine, that I dare to limit the Divine Omnipotence, or to revise the plan of God's creation or regeneration of the life of earth. All I desire is to construe the record, to which christianity attaches so much veneration, in such a manner that science may have all the freedom of inquiry, which does not detract from what is sacred in the sacred text. In so construing that record, I have no desire to compromise with science, or admit away the doctrines vital in the christian system. Man's history, so far as it is given in immediate connection with the doctrine of primeval innocence,—the doctrine

"Of man's first disobedience, and the fruit
Of that forbidden tree, whose mortal taste
Brought death into the world and all our wo,
With loss of Eden,"

—and the doctrine of redemption through the Son of God,—I would not venture to construe in any thing. It is above, beyond, construction. But I cannot so regard the biblical account of man or animals without the sacred circle of the vital doctrine. Whatever is wedded to what is expressive of that vital doctrine, I would hold to be the purpose, the design, the meaning of the narrative of Genesis.

If such construction be permissible, and the results I have supposed to result from it be questionable, I desire to bring before the reader yet another theory. To this as to the former, I am quite unwedded. But it seems to me a theory as reasonable as the theories which we encounter as the adversaries of the truth of christian doctrine. It may be thus stated: If the language of the sacred text compels us to construe it as informing us, in terms compelling us to treat the information as material and undeniable, that all the animals not native to the sea, and not preserved with Noah in the ark, were destroyed by the deluge, we are still at liberty to hold, that after the deluge there may have been special creations of the lower animals, for certain zones and provinces. Applying to the construction of the Bible such a rule of construction as I have attempted to apply to it, such a theory will be entirely free from conflict with the sacred text.

CHAPTER IV.

THE SAME SUBJECT CONTINUED.

OUR record, then, is not impeachable by scientific demonstration, that all the lower animals did not originate in Asia. As little, if I am not wrong in my construction of the record, can it be impeached by astronomical, or chronological, or geological demonstrations, save as some geologists have started certain theories, concerning supposed human fossils. I may speak of the latter hereafter.

We come, then, to the more direct attempt to impeach our record, which is made by the Ethnographers, who furnish us the facts concerning the geographical distribution of the lower animals. Ethnology itself deserves a passing notice, ere we enter on the task of showing how its cultivators have despised the common faith of Christendom, and almost deified their own unwarranted deductions. It seems, that "Mr. Luke Burke, the bold and able editor of the London Ethnological Journal, defines Ethnology to be 'a science which investigates the mental and physical differences of Mankind, and the organic laws on which they depend; and which seeks to deduce from these investigations principles of human guidance, in all the important relations of social existence.'" It is plain enough, therefore, that if Ethnology be all Ethnology pretends to be, its "bold and able" advocates are preachers of a gospel which may take the place of Christianity.

Ethnology is modest. So it ought to be. For it is young —“born, we may say, within our own generation,” says Dr. Nott.^a

The learned Nott has thumped the pulpit, in which he preaches the new gospel, with a vigor reminiscent of the anecdotes of clerical vehemence. “On former occasions,” he informs us, “and in the most respectful manner, we had attempted to conciliate sectarians, and to reconcile the plain teachings of science with theological prejudices; but to no useful purpose. In return, our opinions and motives have been misrepresented and vilified by self-constituted teachers of the Christian religion! We have, in consequence, now done with all this; and no longer have any apologies to offer, nor favors of lenient criticism to ask. The broad banner of science is herein nailed to the mast. Even in our own brief day, we have beheld one flimsy religious dogma after another consigned to oblivion, while science, on the other hand, has been gaining strength and majesty with time.”^b

We could afford to smile at this raving, if it did not sound so much like mere irreverence, and if it did not attempt to make antagonism between faith and science. Science, that is, real science, cannot be opposed to faith. Faith, that is, the faith of Christians, cannot be opposed to science. The highest part of science is but faith; the highest part of faith is as much science as the lowest part of man's belief. If flimsy dogmas of pretended faith are daily passing into oblivion, flimsy sciences are constantly committing suicide. If science gains, from year to year, new strength and majesty, it only ministers to faith with all its strength—it only gives to faith the homage of all its majesty.

But let us hear the novel demonstration, that the unitarian doctrine of the origin of man is but a flimsy dogma.

(a) Types, 50.

(b) Ib. 61.

We are told, that the coincidence between the circumscription of the races of man and the natural limits of different zoological provinces characterized by distinct species of animals, is such as to establish, even as against the record offered — 1. That the adaptation of different races of men to different parts of the world must be intentional, as well as that of other beings. 2. That men were primitively located in the various parts of the world they inhabit, and that they arose every where in those harmonious numeric proportions with other living beings, which would at once secure their preservation and contribute to their welfare; or, in other words: 3. That zoologically, the races or species of mankind obey the same organic laws which govern other animals: they have their geographical points of origin, and are adapted to certain external conditions that cannot be changed with impunity.^c

The first question, therefore, which we are compelled to examine, is: What evidence have we that any race of man is circumscribed within the limits of any zoological province? Next, we may inquire: If any race appear so circumscribed, what is the nature of the coincidence between its circumscription and the limits of the circumscription which confines the lower animals of the same province?

Let us once more scrutinize the arctic fauna as described by Agassiz. It extends to the utmost limits of the cold and barren North. It is most strikingly characterized by the uniform distribution of its animals. Its aspects are the same in three parts of the world which converge toward the North Pole. Though its air-breathing species of animals are not numerous, its large number of individuals compensates for this deficiency. Among its marine animals, we find an astonishing profusion and variety of

forms. All classes of the animal kingdom have representatives, more or less numerous, in its fauna.

The white or polar bear, the walrus, the seal of Greenland, the reindeer, the right whale, and the eider duck, are represented as the types which characterize best this fauna. Each of these is large. What rank in this respect the arctic bear deserves is quite familiar to the reader. Walruses are no mere playthings. Greenland seals are quite respectable for magnitude. The elk alone—himself a northerner—outranks the reindeer in the stag department of mammalian life. The arctic whale hides no diminished head when other whales are mentioned. Eider ducks compare quite favorably with the ducks of other zones.

In presence of these arctic magnates, what a sorry figure is presented by the men known as Esquimaux, Laplanders, Samojedes, and Tchuktshes! Like the insects of the arctic, and like certain other forms of animal existence there, the arctic men shrink into insignificance when we compare them with the answering types of other zones.

Whence is this difference? If arctic man was from the first designed for Hyperborean experience, and destined to perpetual confinement in his frozen prison, why is he a pigmy? Why is he a pigmy while the whale, the bear and the reindeer, Greenland seals and eider ducks, rejoice in magnitude? Why is he a *shapeless* pigmy, while the glacial stag, the equal of the common stag in size, transcends him in strength and usefulness? Why is arctic man deprived of strength, and dignity, and grace, in presence of the animals below his zoologic rank?

Finding the arctic insect so diminutive, and ascertaining other animals, which are not known exclusively in arctic regions, to be smaller than the types analogous to them in tropical and other zones, we find some light for this inquiry, and we ascertain some facts of deep significance.

Take the case of Esquimaux, and that of arctic insect, into view.

Was what we recognize in Esquimaux or insect as the type of the one or of the other, certainly original, primordial? Or is it quite as scientific to suppose, that altered states of man and insect have here altered types of insect and of man?

Let us theorize a little, taking, for our warrant, just the facts, which our opponents use as warrant for their hostile theory.

Wandering from regions where man sees a glimpse of physical perfection in his features and his form, to arctic rigors and privations, man surrendered to the glacial life his fair proportions, size, and strength, of body and of mind.

The individuals, who thus proceeded from more genial climes to the realms of ice, did not, however pliable their bodies may have been, at once endeavor, like a Franklin or a Kane, to penetrate the arctic mysteries and to encounter all the arctic perils. Step by step was their advance. And, step by step, they more and more prepared themselves for Esquimaux experience, and step by step reduced themselves to what we see in Esquimaux to-day.

If it be true, indeed, that we cannot entice the Hyperborean from norland rigors and privations, it may seem, that in his want of "pliability," we find an indication of the asserted coincidence between the circumscription of the arctic fauna, and the range of arctic human life. But in this very want of pliability resides the mystery yet unexplained by learned theorists, assailing the received account of man's creation and his fall. Was it original? Or is it due to such migration as I have supposed, and to the subsequent experience of arctic life? Does ethnological or other science answer?

It attempts, perhaps, to answer, but it does not answer. For, it does not know. It cannot decently pretend, that what it has asserted, touching the original adaptedness of Hyperborean stature, hue, and other physical peculiarities, to the peculiarities of Hyperborean climate, soil, productions, and inevitable modes of life, rests even on a clear, consistent theory.

It dare not say, that in the presence of the arctic icebergs, of the huge inhabitants of arctic seas, and of the larger animals which roam the arctic shores, man is diminutive that he may be adapted to the region where he lives. This were so plain a begging of the question, that not even ethnological science would assume it; and to prove it is impossible. It is improbable when it is stated. Man, the wanderer, not so acquainted with the regions into which he ventured as to guard himself against its rigors, may have sacrificed to his adventurous departure from more genial climes the dignity of mien and grace of form by which he had been marked in other regions. But we can conceive no reason why the Esquimaux should be a pigmy, if his type is one of those aboriginal, primordial forms, which indicate diversity of origin in human nature.

And, I think, for reasons already hinted, ethnology will never venture to rely on color as the character in which we see the supposed adaptedness. Nor will it join to color size and shape, and find in color, size and shape combined, the correspondence sought.

What correspondence, natural and useful correspondence, I would say, can be discovered between the color, size, and shape, of the Australian, and the climate, soil, productions, and inevitable modes of life, by which Australia is distinguished? Dr. Nott informs us, that "this immense country, extending from latitude 10° to 40° south, attests a special creation—its population, its animals, birds, insects, plants, etc., are entirely unlike those found in any

other part of the world. The men present altogether a very peculiar type: they are black, but without the features, woolly heads, or other physical characters of Negroes." ^e In another place, he groups descriptions, of which we may treat the following as the result: Australians are of middle height, perhaps a little above it. Slenderly formed, long of arm and long of leg, with foreheads unusually narrow and high; having deep set, small, black eyes; with noses aquiline by nature, but deformed by barbarous maternal tenderness; ^f showing high cheek bones, large, *teethy* mouths, retreating chins, and short, thin necks; their color varies from deep black to reddish black. ^g

Now what of natural adaptedness to regions, which can boast the palm, the cedar, and the pine, hard timber, and gigantic grasses, can we find in men like these?

Well may Dr. Draper exclaim, "What more humiliating spectacle could be offered to us than the annexed engraving from M. d'Urville? Even a negro of Guinea might look down on such a specimen of human imbecility and physical weakness with contempt, and refuse to recognize such a being as a man at all." ^h

Would not another color, shorter arms and legs, a broader forehead, better features, nobler bearing, be as useful, as desirable in all respects in this peculiar region, as in those where glimpses of man's physical perfection have been had? Can we give any better reason for Australian imbecility and weakness in the presence of luxuriant nature, than we can assign for arctic dwarfishness in presence of the massive and the powerful? Do we not

(e) Types, 70.

(f) The nose as seen in the adult is described as "much depressed at the upper part, between the eyes, and widened at the base, which is done in infancy by the mother, the natural shape being of an aquiline form." Types, 433.

(g) Types, 433.

(h) Physiology, 564.

find another evidence of man's unresting and adventurous disposition, penetrating, unprepared and ignorant, into a region little like man's genial home, in other lands? "What is it," says the physiologist just cited, "that has brought this man and his companion to such a pass? An almost tropical sun, a pestilential climate, starvation, nakedness, the want of shelter, personal fear: these have done their work on the successive generations of his miserable ancestors, who have been forced from step to step in a descending career, and here is the result."¹

In passing, let me guard myself against a misconstruction, by reminding the reader, that I am not disposed to attribute color entirely to climatic causes. I am inclined to believe, that colors formed an original diversity of human nature. Climate may have deepened shadows into darkness. Climate may have blanched a skin, which formerly had borne

"The shadow'd livery of the burnished sun."

But climate, I incline to think, cannot be regarded as the source of the original diversities of color in varieties of man.

All I desire at present is to show, that those who treat with such contempt the history of human nature, which derives it from one creation, and makes all mankind the children of a single parentage, have failed to point out in the Arctic and Australian types, the fitness of each type, respectively, to its abiding place or province. When I ask, if the Australian needs the color that he bears, I only ask: Is his peculiar hue the only conceivable color, which, assuming that his type is a primordial form, and was created for the place in which we find it, would adapt him to the circumstances of his state? And so as to size and

(1) *Op. cit. loc. cit.*

shape of body. I desire to know, assuming still that Arctic and Australian types were formed primordially for just the place and just the climate, in connection with which we know them, why the Arctic or Australian man should be inferior in size or shape to man as found in Araby? If God had pleased to give the Esquimaux more pliability; if, where we see a pigmy, it had pleased the great Creator to delight our sight with fair proportions, is it inconceivable that God could have infused a vigor, a resisting power, into Arctic constitutions, which would have preserved the type thus fashioned from the rigors of the climate? On the supposition, that He specially created Arctic and Australian types, it is almost impossible to entertain the strange hypothesis, that He permitted man to be deprived of stature, shape, and the beauty of color, in the presence of a vegetation such as we behold in the Australian realm, or such luxuriance and strength of lower animal existence as we find in the Arctic Zone. On the hypothesis which I prefer, however, all our speculations on this subject easily repose. We find man various in color from the first. We find him various in stature, form, and strength, from the beginning. And we find in these varieties, sometimes, the very motive for the wandering into unknown, and dangerous, and distant regions. That they do sometimes fit the wanderer for his new home, we cannot doubt. That they are often deepened by climatic causes and inevitable modes of life—by food, by occupation, by the course of thought—we cannot entertain a reasonable doubt.

But here I may be told of Jews, who always plainly manifest the Jewish type, in whom, however altered, we can always recognize the Jewish physiognomy.

"It is admitted," says Dr. Nott, "by ethnographers of every party, that mankind are materially influenced by climate. The Jewish skin, for example, may become more

fair at the north, and more dark at the tropics, than in the Land of Promise; but, even here, the limit of change stops far short of approximation to other types. The complexion may be bleached or tanned, in *exposed parts* of the body, but the Jewish features stand unalterably through all climates, and are superior to such influences.”^j

I will not so wrong the learned Doctor as to quote at large the argument, in which he treats of white and black Jews at Malabar. Ethnographers may have a privilege of designating as “mendacious instances,” and “dodging,” what they find opposed to their hypothesis or to their history of man. But I will not so honor such a claim of privilege as to present at length the language, in which Nott has exercised the ethnographic right of so abusing what may be opposed to ethnographic theories.

I will, however, grant, for the sake of argument, that black Jews are not Jews.^k I will, for the sake of argument, agree, that “the evidence of Dr. Buchanan can scarcely leave room for a doubt, that the white Jews had been living for at least a thousand years in Malabar, and were still *white Jews*, without even an approximation, in type, to the Hindoos; and that the *black Jews* were an ‘inferior race’—not of *pure caste*’—or, in other words, adulterated by dark *Hindoos*—Jews in doctrine, but not in stock.”^l I will, for the sake of peace as well as for the sake of truth, agree that the true Jewish complexion is fair, and that there is an unmistakable identity of features in all Jewish physiognomies.

But I have searched in vain for any evidence to sustain the assertion, that the Jewish “species” has “preserved its peculiar type from the time of Abraham to the present day, or through more than one hundred generations; and has therefore transmitted directly to us the features of Noah’s family, which preceded that of Abraham, accord-

(j) Types, 118.

(k) Ib.

(l) Ib. 120.

ing to the so-termed Mosaic account by only ten generations." ^m I will not make any extended showing against this too bold assertion. At present, I will only state, as the result of what the learned Nott has stated—constantly assuming that his facts, unlike the Jews which are not Jews, are facts—this proposition: That from early times, the Jewish type has been distinguishable, and that it continues still to be so, independent of all change of place and climate.

So conceding, let us note, that Jewish types are found in every clime, in every development of social order. If the type was, as the learned Nott insists, primordial, it was created for the very province in which history discerns its place of origin. Why does it wander from that province? Man, we are informed, was not created in a single pair. Nations were created as nations, thus reminding us of bees.

I have not forgotten what our learned theorists advance, concerning what they recognize as the Caucasian "mission." I have not forgotten, that, according to the theory we are examining, the arctic man has ne'er a mission. He is kept at home for want of the Caucasian mission to civilize the earth, to extend over and colonize all parts of the globe. The "wandering Jew" is only blindly acting out his mission. But, beloved Dr. Nott! I see not one, nor two, but many difficulties in this missionary theory.

We begin by finding, that a type of mankind—the Jewish type as well as any other—is a primitive or original form, independent of climatic or other influences. "All men," we are told, "are more or less influenced by external causes, but these can never act with sufficient force to transform one type into another." We are next informed, that the boundaries within which the different natural

(m) Types, 124.

combinations of animals are known to be circumscribed, coincide with the natural range of distinct types of man. We are not told, that distinct types confine themselves within their respective natural ranges. We are only told that each type *has* a natural range, and that "history, traditions, monuments, osteological remains, every literary record and scientific induction, all show that races have occupied *substantially* the same zones or provinces from time immemorial."ⁿ

But now we learn, that, far from having occupied "*substantially*" the same zones or provinces from time immemorial, the types distinguished as Caucasian cannot be confined, and never were confined, within the zone where we distinguish them as most at home. We find them penetrating arctic seas, and visiting the jungle and the deserts. Among the miserable Australians, we discover the Caucasian types, digging for gold. In Greenland we discover them, robbing the eider duck of the precious down, which is to be transported to most distant climes. We find them carrying the cross, or following the compass, into every quarter of the earth. "The higher castes of what are termed Caucasian races, are," says our most learned theorist, "influenced by several causes in a greater degree than other races. To them have been assigned, in all ages, the largest brains and the most powerful intellect; *theirs* is the mission of extending and perfecting civilization—they are by nature ambitious, daring, domineering, and reckless of danger—impelled by an irresistible instinct, they visit all climes, regardless of difficulties; but how many thousands are sacrificed annually to climates foreign to their nature!"^o

Now, if Caucasian types were especially created, each for an appropriate province, each in a distinct nationality, we may inquire, why was not each specific type confined

(n) Types, 77, 80. See, also, *Ib.* lviii.

(o) *Ib.* 67.

to its intended province, by that species of local attachment which holds the Greenlander to Greenland? Why did types amalgamate? Why do amalgamated types transcend the limits of the zone for which they were designed? The christian ethnology, asserting unity of origin, asserting a diversity of types in the first pair, not questioning, that in the infancy of human history diversity of types may have appeared, with seeming spontaneity, but real harmony with great designs and out of natural or supernatural causes—this christian anthropology enables us to answer why and how it may have been, that types unfitted for the rigors of the arctic zone, may have surrendered to those rigors some of their original characteristics. It enables us to speculate in harmony with common sense, upon the types we find perverted in New Holland. But the ethnological account of man is utterly unable to remove the difficulty which I have presented. It does not inform us of primeval innocence, of disobedience, of the fall, and of the fatal change which followed man's departure from the grand design of his creation. It denies that *man* was ever in the state of Adam in the garden. If it graciously allows, that Adam is not fabulous, it finds that Adam was the type of Jewish nationality, and not the father of the human race. It cannot trace the typical varieties of human nature, as the Christian traces them, to those vast possibilities of kind which were embodied in the nature of the pair, from whom all human races are derived. It has asserted, that the types have each a natural province, and that in the circumscription of that province we may easily discern a plain coincidence with that of types of animals below the level of humanity. It cannot tell us why the human types so circumscribed, have ventured into provinces for which another type alone was fitted by the plan of nature. And it cannot tell us why the types designed to be specific, have confused their characters by mere amalgamation.

For, it will not do to say, that the Caucasian types amalgamated that they might be strong for conquest, and disposed to take possession of the earth. Amalgamation is departure from the plan of nature, as the plan of nature is defined by those who quite reject the theory of unity. The disposition to subdue and take the place of feebler and immovable varieties of man, such as we find, for instance, in Australia or in Greenland, is a disposition to depart from that same plan of nature. So, indeed, the ethnological account of man informs us. For, most strangely arguing in favor of the quite unsupported statement, that we find coincidence between the circumscriptions of the natural range of distinct types of human nature and the limits of the provinces in which the answering types of lower animals are circumscribed, it asserts triumphantly, that men in whom we recognize the type appropriate to the temperate zone, are constantly perishing in arctic and in other regions, into which they are blindly driven by their aforesaid "mission." Argument like this may be respectable in ethnographic "demonstrations" against fundamental doctrines of the faith of Christendom; it would not be respectable in courts of justice. If Caucasian types must perish when their "mission" leads them into regions not designed for their abode, we must either set aside the doctrine that their mission is a natural one, or quite deny that their confinement within the temperate zone is natural. The mission doctrine cannot harmonize with that of local circumscription. Man cannot be at once designed to be confined within a certain zone, and destined to be unconfined by any boundaries. The instinct of our human nature would confine us to our destined spheres of action, if the doctrine that each type was specially created for a certain nationality, in an appropriate division of the earth, had any claim to our attention, higher than its novelty and boldness have con-

ferred upon it. Men would not be wanderers, if they had been created to be fixtures. Types would not amalgamate if they had been designed for modes of life for which amalgamation would unfit them. Instinct would prevent amalgamation, even as it would prevent migration.

Inconsistency is certainly much oftener apparent in the ethnographical attempts to set aside the Bible, than the theorists themselves are likely to suspect. But it is never more apparent than in the particular now under notice.

The class of Mammifers, we are informed,^p "is composed of about two hundred genera, which may be divided into two parts. 1st. Those whose habitations are limited to a single Zone. 2d. Those, on the contrary, which are scattered through all the Zones. There would at first seem to be a striking contrast between these two divisions; on the one side, complete *immobility*, and on the other, great *mobility*; but this irregularity is only apparent, for when we examine attentively the different genera, we find them governed by the same laws. Those of the first division, whose habitat is limited, are, in general, confined to a *few species*, while those of the second, on the contrary, contain *many species*, but which are themselves confined to certain localities, in the same manner as the fewer genera of the first division. Thus we find the same law governing *species* in both instances. We will cite a single example out of many. The White Bear is confined to the Polar regions, while other ursine species inhabit the temperate climates of the mountain chains of Europe and America; and finally, the Malay Bear, and the Bear of Borneo, are restricted to torrid climates."

Assuming that this statement is correct, so far as respects the lower animals, we find the ursine species strictly limited to their appropriate divisions of the earth. And it may be insisted, that the White Bear and the Es-

(p) Types, 64.

quimaux are equally confined within the arctic regions. This may not be precisely true; but we will here concede it to be true. But ethnological as well as other learning tells us that, while the circumscription of the arctic human being and the circumscription of the arctic bear, may thus appear to coincide, no such coincidence exists between the circumscription of the human being in the temperate zone, and that of bears in the same zone. The species of man in the temperate zone are not, like arctic bears or bears of Borneo, confined to any province. Wandering is rather the rule than the exception to the rule, which all the types of the temperate zone observe.

But we have not yet seen the inconsistency referred to in the strongest light in which it may be contemplated.

Ethnographical denouncers of the biblical account of man's creation, do not merely point to Franklin perishing in arctic winter, or to like examples of the penalty, which types created for the temperate zone must pay for venturing beyond the limits of that zone, and entirely overlook the argument against them in the fact, that countless individuals have thus departed from the province for which (we are told) their type was, from the first, designed. They are blinder than this simple statement of their inconsistency reveals. They are so blind and inconsistent as to tell us, that the great division of the human family distinguished as Caucasian, is "increasing in numbers, spreading in all directions, encroaching by degrees upon all other races wherever they can live and prosper, and gradually supplanting inferior types."^q In a word, they are so blind as to assert, with the same breath, that the types of the temperate zone cannot with impunity transgress a certain boundary, and that their mission is to occupy all portions of the globe!

But now we must encounter mummied heads, with He-

(q) Types.

brew faces,—heads which may have been as old as Moses, or as young as Anno Domini three hundred;^r bas-reliefs of Jewish captives from Lachish; and retrogressive series of monumental evidences back to dates yet older than the time of Abraham's arrival in Egypt. Who will give us such assurance as we need of the fidelity of pictures thus presented? Who will kindly show the mummies or the monuments so copied, to be copied by an art unprejudiced as well as capable? But, not imputing the design of introducing into copies, Abrahamic features not apparent in originals, I am content to note the objection here hinted at, and to proceed as though no such objection could be taken. When Dr. Nott arrives at dates preceding those of Hebrew annals, he invents a new cognomen for the Jewish type. He makes it now Chaldaic. Then, informing us that "the sixteenth century B. C., according to Lepsius's system of chronology, touches the advent of Abraham and later sojourn of his grandson Jacob's children in the land of Goshen," he alleges, that "relations of war, commerce, and intermarriage, between the people of the Nile and those from the Tigris and Euphrates, in these times, were incessant. Semitic elements (as we shall see in the gallery of royal Egyptian portraits further on) flowed from Asia into Africa in unceasing streams. The *Queens* of Egypt, especially, betray the commingling of the Chaldaic type with that indigenous to the lower valley of the Nile; and although we shall resume these evidences, the reader will recognize the blending of both types in the lineaments of Queen Aahmes-Neferari, wife of Amunoph I, son of the founder of the XVIIth dynasty, about 1671 B. C. Hers is the most ancient of regal feminine likenesses identified; and of it Morton wrote, 'Perhaps the most *Hebrew* portrait on the monuments is that of Aahmes-Nofre-Ari.'

"Having thus," continues our theorist, "traced back

(r) Types, 116.

the Chaldaic type into Egypt before the arrival of Abraham, first historical ancestor of the Jews, we have proved the perpetuity of its existence, through Egyptian and Assyrian records, during 3500 years of time, down to our day. But the Jewish type of man must have existed in Chaldæa for an indefinite time before Abraham. After all, he was merely *one* emigrant; and his ancestral stock, at 1500 B. C., must have amounted to an immense population. We hold, without hesitation, that 2000 years before Abraham, there had already been intermarriages between the *Chaldaic* and the Egyptian species. No ethnographer but will perceive, with us, the Jewish cross upon Egyptians of the IVth Memphite dynasty, 3500 years B. C., say about 5400 years ago: and such amalgamations must then have been far more ancient."*

What does this amount to? If Aahmes-Neferari was an instance of the blending of Chaldaic and Nilotic types, and Abraham an instance of the unadulterated Chaldaic type, how shall we wonder if, in Abraham's descendants, his peculiarities were well preserved, while in Aahmes-Neferari's children, what was not Nilotic in her constitution disappeared? Why need we wonder, if the Chaldaic type, as it existed in the father of the Jewish multitude—the parent of many nations—was preserved by causes, such as religion, language, a community of interest, and similarity of mental modes in general? Why need we wonder, if the sympathy of faith, the habits of a people that was taught to look upon itself as chosen, and the like, may have so deepened the peculiarities of the Chaldaic type—in itself quite alterable—as to produce a seeming indelibility in the Abrahamic type? And what is proved against the doctrine we defend, by the mere fact, that the type which in the Jew seems quite unalterable, is evidently present in Chaldæa, at a date anterior to Abraham? Will

(s) *Types*, 134–135.

any one pretend, that the fact, that the type, which, since the time of Abraham, has been apparently indelible, "existed in Chaldæa for an indefinite period before Abraham," does more than *tend* to prove originality in the Chaldaic type? Will any one pretend, that it even *strongly tends* to prove, that the Jewish peculiarities formed a primitive type of Man?

I confess, that I begin to weary of the task in which I am engaged. There is, in all the theories which I have examined—however respectably advanced or endorsed—so little to justify a reasonable thinker in abandoning the narrative in Genesis, that I feel disposed to seek better company than that of the inconclusive but pretentious theories with which I have endeavored to deal. The most that can be said of these theories is, that if they were uncontradicted, they might lead us in the direction of their conclusions. Contradicted, however, as they are, by the *traditions* of that part of the human race to which we are indebted for the only rational theology, they could not stand for a moment against the Book of Genesis, even if we should consider the latter as the mere uninspired evidence of the antiquity of those traditions.

It will not be expected that I shall attempt to follow the learned authors of the "Types" throughout the ponderous volume, in which they present so many supposed impeachments of the Mosaic narrative. We have seen the kind of reasoning on which they claim a verdict. It is right to say, that the specimens of that reasoning here presented to the reader are fair specimens, and that no stronger showing, of any kind, is anywhere presented than that we have encountered. I have not overlooked the most unsatisfactory showing with reference to human fossils. I have not overlooked the chapter on the Hybridity of Animals, considered with reference to Man. I have overlooked nothing. But, I repeat, every just concession is made in

favor of the strongest theories presented in the volume alluded to, when we concede, that many facts, apparently *tending* to show that the types of Man were original diversities, proceeding from different centres of creation, are collected by the industry, and over-estimated by the zeal, of our learned theorists. Against this tendency appears the tendency of the narrative in Genesis. The latter tendency is stronger than the former. It is far more harmonious with the facts produced to overthrow it, than the very theories which the facts are produced to establish.

Considerations such as these, appear to warrant me in declining to devote a larger portion of this volume to the examination of the supposed impeachments of the narrative on whose verity I am disposed to insist. I have discredited the reasoning, on the supposed strength of which our adversaries attack our record. I demand a verdict in its favor.

Before agreeing to that verdict, the intelligent reader will, of course, examine the work to which I have alluded so often, in the parts not here subjected to minute examination. He will endeavor to discover truth, indeed, wherever truth presents itself as relative to the great question we are trying. When he reaches a conclusion, he will disregard all mean considerations in delivering his verdict. But if, as I anticipate, his verdict must be, that the faith of Christendom is not to be discredited by the scientific theories which assert the plurality of human origin, let him then rejoice. Let him rejoice, that we are not to set aside the faith of christian ages and the memories of christian Art. Let him rejoice, that christian faith may still relate to life to come, and christian Art still aim to make its works suggestive of that Perfection, which, quite unattainable on earth, still beckons the earthly artist to the realm, where the Good has no taint of ill, and the True is the all-knowing, and the Beautiful is free from blemish.

CHAPTER V.

MAN, THE "LAWER."

THE appearance of Man in the Order of Art precedes the appearance of Law. Neither the presence of Man in Nature, nor his first appearance in the Order of Art, is due to the operation of any Law. Strictly, indeed, Law has no operation. It is the rule of operation rather than a force of operation. We abuse our minds when we discourse of Laws of Nature, unless we carefully remember, that the language in which we so discourse is simply metaphorical.

It may seem proper enough to speak of God as observing His own Laws in Creating and Preserving; but, after all, the only Law of which we have the right to speak with confidence, is Law given by God to His creatures, or Law invented by His creatures to be observed in the earthly life of Art.

After carefully endeavoring to reduce my own conception to harmony with that affected by the learned, I find myself unable to regard Law otherwise than as common language, and the common understanding of language, attest the meaning of the word. The law of nature I regard as nothing more, so far as man is concerned, than the light in which reason would reveal duty, if God should make no revelation. Law I must consider as a thing, *laid down*, or placed, before a thinking mind as the rule of its

action, and of the action of the body in which the mind is active. When Adam appeared in Nature, he may have appeared in harmony with a Will of God analogous to Law. But, as already intimated, when we say that God proposed to Himself the creation of the world, and of Man in the world, as man proposes to himself a law, we quite transcend the region of things known to us.

The objection here made to the use so frequently made by the learned of the word Law, will not seem puerile when we consider with what purposes we enter on the present studies. Certainly, a work pretending even to the lowest rank of the philosophical, must not insist on literal distinctions, or the niceties of etymology, unless for a substantial purpose. The purposes for which I insist on the etymological value of the word Law, are not unsubstantial. Loose definitions of the word lead to loose notions of the thing—and the thing is among the most important concerns of human being.

It will be apparent, to such as are well acquainted with the history of this production, that I do not here strictly adhere to any preconceived opinions, merely because they were preconceived. On the contrary, I correct, to some extent, a published opinion, when I assume the position here taken.

I am content, at present, to regard Law as a rule of action, passion, state or condition, and property, without insisting, as I once insisted, that the notion of words must necessarily enter into its true definition. I still insist, as I formerly insisted, that the etymology of the word Law is of great practical significance. I still insist that, as to human beings, Law is of little value until worded in some form.

The word in question is derived from the ancient verb *lagen*, to lay down, or from the noun *Lage*, still employed in German, to signify *site*, *situation*, *position*. Thus, posi-

tiveness belongs to the notion of Law. But, as has been well observed by more than one writer, more than this belongs to it. Intelligence on the part of the being observant of Law, no less than positiveness and intelligibility in the Law itself, must be supposed, when we consider being, action, or passion, as affected by law. An annotator has well observed, that what Blackstone calls the "more confined sense" of laws, is, perhaps, the only sense in which the word Law can be strictly used. That more confined sense accepts laws as "the rules, not of action in general, but of *human* action or conduct; that is, the precepts by which man, the noblest of all sublunary beings, a creature endowed with both reason and free will, is commanded to make use of those faculties in the general regulation of his behavior." Such is the language of Blackstone. And the annotator alluded to observes, that in all cases where the word law is not applied to human conduct, it may be considered as a metaphor, and in every instance a more appropriate term may be found. He adds, that "when *law* is applied to any other object than man, it ceases to contain two of its essential ingredient ideas, viz, disobedience and punishment."^a A learned physiologist—so often referred to in the course of this volume as almost to appear the writer's only scientific teacher—has also objected to the usage of the learned in the particular here in question. Having to some extent stated his objections, Carpenter proceeds: "In its scientific acceptation, therefore, a Law of Nature must be admitted to possess no *coercive* power whatever; and to speak of phenomena as being *governed* by laws, is altogether incorrect. The only sense in which this form of expression can be admitted to have any true meaning, is when the law is the expression of a *will*, which is potent to produce, to direct, or to restrain the actions, to which it relates. Thus the

(a) 1 Bl. Comm. 39, and note (1) by Chitty.

laws of a State are expressions of the Will of the governing power, intended to regulate the conduct of the community over which it rules; and they become entirely inoperative, from the moment when that power ceases to be effectual to carry out the purposes which it has thus announced. So, then, if we recognize in the Universe the existence of a sustaining and controlling *Power*, we may regard the Laws of Nature which Man has discovered, as expressions of the plan (so far as he has succeeded in unveiling it) according to which that Power acts; and we may then legitimately speak of the phenomena of Nature as *governed by*, or rather *taking place according to*, Laws—it being always borne in mind, however, that these laws are mere *human* expressions of the plan on which the Divine Power *seems* to operate, and may be not only very imperfect, but also very incorrect.”

While, however, I insist that, when we suppose God to be observant of His own Laws, we have no such knowledge of God as makes the supposition more than fanciful, I do not think it quite exceptionable to indulge the supposition, that the Highest Will may be observant of the Highest Law. That God is, as it were, a Law to Himself, may be supposed equally without irreverence and without absurdity. I shall, therefore, entertain the hypothesis alluded to. And, entertaining that hypothesis, I beg the reader to allow some further speculation, touching the relation of Law to Art.

What we have seen of Nature, shows her as supplying all the forces and the substances in which the operativeness of Art is manifest. Nature, therefore, seems to be the all-containing. But there is an Art superior to Nature.

In Creation, we may, perhaps, without irreverence, consider Art as producing Nature. The first appearance of Art, therefore, with reference to what we distinguish as Nature, is the appearance of the divine Art, of which Na-

ture itself is the created work. This divine Art, higher than Nature, is yet operative throughout the whole of Nature. Theologians tell us of the "perpetual and intimate conservation by which God preserves all things. Creation and preservation," they inform us, "are not two different actions. They can be separated only in idea. The one is the going on of the other. It is an opinion which has found favor in the schools, and which is peculiarly in harmony with the language of the ancient fathers, that no less an influx of God is required to preserve a thing in being than to call it first out of its original nothingness."^b But the theological doctrine of grace, as recognized by the laws of Christendom in the conservation of the christian system, is a still more striking assertion of the operation of the divine Art in Nature. For, although we here distinguish all the voluntary life of Man as belonging to the Order of Art rather than to the Order of Nature, we do not forget that it is in Nature, and with natural forces, that the Art of Man is operative. If, then, the divine Art directly influences human Art, and if human Art is operative in nature, and with the forces of nature, we see how completely the Art of God must permeate the nature it created and continues to preserve.

Art, then, permeates Nature. And, as the proposition or contemplation of a work of Art is, in some sense, the positing of a law, we may consider that all the changes in Nature are the work of Art obedient to, or harmonious with, what we have ascertained to be Law.

It is, then, a question of some interest, whether it is only in God respecting His own laws, or in Man obedient to laws of God or Man, that we may distinguish the law-abiding, law-observing, law-obeying, lawful?

I have indicated, that in Nature, as I understand it, not a trace of obedience to Law can be discerned. The con-

(b) The Creator and the Creature, 155.

formity of the natural order to the laws of the Divine Art by which Nature was created, I have considered as other than obedience to law. Obedience to law I limit to the life of Art. But is the earthly life of Art confined to Man?

The lexicographers remind us of the fable, in which Æsop tells us of the question which the Lion raised with his human interlocutor, concerning works of art portraying man's assumed supremacy. They tell us, that the word art is derived from a word significant of *manly* strength or skill;^c and that art itself is the application of human knowledge or skill in the formation of things.^d

And when we consider how the soul of Man forms his distinction—when we remember all that marks the mind of Man—we cannot quarrel with the lexicographers.

It is with this presiding mind that we have most to concern ourselves, when we treat of Animal and Artistic Life. The voluntary mind is the true Artist. For it, the eye is an optical instrument, and the ear collects the waves of sound. For it, all the senses do their wonderful offices. By it, is the eye of the workman directed; by it is his hand applied to the production of the useful and the beautiful. By it, are the steps of Man conducted to discovery, and by its power are inventions added to the products of skill. By it is the Good discerned, the True known, and the Beautiful appreciated. It is so high in the exalted life of Man, that we must approach it with a feeling near akin to reverence. It points to Heaven. It defies the King of Terrors. It survives the ruin of its tenement. Its joys still live in hope, when sorrow only visits earthly life.

Such mind as this, immortal in a mortal body, seems to us confined to Man alone. And yet all animal existence shows a principle most like to human mind. "It may be, as I observed on a former occasion," says Sir Benj. Brodie,

(c) Richardson.

(d) Worcester.

“that some of those beings, which are usually regarded as the very lowest form of animal life, have no endowments superior to those which belong to vegetables. Setting these aside, however, I apprehend, that no one who considers the subject can doubt that the mental principle in animals is of the same essence as that of human beings; so that even in the humbler classes we may trace the rudiments of those faculties to which, in their state of more complete development, we are indebted for the grandest results of human genius. We cannot suppose the existence of mere sensation, without supposing that there is something more. In the stupid carp, which comes to a certain spot, at a certain hour, or on a certain signal, to be fed, we recognize at any rate the existence of memory and the association of ideas. But we recognize much more than this in the dog, who assists the Shepherd in collecting his sheep in the wilds of the Welsh mountains.”*

When I first published, in any form, my thoughts concerning the distinction between Law-Making Man and the Instinctive Artists of the life below the rank of the Lawer, I felt puzzled by the apparent conflict of the distinction made by science, in this respect, with well known facts. I have not yet attained to any satisfactory opinion on this subject. Certainly, we may well incline to the opinion of Carpenter, when stated as follows, in view of the remarkable performances and modes of life of certain Insects. “When,” says that writer, “we attentively consider the habits of these animals, we find that their actions, though evidently adapted to the attainment of certain ends, are very far from evincing a *designed* adaptation on the part of the beings that perform them, such as that of which we are ourselves conscious in our own voluntary movements, or which we trace in the operations of the more intelligent Vertebrata. For, in the first place, these actions are in-

(e) Mind and Matter, Dialogue V, p. 175.

variably performed in the same manner by all the individuals of a species, when the conditions are the same; and thus are obviously to be attributed rather to a uniform impulse, than to a free choice; the most remarkable examples of this being furnished by the economy of Bees, Wasps, and other 'social' Insects, in which every individual of the community performs its appropriate part, with the exactitude and method of a perfect machine. The very perfection of the adaptation, again, is often of itself a sufficient evidence of the unreasoning character of the beings which perform the work; for, if we attribute it to their own intelligence, we must admit that this intelligence frequently equals, if it does not surpass, that of the most accomplished Human reasoner. Moreover, these operations are performed without any guidance from experience; for it can be proved in many cases, that it is impossible for the beings which execute them to have received any instruction from their parents; and we see that they do not themselves make any progressive attempts towards perfection, but accomplish their work as well when they first apply themselves to it, as after any number of repetitions of the same acts. It is interesting to observe, moreover, that as these instinctive operations vary at different periods of life, so is there a corresponding variation in the structure of the Nervous system. Thus we see that, in the *larva* of the Insect, these operations are entirely directed towards the acquisition of food; and its organs of sense and locomotive powers are only so far developed as to serve this purpose. But in the *imago* or perfect Insect, the primary object is the continuance of the race; and the sensorial and motor endowments are adapted to enable the individual to seek its mate, and to make preparations (frequently of a most elaborate kind) for the nurture of the offspring. Hence we can scarcely fail to arrive at the conclusion, that the *adaptiveness* of the instinctive opera-

tions of Insects, etc., lies in the original construction of their nervous system, which causes particular movements to be executed in direct response to certain impressions and sensations. And this view is confirmed by the comparison of these movements with those which have been always recognized as 'instinctive' in the Human being; thus, the act of sucking in the infant requires the combined exertion of a considerable number of muscles, which combination is clearly not the result of intelligence and will, but is a purely 'reflex' act; and the same may be said of the acts of coughing and sneezing, the *purpose* of which is most obvious, and the adaptation to that purpose most complete; yet these acts are most assuredly *not* performed with any notion of their purpose, but at the prompting of an irresistible impulse, which, originating in an excitation applied to a sensory surface and conveyed to the automatic centres, becomes the immediate source of all the separate muscular contractions which combine to accomplish the pre-arranged result." ^f

But some historian of the Bee may deny the conclusiveness of such authority. He may point to that "reputed perfection of policy and government," which, in reference to these little insects, "has long been the theme of admiration," and has "afforded copious materials for argument and allusion to the poet and the moralist in every age." ^g The theme will not be found below the dignity of the occasion. "It is a subject that has been celebrated and adorned by the muse of Virgil, as well as illustrated by the philosophic genius of Aristotle. Cicero and Pliny report that Aristomachus devoted himself during sixty years to the study of these insects; and Philiscus is said to have retired into a desert wood, that he might pursue his observations on them without interruption. A prodigious number of authors have written express treatises

(f) Carpenter, 5th ed., 643.

(g) Encyc. Brit. tit. BEE.

on bees; periodical works have been published relating exclusively to their management and economy; and learned societies have been established for the sole purpose of conducting researches on this subject.”^h

We cannot follow Philiscus to his desert wood, to learn from his observations of bees, whether, in their wonderful economy, there may be found anything in the least resembling the making of *laws*, as the means of government and the mode of controlling the one through the will of the many. Neither can we, in emulation of Aristomachus, devote sixty years of life to the study of the question, whether it is by an industry due to the excellence of apial legislation, that the “little busy bee” doth so

“Improve each shining hour.”

If we improve the shining hours of useful study, we cannot, perhaps, determine the question thus brought before our minds. But, as already observed, the question is an interesting one. It deserves more than a passing notice. It may shed much useful light on the observations we are to make hereafter. I propose, therefore, to take some notice of the views assumed by at least one learned physiologist, of the distinction between the Art of Reason and the Art of Instinct.

Sir Benjamin Brodie, who appears to have studied this subject with some interest, will not allow that it is easy to say how far the capacities of brutes are limited even by the want of the power of speech. It is not to be denied, he admits, that the aid of language is necessary to any long or complex process of reasoning. But he points to the reasoning, within limits, of those born deaf and dumb; and he thinks it may be questioned whether some animals are so wholly unprovided with language as certain phi-

(h) Encyc. Brit. tit. BEE.

losophers have supposed.¹ He collects a great many facts and suggestions to support his position, that the mental principle in the lower animals is of the same essence as that of human beings. I will not attempt to follow him. I omit altogether, at least for the present, what he says of the connection between two orders of facts, in which it appears, "that there is in the different species of animals, on the one hand, a great difference as to the extent of their moral and intellectual faculties, and on the other hand, a not less remarkable difference in the size and formation of the brain." It will be of greater interest to the reader to note, in this connection, such facts as relate to the differences observed as to the structure and relative value of the organs of sense. The complication and perfection of the eye of the bird, more complicated and perfect even than the eye of man; the eyes of insects, "consisting of as many as a thousand hexagonal and transparent plates, arranged, not in the same plane, but at angles to each other, so as to form altogether a large portion of a sphere, each having belonging to it what seems to be its own peculiar retina—so that the vision of insects, while it has an enormous range, has no such distinct picture as is formed on the human retina, and probably affords its possessor less perfect means of distinguishing near and distant objects from each other—these and like facts, show, that the relations of animals to the external world, and their conceptions of objects external to themselves, must differ according to the difference in their respective faculties of sense. Still, as Frederick Cuvier justly observes, 'we must not, therefore, exaggerate the influence of the organs of sense on the mental functions; nor can we admit the doctrine which some authors have held, that the perfection of the intellect depends very much on the greater or less perfection of these physical organs.'

(i) *Mind and Matter*, 178, Dial. V.

This is, indeed, an hypothesis clearly unsupported by facts."^j

Rejecting the hypothesis just stated, and denying that the perfection of the human hand makes man what he is, Sir Benjamin Brodie proceeds to a most interesting view of the distinction between instinct and reasoning. Putting his readers on their guard against Dr. Darwin, "whose great, but too discursive genius, was apt to travel too fast for the cautious pursuits of science," Sir Benjamin produces several well known facts, accompanied by simple explanations. Food, he observes, is required to maintain life; but one does not ordinarily think of its ultimate object. It is merely to relieve the uneasy sensation called hunger that we are led to eat. This simplest form of instinct goes far towards explaining more complicated forms. The newly-born child has the same hunger as the grown up man; "and when applied to his mother's breast he knows^k at once how to obtain it, by bringing several pairs of muscles of his mouth and throat successively into action, making the process of suction. The newly-born calf needs no instruction to enable him to balance himself on his four legs, to walk, and seek the food with which he is supplied by his mother. The duckling hatched by the hen, as soon as his muscular powers are sufficiently developed, is impelled by the desire to enter the neighboring pond, and, when in the water, without example or instruction, he calls certain muscles into action, and is enabled to swim. When a sow is delivered of a litter, each young pig as it is born runs at once to take possession of one of his mother's nipples, which he considers as his peculiar property ever afterwards. So the bee prepares his honey-comb, and the wasp his paper nest, independently of all experience or instruction. It is worth your while to refer to the humorous exposition which Lord Brougham has given of the

(j) *Mind and Matter*, 194.

(k) Such is the language of Sir Benjamin.

mathematical accuracy with which the former does his work. Yet I do not see that is at all more marvelous than what we see in the young calf.¹ It would require a profound knowledge of mechanics, and a long investigation, to determine beforehand what muscles should be called into action, and in what order they should act, to enable him to balance himself on his feet, to stand and walk. Yet all this he accomplishes at once, as if it were a mere matter of course. I do not see," says Sir Benjamin Brodie, "how these and a thousand other things can be explained on the hypothesis of Darwin, or otherwise, than by supposing that certain feelings exist which lead to the voluntary exercise of certain muscles, and to the performance

(1) In a note to Carpenter, we find the following :

"The hexagonal form of the cell is the one in which the greatest strength and the nearest approach to the cylindrical cavity, required for containing the larva, are attained, with the least expenditure of material. But the instinct which directs the Bee in the construction of the partition that forms the bottom or end of the cell is of a nature still more wonderful than that which governs its general shape. The bottom of each cell rests upon three partitions of cells upon the opposite side of the comb ; so that it is rendered much stronger than if it merely separated the cavities of two cells opposed to one another. The partition is not a single plane surface ; but is formed by the union of three rhomboidal planes, uniting in the centre of each cell. The angles formed by the sides of these rhombs were determined by the measurements of Miraldi to be $109^{\circ} 28'$ and $70^{\circ} 32'$; and these have been shown, by mathematical calculation, to be *precisely* the angles at which the greatest strength and capacity can be attained, with the least expenditure of wax. The solution of the problem was first attempted by Kœnig, a pupil of the celebrated Bernouille ; and as his result proved to differ from the observed angle by only two minutes of a degree, it was presumed that the discrepancy was due to an error of observation, which it was easy to account for by the smallness of the surfaces whose inclination had to be measured. The question has been since taken up, however, by Lord Brougham (Appendix to his Illustrated edition of 'Paley's Natural Theology') ; who has worked it out afresh, and has shown that, when certain small quantities, neglected by Kœnig, are properly introduced into the calculation, the result is exactly accordant with observation—the *Bees* being thus proved to be *right*, and the *Mathematician* *wrong*."

of certain acts, without any reference at the time to the ultimate object for which these acts are required." ^m

It is to be observed in passing, that what the learned writer says of the *knowledge* of the newly-born infant, and of the newly-born calf, must have been inadvertently said. And it is also to be observed, that it is not accurate to say, that it would require a profound knowledge of mechanics, and a long investigation, on the part of the newly-born calf, in order to know how to stand or to walk! The human infant does not instinctively stand or walk, but is *taught* to stand and to walk. Howsoever he learns how to do these things, it is evident that he learns, in some manner, to perform them, rather than instinctively performs them. And he acquires a sufficient knowledge for this purpose without dreaming of mechanics, or of long investigations. But the fact, that the lower animals are born with the capacity which the human infant slowly acquires through knowledge, is certainly a most important fact in such an inquiry as the present. Its full significance, however, will best appear hereafter.

Sir Benjamin Brodie is inclined to hold, that "it is in the proportion which their instincts and intelligence bear to each other, that the difference between the mind of man and that of other animals chiefly consists. Reasoning is not peculiar to the former, nor is instinct peculiar to the latter. Even as regards insects, which are generally, and properly, regarded as being below the vertebrate animals in the scale of existence, and whose nervous system is of so simple a structure as to admit of no comparison with that of the human subject, we cannot well hesitate to believe, that they are not altogether deprived of that higher faculty which enables ourselves to apply the results of our experience to the new circumstances under which we are placed.

(m) Mind and Matter, 197, 198. (Dialogue V.)

“‘Esse apibus partem divinæ mentis,’

is no mere fiction of poetry. It is by instinct that the bee collects his honey, and constructs the hexagonal cells of his honey-comb (always according to the same pattern), from the wax provided for that purpose by his own secretions. But instinct will not account for all that he does besides. When a swarm is transferred to a new hive placed among many others, at first they are found frequently mistaking other hives for their own, and it is only by experience that they are taught after some time to distinguish the particular hive in which their queen is lodged.”ⁿ

I do not think it necessary to follow Sir Benjamin through what he says further of bees, or what he has collected touching the modes of life distinctive of ants—these excellent weavers, house-builders, makers of diving bells, galleries, vaults, and bridges. But it is well enough—even at the risk of apparent episode—to note, in passing, that Sir Benjamin intimates, that “bees have some means of communicating with each other, answering the purpose of speech,” and thence to proceed to other notices of apial modes of life, and, especially, apial *legislation*.

The polity and modes of life of bees have been described in such terms, that the writer, as an unlearned lawyer, knows not where to look for truth, where bees are concerned. If we are to believe a tithe of what we read, we are to credit bees with marvelous capacity. According to such philosophers as Reaumur, bees are to be credited with extraordinary wisdom and foresight. We are to consider them as animated by a disinterested patriotism, and as uniting a variety of moral and intellectual qualities of a

(n) Mind and Matter, 200-201, referring to Carpenter's Principles of Physiology, Second Edition, 224.

higher order.^o Even such writers, however, as reject what seems extravagant in the views of Reaumur, trace in apial life, "a community of wants and desires, and a mutual intelligence and sympathy, which lead to the constant interchange of good offices, and which, by introducing a systematic division of labor, amidst a unity of design, lead to the execution of public works on a scale of astonishing magnitude." The same writers glorify "the attachment of bees to their hive, which they defend with a courage and self-devotion truly admirable; their jealousy of intruders; their ready co-operation in all the labors required for the welfare of the community; their tender care of their young; the affection and homage which they bestow on their queen, and which they manifest on all occasions in the most unequivocal manner."^p

Certainly, it is significant of Art, as we have characterized it, rather than of Nature as we have characterized it, that cells should be adapted to receive eggs; that the queen bee should seem aware of the nature of the eggs she is laying, and deposit each in the kind of cell adapted to receive it; that she may be seen attentively examining the capacity of the cell before laying her egg. Certainly it is indicative of the same, that as soon as the eggs are deposited, the bees eagerly seek for that species of nourishment on which the larva is to be fed, and that as soon as the latter emerges, in its perfect form, its guardians assemble round it, caress it with their tongues, and supply it plentifully with food. The rivalry of queen bees, and the royal prisons of the hive, are unmistakably artful, and wonderfully like the art of human beings! The departure and succession of swarms, the massacre of the drones, the provision for winter, the depredations among hostile hives, and the lamentations for the loss of the queen, belong to the same class of indications.

(o) Encyc. Brit. tit. BEE.

(p) Ib.

It is plain enough that these examples, added to what familiar life informs us of the horse, the dog, the cat, the birds, and other vertebrated animals, leave no room for question that a not inconsiderable portion of the life of animals, is distinctively artistic rather than instinctive. Will is not confined to Man. Intelligence is not confined to him. The artistic is not necessarily the human.

Indeed, we have no means of deciding absolutely, as contended by Carpenter, that even what is constantly recognized by science as instinctive, proves itself to be instinctive by its very perfection. That sounds, at first, like a strong argument, which asserts, that if we attribute the perfection of the adaptation seen in the apial life and operations to the intelligence of bees, we must admit that this intelligence frequently equals, if it does not surpass, that of the most accomplished Human reason. But why should not the intelligence, for certain purposes, of the unprogressive bee surpass that of the progressive human being? And, reverting to the humble illustration of Brodie, why should not even the ungainly animal that is born to the knowledge of locomotion and the capacity to perform it, surpass in the rapidity with which it acquires the little knowledge that it needs, that human being, who, when fully educated, scales the very heavens with his daring vision, and aspires to knowledge yet more perfect in a life beyond the limit of this mortal span?

I do not mean to indicate any disposition to disagree from the learned writers, to whose learning I have chiefly appealed, when they attribute to simple instinct the wonderful performance of the bee in the construction of the honey-comb, or the like so-called instinctive acts of other animals. On the contrary, I am content with their views on this subject when I am allowed to add, that I consider our notions of the distinction between instinct and art as very far removed from certainty.

I recognize the life of all the Animals, therefore, as to some extent, at least, artful, artificial, or artistic. Precisely as I recognize a part of human life as simply natural, I recognize a part of lower animal existence as simply natural. Precisely as I recognize the Volitional Life of Man as artistic, I recognize the Volitional Life of Lower Animals as artistic.

CHAPTER VI.

THE ZOOLOGIC RANK OF MAN.

WE have thus ascertained, that the artistic life of Man is not the only artistic life of earth. We have found artists in all the lower animals, in which a well marked animal existence is perceptible. And the question, whether any of these artists, save the great Two-Handed, make, observe, or reverence what we distinguish as Law, must now be answered.

The agreement of minds that a certain order of action, passion, disposition, and property, shall be constantly maintained, is the making of a law, that that order shall be constantly maintained. The maintenance of the order is the thing desired. It is *proposed* to the mind, no matter how. The mind contemplates it. It is laid down by the mind as the rule of its action. It is a law to the mind.

In some instances, not a word is spoken towards the making of the law. A certain order is observed, because the community in which it is observed, is composed of individuals agreeing in the desire to observe such an order, and prompted to observe it, not by words, but by the interest which each feels in its observance, and by an understanding common to all the individuals of the community that such an order will be for the interest of all. The agreement of many minds lays the maintenance of this order before each mind as the law of individual conduct.

What, revelation being out of the question, we call the Law of Nature, is, after all, nothing but the order of action, passion, disposition, and property, which the unclouded reason of Man would invent, in presence of the harmonies of what is commonly called Nature, as analogous to those harmonies. It is the order which the same unclouded reason would determine ought to be observed, to enable Man to conform his conduct to the end of his creation. Whatever is regarded by Man as an order, which he ought to observe to the end of conforming his life to its design, he will, when seeking real happiness, determine to observe. Each individual, agreeing in that pursuit of happiness which forms the tie of national community, will join in the determination to observe whatever order seems to make Man's life conformable to its design. Each individual, so agreeing, and so determining, may manifest both agreement and determination, without the use of words. But the order proposed must be really harmonious with Nature, or with what each individual of the community regards as best for common interests, if all the individuals at once, and tacitly, proceed to its observance. Language has, therefore, in every instance since the fall of Adam, recommended, advocated, and to some extent preserved and attested, the established order of every human community.

Of course, if we can look upon the Bible as less than ruined by the assaults of scientific books—if, in this battle of the Books, the Bible still remains the Book of Books—we are not to regard all Law, applied to human conduct, as of human origin, or as proceeding out of Man's perception of the harmonies of Nature. For, if the Bible may still be cited in a forensic Philosophy of Man and Law, it teaches of not one, but many Laws, delivered to Man by his Creator. In the communication to Man of a divine commandment, we need not suppose the use of speech as

the instrumentality. The earliest commandment of God is represented as the commandment: "Be light made." But this is plainly enough a mere poetical expression of the fact, that God willed the creation of light. Are we otherwise to regard the saying of God, "Increase and multiply," until it is addressed to Man? Nay, are we to regard Man himself as otherwise *commanded* in this particular, than as the inspiration of God, added to the "instinctive tendency of nature," moved the first of men to institute the order of the family? We must answer these questions only by a confession of our ignorance. We do not know that God communicates with animals below the rank of Man, except as He communicates with them through Man; we do not know that He does not otherwise communicate with them. Nor are we able to say, whether in any manner, or to any extent, the life of the animals below our rank is governed by law, whether that law be of their own invention or of divine authority. We know nothing of animal life which absolutely forbids us to suppose, that the bee, the wasp, the ant, or the beaver, may legislate, and judge, and punish, even as the human animal legislates, and judges, and enforces laws. We know nothing of animal existence, which makes it probable that any thing nearly resembling the making and observance of laws by which Man is distinguished, is to be found except in the society of men. But when we look at the simplest form in which Man may be governed by Law, we may find some reason for hesitating to deny the probability, that some of the lower animals conform their conduct to law, of which they understand the nature, and appreciate the value.

The simplest form in which Law can govern conduct, is the form in which it is made by an individual the rule of his own behavior. I may lay before my mind the notion of a conduct, which I ought to observe. I may give

a certain fixedness to this notion. I may determine frequently to contemplate it, and never to violate it. My will thus becomes, as it were, a law to itself and to the mind in which that will is the determining power. All my conduct thus becomes conformed to a standard, which I have thus laid down (or lawed) before my mind, or rather in my consciousness.

Now, we may certainly suppose the lower animals to be familiar with Law, and observant of it, in this sense, and in this form. Examples do not need suggestion. They will present themselves without suggestion.

Let me repeat, a closer observation than any yet made by a fully competent observer, might detect in the knowledge of the animals below our rank, and in their artful modes of life, a still nearer resemblance to the science of Man, and his artful life as governed by Law. It might reveal the observance by those animals of Law in a more complex form than that just contemplated. But, knowing so little on this subject as we do, and warranted in asserting for Man an artful capacity as much nearer to perfection than the artful capacity of the lower animals, and an end as much nobler than theirs, as his beginning of life is feebler and more dependent than that of the inferior life, we may confidently point to Man as distinctively *the* Maker and Observer and Enforcer of Law.

If we return to the scene of our first observation of Man and Law, we may there discover in what it is that the artful life of Man outranks the artful life of other animals. We may find the forum offering facilities for a much nearer view of the artful capacity of man, than any we have yet attempted.

The capacity in question cannot be considered as other than a psychical capacity. But we cannot estimate it properly without considering the physical instruments which have been supplied to it by simple nature, or which

it fashions for itself in the realm and with the forces of modified or artistic nature.

Among these physical instruments the hand of man has a distinguished place.

Volumes have been written to illustrate the relation of the human hand to the wonderful performances of human art. In the domain at large of that art, the hand is largely employed to conform the use of things to their design, and thus to assemble, combine and appropriate the constituents of the Good, considered as including the Good, the True, and the Beautiful. From the furrow to the statue—from the ploughman's labors to the sculptor's triumphs—art employs the hand to produce the Good in the Useful and in the Beautiful.

The arts of life come to the courts of justice, either presentatively or representatively—either to contribute to the service, or to be regulated by the rules, of human law. And this hand of man, so busy elsewhere, is not here inactive. It does service to the law as well as to the arts of which law is the regulator. The prehensile faculty, of which the English word that names the hand is so expressive,^q and the wonderful nicety of the artificial performances which it makes possible to man, must bear a near relation to the making of laws, to the expression or significance and the permanence of the science out of which they issue, and to the operation of the art by which they are enforced.

In the place of the present observation, we find the hand of man employed directly in the service of the law, or note the evidence of service elsewhere done by its instrumentality to jurisprudence.

(q) "Goth. *Handus*; A. S. *Hand*; Dut. *Hand*, *hant*; Ger. *Hand*, *handt*; Sw. *Hand*; from the A. S. *Hentan*; Ger. *Henden*; Sw. *Henta*, *capere*, to take. Wachter is persuaded to prefer this etymology, quia *manus* in corpore humano est naturale et unicum capiendi instrumentum: the verb (*henden*) he derives from the Lat. *Hendere* (used only in composition), which, in Tooke's opinion, is just the reverse of the truth." Rich. Dic. tit. Hand. See Prize.

Behold ! The busy pens of barristers and judges fly from page to page of noted testimony. With statelier sweep, the clerkly pen records the judgment, which may doom a life or wreck a fortune. Massive volumes of decisions and enactments are from time to time consulted ; and we see the hand of man employing printing in the service of his jurisprudence. Turn ; regard that prisoner ! His hand is trembling while the witness speaks of that same hand, directing to a brother's heart the murderous weapon. Follow, in your thought, the murderer to execution. Still the human hand adjusts the rope, or wields the axe, which makes an end of law and life to him, who scorned them both.

But do not, in the wonder which your study of the hand awakens, quite forget, that all the actions most distinctive of man, in the establishment of order made significant by law, while they are partly manual, must constantly remind us of the *words*, of which the written or the printed letters are themselves but signs. And what are words ?

Condemned to restrict the scope of the present work to the limits in which the mere outlines of a forensic Philosophy may be contained, the writer cannot enter largely into the learning touching language. He cannot enter, with Carpenter, into the discussion of the question, whether the Vocal Ligaments are strings, or flute pipes, or whether they more resemble metallic or elastic tongues. He cannot nicely examine the production of the voice in the larynx, or its modification into articulate speech in the oral cavity. He must consider speech as sufficiently understood by the reader, without any novel suggestion in this place. Nor can the writer more than mention the interesting questions, which the learned have entertained, touching the origin of language. We cannot here inquire whether language slowly grew from accidental joinder of two sounds, to that most wonderful perfection of the art of

speech, distinctive of the Bible and of Shakspeare.² We must, however, so far violate our habits of mind, as to form to ourselves a clear notion of speech, as but the action of an agency, material as the hand itself, and subject, like the hand, to higher powers. We must remember, that nerves, muscles, bones, ligaments, and air, are set to act, when language is produced, by something higher than themselves, their action, or the sounds which they produce. Nor, in our eagerness to rhapsodize about the power of speech, must we forget how the hand in gesture, and the face in expression, are joined to the simple articulation of sounds, when the miracles of speech are accomplished; nor how the erect bearing, and beautiful form, and graceful motion of the entire body, contribute to these wonderful results.

Considerations such as these enable us to perceive, that neither the hand alone, nor the voice alone, nor the face alone, nor any other single physical peculiarity of man, has worked the wonders which enthusiasts attribute to

(r) Read together the following :

1. "According to my fullest conviction, speech must be regarded as naturally inherent in man; for it is altogether inexplicable as a work of his understanding in its simple consciousness. We are none the better for allowing thousands and thousands of years for its invention. There could be no invention of language, unless its type already existed in the human understanding. Man is man only by means of speech, but in order to invent speech he must be already man." Such is the language of William Von Humboldt, (cited in Fowler's Eng. Lang. 19.)

2. "To speak I tried, and forthwith spake;
My tongue obeyed, and readily could name
What'er I saw." Paradise Lost, Book VIII.

3. "Diese Sprache nun, diese wundervolle und kostbare Gabe des Himmels, wie ist sie entstanden? War sie dem Menschen *angeboren*, oder hat er selbst sie gebildet? Viele haben das Erste behauptet, was gegen die Analogie der ganzen Natur streitet. Wohl ist *Sprachfähigkeit* den Menschen *angeboren*; aber sie musz, wie seine Anlagen und Fähigkeiten alle, durch äuszere Anlässe entwickelt und ausgebildet werden." 1 Rotteck, Allgem. Geschichte, 303.

mere speech. Let Herder say, that "not Amphion's lyre, but Speech, built cities; by no magic rod were deserts turned to gardens; Speech it was that did it—Speech, the wonderful companioner of Man." We must guard ourselves against declaring, as we are tempted to declare, that to Speech we owe all words, to words all law, to law all order, and to order all our happiness and all our hopes. We must content ourselves with less impassioned language, touching speech. We must find the excellence of the artful capacity of man, not in some single physical peculiarity, but rather in the excellence and harmony of all human peculiarities, in combination.

It is not even in the mere Reason or Understanding of Man, that the human capacity to be a progressive Artist, and to that end, to be a maker and, above all, an improver and developer of laws, pre-eminently dwells. As we have already seen, Reason more distinguishes the high estate of man by its degree than by its mere possession. Mind—the mind of reason and the mind of mere affection—is not evidently wanting in many of the animals, which man has ranked below his level, in his history of nature. In the lower life, which in some directions most nearly approaches ours, the nerves, the bones, the muscles, and the ligaments, which are employed in speech, give imitations of the wonderful submission of the human body to the human mind, by producing sounds not far removed from language. Nay, we have already seen, that certain animals have such perfection of the Instinct, as might lead a fanciful philosopher to claim for them the lowest place, at least, in our own rank as makers and observers of law. And who allows himself to be ashamed of the fellowship of mind, which often makes a real friendship between man and his swift

"Tartar of the Ukraine breed,"

and even binds in loving, sympathetic and familiar relationship the canine and the human race?

Mere reason might content itself with inquisition into facts, which sensual supplies should bring before it; and might realize what Cowper says of false philosophy, and be

"From instrumental causes proud to draw
Conclusions retrograde, and mad mistake."

We know, indeed, it has been so in man's experience. We know how reason has reduced to nothingness, in many a mind superior to its doom, all evidences of the senses, though denying the existence of all other testimony. "When the mass of mankind," says Sidney Smith,"^s "hear that all thought is explained by vibrations and vibratiuncles of the brain—that there is no such thing as a material world—that what mankind consider as their arms and legs, are not arms and legs, but *ideas*, accompanied with the sense of *outness*—that we have not only no bodies, but no minds—that we are nothing, in short, but currents of reflection and sensation; all this, I admit, is well calculated to approximate, in the public mind, the ideas of lunacy and intellectual philosophy." We know further, that there is Myopia in the mind as well as in the body—near-sightedness of reason—just as we perceive it in the vision. If, as we are told, "a 'short-sighted' person, whose nearest limit of distinct vision is not above half that of a person of ordinary sight, can see minute objects more clearly; his eyes having, in fact, the same magnifying power which those of the other would possess, if aided by a convex glass that would enable him to see the object distinctly at the shortest distance;"^t we may well attribute to the reason similar capacity to magnify what comes before it, when its "eye-sight of discovery," though far from blind, is shortened and restricted. "But as the myopic structure of the eye," says Carpenter, "incapacit-

(s) Sketches Moral Philosophy, 15.

(t) Carpenter's Phys. 671.

ates its possessor from seeing objects clearly at even a moderate distance, it is desirable to apply a correction." "Now, in the normal mind of man, no mere near-sightedness of reason, magnifying the minute, but blind to the remote, can be deducted from the sum of man's capacity to govern his society, through legal order. Clouds of darkness may destroy the reach of mental vision—darkness of the soul; and even clouds of seeming fire may sear the eyesight of the mind, if it too daringly attempt to drink their too resplendent beauty. Thus, perhaps, the mind may take disease from what seemed full of promised health. However this may be, it needs the sympathy between affection and the intellect to open, wide and clear, the eyes of reason for performance of its perfect office.

Reason, then, is most distinctive of law-making man, when we regard it in its union with affection. Man is marked by an affection so embracing and sublime, that earth and centuries cannot content it. This enspirits reason to foresee a life in which the sufferer and the oppressed in this, may find their here denied repose, or health, or freedom. Making all enamored of the human order, which prepares us for that state, superior and blessed, it surrounds the law as the sole means of human order, with a thousand sanctions, which the armory of kings cannot supply.

The affection, which thus sublimely looks to the future and the perfect, does not despise the present and the imperfect. It constantly seeks the Good in the conformity of itself, and all the earthly objects with which the mind of man is conversant, to the end for which God designed them. It constantly searches for the True in the knowledge of itself, and of all the relations and contents of being. It constantly delights in the Beautiful, which it finds in what is most agreeable and ennobling in phenom-

enal existence. The earthly Good, the earthly True, the earthly Beautiful, it finds imperfect, but relates to the perfect Goodness, the complete Truth, and the faultless Beauty, of a life to come. And thus it dedicates Art, and Law which is the regulator of Art, to a present, relative, imperfect, but still hopeful and aspiring enjoyment of the imperfect Good, the incomplete True, the not faultless Beautiful, which Art and Law assemble and combine in social order; and to a preparation of the soul of man for the sphere of the future, the absolute, the perfect enjoyment of the true and beautiful Good, the good and beautiful True, the true and good Beautiful.

earth existence. The earthly Good, the earthly True, the earthly beautiful, is finite in extent, but relative to the perfect Goodness, the complete Truth, and the absolute Beauty, of a life to come. And thus it becomes that and law which is the regulator of life, to a present, relative, imperfect, but still hopeful and aspiring enjoyment of the independent Good, the independent True, the not-faulted beautiful, which Air and Law resemble and resemble in each order; and to a preparation of the soul of man for the sphere of the future, the absolute, the perfect enjoyment of the true and beautiful Good, the good and beautiful True, the true and good beautiful.

BOOK SECOND.

FORENSIC PHYSIOLOGY.

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CHAPTER I.

THE NEED AND CHARACTERS OF A FORENSIC PHYSIOLOGY.

THE view already taken of Man's power to adapt means to ends—in other words, of the artful capacity of the human being—has, to some extent, reminded us of that in which the power in question may be said to reside. But we shall not complete the studies, in which we are now engaged, without discovering, that a forensic view of Man requires much nearer scrutiny than any yet attempted, of the harmonious relation of the human mind and the human body, in which consists the human capacity for artful life, as law is guide, protector, and corrector of that life.

The human hand would not be instrumental in producing the effects of Art, but for the delicate connection between the hand and the brain, which nerves, proceeding to and from that hand, may be regarded as supplying. But the connection thus referred to, is not the only delicate connection necessary to the cunning of the hand, or the achievements of the voice, or any of the triumphs of the body in the realm of Art. The brain itself is probably but the medium of connection between the mind and the body, and with objects in and about the body. And the mind, which is the contriver of effects—which fashions the ideal of the statue, or the picture, or the temple, and in things less dedicated to the beautiful, alike foresees and predetermines what it will accomplish—this mind can only

know the outward as its images or concepts visit it through nervous agency.

I am aware, that here I enter upon ground not easy to survey, and ground on which it is not less than perilous to such a work as this to enter. Yet I cannot choose but enter on it.

Here, indeed, it may be proper to confess, that in preceding chapters I have sought to *tell* my readers towards what I thought inevitable, yet feared to mention at the outset. I have endeavored to give all who have shared these studies, glimpses of a Physiology distinctively forensic, but of interest to all who live beneath the sway of Law. I have thus intended to prepare my fellow-students for a portion of this work, in which, assembling formally, or by mere reference or otherwise, whatever in preceding chapters properly belongs to such a Physiology, I should add, by a like species of composition, whatever seemed most germane to forensic anthropology. I say, by a like species of composition; for, for reasons partly known already to my readers, partly yet to be explained, I am quite unwilling to attempt the severely systematic production of even such a Physiology as that alluded to.

We have now reached the point at which I think it safe to own my purpose, and to sound the note of preparation for the attempt to accomplish it.

It cannot be denied, that the relation between body and mind is of a practical importance in a view of Man and Law such as the present. Not alone with reference to what I have distinguished as the artful or artificial powers of the human being, looked upon as artist or artisan, is that relation interesting. It is interesting specially to lawyers, as experts in their proper pursuits, as shall be more and more unquestionable, as we make due progress with our studies. This not denied, I have only to make a few additional suggestions, to shield what I design from all but an unworthy species of censure.

To examine the relation which connects two things, is always, in some sort, to examine those two things themselves. And when the relation of two things appears to be that of interaction, coaction, reciprocal and suppletory agency, in a sphere of activity such as that in which the soul and body of the human being illustrate the suggested relation, not the relation only, but the things related, will be attractive of the closest scrutiny for which we find ourselves prepared.

Thus, being brought to the propriety and made sensible of the importance of examining with care the relation which connects the mind and body of the human being, we are brought to the propriety and made sensible of the importance of examining in like manner both the body and the mind of Man.

But it is quite unnecessary, at the present day, to make experiments in order to acquire the information, that we cannot very profitably look at mind save as we scrutinize it through the body. Not intending to abandon to the censure of the physiologists all metaphysical philosophy—contemplating, on the other hand, an argument to show that Physiology has not acquired the right to speak with absolute contempt of Metaphysics—I design to honor Physiology by the concession, that to the physiologist far more than to the metaphysical philosopher we ought to look for a reliable Psychology.

What I design, therefore, is, first of all, to indicate with more than ordinary care, the proper sources of a Physiology, distinctively forensic; and, next, to bring before my readers so much of the proper contents of such a Physiology as, with due reference to the general design of my undertaking, I find myself enabled to compose.

I say, I mean to indicate with more than ordinary care, the proper sources of the Physiology in question. This I mean to do, chiefly because I do not think it just to esti-

mate at a very high figure, my performance under the second branch of what I undertake. I have no expectation of establishing a splendid name among the Physiologists by my attempt to indicate the contents of forensic Physiology. Nor, indeed, ought I to be entirely mindless of Uriah Heep, when I advance to indicate the proper sources of the lawyer's proper Physiology. But when I deal with sources rather than with contents, I shall be less apprehensive of unfriendly criticism, than when I attempt to bring before the reader interesting sections of the Physiology itself, and to connect these as they ought to be connected.

I design, therefore, to be quite unrestricted in my indication of the proper sources of a properly forensic Physiology. Indeed, intending to continue the process of *tolling*, already alluded to, I mean to treat of sources in such a manner that, while I so treat, my readers shall find themselves introduced to many, if not most, of the questions now attracting the examination of the learned, as relating to the proper ministry of justice.

In what I purpose—even as I have explained its unpretending character—I feel that I venture much, yet not so much as some might fancy, on the simple statement of my purpose. Let me further guard my essay from all evitable misconception.

A lawyer, whose expertness, if he be at all expert, is often tried in such encounters with the scientific as I have already mentioned, cannot safely be entirely ignorant of Physiology. But while the writer is enabled to say that he has endeavored, by a study of the principles of Physiology, to manifest his sense of its importance to forensic excellence, he must here acknowledge, that his study of the Physiology of Carpenter and others, has not made him an expert in what he studied. Life forensic had too close a hold on him to leave it possible that he should master

Physiology. The utmost is pronounced in favor of his physiological acquirements, when he ventures to assume his competency to produce, and entertain, and, in some sense, to estimate, such teachings of the physiologist as most concern forensic experts.

It is from Carpenter that I expect to take the largest portion of the learning, which I mean to bring before my readers. Anticipating the production of a larger work than that here offered to the public, I wrote to the learned Physiologist, apologizing for the liberty I expected to take with his inestimable work. Dr. Carpenter gracefully and generously gave me leave to exercise the largest liberty of fair quotation; and I meant to exercise that liberty so as to make my readers well acquainted, not only with the doctrines of the learned writer, but with his language. For, pretending to originality in so far only as the office I have hitherto performed for the assistance of the reader is consistent with originality, and anxious more to make a worthy book than to achieve a reputation, I desired to make my readers familiar with the science so adorned by Carpenter, as well as with other branches of learning, less familiar than they ought to be, to forensic students. Duties, so imperative as not to be denied, compel me to abandon what I purposed, and to make myself content with the production of a single volume. In the compass of that volume, space cannot be found for the extensive indebtedness to Carpenter originally contemplated. Yet I shall, in terms or substance, often bring his views before the reader.

And now we may begin to study that relation of the body and the mind, in which we may discern the artful capacity of the human being. That we should not attempt to study such a relation save in a forensic physiology, I have already indicated. That we shall not here confine ourselves to a view of the artful capacity of man, but,

for economical reasons, shall connect with such a view all that properly belongs to a distinctively forensic physiology, I may here announce.

It thus appears, that what we undertake at present is to explore the field of a distinctively forensic physiology.

But what is a distinctively forensic physiology?

I beg the scientific reader to indulge me, if, instead of furnishing a definition as an answer to this question, I proceed to show what properly *belongs* to a forensic physiology.

When Jefferson defined the objects of all government, he found it possible to classify them as life, liberty, and the pursuit of happiness. We may go further. We may say, that human life, with reference to its relations, is the single object of all human government. For civil liberty is but the circle in which human life may lawfully be active, self-directive, free from all but monitory guidance and from needful restraint—it is the *Wirkungskreis* of life, as life is left to its own interests, attractions, and prejudices. And the pursuit of happiness is but the living of a life in harmony with its design, or the endeavor to conform a life to its design—in other words, it is the endeavor of life to reach its object and attain its end.

It might therefore seem, that a distinctively forensic physiology might be constructed so as to include all objects of concern to legal minds. If, indeed, I should treat all we have already seen, and even all we are to encounter, in these studies, as but a liberal examination and indication of forensic physiology, I would not do a thing without a precedent. But I prefer to find the limits of forensic physiology much narrower than they would be, if they should take-in all the matters to which I have alluded.

I intend, indeed, to interweave with what I here present as strictly physiological, some examinations and discussions, which can hardly be regarded as “sounding” in physiology.

But even if I had not here reserved this liberty, I would have imitated Carpenter in treating freely all the questions which present themselves to the Psychologist, whether considered as a (so-called) moralist, or as a (so-called) intellectual philosopher.

One difference between my aim and that of Physiologists like Carpenter, will be apparent in a single statement.

I have already pointed to the distinction taken by physiologists, between the Organic or Vegetative Life of Man, and his Animal Life, or Life of Relation. Now, at the outset, it appears, that in a distinctively forensic physiology, the functions of Organic or Vegetative Life would be less important than the functions of Animal Life. No such difference, perhaps, would be recognized by a medical physiologist. At all events, however, it is safe to say, that I expect to pay comparatively less attention to the functions of Organic or Vegetative Life than to those of Animal Life.

On the other hand, a physiology, distinctively forensic, must embrace some views of life, which physiology, as part of Medicine, does not include. As obviously, the forensic physiology cannot present minutely all that medical accounts and theories of life elaborate.

How human life is reproduced in individuals, all physiology inquires. What regulations should be made with reference to the reproduction of life, forensic physiology adds to the questions asked in other physiologies. When life begins, all physiology attempts to ascertain. The duty of the government with reference to the protection of human life, may be examined with peculiar interest in a forensic physiology. How life may be destroyed—how it may be affected beneficially or otherwise—are questions with which the medical physiology must be especially familiar. They are questions also of great interest in a forensic physiology. How life may be supplied with lib-

erty of action, what should be the limits of its freedom, how it may pursue its objects, how its powers may be used in legal service, in the national defence, and otherwise in public duty—what may work a forfeiture of life, or of the liberty so dear to it—these questions also might, perhaps, be treated as belonging to a distinctively forensic view of life.

I do not promise to pursue each line of exploration into science, which appears in the preceding statement. Having indicated, that I do not always reverence the learning which assumes the rank of systematic science, I will not proceed to what I purpose as towards a severely systematic physiology.

I have, throughout, endeavored to keep as far as possible away from everything, which could mislead the reader into fancying, that I intend to claim exalted rank for my production. I intend, in what shall follow, to observe the policy with which I entered on my work.

I shall avoid, with a peculiar care, all arrogance in offering a physiology distinctively forensic. Such a physiology, as we shall see hereafter, and as we have partly seen already, must be much conversant with the mind of man. In treating of the mind, we cannot be too careful to avoid all arrogance, all ostentation. Definitions, formal statements, scientific modes of composition, must appear but seldom in a treatise of the mind.

It is hardly a matter of surprise, that the mind finds it exceedingly difficult to *word* its own idea or name its own notion of itself. Indeed, if it is the mind which sends thoughts along nerves, to become words or acts through grosser agencies; if *to* mind, nerves convey the signs or sensations of outward things, which it perceives—in a word, if it is mind which thinks, feels, and wills—the wonder is that it can see itself in itself so as to make of itself any verbal description whatever. We cannot wonder, if I may so express my thought, that the soul cannot so remove

itself out of itself as to make that microscopic scrutiny, without which no definition or description can be perfect. Says Dr. Reid: "It must, indeed, be acknowledged, that though it (the mind) is of all objects the nearest to us, and seems the most within our reach, it is very difficult to attend to its operations so as to form a distinct notion of them; and on that account, there is no branch of knowledge in which the ingenious and speculative have fallen into so great errors, and even absurdities. These errors and absurdities have given rise to a general prejudice against all inquiries of this nature. Because ingenious men have, for many ages, given different and contradictory accounts of the powers of the mind, it is concluded, that all speculations concerning them are chimerical and visionary. But whatever effect this prejudice may have with superficial thinkers, the judicious will not be apt to be carried away with it. About two hundred years ago, the opinions of men in natural philosophy were as various and as contradictory as they now are, concerning the powers of the mind. Gallileo, Torricelli, Kepler, Bacon, and Newton, had the same discouragement in their attempts to throw light upon the material system, as we have with regard to the intellectual." We have here, well indicated, one source, at least, of the errors and uncertainties of mind. Familiar with the "*operations*" of his mind, the thinker still finds it difficult to "form a distinct notion of them;" that is, a notion that can be made distinct in words. Attending to words, that he may overcome this difficulty, he attends, at first, less closely, and at last, not at all, to the mental operations themselves, proceeding to construct his theory on words rather than on things.

I have once before glanced at this subject; but this reiteration is not unimportant.

The infrequency of any thing resembling definition in this "physiology," may seem to some objectionable. I must excuse it, if I can.

I am aware, that it has been supposed by Dr. Reid and others, that the definitive style might well be borrowed from mathematics by psychology. But we can point to many instances, in which severity of definition has almost rendered writers unintelligible. Still more frequently, a severely systematic work finds few readers. Imposing, architectural arrangements of language are, indeed, not seldom useful, and they are often beautiful. But all my purposes require me to avoid such arrangements of language, if, indeed, I am not quite incapable to make them. I have spoken thus far in the first person, and without pretension to oracular rights. I purpose to continue this mode of speech. I will not so arrange my sentences, I will not be so humbly modest, that the reader shall at any time imagine, that my utterances claim to be those of authority. Do you not know, that a writer may so avoid the vanity of egotism as to put on the air of speaking in the name of all philosophy?

Whenever I apparently forget this caution, let it be remembered, that I do not arrogate the right to place my system in a fixed relation to the science known as positive. There can be no valuable teaching of our nature, which, while it is attentive to the collection of all knowable facts, is not at the same time the reverse of arrogant in forming its deductions into system. Let us beware of dogmatism in the philosophy of human nature. Let us abhor the boldness of the anthropologist, who teaches us a perfect "system" in twelve lectures at a dime a head. Let us not fancy, that we can define what is above or otherwise beyond our power of definition. Signs of thoughts are seldom perfect pictures. We are not, indeed, to hide what we have brought together as materials for scientific temples yet unbuilt. We may, without immodesty, or injury to real science, make toy models of the structure to be erected. But if we forget that what we

fashion and regard with interest, as our addition to the works of science, is only worthy of the rank which models hold when fashioned by the architect, we may find a rude disturbance of our dreams, and wake to find our fancied temple but a thing for sport or scorn.^a

One further prefatory observation may be proper.

I have long endeavored to act upon the faith of Blackstone's maxim, that the sciences are of a sociable disposition, and flourish best in the neighborhood of each other. To this maxim, I shall more than once refer in future chapters. I consider, that it cannot be too often pondered by the lawyer worthy of his calling. In the spirit of the maxim, I have long desired to make an effort such as this. This, truly, is an humble effort. But, whatever rank may be accorded to it in the world of books, its object should protect it from entirely hostile criticism. I am quite mistaken if an effort such as this, when earnestly made by one who does not love the truth less ardently than I have always loved it, can be quite indifferent to any true well-wisher of the scientific. This book is nothing less than an endeavor to shed the light of other sciences on legal learning, and to shed the light of legal science on other learning. In other words, it is an endeavor to perform on legal science an operation similar to that performed on theology by a distinguished theologian.

(a) "Man hat daher in wissenschaftlichen Dingen gerade das Gegentheil von dem zu thun, was der Kuenstler raethlich findet; denn er thut wohl sein Kunstwerk nicht oeffentlich sehen zu lassen, bis es vollendet ist, weil ihm nicht leicht jemand rathen noch Beistand leisten kann; ist es hingegen vollendet, so hat er alsdann den Tadel oder das Lob zu ueberlegen und zu beherzigen, solches mit seiner Erfahrung zu vereinigen und sich dadurch zu einem neuen Werke auszubilden und vorzubereiten. In wissenschaftlichen Dingen hingegen ist es schon nuetzlich, jede einzelne Erfahrung, ja Vermuthung, oeffentlich mitzutheilen, und es ist hoechst raethlich ein wissenschaftliches Gebaeude nicht eher aufzufuehren, bis der Plan dazu und die Materialien allgemein bekannt, beurtheilt und ausgewaehlt sind." (Goethe. Der Versuch, als Vermittler von Object und Subject.)

It is an attempt to bring jurisprudence somehow into the circle of the other sciences.^b

I cannot, indeed, flatter myself with the expectation of accomplishing this result as the learned theologian alluded to accomplished his purpose. He brought theology into the circle of the other sciences, "by showing how beautifully it is illustrated, supported, and adorned by them all;" by proving "how justly the philosopher should bow to her decisions, with the assurance, that his researches will only confirm them;" by demonstrating "the convergence of truths revealed with truths discovered." I expect, indeed, if I accomplish any part of my purpose, to show how beautifully jurisprudence is illustrated, supported, and adorned by all the other sciences. I expect to prove how justly the philosopher may turn to legal science as a body of important truth, which he may well consult, and of which he ought not to be ignorant. But I do not expect to confer on jurisprudence the crown which I have already recognized as the true distinction of theology. The altar of justice may be elevated, but it is below the altar of God. When jurisprudence is adorned, supported, and illustrated by other sciences, it is not always the object of a voluntary worship. But all hearts not grown incapable of worship offer on the altar of religion all the choicest tributes of science.

(b) Cardinal Wiseman, *Connex. betw. Science and Revealed Relig.* Sec. I.

CHAPTER II.

SOURCES OF FORENSIC PHYSIOLOGY.

THESE observations I thought proper to submit in nearing legal science as an anthropology, because, in estimating it with reference to other anthropologies, I may not seem to treat it with such honor, as, regarded as a whole, it certainly deserves. A forensic physiology must honor legal science, and the art therewith connected. Yet the most devoted lover of the science illustrated in the legal Commentaries and Reports, will hardly venture to demand an elevated rank for the *written* science of the law, considered as an Anthropology, containing Physiology.

The acts chiefly regarded by the law, with reference to the regulation of the artful life of man, are, indeed, acts of the body. For, though purpose, will, intention, are, when manifested in the operations of the body, properly considered as *giving character* to the corporeal acts; the overt act, the operation of the body, is the thing regarded by the law, when it commands or when it speaks in prohibition. Punishment, moreover, though intended to affect the mind, is operative in, and on, and through, the body. Nor can laws take note of injuries to life and limb without some knowledge of the body. Evidence of facts committed is derived from bodily supplies to one mind,

through bodily deliverance of what another mind has taken into knowledge through the body. The body of the judge or juror furnishes to his mind the evidence delivered through the body of the witness from his mind; just as it was through the body that the witness saw or heard what he delivers in his testimony. These, and other instances, would seem to show that legal science should embrace a physiology of no contemptible proportions. But the physiology of law-books, even if Forensic Medicine be treated as a part of *legal* science, does not tell us much of body as the instrument and complement of mind.

Nor will the advocate of legal science as an Anthropology, discover in the law-books such a system of Psychology as may be found in Medicine.

The operations and necessities, as well as the adornment, of forensic art, would seem to call for a forensic system of Psychology. The logic and the rhetoric of forensic art should be conversant with the faculties of the human mind as well as with the corporeal part of our humanity. Indeed, as we shall see hereafter, lawyers are disciples of a distinctively forensic Philosophy, in which no despicable system of Psychology presents itself. But though, in the unformed Philosophy of which forensic experts are disciples, much that might be added to the most valuable system of Psychology, may be encountered; law-books teach us comparatively little of Psychology, except as to the capacity to perform certain permissible acts, or to commit forbidden acts, or to enjoy certain rights. Moreover, not normal, but abnormal mind is chiefly the concern of the Psychology contained in law-books.

And, even in respect of defective and abnormal mind, the law-books do not teach us all we ought to know. Nor is their teaching always accurate.

This is the more remarkable, when we only glance at such a work as that of Blackstone.

Here we find that legal science is a learning chiefly conversant with rights and wrongs. It nicely classifies them, and, with almost painful accuracy, points to their distinctive characters. We see, that if one will make himself a lawyer of the school of Blackstone, he must soon become a reasoner, a nice distinguisher of differences, and a firm pursuer of the truth of things. So far, therefore, as in our physiology we are to be engaged with intellectual philosophy, we do not find that law books are unpromising of light. But though, (as we shall see more clearly in another place,) among the rights defined, the right of life holds a conspicuous position, neither in the definition of that right, nor in examining provisions for the preservation of life, nor in inquiring when and how it has beginning, nor in treating of the means whereby it may be violently ended, do the law-books teach us what we might expect to find in them as parts of physiology.

Two principal interests of legal science seem to point to a necessity for a more perfect anthropology than any we can now discover in the law-books.

One of these relates to the capacity for what I have described as artful life, considered purely with reference to the performance of acts other than criminal. The other has relation to the cognizable states of mind in which commission of a crime is possible.

As to the acts which most readily occur to recollection in this connexion, legal science is not silent. The capacity to make a deed is carefully examined in the law-books. The capacity to make a will is likewise scrutinized with great particularity. Indeed, I am inclined to look upon the anthropology of law-books with the feeling most resembling pride, when I consider what we find in them — especially in the Ecclesiastical Reports of England — on the subject of testation. But as I shall have occasion to remark hereafter, neither as to the capacity for making a

devise nor as to that involved in making a deed, do we find in legal science all we might expect to find in it. Nor is it otherwise when we consider legal science, as it touches guardianship and interdiction.

We cannot justly claim for legal science the distinction which it would deserve, if we could find in it a view of normal and abnormal mind, enabling courts to make the nice distinctions often necessary to decide respecting guardianship and interdiction, and to ascertain capacity for unrestricted competition in the artful life of legal order.

And, I may be told, there is but little prospect of amendment. For, it may be said, as long as judges foolishly adhere to foolish precedents, there is no hope of true amendment in the law.

I grant, that while the judges foolishly adhere to foolish precedents, there is not much hope of true amendment in the law. But I will show, that all adherence to the settled rules of precedent is not to be disposed of by a rounded sentence. I will show, that as to all the modes of action pointed out by law, in which convenience rather than the sense of what is most harmonious with right according to the "law of nature," founds the rule of law,—for instance, in the law merchant, or commercial law—adherence to the precedented is a duty of the courts, which hardly any reasonable thinker can be brought to question.

All this I will undertake to show in a proper connexion in Book Third. At present, I will only add a few considerations on this subject.

I expect to indicate hereafter, instances in which there may be found occasions for judicial action, disregarding or correcting doctrines, which the precedents have honored.

One of the important instances which I expect to notice has such a relation to the questions, which we have in mind at present, that I must refer to it in this connexion.

The doctrine of insanity as judges are its teachers, stub-

bornly resists corrections, offered to the law by medicine. I am not inclined to ridicule or to denounce this resistance as Ray and others have ridiculed or denounced it. I consider, that the doctrines of insanity which Ray and others have proposed to substitute for the legal doctrines, have been ill commended to the courts by some of those, who have attempted to secure their recognition in the ministry of justice. Ray, especially, has singularly sought to recommend his doctrines, by displaying something very like contempt for legal learning. But I cannot therefore overlook the fact, that certain doctrines of insanity respected in the courts of justice, have been quite discredited by the investigations and discoveries of medical and other students of abnormal and disordered mental action. Carpenter, for instance, describes a form of insanity as emotional or impulsive, which, though not so named in common language, is familiar to the common mind. We have all seen, we have all shuddered at beholding, this particular description of insanity. What it is, we find it difficult to say; but we have seen it in the purest and most pious of the sex, distinguished by its greater purity and piety. We have encountered it in children and in men of genius. It has been observed wherever delicate and sensitive organizations have attracted close attention. Liability to its attacks is not the fruit or the seed of crime. But judges, finding no description of it in the law reports of the greatest antiquity—not finding that it is described by Coke or Blackstone—set aside the testimony of their own self-inspection; set aside the testimony of the learned who have studied it, and of the vulgar, who have long distinguished it from crime; and stubbornly refuse to recognize it as distinguishable from malice, purpose, criminality. And their excuse deserves a fair examination. For, they tell us, if the doctrines of insanity here in question must be recognized as true, the recognition ought to be a legis-

lative act, and not a judicial one. They point to passages in Swinburne, Blackstone, and others, according to which it would seem that the law had attempted to define the forms of incapacity to make a will or to commit a crime. We are, indeed, as we have seen, informed by legal writers, that we may ascertain who may make a will or commit a crime, by ascertaining what descriptions of persons are designated by the law as incapable of testation, and irresponsible for crime. But are we to regard as settled law the anthropology of Coke, or Holt, or Blackstone? Was it ever meant to settle as law, unalterable save by legislative power, the definitions and descriptions of the incapacity to make a will or to commit a crime, which a defective knowledge long ago respected in the rude, imperfect ministry of justice? *This* was evidently meant to be established as a law, unalterable save by legislative power: That whosoever shall, out of malice aforethought, kill another, shall be punished as a murderer; and this: That whosoever shall, in the commission of an act itself unlawful, kill another, undesignedly, or whosoever shall, upon a sudden heat, voluntarily kill another, shall be punished for manslaughter. But it was not meant to be established as a law, reformable by legislative power only, that whosoever has capacity to see that what he does when he commits a homicide is wrong, and kills without the excuse of exciting circumstances, such as commonly create a sudden heat, but on an impulse, *morbidly responsive to a homicidal thought*, is guilty of aforethought malice, and must be treated as a murderer. Nor was it meant to be established as incontrovertible in law, that the only test of the responsibility of one accused of crime, is to inquire, whether, when the act was done, he could discern that such an act was wrong. Before one shall be deemed a violator of the law, the law itself requires, that it shall be established that he had a *free will* to violate it. If it appear that the accused did not

design to violate the law, his act is ranked with accidents, and not with crimes, however ill its consequences, even though it desolate a happy household, or lay waste a country smiling with prosperity. Whatever shows that he had not a free will to violate the law, disproves the charge of malice as to one accused of murder—nay, whatever would show that will was overmastered in the given instance, was from the beginning a complete defence of one accused of any thing against the law. Now, if scientific theories establish, with sufficient certainty, that the impulsive or emotional in man may be diseased, without supposing any taint of crime, so that an act abhorred, avoided, fled from, when the thought of it presents itself to the mind in moments of mental health, becomes, though still abhorred, fatally attractive to the impulses of the same mind, when these impulses become disordered; who shall say, that proof of an emotional, impulsive, or, as some prefer to call it, moral insanity, shall not be treated precisely as would be the proof of any other form of insanity? What judge can safely venture to inform a jury, in the face of such a case as I have hinted at, that if the act in question was the act of one who could and did discern that it was wrong, the actor is a violator of the law, and cannot be allowed to say, that a diseased condition of his impulses accounts for what he did? Can any judge declare, that by the common law all cases and varieties of mental alienation were considered, and the cases and varieties which should be regarded as inconsistent with crime, distinguished, designated, and defined, with reference to an unalterable rule? Would not such a declaration wrong the past, as well as wound the present, of the law? Did any of the worthies, who attempted, in the elder times, to name the marks, and specify the tests, of mental alienation, venture to assume infallibility, omniscience, or any other title, to perpetuate what they believed (or fancied) of disease in

mind or body? Certainly, it would be a thing not quite so far removed from nonsense as judicial doctrine ought to be, gravely to limit the discoveries of science touching mental alienation, by a strict regard for precedent. A just regard for precedent would (for instance) carefully preserve the rule, that whosoever kills with malice aforethought, is a murderer; but that were not a wise regard for precedent, which should determine that the common law had well defined all instances in which the presence of disease, rather than that of malice, may be detected. In a future chapter, I expect to show, that scientific theories—though they be often wanting in regard for common sense—have not entirely erred as to the required reform of legal rules, respecting mental disease. If I succeed, I shall insist, that judges need not wait until the legislative power recognizes demonstrations made by science; but at least to the extent of recognizing emotional or impulsive insanity, as Carpenter describes it, may proceed at once to honor science, and vindicate the vulgar faith—here harmonizing with most learned theories—by departing from the test, which many judges seem to think the only proper test, of mental alienation.

CHAPTER III.

THE SAME SUBJECT CONTINUED.

I HAVE tried to state with fairness the defects of legal anthropology. Since, however, I may reasonably expect to find errors and defects in medical as well as in legal treatises of mental alienation, of idiocy, and the like, and since not even physiology as due to medicine may prove quite perfect; we must not dispose ourselves to speak with absolute contempt of the anthropology of law-books.

It may teach us moderation, in this particular, if we but remember, that Forensic Medicine itself, though chiefly cultivated by medical writers, fails to meet all reasonable expectations.

Here, it may be proper to observe, that anxious as I am to widen the boundaries of legal science, and to magnify its value, I am not quite certain that I ought to treat the (so called) Medical Jurisprudence as a part of Forensic Jurisprudence.

This doubt may be offensive, but it is not meant to be offensive. I am well inclined to recognize the misnamed Medical Jurisprudence as a body of science in the process of translation or transition from medicine to legal science. But I cannot think with those who not only treat it as part of legal science, but even as a part of the authoritative law itself.

It is not because I doubt the value of the contributions made by medicine to legal science, that I hesitate to treat as a part of the latter what the former has set apart with reference to the improvement of forensic skill. I have already shown, and I shall show throughout the present work, a quite unfeigned respect for medicine. I freely own the obligations of legal science to the science cultivated with reference to the cure of bodies, as well as to the science cultivated with reference to the cure of souls. But I cannot therefore consent to exalt the medical in science into such an estimation as does not belong to it, or to attribute to it a legal rank, which it has not yet attained.

It is a fact of some significance in this connexion, that, although the work of Blackstone must have received the last touches of the author's learned pen as lately as the year 1769, there is no reference to Forensic Medicine in any part of the work.

This is the more remarkable, because the Commentator was the grandson of an apothecary, and the brother of a physician. But, however well estated in other countries, Forensic Medicine had not been publicly acknowledged as a new or necessary branch of legal study, at the period when the Commentaries first appeared.^a The writer who so annotates has added, "nor had the converse been at all acknowledged, namely, the propriety of medical men being somewhat informed as to what the law may require shall be proved or adjudged upon their testimony. The elaborate works of Dr. Paris and of Dr. Smith, and of others treating forensic medicine at length, sufficiently show, that the faculty of physic may not unusefully apply themselves to the study of the law applicable to cases of death by apparently doubtful or suspicious means; to

(a) See Lee's note (3) to 1 Bl. 14.

cases of unsound mind; or to those where want of sufficient disposing power in a last illness might be evident or presumed." The annotator might at present add another note to Blackstone, dated as of to-day, and noting that in this particular the medical man and the lawyer have not so changed their conduct as the interests of legal science plainly require.

Most lawyers have had, at bar, unpleasant reasons for the observation, that the medical expert often comes into court with a remarkably imperfect notion of his rights and duties as a witness. On the other hand, it is not to be questioned, that the lawyer may apply to testimony furnished by the experts of another calling an unfair, illiberal rule of estimation. Nay, he may be quite incapable of giving such testimony its fair application. It is manifest, that the English and American method of producing the testimony of experts is not a little answerable for the evils here alluded to. That method is inferior to the methods provided by the laws, wherever the Civil rather than the Common law has prominence in legal systems.

It becomes the lawyer, the physician, the well wisher of the ministry of justice, whatever be the nature of his avocations, to employ his influence in favor of such legal "betterment," as will enable medical and forensic experts to meet on fair terms, and as will make it their interest to seek light rather than darkness in their encounters in the trial of causes. Law and Medicine, as I shall show hereafter, should not be unfriendly.

But let us look a little more closely at Forensic Medicine.

The misnomer, Medical Jurisprudence, deserves some attention. If it stood alone, it would indicate what we have otherwise learned—namely, that the relations between medicine and jurisprudence have been misunder-

stood. "Medical Jurisprudence," says the pains-taking Mr. Chitty, "is the science by which anatomy, physiology, pathology, and surgery, and their collateral branches, are made subservient to the preservation of Public Health, and the Protection of the Person from injury, and to the formation, construction, elucidation, and administration of the laws, relative to the same subjects; and it therefore resolves itself into two great divisions; namely, into Forensic Medicine, comprehending the Evidence and Opinions necessary to be delivered in courts of justice relating to criminal and other matters to be there determined; and, secondly, into what has been termed, Medical Police, embracing the consideration of the policy and efficiency of legal enactments and regulations, for the purpose of preserving the general health and physical welfare of the community. It combines, as well an acquaintance with so much of medical science as is necessary for the elucidation of legal subjects and a knowledge of the existing law, and the rules of evidence as applicable in all cases where medical science and its subjects can become the object of inquiry in courts of justice. It is a combined view of the two sciences of law and physic, showing their mutual relevance."^b The supposed combined view is very imperfectly taken in all the works of the so-called Medical Jurisprudence, with which I am acquainted. The *nature* of medical learning and of legal learning, the evidence of medical and legal facts, and the authority of medical and legal opinions, ought to be well displayed in a combined view of law and physic, showing their mutual relevance. But perhaps no work of Medical Jurisprudence will enable the reader to take any such view. And, even if such a combined view should be taken by any writer, legal or medical, his would not be a work of Ju-

(b) Chitty's Med. Jur. 4.

risprudence, medical or other ; and it would also not be a work of Medical Science, forensic or other. A new name must be fitted to it. Medicine, not ceasing to be medicine, may be forensic ; law, continuing to be law, may be medical. But the term Medical Jurisprudence is not used to signify the science of law cultivated for medical application ; but if it has any meaning at all, it signifies law medically cultivated for forensic application. Now such a cultivation of the law would be more curious than valuable. But a forensic application of medicine and a medical application of law are things of conceivable benefit. So, in accordance with German usage, we should employ the designations, Forensic Medicine (*Gerichtliche Medicin*) and Political Medicine (*Staatsarzneikunde*).^c

But, well named or ill named, Forensic and Political Medicine is a science whereof the English Lawyer has had little direct, and not a large incidental acquaintance. Nothing can be more absurd than most forensic "exhibitions," to use a medical word, of medical testimony. I confess, however, that only one of the works on Forensic Medicine (Chitty's book) appears to me to be readable by a lawyer, unless I make another exception in favor of Wharton & Stille's late work on Medical Jurisprudence.

(c) Reil having suggested, that, although natural science may be applied to forensic uses, there can in truth be no Forensic Medicine, since Medicine really consists in the application of natural science to the art of healing, and cannot continue to be Medicine when, instead of the former application, it relates to the trial of causes ; some writers have proposed the designations : Forensic Anthropology, Forensic Physics, Forensic Life-Observation Learning (*Lebensbeschaulehre*), etc. To the proposed change, Henke (*Gerichtliche Medicin*) objects, preferring the old name : 1. Because it *is* the old name, with which every one connects a definite idea, and we should not needlessly change names of art in established use ; 2. Because the proposed names are too narrow to designate the truths and teachings, drawn from all physical and medical learning, which the forensic medical-man requires, to furnish the explanations necessary to the elucidation of doubtful legal questions ; 3. Because many cases come into court, in which not Anthropology, not Natural Science, but only practical Medicine, the Medicine which belongs to the art of Healing, can furnish the key.

Until lawyers consider anatomy, physiology, and the principles of medicine, as proper preparatory studies, I have little hope, that the medical works on Forensic Medicine will prove of much real service to lawyers. There is a striking difference between the two professions in this respect. A lawyer must avail himself of medical science in the practice of his profession; but the practice of medicine has no such dependence on the law. No medical man makes himself sufficiently familiar with the law to estimate the probable wants of the legal profession. Accordingly we often find the medical treatises of forensic Medicine, dusty, unread, altogether neglected, on the upper shelves of the lawyer's library.

When Mr. Wharton joined with Dr. Stille in the preparation of a work, in which, as the preface informs us, it was designed to bring together "stereoscopically" the Legal and Medical points of vision, so that the information required by each profession might be collected and viewed at the same time and within the same compass," we were warranted in hoping, that the great defects of Chitty's book would be supplied. That Chitty's plan is substantially correct with reference to the endeavor to produce a work of Forensic Medicine, is, I think, admitted by most legal readers. That his execution is not equal to the execution of his other works, is quite as indisputable. When, therefore, Wharton & Stille's book appeared, I hoped to find in it a method modeled after Chitty, and an execution leaving little to desire. I own that I was disappointed. Yet I would not undervalue what is really contained in the work alluded to. The book deserves the highest commendation. It was only *not* a bringing together of the Legal and Medical points of vision, such as I expected.

It may be worth our while in passing to correct the error into which, as already intimated, the learned Mr. Wharton not inexcusably falls, respecting the opinions of

experts, and consequently as to the forensic rank of Forensic Medicine.

"The common law," says Mr. Wharton, "has been defined to be statutes worn out by time; it may more properly be treated as the precipitate of the wisdom of all ages, all professions, all countries. If a question is to be tried involving the most delicate point of mechanics, the testimony of experts is taken, and what they declare to be the law of philosophy, the judge declares to be the law of the land. If a question of marine right is to be determined, the mysterious laws of the sea are invoked—the 'sweet influences of the Pleiades and the bands of Orion'—and as taught by science, they become part of the common law. And so on a trial where the question at issue was whether a certain species of fish was able to surmount obstacles by which a river had been dammed up by parties interested in the soil, it was held, that the observations of scientific men, versed in this particular topic, were part of the common law of the land for the specific case; and that therefore naturalists, who had given attention to the habits of this fish under such circumstances, could be called to give their opinion on the merits. And the great works of the masters in all professions, have become, also, part of the common law."^d

If Mr. Wharton had not been misled by language used by judges, I would hardly find it possible to understand how he could be betrayed into the error here apparent. Any one who only carefully considers how even judicial expositions of the law are tried by time and criticism and correction, ere they can be safely treated as a part of common law, will see that Mr. Wharton errs in considering

(d) Wharton & Stille Med. Jur. 36, note—referring to *Cottrill v. Mason*, 3 Fairf. 222.

as part of common law the often hastily expressed and ill-digested views of medical or other experts.

In the case of *William Palmer*, indicted for poisoning, in England, some five or six years ago, a number of experts testified in such a manner as seemingly to warrant quite unfriendly criticism. I read the medical report of what they said, and did not join in the severer censure with which their testimony was visited. But I noted at the time certain facts, the like of which may well induce the learned writer on whose error I am now remarking, to amend the language to which I allude.

One of the witnesses, THOMAS BLIZARD CURLING, speaking of his own treatise of *Tetanus*, says: "When I wrote that book, I was a young man, twenty-two years of age. I have maturer judgment and greater experience now." Another, Professor CHRISTISON, author of the well-known work on Poisons, being interrogated in reference to opinions expressed by him in his book, "explained, that this work was written twelve years ago, and that the experience he had since obtained had modified some of the opinions he then entertained." At present, I am disposed to confine myself to this instance, and thereupon to inquire, whether the earlier or the later opinions of Mr. Curling or Professor Christison, or both the earlier and the later opinions, must be recognized as part of the common law? The common law must have an ill-regulated disposition, indeed, if it will embrace not only all natural science but all *theories* in medicine and all the *opinions* of the scientific. Medical Jurisprudence, Forensic Medicine, or whatever be the name of the forensic application of medicine, cannot, I think, be added to any other title of the law than that of evidence—in which it stands not as a series of truths laid down as law, but as a body of science formed for the purpose of facilitating the investigation of doubtful questions of fact.

But even if Forensic Medicine could justly claim the rank to which certain writers would exalt it, it would still be quite unsafe for the forensic expert to rely upon it as completing forensic Anthropology. It is, indeed, but just to the work of Wharton and Stille to say, that if its teachings be but added to what common introspection teaches all of us of mind, and to what the observation of a busy yet reflective lawyer daily teaches him, the product may be no contemptible psychology. For, though the scope of the work alluded to does not embrace some things which in the plan of Chitty are presented to the legal mind, it is inclusive of a vast variety of learning, most for use, but some for ornament, which every legal mind must be exceedingly gratified to find in such a work. But, after all, the lawyer cannot safely overlook what life forensic and the studies it necessitates or makes attractive, furnish for the completion and illumination of forensic Anthropology.

There is a learning, yet unformed, which I have ventured to denominate the Floating Philosophy of the Bar, and which deserves to be regarded by all students of a Physiology like that of which I shall attempt to indicate the outlines.

I do not know that what I shall derive from this Philosophy will be apparently derived from such a source. I only know, that it is proper here to notice it, and to resolve to treat it with respect, if we shall chance from time to time to meet it in these explorations.

The Forum is life in little. Lessons not to be learned in books,—lessons of all kinds,—high-life lessons and low-life lessons,—lessons from goodness and lessons from wickedness,—lessons from courage and lessons from cowardice,—lessons from faith and lessons from falsehood,—teach the lawyer in the courts, if he be worthy of his calling. From books, the lawyer learns much of the mind and

heart lore which makes up his peculiar philosophy; but more he takes from tradition, observation and experience. The school in which the lawyer must be profoundly learned, how superficial soever he may be in others, is that of action, insight, introspection, life. The mysteries of consultation, the conflicts of the forum, the trials and verdicts of the jury, are principal teachers of what the lawyer learns of nature and of law.

This floating philosophy it is, which suggests the application to the service of the law of other sciences and arts. It becomes constantly more and more conversant with learning of all kinds, and skill of every description. It summons the experts of all trades and mysteries, the votaries of all science, the sages of every philosophy, to aid in the investigation of facts, and the administration of laws. Even religion sometimes seems to answer its invocation, in order to give solemnity to its proceedings and elevation to its art.

Unformed and unpretending as it may appear, the Floating Philosophy of the Bar is the very life of the law—its active spirit and real force. In vain the most careful enactments, if they only stain with dead signs the pages of a book. In vain doctrines of right, if right be not studied in its life-lessons, as these shine through the antagonism of passions in the conflicts of society. This philosophy takes large notice of that antagonism, and has much to do in the quieting of those conflicts. Derived from books and from experience and observation alike, it is another proof that books are not the all-in-all of knowledge.

There is a daily necessity, and a constant habit, in the courts, of trying men by face, figure, bearing, look, and tone—of looking through the body into the mind. But there is also a constant necessity, respected in practice, of correcting the judgments so formed, and making allowances for the possible errors in calculating the worth of bodily

indications, and finding the meaning of what is purely physical in manner, tone, and look of a party, a witness, or a juror.

The forum then brings man face to face with man—man in the body as well as man in the mind. The forensic expert does not, indeed, attempt to describe with scientific precision the marks of villainy, or the signs of honesty, the manifestations of an observant, intelligent mind, or the indications of a weak, wandering and worthless disposition, which speak of the inward through the outward man. But the expert in legal science and art constantly acts on a belief in the reality, and a confidence in the trustworthiness, of what, in a forensic observation, the body informs us of the mind. The juror, who is to be accepted or rejected; the witness, who is to be credited or tried as by fire; each passes the ordeal of a judgment by inspection.

But we must not forget that, however wide the range of the learning contained in the books, or available in the practice, of the law, the forensic philosophy is a part of general knowledge, not the sum of science. Imperfections will be apparent, as, throughout the present work, it is encountered and contrasted or compared with other kinds of learning or of speculation. I shall perhaps, hereafter, devote a little space to the consideration of its influence on the development of character. But for the present, I desire to indicate its sources, in order to subject the latter to such scrutiny as may contribute to prepare our minds for the investigations into which we are about to enter.

The experts of the Floating Philosophy of the Bar find its sources, at the present day,

I. In the symbolical books of the law; that is to say, the codes, charters, constitutions, statutes, and reported

decisions of courts, which may be considered as authoritative, and, therefore, representative expositions of law.

II. In commentaries on the law and unreported decisions, or reports of decisions not received as symbolical.

III. In theology, in moral (considered as including metaphysical) philosophy, and in political economy.

IV. In the medical science (and speculation) of physical and psychical man.

V. In parts of all the other sciences, which, though not formed for forensic use, are, in part, of forensic applicability.

VI. In the mirror of life contained in history, poetry, the novel, criticism, and general literature.

VII. In the observation of popular manners, customs, and modes of thought.

VIII. In familiarity with the art with which it is most intimately blended.

IX. In the conversation of lawyers.

X. In personal experience and self-study.

This statement of the sources whence the Floating Philosophy of the Bar derives its light, may meet exceptions even on the part of lawyers. Others may object, that such a range of vision as I here attribute to the lawyer never yet was taken by forensic experts. Lawyers may object that such a range would take from legal vision its capacity for concentrated observations. Learned but illiberal disciples of the law may, indeed, resort to many

“Wise saws and modern instances,”

in order to show that I am indicating to the student of the law a course of study frowned upon by all the “authorities.”

I may as well encounter here as elsewhere these objections, and all others which I may anticipate.

Among the sources of the Floating Philosophy of the Bar, I have discerned Political Economy. I refer to this at present because such a reference will enable me to encounter at once what I regard as the most formidable assault ever made on the pretensions of forensic philosophy.

I do not venture to assert, that lawyers are, in general, acquainted intimately with the science of Political Economy. For their general want of acquaintance with much of the contents of that science, however, it is not difficult to account.

We may hereafter have occasion to observe the law distinctively political, accompanied in its development by the development of Polity, considered as a science. We may witness the development of the law distinctively forensic—part of which is at first distinctively political—accompanied by the development of Forensic Science. We may speculate, as we witness these developments concerning imperfections in the science of pure polity, and in the science which grows up in courts. Among these imperfections, we must think, are many due to the fact, that the political science and the forensic science of law have been developed separately. Polity would seem inclusive naturally of the several distinguishable sciences, which may be classed as legal. And Jurisprudence—or Forensic Science—would seem inclusive of the science, not only of what is the law, but why it is.* Polity should be a perfect jurisprudence—jurisprudence should include the whole of Polity.

(e) "Die Rechtswissenschaft (jurisprudentia) is die Wissenschaft der im Staate durch die Obrigkeit erzwingbaren Rechtsnormen, nach ihren Gruenden und Quellen. Die bloße Kenntniz der in einem Staate geltenden Rechte und Gesetze verdient daher noch nicht den Namen Rechtswissenschaft, sondern ist bloße Rechts und Gesetz kunde. Den Namen einer Wissenschaft verdient die Rechtskenntniz erst dann, wenn mit ihr auch Philosophie und Geschichte des Rechts verbunden ist." Lehrbuch des heutigen Roemischen Rechts, von Dr. Ferdinand Mackeldey. Vol. 1, p. 10, § 9.

Polity may seem to be, with great propriety, developed separately from jurisprudence, because the former is conversant rather with the duties of the State than with the duties of the individual; and Jurisprudence is conversant rather with the duties of the individual than with the duties of the State. But duties of the individual are such as polity expressly orders or allows to be established as a part of Law; and in ordering or allowing and enforcing these consists the whole of polity. For among individual duties are the duties which connect the individual with the community, embodied in the State. When, therefore, polity has ascertained and enforced the duty of each individual towards the State, and has ordered or allowed and enforced the duties of each individual towards his fellows in society, its task is perfectly accomplished. All the duties of the State are then performed. But to know the duties of the State, of which we thus perceive the character, is evidently to know the whole of Jurisprudence. All the duties of forensic life are evidently either duties of the individual towards the State, or duties of the individual towards his fellows. All these duties, therefore, are of great concern to polity.

On the other hand, the science of the law, developed out of the experiences of life in courts of justice, and connected with the art there practiced, is a science of the duties of the State—the limits of its powers and the nature of the laws which it may make a part of the order ruling the artful life of man—as well as, and even because it is, a science of the duties springing out of individual relations.

These considerations serve to show that polity, when perfect, must include the whole of jurisprudence; and that jurisprudence, perfect, must include the whole of polity.

But, looking chiefly now towards the history of Law in

England and America, we may observe, that men have reached the highest honors of political philosophy, without attempting even to become familiar with the science of the law, as it has been developed in the courts. I do not know, that I can truly add, that men have reached the highest honors of forensic philosophy without attempting to become familiar with the science known as polity.

In England, it would seem, that men distinguished at the bar, and there distinguished as not narrow minded or illiberal, but liberal and noble minded, have not seldom failed to take the highest rank of statesmen when admitted into Parliament.

To account for the apparent unfitness of distinguished lawyers, for performing duty in the legislative province of the government, appeal is often made to what was said by Edmund Burke, concerning law and lawyers as law makers.

“What Burke said of Mr. Grenville—two men in this respect the very antipodes of each other—is worthy of being borne in mind by every young lawyer, be his pretensions at starting what they may: ‘Sir, if such a man fell into errors, it must be from defects not intrinsic; they must be rather sought in the particular habits of his life; which, though they do not alter the groundwork of character, yet tinge it with their own hue. He was bred to the law; which is, in my opinion, one of the first and noblest of human sciences—a science which does more to quicken and invigorate the understanding than all the other kinds of learning put together; but it is not apt, except in persons very happily born, to open and to liberalize the mind exactly in the same proportion.’”^f

I do not overlook what follows, touching office life—the office life of statesmen. For the present, I will only meet the sentence which apparently degrades from philo-

(f) Warren's Law Studies, Ch. IV.

sophic rank the lawyer's learning of the nature and the laws of God's most perfect work.

Let it be admitted that the science, "which does more to quicken and invigorate the understanding than all the other kinds of learning put together," is "not apt, except in persons very happily born, to open and liberalize the mind exactly in the same proportion." Of what occupation can it with truth be said, that, whatever its tendency to sharpen or to strengthen the mind, it tends exactly in proportion to the tendency supposed, to give the mind enlargement, openness, or freedom from the prejudice of class or caste?

Let us not arrogate too much for the law; let us not meanly and cowardly confess the judgment, which delivers it to contempt.

The studies and pursuits of him, who looks to the practice of the law for revenue or renown, are not the only narrowing experiences of this life.

"All thoughts, all passions, all delights,
Whatever stirs this mortal frame,"

have more or less power, and enter more or less into the character of individuals in society, according to the selection they make of means for supporting life, or indulging taste, or satisfying their ambitious wishes. Few live in the pure air and unclouded light of mere philosophy. Of all our callings may be said what Burke pronounced of the law—if they "do not alter the groundwork of character," they "yet tinge it with their own hue."

The truths thus brought before the reader are of more than common interest to the forensic student. Not alone, indeed, because they warn him against a devotion too exclusive to his chosen studies and the habits of forensic life; but also with a view to practice in the courts. How witnesses are turned in this direction or the other by the ten-

dencies of occupation—how the blacksmith and the merchant differ in the view they take of life—how all the *media* of observation take some color from the habits of observers—these are matters of great moment in the contests of the bar.

We may freely acknowledge that the habits of the lawyer's life do narrow and peculiarize his sphere of thought. But with a sole exception, we may well deny, that any other calling is less narrowing to the mind than that of the lawyer.

The exception intended is not an exception of the calling of the statesman.

If polity were what it should be, politicians might well claim a higher philosophic rank than that accorded to the lawyer. For, as we have seen already, polity is naturally representative of all interests, considerative of all duties, and related to all affections. But Mr. Burke has almost pictured polity in picturing a politician. Speaking still of Mr. Grenville, the philosopher, (who himself, perhaps,

"Narrowed his mind,
And to party gave up what was meant for mankind,")

continues thus: "Passing from that study,^g he did not go very largely into the world, but plunged into business. I mean into the business of office—and the limited and fixed methods and forms established there. Much knowledge is to be had, undoubtedly, in that line; and there is no knowledge which is not valuable. But it may be truly said, that men too much conversant in office, are rarely minds of remarkable enlargement. Their habits of office are apt to give them a turn to think the substance of business not to be much more important than the forms in which it is conducted. These forms are adapted to ordinary occasions; and, therefore, persons who are nurtured

(g) The study of the Law.

in office do remarkably well, as long as things go on in their common order; but when the high roads are broken up, and the waters out—when a new and troubled scene is opened, and the file affords no precedent—then it is that a greater knowledge of mankind, and a far more extensive comprehension of things is requisite than ever office gave, or than office can ever give.”^h

This picture of a placeman’s life displays the narrowing of mind, to which the politician’s way of life has a marked tendency. But other pictures might be drawn, less favorable than the picture drawn by Burke. The bigotry of form is not the only blemish in the character of statesmen. Party prejudices narrow mind far more than any other prejudices—and it is in politics that party flourishes.

It is divinity to which I point when I declare that I know of but one vocation in which less narrowing of the mind can be involved than is involved in strict devotion to forensic life. The vocation itself of the divine may dispose the mind to a larger and more liberal contemplation of all that lies before us in this mortal sphere, than that which any other calling favors. Theology is naturally the containing science or philosophy of all the other sciences and philosophies. And whether it contains at present more than the merest principles of other sciences, or is inclusive only of those principles, the objects it proposes to contemplation and affection are certainly such as cannot be contemplated or affected by a narrow mind, without to some extent enlarging that mind. The whole earthly circle of the Good, the True, and the Beautiful, falls within the sphere of the Good, the True, and the Beautiful, with which theology is conversant.

While, however, I thus recognize the pre-eminence of theology, I cannot allow any other science to take a place

(h) Warren’s Law Studies, Ch. IV.

between jurisprudence and theology. Others may aspire to a place *beside* jurisprudence; none, I think, can take a place above her. She may not be what she has sometimes ventured to call herself—the knowledge of things divine and human, the science of the just and the unjust—but she is a philosophy of the Good, the True, and the Beautiful, only less heavenly, only more “of the earth, earthy,” than the Good, the True, and the Beautiful of theology.

The forum, I repeat, is life in little. All the operations of man’s artful life, all sciences, all interests, are touched by legal forces, forced to serve the ministry of justice, or compelled to own the power of the law. To be concerned as expert in the ministry of laws is eminently favorable to the taking of enlarged and liberal views of all the wide extent and all the wonderful variety of man’s activity. All types of human character are present in the courts, to judge, to advocate, to witness, or to be subjected to the judgment of the law. Accordingly, the lawyer worthy of the name is no “mere lawyer.” He must be a true philosopher.

But now it may be objected, that a close examination of the art peculiar to the courts of justice, will deprive the Floating Philosophy of the Bar of much that I have alleged in its favor. Here, I may be told, is the art which stands to the philosophy in question just as the science of any thing stands to the art of the same thing. And here, it may be added, is a mean and sordid art, which good men hate, and wise men seek to dispense with. Nay, good lover of the Good, the True, the Beautiful:

“Be not so curst!”

Remember well—examine carefully—and tell me where, and in what interest and way of life, you find less sordidness and greater liberality of soul:—if you can find the one or the other save where you descry

“a preacher such as Paul,
Were he on earth, would hear, approve, and own,”

then I abandon to your unsparing censure life forensic, with its judges, barristers, and all.

Let us examine here, as challenged, this same art, peculiar to the courts of justice. We have glanced at it already. Let us now return to the forensic scene of our first observation, and subject the art there practised to a closer observation.

A case is called for trial. It has a plaintiff and defendant, not speaking for themselves, but represented by persons, evidently expert in the art, whatever it may be, of which the scene before us is the place of operation. A jury is chosen. It is sworn to find its verdict, or true-word. The testimony of witnesses, we observe, only reaches the understanding, or lodges in the memory, or is submitted to the will, of the final triers, after it has been subjected to the following tests :

1. The oath of the witness.
2. The questions in examination and cross-examination.
3. The rulings of the court as to its competency, and its quantity.
4. The arguments of counsel.
5. The charge of the court.

And what lawyers call the *cause* is only brought to its final determination when, having been subjected to the first test of a *forensic logic* in the written “pleadings,” and the further tests just brought under notice, it has passed through the intelligence, the power of recollection, and the conscience of its final triers.

The body plays no inconspicuous part in all the operations just described. And when those operations are engaged in reproducing, as it were, the facts to which the judgment is intended to apply, the part which body had in the occurrence of these facts, as well as in the lodge-

ment of the knowledge of them in the memory of witnesses, appears as an obviously important part. Each utterance of human voices in the hall of justice, speaks of body acting with and for what is within body. Rhetoric attains its highest power, when the body of the reasoner, responsive to the action of his mind, expresses, in the grace or force of sound and gesture, what the mind has formed for simple beauty, or would use as a consuming fire. While the rapid speech is rushing on its course, the mind and body of the speaker seem but one and indivisible. What a study, then, is the connexion between mind and body! How wonderful at such a moment blood, with its conducting arteries, and veins, and capillaries; nerves, with their connexions at the brain and at the muscle; muscles with the bones they wield as weapons, or employ as instruments of peaceful forces; all the various and powerful yet delicate machinery of human nature, quickened in its action by the glowing thoughts, which voice and gesture, trained by human art, are telegraphing from the one mind to the many.

The daily familiarity of lawyers with the art in which these wonders are exhibited, cannot but teach forensic experts something of the sympathy between our bodily and mental conditions, and the harmony between the powers of the body and the powers of the mind. Nor can an art like that we have been contemplating be entirely destitute of light for such investigations as we now approach so nearly.

I do not, indeed, consider the forensic art in some respects precisely as it has appeared to others. Writers have distinguished a forensic logic in the science and art of pleading, such as bears a close comparison with syllogistic reasoning.

I do not find in the pleader's logic all that others have discovered in it. But I discern in the art peculiar to

courts of justice, taken as a whole, a logic and a rhetoric, reminding us of logic and rhetoric as Mr. Mill defines them. The office of the logician, according to that writer, is to examine the operations of the understanding, which are subservient to the estimation of evidence; Logic, itself, being nothing more or less than the science of those operations. "The sole object of Logic," according to Mr. Mill, "is the guidance of one's own thoughts." Rhetoric, on the other hand, is concerned with the presentation of our thoughts, including logical results of reasoning, to other minds. Such, if I understand the views of Mr. Mill, is the substance of his opinion.¹

Now, having seen the art peculiar to the courts of justice in a view, which shows how it reveals the intimate relation of the human body with its tenant mind, we may observe it in another light. It here appears as the art of making cases for judicial determination, of presenting them for that determination, and of applying to them the principles by which they ought to be determined. It therefore includes: First: A forensic Logic, which, still keeping Mr. Mill's definition before us, we may define as the science of the operations of the understanding, which are subservient to the estimation of the evidence produced in forensic trials. Second: A forensic Rhetoric, to make that estimation known and acceptable to the final triers and judges of the facts, and of the rules of law or right applicable to those facts. Third: The learning, belief, or knowledge estimated by that logic, and prepared for communication in that rhetoric. It contains, then, the science and art of presenting cases for determination by courts — and this is, at present, its distinguishing operation and significance.

(i) The communication of our thoughts to others is represented by the logician as falling "under the consideration of Rhetoric, in the large sense in which that art was conceived by the ancients; or of the still more extensive art of education." *System of Logic*, 3.

To present and to conclude a case is, in general, first, to bring those concerned in its determination into the place of its intended trial; or to give them the opportunity of being there; second, to make the accusation, complaint, or demand, of the party plaintiff; or to answer or defend such accusation, complaint or demand; third, to produce the evidence relating to the cause; fourth, to compare or contrast the things offered in evidence with the written pleadings or with each other; fifth, to ask for the proper verdict or judgment; sixth, to carry that judgment into effect. The requirement of the new codes, that the complaint or demand shall be made before the party defendant is summoned, does, indeed, alter the order of proceedings just given; but that is not at all important to our immediate purposes.

The first notable application of the forensic logic is to the legal estimation of the facts presented to the lawyer by way of accusation or complaint, supposing them provable. The first notable application of the forensic rhetoric is in the statement of those facts, in the written pleadings. I need not notice the application of logic and rhetoric to the answer, defence, or abatement of the suit or prosecution. But when the logic of the adversary has subjected each of these pleadings to the estimation of the consistency of the facts with each other, and of their legal cogency with reference to the judgment asked on the one side or the other; and when the forensic rhetoric has brought that estimation into favor or the contrary with the court; when the pleadings are at last so made up that the proof of the facts is next in order, the forensic logic and the forensic rhetoric have a wider field and a more exciting contest. All the illustrative knowledge of the disputants as well as the testimony of the witnesses, becomes subject to the peculiar logic of the forum and the characteristic rhetoric of the lawyer.

It seems to me, that glimpses such as these of the peculiarities of forensic art and science, added to the view which we shall take hereafter of the Commentaries and Reports most honored in the Courts of Justice, must establish all I claim in favor of the Floating Philosophy of the Bar.

But we are all so deeply interested in the character of that Philosophy—it touches all the interests of life so often—it is so entirely unconfined in influence to the contracted scene in which it seems to move—all hearts and homes are visited so nearly by the forces it directs—that I am anxious to encounter all the forms in which it has ever been formidably attacked.

Lawyers have too often preached from the forensic pulpit sermons not acceptable to the self-love of society—they have, too often, done the work of operative moral surgery—to be without a *host* of censors. We have not yet done with the objections to the character I have assigned to the Floating Philosophy of the Bar.

It is or may be next objected, that I cannot prove by examples, what I have asserted as to the forensic range of studies and of observations.

If I may be heard with patience, I will quiet this objection with the others.

It is an abuse of language to speak as Lord Campbell has written of the great old lawyer, Chief Justice Holt. “Of all the Judges in our annals,” says Lord Campbell, “Holt has gained the highest reputation, merely by the exercise of judicial functions. He was not a statesman, like Clarendon; he was not a philosopher, like Bacon; he was not an orator, like Mansfield; yet he fills nearly as great a space in the eye of posterity; and some enthusiastic lovers of jurisprudence regard him with higher veneration than any English Judge who preceded or has followed him. But there is no absolute incompatibil-

ity between the profoundest knowledge of jurisprudence and any degree of culture and accomplishment. We can conceive that Holt, like Somers, might have been President of the Royal Society, and a member of the Kit-Cat Club. But he seems to have been wholly unacquainted with the philosophers and wits who illustrated the reigns of King William and Queen Anne; and Steele, who celebrates him in the *Tatler*, evidently speaks of Verus only as an idol whom he has seen and worshipped from a distance. We are left to conjecture as to his habits, and his talk must have been of 'contingent remainders.' Yet he is the first man for a 'mere lawyer' to be found in our annals. Within his own sphere, he shone with unrivalled brightness."^j If, indeed, Lord Campbell himself had not rendered absurd his own "conjecture," that Holt's talk must have been of contingent remainders, and in like manner discredited the use he attempts to make of the fact that Holt did not associate with the Queen Anne wits and philosophers, we might allow that Holt was a rare instance of renown acquired "merely by the exercise of judicial functions," and that he was only the first of "mere lawyers." But even if every true lawyer, American and English, had not better learned the lesson of Holt's greatness from the good sense, the breadth, the strength, of his opinions; even if Macaulay^k had not informed us, that, when made Chief Justice, Holt was "a young man, but distinguished by learning, integrity and courage;" Lord Campbell himself has put his own description of Holt, in the passages cited (*supra*), beyond justification. Referring to what is said of an early period in Holt's life, the learned Whig biographer of the Whig Judge who was not a mere partisan, uses the following language: "It is said, that during the whole of this time he was remarkable for being idle and mischievous — a statement which I

(j) 2 Chief Justices, 99, 100, 137.

(k) III Eng. 18.

entirely disbelieve. 'The boy is the father of the man,' and though there may be a supervening habit of dissipation—which may be conquered—the devoted application to business, the unwearied perseverance, and the uniform self-control, which characterized Sir John Holt, could only have been the result of a submission to strict discipline in early youth."¹ Lord Campbell is a singularly inconsistent writer, though his "Lives" place the profession under deep and lasting obligations. He says in another place,^m "Unfortunately, we have no particular account of the manner in which he (Holt) rendered himself so consummate a jurist. 'Moots' and 'Readings,' at the Inns of Courts, were going out of fashion; and the ponderous common-place book, by which every student was expected to make out for himself a *Corpus Juris Anglicani*, was, since the publication of Rolle and other compilations, thought rather a waste of labor. *I suspect*, that, after acquiring a knowledge of practice from his attorney tutor, young Holt improved himself chiefly by the diligent perusal of well selected law-books, and by a frequent attendance in the Courts at Westminster when important cases were to be argued. *By an intuitive faculty, not to be found in your mere black-letter lawyer*, he could distinguish genuine law, applicable to real business, from antiquated rubbish, of no service but to show a familiarity with the Year Books. He made himself master of all that is useful in our municipal code, and, from his reasoning in *Coggs v. Barnard*, and in other cases, it is evident that he must have thoroughly imbued his mind with the principles of the Roman civil law. If he once took delight in classical studies, he now renounced them; and he never wandered into philosophy, or even cared much about the polite literature of his own country. *But he mixed occasionally in general society*, and picked up much from conversation; so

(1) 2 Ch. Jus. 100.

(m) Op. cit. 102

that he was well acquainted with the actual business of life, and had a keen insight into character. His mother-wit was equal to his clergy." The *suspensions* and *conjectures* of Lord Campbell are at war with his *facts*. Here is a man who certainly was irregular in his youth, as, notwithstanding the denial of what is asserted of his boyhood, his noble biographer has expressly admitted. He reforms, without vow, but in earnest. He applies ardently to the study of the law, and his moral conduct becomes altogether irreproachable.ⁿ All we know after that, is, that he mixes in general society, picks up much in conversation — proves in all that he shows of himself, that his "mother-wit is equal to his clergy" — that "to unsullied integrity and lofty independence," he adds "a rare combination of deep professional learning with exquisite common sense"^o—and so bears himself as man and as Judge, that the lovers of jurisprudence traditionally perpetuate his name as the first and greatest of English Judges, and the traditions of the people keep him in an honorable remembrance, such as they seldom give to the memory of lawyers. Notwithstanding these known facts, notwithstanding his own acknowledgment, that "the manner in which Holt rendered himself so consummate a jurist," is not known to us by any "particular account;" without giving any proof that Holt ever entirely renounced the classics, or that he never wandered into philosophy, or even that he was really indifferent to the polite literature of his country; and in the face of the declaration, that, at a later period of his life, "we are left to *conjecture* as to the habits of Sir John;" the learned biographer, who has also expressed his grief that "we know so little of Holt in private life," *suspects* and *conjectures* enough to make Holt a mere lawyer. I am not disposed to admit the validity of such suspicion and conjecture. I would point to

(n) Op. cit. 102.

(o) Op. cit. III.

Holt as the greatest of English judges, to justify the qualification I would make of Burke's remark on the narrowing effect of legal studies, and to enlarge the exception he makes of the "happily born." I do, emboldened by the example of Holt, take leave to qualify that sentence of Burke. I venture to say, that the science of the law is not apt, except in those who are happily born, or liberally bred to its cultivation, to enlarge and liberalize the mind exactly in the same proportion in which it quickens and invigorates the understanding. This qualification admits the substantial justness of Burke's observation. Having selected the instance of Holt to justify that qualification, however, I must allow that Holt was one of the "happily born." Nature pointed out for him the vocation he so illustrated. But the most valuable objects I have in view require me to make it clear, that this greatest of English Judges was no mere lawyer.

If Holt was, indeed, only "the first" of "mere lawyers," judgment may go against my book. I have already intimated that even such a lawyer as Mr. Warren has described as belonging to the class of mere lawyers, would fully justify the observation of Mr. Burke, if strictly limited to such as he. And I may as well explain, that I discern several ranks of mere lawyers, in none of which can I consent to place Holt. Lowest of all is that mere lawyer, who deserves all the odium ever cast upon the disciples of the law. He is the lawyer who seems to warrant the pen of satire, and inspire the pencil of caricature. He alternately fixes the finger of scorn, and provokes the laughter of ridicule. He is too poor a devil to bear serious discussion. He may be painted—all monsters, even those of meanness, may be painted. He may be disgraced in the drama as Mark Meddle, or made contemptible in the novel as Mr. Quirk. Pity or the pillory can alone be due to such a character. But the mere lawyer is not always

so mean or so low. There is another kind, of which the representative man *seems* base, when he does not mean unworthily. Such a lawyer, indeed, does not even aspire to greatness. He does not concern himself with the reason or spirit of laws. He fancies that he can find the law without finding its reason. He is industrious, and successful in getting employment. He often gains causes—because a well employed lawyer must have many obviously good causes. But the “goodness” claimed for such a man by Mr. Warren can only be verdicted in his favor, after full proof of his partial insanity. It is, indeed, of such lawyers as he, that the strongest dislike exists in every community—and not without reason, or the show of reason. But there is a mere lawyer, who aims higher. He may come to be a Chief Justice, like Coke or Kenyon. But even with such examples of the varieties, which are to be discerned in the observation of mere lawyers, clearly noted and fairly contemplated, I beg leave to say, that the mere lawyer is, in general, neither remarkably useful nor overwhelmingly amiable. The truth of this will appear, when we consider the law as the direction of force in the affairs and upon the minds and bodies of men; when we remember that such a force, wrongly directed, must always prove the worst foe to right and to truth; when, informed by such facts as have already been referred to, we take note of what the narrowed mind of the mere lawyer may do to give a wrong direction to that force of the law in the affairs and upon the minds and bodies of men. The law is pushed to extremity by the mere lawyer, when the action of courts will rather work oppression than make the wrong right. When the mere lawyer is allowed to legislate, he is generally found to legislate, “not wisely but too well.” If, indeed,

“All constraint
Except what wisdom lays on evil men
Is evil,”

the mere lawyer should never be law maker, or judge under the law. All power in the hands of the narrow-minded is dangerous; it is arrogant and oppressive, to the point of enkindling resistance—fearful and powerless when that point is reached. The mere lawyer, again, may be learned; but not as Sir John Holt was learned. He may have integrity; but his integrity is not that which characterized Holt. He may have courage; but his courage would not have supported him in a contest like that of Holt with the Parliament.

It is well to assure ourselves of these things. It is well to assure ourselves, that no mere lawyer can be a Sir John Holt either in merit or in reputation. And it is well to understand, in what sense it is necessary to be "happily born" in order to escape the application of Mr. Burke's animadversion on legal science. He is happily born to be a lawyer, who is born with a mind, large, liberal, strong, and brave. In that sense, Holt was, indeed, happily born. Let it be granted, that the boy at the Abingdon Free School was idle and mischievous—a statement which Lord Campbell entirely disbelieves. Let it stand for history, that at Oxford, he was guilty of great irregularities. "His biographers represent him as copying Henry V, when the associate of Falstaff, and not only indulging in all sorts of licentious gratifications, but actually being in the habit of taking purses on the highway. They even relate that many years after, when he was going the circuit as Chief Justice, he recognized a man, capitally convicted before him, as one of his accomplices in a robbery, and that, having visited him in gaol, and inquired after the rest of the gang, he received this answer: 'Ah, my Lord, they are all hanged but myself and your Lordship.'" Let these stories, like that of the *charm* he used to pay his bill, when on one of his unlicensed rambles, and of its consequences to himself and the old witch, in after life, be be-

lieved, with some allowance for exaggeration. But, though such a preparation for a good and useful life is one not to be imitated, let it not be forgotten, that the errors of which it was in part made up, were those of a man, who proved that he had "the virtue to repent, and the energy to atone." After that proof, his errors, even, were teachers of philosophy. Born a few months after the first work of Hobbes was printed for private circulation, he was old enough when put under the care of the sober attorney, bold enough by nature, and taught enough by experience, to estimate rightly the doctrines of the Leviathan. I submit, that there is no proof and no probability, that such a work was unread by the young student of law and government. Locke's Essay, however, was not published until a year after Holt was made Chief Justice. Of Bacon's works, he may have been a student, or he may have been ignorant. The memory of Bacon's vices was too green in the minds of men for the interests of his philosophy. Whatever vices, moreover, may be imputed to Holt, they were of a kind to make him despise Bacon, unless he should forget the man in the philosopher. These things being considered, it may not be rash or unsafe to admit that Holt "seems to have been wholly unacquainted with the philosophers and wits who illustrated the reigns of King William and Queen Anne." It may savor of cruelty to a biographer to cite Lord Campbell again; but he has really shown so well how inapplicable to Holt is the designation, "mere lawyer," that I must quote him once more: "From his start as a magistrate, he exceeded the high expectations which had been formed of him, and during the long period of twenty-two years, he constantly rose in the admiration and esteem of his countrymen."

. . . . "According to a homely but expressive phrase, 'there was no rubbish in his mind.' Familiar with the practice of the court as any clerk — acquainted with the

rules of special pleading as if he had spent all his days and nights in drawing declarations and demurrers—versed in the subtleties of the law of real property as if he had confined his attention to conveyancing—and as a commercial lawyer much in advance of his contemporaries—he ever reasoned logically—appearing at the same time instinctively acquainted with all the feelings of the human heart, and versed by experience in all the ways of mankind.”^p Let me be indulged in a few suspicions and conjectures. I suspect, that of what Holt knew, the largest portion was taken from observation; but I conjecture that he also learned something of books. I suspect, that law books chiefly occupied his hours of study; but I conjecture that conversation and reading other than “of contingent remainders” was added to the study of black letter law. I suspect, that he took great pains to form himself as a lawyer; but I conjecture that he took equal pains, the while, to form himself as a man. If he studied life more than books, what wonder? Books, whether law or lay, are not all of knowledge. Authors fill the world with the praises of books. I deny not their value. I shall appeal to them, I shall quarrel with them, I shall delight in them, too often, as we go forward, to make any show of right to condemn or to despise them. But the apprenticeship I have served in the law would be of little worth to me, if I had not learned how little of man’s knowledge, how little of the best and truest philosophy has been written or printed.

The next examples to which I mean to direct attention, may well be ushered in, by some notice of a maxim, or saying hardly less than a maxim, which is often cited against the liberality of forensic studies. We are often told, that the law is a jealous mistress. Let the saying pass for a maxim; but let it be rightly understood. The

law is, indeed, jealous of the devotion due at her altars; too jealous to accept, as the evidence of that devotion, either a docket in the courts, or a name among the philosophers. Mere business cannot satisfy her; mere philosophy will not purchase her favors. She is practical in her immediate purposes; she demands, therefore, a practical devotion. She is philosophical in her highest aims; she demands, therefore, a philosophical devotion. She cannot surely give up to money, or to labor, or to dullness, what she denies to philosophy. A tempered devotion to science, a moderate devotion to business; these are her exactions of such as would be admitted to her priesthood. But why urge such considerations for the conviction of the mere lawyer? He will only repeat the saying alluded to, and call for the authorities against his reading of it. Very well. If we should choose to humor his blind reverence for the books, and his stupid submission to authority, we might fill volumes with authorities—such as he cannot and dare not call in question. Not only the way of life, but the expressed opinions of all eminent lawyers might be appealed to. What does he think of such words as these from Blackstone? “For sciences are of a sociable disposition, and flourish best in the neighborhood of each other; nor is there any branch of learning but may be helped and improved by assistance drawn from other arts. If, therefore, the student in our laws hath formed both his sentiments and style by perusal and imitation of the purest classical writers, among whom the historians and orators will best deserve his regard; if he can reason with precision, and separate arguments from fallacy, by the clear simple rules of pure unsophisticated logic; if he can fix his attention, and steadily pursue truth through any the most intricate deduction, by the use of mathematical demonstrations; if he has enlarged his conceptions of nature and art, by a view of the several branches of genuine ex-

perimental philosophy; if he has impressed on his mind the sound maxims of the law of nature, the best and most authentic foundation of human laws; if, lastly, he has contemplated those maxims reduced to a practical system in the laws of imperial Rome; if he has done this, or any part of it, (though all may be easily done under as able instructors as ever graced any seats of learning,) a student thus qualified may enter upon the study of the law with incredible advantage and reputation. And if, at the conclusion, or during the acquisition of these accomplishments, he will afford himself here a year or two's further leisure, to lay the foundation of his future labors in a solid scientific method, without thirsting too early to attend that practice which it is impossible he should rightly comprehend, he will afterwards proceed with the greatest ease, and will unfold the most intricate points with an intuitive rapidity and clearness."

Nor is the mere lawyer to explain away the force of this authority, by suggesting, that it relates only to the preparation for the bar; and that, therefore, it does not warrant the study of other sciences than the law, or other than law books, after being called to the bar. The whole life of Blackstone forbids such a construction of his language. Even his *Farewell to his Muse* does not keep it in countenance. For though he did indeed bid farewell to poetry when he went to the law, the versification of that Farewell was not his last. He wrote several fugitive pieces afterwards—and we learn that "some notes on Shakespeare, which, just before his death, he communicated to Mr. Stevens, and which Mr. S. inserted in his last edition of that author, show how well he understood the meaning, as well as the beauties of his favorite among the English poets."^q In short, whether we consider his taste for architecture, which never appears to have died out, his appre-

(q) Life of Blackstone, prefixed to Chitty's Ed. of Bl. Comm.

ciation of medical science, his classical attainments, or that remarkable command of the English language, which, together with his legal and poetical writings, induced Malone to pronounce, that "Sir W. Blackstone is one of the most eminent literary characters that the present age has produced;" we shall see how little warrant there is for the sense sometimes attached to the proverb on which we have been commenting. If, when Blackstone bade farewell to his Muse, he had not

"Reluctant moved, with doubtful mind,
Oft stopped, and often looked behind,"

his Commentaries would not have been, as they still are, the delight of the learner, the resort of the learned, the model of forensic eloquence, and the boast of forensic science.

Erskine, who was a much greater practical lawyer than Blackstone, was as liberal in his studies, though his learning in strict science, especially natural science, was by no means great. Indeed, from practical life, rather than from books of any kind, he took most of his lessons in the knowledge demanded by his vocation. But the liberality of his reading will appear in what we learn from one of his biographers. Lord Campbell tells us: "At the grammar school of St. Andrews, under Mr. Hacket, a zealous teacher, but not much of a scholar, he attained only a moderate proficiency in Latin, and learned little of Greek beyond the alphabet. But he was carefully taught to compose in English, as if it had been in a foreign language, and being fond of books, he read, in a desultory way, many English poems, plays, voyages, and travels. He never was matriculated in the University of St. Andrews, but in the session 1762-3, he attended the Mathematical and Natural Philosophy classes, taught by professors of considerable eminence, and from them he imbibed the small portion of

science of which he could ever boast.”^r His fondness for the plays of Shakspeare appears remarkably in all we see of him, and Lord Campbell has particularly mentioned his “intense and unremitting study of the best English writers, both in prose and verse.”

We have thus seen, that the greatest English Judge, the greatest English Commentator, and the greatest British Advocate, did not find the law a mistress so jealous as to demand all their affections, all their thoughts, all their powers. Neither of these chosen illustrations is the instance of a mere lawyer. Each of them was profoundly taught by experience; each of them was learned in books. Holt and Erskine were bold and original thinkers; Blackstone could best express the thoughts of others. It was not from choice—let us be assured of that—that Erskine was comparatively ignorant of natural science. His love of learning breathes through all he says, and shines through all he does. He chiefly affects poetry, however, and, agreeing with Blackstone, and, perhaps, with Holt, finds in Shakspeare the noblest philosophy and the richest mine of thought. Closely as we may examine, we shall generally find this same love of Shakspeare in all the great lawyers, from Pemberton to Webster. I might rely on this single fact to show, that the true lawyer does habitually take a large and liberal view of the nature of man and the power and dignity of law. But, be this reasonable or extravagant, the instances I have given, fully make out the case I offered to establish. Need I, then, add to these examples the other shining names, which attest the possible variety, and illustrate the desirable liberality, of forensic studies and pursuits? Need I speak of Sir Thomas More, of Ellsmere, Bacon, Selden, Hale, Clarendon, Hardwicke, Somers, Mansfield, Camden, Mackintosh, Jeffrey, Talfourd, Brougham, Warren, in England, or of

(r) 6 Lord Chancellors, 302, 303.

our own worthies of the law—the elder and the younger Adams, Hamilton, Wirt, Parsons, Webster, Spencer, Gaston, Story, Legare, Walker, Taney, Ewing, Choate, and others? What a gallery of portraits might not some master hand make up of such materials and subjects!

CHAPTER IV.

THE SAME SUBJECT CONTINUED.

HAVING recognized, among the sources of the Floating Philosophy of the Bar, theology, as well as moral (considered as including metaphysical) philosophy, I may as well encounter here, as elsewhere, the opposition which such recognition may provoke. For, in attempting to examine what we know, in any manner, of the human body and the human mind as unitedly or reciprocally agent in man's artful life, I cannot entirely overlook the obligations of all anthropology, to theologians, moralists, and metaphysical philosophers.

And here I am reminded, that in venturing to recognize an affection for the Good, the True, and the Beautiful, as motivating the artful life of man in its obedience to law, I also ventured to describe the supposed affection as looking through the present imperfection to the future perfect. It was indeed a venture so to recognize the christian view of life. Philosophers are writing histories to prove that christianity is dead; that she surrendered to the forms, which, to ingratiate herself, she early substituted for her earlier forms, not her body only but her spirit. Learned writers venture to describe theology as hardly more to be regarded than a dead lion. Some of them, indeed, can hardly own that she was ever worthy of regard. They do

not find that she was the discoverer of anything. She did not invent a new principle of humanity. At best, she only redeemed humanity. She only dealt with moral agencies—and moral agencies are but stationary when considered in comparison with intellectual agencies, as movers of the wheels revolving in the interest of progress.

Such a view of the theology, which, teaching by examples such as He who spoke in parables alone could furnish, shows us life in its reality and its integrity—not as philosophical anatomy might forge resemblances to its constituents, and awkwardly assemble these into some likeness of humanity—a view like this of the theology, whereof the life of Jesus is the beautiful epitome, I cannot quite accept. I am not philosophical enough to recognize the evidences that the faith delivered to the twelve, was either quite so fruitless of discoveries, or quite so eager to surrender its vitality to its ingratiating, as philosophers would have us think. Though I have tried the beautiful philosophy of “hardness of belief,” which Mr. Buckle so delights to honor, I have never found much satisfaction in decrying or in undervaluing the ethics of the christian system. But intending to produce a book which all who claim the name of christian may receive without offence, and which the nonmalignant unbeliever even may not find offensive, save as it presents a view of government which he may deem objectionable, I will not assume the task of shielding christianity from all assaults. But I must be permitted to observe, that the enemies of christianity are not, in every instance, avowed enemies. Doctors and doctrines claiming christian designations must be drawn from the christian stronghold ere the latter can encounter all its opposition, fairly as it is. I am not a theologian, and I could not do the work of freeing christianity from enemies in masks, or doctrines that betray. And even if I could, I would not think it proper to attempt it here. I write en-

tirely in the interest of life forensic. This is not intended as a theological production. If it were, I might with great propriety proceed to such a view of christianity as would involve the advocacy of a church as well as of the dogmatic in theology. Without such advocacy, I could not permit myself to undertake the full defence of christianity.

But, having recognized the affection pre-eminently distinguishing the christian system as the real sanction of human laws, and having also recognized the theology cultivated by christian theologians, as a proper source of a distinctively forensic physiology, I must defend these acts of recognition.

Their complete defence may not appear until the very close of what shall follow. But at present, I design to indicate this proposition: In christianity, not only do we find a source of a distinctively forensic physiology, but we may well discern a favorite, protected, honored system, treated throughout christendom as near akin to jurisprudence, and as furnishing the highest moral force connected with the law. By christianity, at present, I would have the reader understand, Theology.

And I will even be so bold as to declare, that Mr. Buckle reads with ill-attention, or with little profit, all the indications of the times, when he permits himself to use such sentences as follow:

“Within the short space of three centuries, the old theological spirit has been compelled, not only to descend from its long-established supremacy, but to abandon those strongholds to which, in the face of advancing knowledge, it has vainly attempted to secure a retreat. . . . Disputes which, a century ago, would have set the whole kingdom in a flame, are now regarded with indifference by the vast majority of educated men. The complications of modern society, and the immense variety of interests into which it

is divided, have done much to distract the intellect, and to prevent it from dwelling upon subjects which a less occupied people would deem of paramount importance. Besides this, the accumulations of science are far superior to those of any former age, and offer suggestions of such surpassing interest, that nearly all our greatest thinkers devote to them the whole of their time, and refuse to busy themselves with matters of mere speculative belief."^a

Never was assertion less supported by the facts than the assertion of the learned writer, as to the attention paid by our greatest thinkers to such scientific studies as exclude Theology. Theology, defended or attacked, is constantly presented to our minds, in every production of the day. Not even such a work as that of Mr. Buckle can avoid it. Mr. Buckle is not ignorant of this. But he and Theodore Parker have determined to exclude from pure theology all scientific speculations. They will have it, that logicians, chemists, mathematicians, historians, among the clergy, are necessarily diverted from theology, while occupied in their preferred pursuits of leisure hours and literary labor. Never was mistake more signal. True theology rejects no scientific tribute. Truth, religious truth as well as any other, is the friend of learning, whether learning treat of spirits or of stones.

It is not extravagant or fanciful to say, that we have at present, governing the operations of man's artful life, a law distinctively political, a law distinctively forensic, and a law distinctively religious. No sharp distinction separated these in ancient times. I have undertaken to establish, that they are not strangers to each other now. The political law determines the limits within which the law distinguished as forensic shall have vigor. So the political law determines within what limits the religious law of man shall govern social conduct. To the individual, the law

(a) Hist. Civ. in Eng. 256-257.

distinctively religious holds the nearest place as well as the highest rank. Within certain limits, the same law is honored by the law distinctively political as quite above its reach. Within certain limits, the law distinctively forensic looks to the religious law for sanction and assistance. The law distinctively political finds in religious law the model of enactments, the philosophy of laws, the power which motives men to be obedient to the commandments of the State.

Intimate as the relations which subsist at present between the law political and forensic on the one hand, and the law distinctively religious on the other, much more intimate were these relations in the infancy of nations. Indeed, I shall be solemnly arraigned or fiercely challenged for maintaining, as I must maintain, that in no single state of christendom has polity entirely freed itself from religion, or ventured to attempt the enforcement of the laws without the aid of the religious forces. For, not heated theorists alone, but grave and recollected judges, have contended, that however it may have been in ancient times or in other places, we, who make, in a new world, a new experiment of government, have separated the political from the religious, so that polity and jurisprudence have here no remnant of their once so intimate connexion with religion. Nay, such writers as the learned Mr. Buckle, hold that even in England, the connexion between Church and State is a dead form, or a doomed and dying form, and that new theories of government have there pronounced divorce between theology and politics.

Unable to agree, that either in England or America, accepted theories of government have alienated polity and christianity—persuaded, that in any chosen instance, I should be enabled to point out continued intimate relations between the political and the religious forces—I would willingly take such a retrospect of history and such

a view of present politics, as might assist us to maintain what I advance in this particular. The interest of such a retrospect to all who would become familiarly acquainted with the tone and tendencies of jurisprudence, cannot be inconsiderable.

I will hereafter^b submit a showing, which may prove, that if theology can anywise enlighten a forensic physiology, it may be treated as a proper source of such a physiology. And that it may illuminate and guide forensic learning, hardly can be questioned.

I will not attempt to indicate precisely what may be derived from theology by a forensic physiology. But from a simple statement of the method sometimes observed by theologians, it may be seen that much may be extracted from theology for the enlightenment and guidance of forensic psychology—and this we have determined to regard as only part of a forensic physiology.

The only Protestant theology which I have been enabled to examine for the purpose of ascertaining the method of theologians, is that of Dr. Dwight. An analysis of his theology shows it to be conversant, first, with the "System of Doctrines;" second, with the "System of Duties;" third, the System of Dispensations consequent on the State of Probation. The System of Doctrines includes: 1. Doctrines of Natural Religion; 2. Doctrines peculiar to the Christian Religion. The Doctrines of Natural Religion relate, *a*, to the Existence of God; *b*, to God's Unity; *c*, to His Attributes; *d*, to His Decrees; *e*, to His Sovereignty; *f*, to God's Works. The Doctrines peculiar to the Christian Religion (or the Mediatorial System) relate, *a*, to the Character of Jesus Christ, the Mediator; *b*, to the Covenant under which Christ acted; *c*, to the Offices which Christ sustained; *d*, to the Miracles of Christ; *e*, to His Resurrection; *f*, to the Amiability of Christ in publish-

(b) See Book III.

ing the Gospel to Mankind; *g*, to the Consequences of Christ's Mediation. The System of Duties includes: 1. Duties of Natural Religion; 2. Duties of the Christian Religion. In examining the former, the theologian considers, *a*, the Character of the Law of God; *b*, in what that Law is summed up; *c*, Man's Inability to obey the Law of God. In treating of the Duties of the Christian Religion, Dr. Dwight considers, *a*, the Mode of Restoration to the Spirit of Obedience; *b*, Means of Restoration, or Means of Grace. The System of Dispensations consequent on the State of Probation is divided into two considerations: 1. That of Death; 2. That of the Consequences of Death.^c

Theology, as cultivated by the Catholic theologian, is sometimes divided and related, according to its converse with — I. Doctrines belonging to the Supernatural Order; II. Doctrines belonging to the Natural Order.^d With reference to such a distinction, "Natural Theology treats of Truths of the Natural Order. Revealed Theology treats of Supernatural (i. e., of Revealed) Truths, whether these belong to the Natural or Supernatural Order of Truths.

"Again: The subjects treated are either Speculative Truths, the object of the intellect, or Moral Truths, the practical rule and law for the will. Hence, Theology is either Dogmatic or Moral; or, in other words, Speculative or Practical. Considering the manner in which theological subjects may be treated, Theology is Positive or Discursive.

"*Positive*, or *Doctrinal*, is that which proposes leading or doctrinal truths, and proves these by Scripture, Fathers, Councils, etc., etc., and makes use, to this end, of the ornaments of style; hence, also, called Oratorical.

(c) 1 Dwight's Theology (ed. of 1825), 63.

(d) It is to be observed that the Natural Order of Theology is not coincident with the Order of Nature, as I have attempted to describe it.

“*Discursive* consists in developing these doctrinal truths, and deducing conclusions according to the rules of strict dialectics; called also *Demonstrative*. Scholastic is the strictest form of Discursive, and aims at explaining every thing, and proving each proposition, by following the method of strict definitions, methodical divisions, and the syllogistic form of argument.”

Readers need not be told, that in the quite minute examination of the notion of human acts, distinguishing their several kinds, and analyzing them so as to ascertain their principles, the moral theologian is often occupied with simple metaphysics. But it is not merely moral *theology* which thus includes the metaphysical. Moral *philosophy*, as cultivated by certain philosophers, includes the metaphysical.

It is chiefly as Moral Theology is conversant with the metaphysical, especially with the affections, that it is available for the enlightenment and guidance of forensic physiology.

It is not proper here to enter into the disputed questions which divide the Churches, save as well established legal doctrines cannot be maintained without maintaining doctrines in theology. I shall, with care, avoid all advocacy of what any might distinguish justly as the “peculiar” doctrines of any particular religious body.

I am warned to do so, not alone by the design of such a course of studies as the present, but by the consideration, that I am unversed in theologic learning, save as I have learned it from certain symbolic books and from the pulpit. The theology with which I am in any sense familiar might be called the *lex non scripta* of theology—its customary, common law form. And it is this *unwritten* theology from which the lawyer derives the theological additions to forensic learning.

I have been so careful to establish the propriety of

adding to forensic learning from the learning of the theologians, that it may be expected that I will attempt distinguishable derivations and additions here. But I do not expect to do so. Theologians and jurists, better versed than is the present writer in theology, may, however, undertake the task which I do not expect to accomplish. I may borrow something from the theologians not already made a part of legal science; but I promise nothing of the sort.

And now we come to that Moral Philosophy which some philosophers consider as including Intellectual Philosophy.

Without determining the strict propriety of such a view of Moral Philosophy, we may conveniently treat the latter as inclusive of the Metaphysical, or rather as not to be distinguished from the Metaphysical.

“By the term Moral Philosophy,” says Sydney Smith, “is popularly understood ethical philosophy, or that science which teaches the duties of life: but Moral Philosophy, properly speaking, is contrasted to natural philosophy; comprehending every thing spiritual, as that comprehends every thing corporeal, and constituting the most difficult and the most sublime of these two divisions under which all human knowledge must be arranged. In this sense, it is taught in the Scotch Universities, where alone it is taught in this island; and in this sense it comprehends all the intellectual, active, and moral faculties of man; the laws by which they are governed; the limits by which they are controlled; and the means by which they may be improved: it aims at discovering, by the accurate analysis of his spiritual part, the system of action most agreeable to the intentions of his Maker, and most conducive to the happiness of man.”*

In recognizing as a source of the lawyer's characteristic

(e) Sketches of Mor. Philosophy, Introduc. Lec.

philosophy, and as interesting to us in this exploration into Anthropology, a learning known as metaphysical, I have already said, that I peril much the reception of my book in legal circles. True, the very science of the law is metaphysical. True, the practice of the law is quite familiar with the metaphysical. The logic of the pleader, and the tests applied by counsel to the testimony of the witnesses at bar, are metaphysical. Yet if one do not well select, and carefully prepare, the legal circle, in which metaphysics shall be mentioned, he may chance to frighten some well-meaning minds from their propriety. Indeed, if one abruptly mention metaphysics to a lawyer in full practice, he may find himself reminded of what Sydney Smith resorted to, in order to convince his hearers, that there was no danger in a course of metaphysical discourses. "There is," said that witty philosopher, "a word of dire sound and horrible import which I would fain have kept concealed if I possibly could; but as this was not feasible, I shall even meet the danger at once, and get out of it as well as I can. The word to which I allude is that very tremendous one of Metaphysics; which, in a lecture on Moral Philosophy, seems likely to produce as much alarm as the cry of fire in a crowded play-house, when Belvidera is left to weep by herself, and every one saves himself in the best manner he can. I must beg my audience, however, to sit quiet till they can hear what can be said in defense of Metaphysics, and in the meantime to make use of the language which the manager would probably adopt on such an occasion—I can assure ladies and gentlemen, there is not the smallest degree of danger."^f

I know too little of the learning known as metaphysical, to make a confident appraisalment of that learning. But I cannot see the justice of objections made to it by certain writers.

(f) Sketches, Introd. Lec.

Theology, the chief concern of the human mind and the human heart, is metaphysical. In Physiology, large part of what is of the highest interest, is metaphysical. In Physiology, we have contained Psychology. Psychology is but another name for Moral Philosophy, or Metaphysics. All the sciences that deal with the operations and the so-called "laws" of reason are distinctively but metaphysical. The interest, therefore, of Metaphysical Philosophy cannot be inconsiderable.

But it is not to be concealed, that constantly pretending to a positiveness, which it will not find in any part of metaphysics, what we commonly distinguish as the scientific, wages unrelenting war against the metaphysical philosophers.

Readers of Macaulay may remember how he paints a period, distinguished not by real love of science only, but by an affected fondness for the scientific, and especially for such as now claims rank as positive science. He describes the revolutionary spirit, which had ceased to operate in politics, as operative in the various departments of physics. "The torrent which had been dammed up in one channel rushed violently into another." The Royal Society, "destined to be a chief agent in a long series of glorious and salutary reforms, began to exist. In a few months experimental science became all the mode. The transfusion of blood, the ponderation of air, the fixation of mercury, succeeded to that place in the public mind which had been lately occupied by the controversies of the Rota. Dreams of perfect forms of government made way for dreams of wings with which men were to fly from the Tower to the Abbey, and of double-keeled ships, which were never to founder in the fiercest storm. All classes were hurried along by the prevailing sentiment. Cavalier and Roundhead, Churchman and Puritan, were for once allied. Divines, jurists, statesmen, nobles, princes, swelled

the triumph of the Baconian philosophy. Poets sang with emulous fervor the approach of the golden age."
 "It was almost necessary to the character of a fine gentleman to have something to say about air pumps and telescopes; and even fine ladies, now and then, thought it becoming to affect a taste for science, went in coaches and six to visit the Graham curiosities, and broke forth into cries of delight at finding that a magnet really attracted a needle, and that a microscope really made a fly look as large as a sparrow."^g

We, to some extent, repeat the fashionable rage for science, which Macaulay thus depicts. Science—science! science! Who is not the author of a scientific system, positive as death? What cannot become the basis of a scientific system? Where is courage to resist pretensions, stamped with scientific designations and assuming scientific rank?

Among the advocates of greater positiveness than belongs to metaphysical philosophy are certain learned physiologists. These speak with great contempt of all the schools of metaphysics.

It is indeed quite apparent,^h that Physiologists assume

(g) 1 Eng. 318, 319, 320.

(h) "Throughout the work," says Dr. Draper in the preface to his recent work on Physiology, "Physiology is treated after the manner known in Natural Philosophy. It was chiefly, indeed, for the sake of aiding in the removal of the mysticism which has pervaded that science, that the author was induced to print this book. Alone, of all the great departments of Knowledge, Physiology still retains the metaphysical conceptions of the Middle Ages, from which Astronomy and Chemistry have made themselves free. To exorcise it from such nonentities as irritability, plastic power, vital force, is the duty of the rising generation of physicians. It is also their interest. Empiricism will never be banished from the practice of medicine until Physiology is made an exact science."

"The reader," he continues, "will also find, that the opportunity is taken, whenever it occurs, of directing his attention to these arguments which the subject offers for elucidating the moral nature of man. Believing that the right progress of society depends on its religious opinions, and observing with concern the growing carelessness which is manifested in these respects in our times, the author has not hesitated to show how advantage may be taken of the facts

to set aside all reverence for metaphysical Philosophy, and claim for what the Physiologist asserts relating to the highest objects of all metaphysical investigation, rank with what is positive in learning.

When is a thing so known that what we know of it is positive? What mode of coming to the knowledge of a thing assures us that we know it positively? What amount of contradiction, conflict and confusion, in the promulgation and the definition of the known, deprives the theories connected with that definition and that promulgation, of all pretension to be positive? Can any one connected with the schools of medicine with safety venture to prescribe the Metaphysical in learning, because there have been contradiction, conflict and confusion, in the schools of Metaphysics?

It may be proper here to look a little into some of the conceptions of the scientific, which have tended to mislead the minds of many as to science, and the value of its doctrines.

Science, I may be informed, is systematic; science must be positive. It does not rest in theory. It is not science till it is reduced to form in writing, or in the equivalent of writing.

presented by Physiology. We live in a period of difficulty. *Metaphysical Philosophy has lost its hold upon the human mind. The uncertainties, contradictions, and emptiness of the English, Scotch, French and German schools, are manifest.* Already the belief is wide spread, that their barrenness of result and consequent worthlessness are the necessary incident of their method of investigation, and that we must look to some wholly new system as a guide to truth on the topics they have had under consideration. That guide is Positive Science."

"It would be in vain," adds Dr. Draper, "to discourage the cultivators of Positive Science from attempting the solution of questions which have foiled Speculative Philosophy. The attempt will certainly be made, and will inevitably conduct us to the truth. Our concern should be to direct it from the outset in the right course. The existence of God; his goodness, power, and other attributes; the existence of the soul of man, its immortality and accountability; the future life; our relations to and position in the world; its government; these are topics with which Physical Science is concerning itself, and from which Physiology cannot hereafter be disconnected."

On the other side of the question, however, authorities may be appealed to.

"The order of invention," says Stewart,ⁱ "is, in most cases, the reverse of that fitted for didactic communication. This observation applies not only to the analytical and synthetical processes of the *individual*, but to the progressive improvements of the *species*, when compared with the arrangements prescribed by logical method, for conveying a knowledge of them to students. In an enlightened age, the sciences are justly considered as the basis of the arts; and in a course of liberal education, the former are always taught prior to the latter. But in the order of invention and discovery, the arts preceded the sciences. Men measured land before they studied speculative geometry; and governments were established before politics were studied as a science."

Approaching the assertion, that Logic "comprises the science of reasoning as well as an art, founded on that science," Mr. Mill observes:^j "Art necessarily presupposes knowledge; art in any but its infant state, presupposes scientific knowledge." If this language be compared with what the same writer elsewhere^k lays down, it may be concluded that Mr. Mill did not choose language expressive of his meaning when he used the sentence I have placed beside the language of Dugald Stewart. If it should be otherwise determined, however, I must venture to dissent from each of the learned writers.

If Mr. Stewart had attempted to define the sum of knowledge, and the precise order of the arrangement of learning, which are necessary to the notion of Science, he might have found reason to doubt whether he had not fallen into an error. If Mr. Mill, on the other hand, had consulted his own definition of art—namely, that it "con-

(i) *Desserta*. I, *Encyc. Brit.*

(j) *System of Logic*, 2.

(k) *Ib.* 591, sec. 5.

sists of the truths of Science, arranged in the most convenient order for practice, instead of the order which is the most convenient for thought"—he would have seen, that, even in its infant state, Art necessarily presupposes a knowledge, which is, relatively speaking, scientific.

I venture to think, that Science ever precedes or pre-exists Art; but that Art, embodying and making visible the inventions of Science, constantly adds to the bulk, and new-models the form, of the Learning from which it at first proceeded. I find it difficult to think of an art without a corresponding science. Even the notion of the intuition of genius does not make the conception easy. Intuition sees the why and the how, as well as the possibility of an action or the impulse to perform it. Some sort of instinctive art in the human infant, belonging to its nourishment, may, indeed, feebly remind us of the merely instinctive art of the bee, or the yet anonymous art of the beaver. But even the highest of these instances only supports the general truth, that whatever art involves skill, involves a foregone perception, attention, conception, association of ideas, reasoning, as each of these is defined by Mr. Stewart himself—in short, it involves knowledge and understanding, which must be some degree of science under any possible definition. This will partly appear, indeed, from Mr. Stewart's own language, when (in his "Elements of the Philosophy of the Human Mind,") treating of Invention in the Arts and Sciences, he says, that invention "is the result of acquired habits, and not the original gift of nature;" and, in connexion with his distinction between invention and discovery, he further says: "Discoveries in science, therefore, unless they are made by accident, imply the exercise of invention." And again: "It was before remarked, that in every instance of invention, there is some new idea, or some new combination of ideas, which is brought to light by the inventor; and that although this

may sometimes happen in a way which he is unable to explain, yet when a man possesses an habitual fertility of invention in any particular Art or Science, and can rely with confidence on his inventive powers, whenever he is called upon to exert them, he must have acquired, by previous habits of study, a command over those classes of his ideas, which are subservient to the particular effort he wishes to make. In what manner this command is acquired, it is not possible, perhaps, to explain completely; but it appears to me to be chiefly in the two following ways: In the first place, by his habits of speculation, he may have arranged his knowledge in such a manner as may render it easy for him to combine, at pleasure, all the various ideas in his mind, which have any relation to the subject about which he is occupied; or, secondly, he may have learned by experience, certain general rules, by means of which he can direct the train of his thoughts into these channels, in which the ideas he is in quest of may be most likely to occur to him."

The question, I am aware, is not whether *knowledge* comes before art: Mr. Mill distinctly asserts, Mr. Stewart plainly concedes, that art always presupposes knowledge. Indeed, there could be no question seriously raised as to the correctness of that admission. The simplest motion of our bodies, is never *purposely* performed, till the knowledge of the manner enters into the understood consciousness of the power. The only question is, whether some rude science must have pre-existed the rudest art—whether some simple science of measures must have pre-existed the measurement of land—whether some unsystematic science of politics must have been studied before any government was established by law.

It seems to me, that we must allow to the *science*, a precedence over the *fact*, of government. Science is nothing but knowledge prepared for art. That knowledge would

seem to be scientific, which, relatively speaking, is fit to be expressed in a practicable art.

No precise sum, no unalterable system, no given form, can be prescribed, as the amount, the method, or the significant, of knowledge deserving the designation in question. Nor can I acknowledge a distinction between the person who prepares science for art, and the person who carries art into practice. No such idea or supposition belongs to the true definition of science, as I apprehend it. Writing is not necessary to science; the division of labor is not necessary to science. Both may improve art and increase the sum of science; either may be so used as to pervert or prevent the growth of skill, or to narrow the field of knowledge and investigation. Things known to one man ought, indeed, not only to be learned by his neighbors, but inherited by his children and the world. But a body of science may be conceived without the conception of its being written, or that of its formation by students other than artists.

I may here return to Physiology as cultivated by the learned Dr. Draper, with the right to say, that much of its contents can only rank as scientific, on the assumption that I have correctly viewed the scientific in general. At the same time, we have occasion for the observation, that after all, even as "a cat may look at a king," the unlearned may still continue to breathe freely in the presence of the scientific.

Here, however, I desire to make it clear, that I do not design to behave towards the science known as Medicine, as certain Physiologists, while aiming to exalt that science, apparently incline to behave towards all metaphysical philosophy. I will not, therefore, triumphantly direct attention to facts notoriously exhibiting the perils which must attend the warfare of the medical, whenever it assails a rival science, on the ground that it is full of contradictions. I

will not require the devotees of Physiology, as part of Medicine, to vindicate their favorite science when assailed as full of contradictions. I will not inquire how far the errors and uncertainties of metaphysical philosophy may be traced to errors and uncertainties in physiology as it has been developed with strict reference to Medicine. I have a real, an unchangeable respect for Medicine. I know, that notwithstanding all its contradictions, errors, and uncertainties, it well deserves far higher estimation as a science than it has as yet attained. I know, moreover, that in Physiology, as Carpenter has cultivated it, a just regard for what is practical, and verified, and otherwise deserving honor, in the learning known as metaphysical, is constantly apparent. Let us deal more charitably with writers such as Dr. Draper, than such writers seem inclined to deal with Reid, or Hamilton, or Balmes. But let us not entirely overlook the arrogance of writers such as Dr. Draper, in assailing as they have assailed all metaphysical philosophy.

As for the positiveness and the certainty of medical learning, I have only to observe at present, that its teachings are as speculative as the teachings of theology. Theology takes facts as certainly ascertained as any known to medicine—takes facts, indeed, of medicine, of law, of every art and every science—and upon these facts, as well as on the evidence of revelation, builds the theory of God and human duty. Medicine cannot pretend to higher certainty.

What certainty, what positiveness, will the learned Draper claim, for doctrines such as this? "If there be a property which is characteristic of the nervous mechanism in its utmost degree of development, it is this of retaining the relics or traces of impressions which have formerly been made upon it. As it goes on increasing in perplexity as we rise through the animal series, the pro-

vision for the retention of such impressions becomes more and more strongly marked. Ganglionic masses, which from their position and structure, are marked out for this duty, appear in that ascending scale in increasing magnitude. To these we may aptly apply the designation of registering ganglia, since they truly store up the traces of ancient impressions and keep them in reserve. These ganglia must, moreover, be the scenes of the interaction and interference of the impressions they thus contain. The registering ganglia thus introduce the element of time into the action of the nervous mechanism. The impression, which without them would have forthwith ended in action is delayed for a season, nay, perhaps, even as long, though it may be in a declining way, as the structure itself endures; and with the introduction of this condition of duration come all those important effects which ensue from the various action of many received impressions, old and new, upon one another."¹

When the learned physiologist commiserates the case of the metaphysicians, he observes: "They have given us imposing doctrines of the nature and attributes of the mind, in absolute ignorance of its material substratum. Of the great authors who have thus succeeded one another in ephemeral celebrity, how many made themselves acquainted with the structure of the human brain? Doubtless some had been so unfortunate as never to see one! yet that wonderful organ was the basis of all their speculations." Is this more than speculation? Is it positive? Can we *certainly* declare, that the brain is the material substratum of the mind? Is it so "positive," that that wonderful organ is the basis of all proper speculation touching mind? Is the mystery of the connection between mind and body dissipated by the sun of modern

(1) Drap. Phys. 269.

science? I trow not. The doctrine of the Trinity itself is not more speculative than the doctrines, which profess to teach how ganglia become the registers for memory; and it is scarcely more mysterious than Carpenter or Brodie's theory of the connection between mind and body.

CHAPTER V.

I DO not mean to question that a physiology quite as good as any well known system of Physiology may be attained when Physiology shall be more regarded by Psychologists than it was by some metaphysical philosophers. It is plain enough, that mind and body are united in so intimate relations, that no perfect study of the mind can be accomplished save through Physiology. Nor can it be denied that Dr. Carpenter speaks but justly when he says: "It is greatly to be regretted, that evidence drawn from structural arrangement has hitherto, by very high authority, either been totally cast aside or held in very light esteem." But we must not decide ourselves in this particular. The evidence drawn from structural arrangements has not constantly produced harmony of doctrine, even when considered with the closest scrutiny. Indeed, the "system" of "Positive Science," founded on results announced by men who have, as they declare, made careful scrutiny of just such evidence as that which Dr. Carpenter so eagerly and quite honestly. One may easily admit to something like an unbecoming arrogance in writers such as Carpenter or as Ilay. The arrogance of Positive Science as they have illustrated it almost be-

CHAPTER V.

THE SAME SUBJECT CONTINUED.

I DO not mean to question, that a positiveness quite wanting to any well known system of Psychology, may be attained when Physiology shall be more regarded by Psychologists than it was by some metaphysical philosophers. It is plain enough, that mind and body are united in so intimate relations, that no perfect study of the mind can be accomplished save through physiology. Nor can it be denied that Dr. Draper speaks but justly when he says: "It is greatly to be regretted, that evidence drawn from structural arrangement has hitherto, by very high authority, either been totally cast aside or held in very light esteem."^a But we must not deceive ourselves in this particular. The evidence drawn from structural arrangement has not constantly produced harmony of doctrine, even when considered with the closest scrutiny.

Indeed, the "systems" of "Positive Science" founded on results, announced by men who have, as they declare, made careful scrutiny of just such evidence as that which Dr. Draper so exalts, are quite discordant. One may quietly submit to something like an unbecoming arrogance in writers such as Draper or as Ray. The arrogance of Positive Science as they have illustrated it almost be-

(a) Physiology.

comes a virtue, when compared with the pretensions of the "irregular" forms in which Positive Science delights to dazzle the unlearned. We, who are not scientific experts, hardly know the real from the pseudo sciences. Pretenders and Philosophers are sometimes undistinguishable by unlearned eyes. We have so many "systems" now a days, that really we find it difficult to count the names, much more to be familiar with the contents, of the sciences. The worst is, that no matter what the new "system" may be conversant with, it claims the honors due to what is positive in science, and denounces scientific sentence against unbelievers.

At the bar, we are from day to day encountering pretensions of the scientific, which we do not always find it easy to respect.

An instance may be given.

A woman was indicted as a poisoner.^b Her counsel set up the defence that she was irresponsible, on the ground that the poisoning was an instance of imbecility educated to do the act in question. Experts were examined. Two of these belonged to the old school of Medicine. Two others were Eclectics—one, the author of an Anthropology. Dr. Buchanan, when presented as a witness, was proceeding to express his opinions founded on his "Anthropology,"^c when an objection was submitted to the Court, relating to the competency of opinions such as his, so founded. But the Court allowed him to proceed. He testified among other things, to indications of idiocy, which he distinguished in a bodily examination of the prisoner. "My opinion," he said, "is not given simply as a craniologist, but the whole constitution is embraced in my teaching. . . . In testifying, I proceed upon the principles of the entire science of Physiology, assisted by a

(b) I refer to Nancy Farrer's case. 2 Ohio State R.

(c) Since published in a volume of nearly 400 pages.

special study of the anatomy and physiology of the brain, which has been my principal study for fifteen years, and with which I ought to be acquainted if I know any thing. Sciences, which have been taught for many years are not hypothetical matters, though they may be subjects of debate and discussion. I would stake my life upon the practicability of determining positively by science, which we now possess, the moral and intellectual characteristics of any individual." But Dr. Edwards (of the old school) testified: "I do not think it possible to tell with perfect accuracy the moral and intellectual character of any individual by science. I do not agree with [Dr.] Buchanan that it is possible. I would prefer to trust common sense [rather] than science."^d

The system of Buchanan is according to its author quite as *positive* as any other system. He declares, it is not hypothetical. He verifies it by his oath. He avows, that he is ready with the risk of life to verify it. When we look into its teachings, we encounter a variety of sciences combined. The Science of Phrenology—the Science of Cerebral Physiology—the Science of Pathognomy—the Science of Sarcognomy—make up the Anthropology before us. These again are subdivided, and we find fresh wonders in each subdivision. Among other things set down as positive in this peculiar system, are doctrines such as these:

Neurology gives to the external senses their definite location in cerebral organs, thus supplying a singular hiatus in the Gallian system.

"THE HIGHER OR MORE SUBTLE POWERS OF THE MIND.—Neurology recognizes, explains, and locates those wonderful powers which maintain our relations to the subtle influences of nature, which give rise to the phenomena of animal magnetism, and which bring us into contact with

(d) I quote from the bill of exceptions in the record—not from the report.

the sphere of what is called spiritual and supernatural. The importance of these powers to the progress and elevation of mankind can be appreciated only by the more advanced students of anthropology.

“In addition to these new classes of cerebral organs, a great number of faculties or organs of the more familiar species, which have heretofore been overlooked, are demonstrated by Neurology.

“Moreover, the Neurological system of investigation establishes three distinct and important contributions to mental science — PSYCHOMETRY, PHYSIOGNOMY, and SARCOGNOMY.

“1. PSYCHOMETRY. — The Psychometry, or mind-measuring of the Gallian system was merely a rude system of craniology, sketching boldly and roughly the profile of a character appropriate to the skull, which the individual often failed to realize practically from the want of full and systematic mental cultivation. The Psychometry of the Neurological system determines the *actual power* of the organs by the impression which they give of their vital energy to an impressible and intuitive person. Hence the new Psychometry differs from the old Cranioscopic sketching as much as a cast or daguerreotype of the face differs from a penciled profile. Our Psychometry has also the advantage that it is entirely independent of the cranium, and applies with as much facility to the absent, the dead, or the ancient, as to the present.

“2. PHYSIOGNOMY. — The Neurological system differs from the Gallian system in the fact that while the latter gives us only a limited Craniology, the former gives us, in addition to a very extensive and minute Craniology, a system of facial and corporeal Physiognomy, which enables us to determine even without the sympathetic Psychometry, the general character and condition of the brain, as they are distinctly indicated in the countenance and person. A reference to Physiognomy is often as important as the ex-

amination of the cranium, in determining the actual character.

“3. SARCOGNOMY.—The laws of sympathy between the mind and body, of which the Gallian system offered no explanation beyond the location of the mind in the brain, may now be understood. Neurology, by showing that every individual portion of the brain sympathizes and is connected with a corresponding portion of the body, explains all the sympathies of the mind with the body and the body with the mind, both in health and in disease. The sympathy, connection, or correspondence between the cerebral and corporeal organs, is such that we make a Psychological map of the body corresponding to that of the brain, in all its organs and sub-divisions. In the study of these new relations and correspondences we obtain a large amount of psycho-sarcological knowledge of the relative development of mind and body. This Sarcological knowledge being principally exercised in discovering the mental sympathies and characteristics connected with the different parts of the body, may be appropriately called SARCOGNOMY. By this name we give it a position by the side of Physiognomy, which interprets the character of the face as Sarcognomy does of the body, revealing laws, connections, and sympathies of immense importance to the physician, the artist, and the teacher.”

I do not bring these doctrines and pretensions into view, in order to pronounce upon them. What their real worth may be, I am not well prepared to say. In general, they seem to me but fanciful, or worse. But I own, that I have read with more than ordinary interest, the portion of Buchanan's work devoted to Sarcognomy. There is a beautiful suggestiveness in much of this. Its author takes a picture of the Greek Slave, and treating it as craniologists would treat an image of the cranium, marks on it, here, this indication, there another, so distinguishing how the

development of body manifests the prominence, or want of prominence, of mental characters in individuals. But while I thus do justice to a system, which has not been well received beyond the limits of its merely popular reception, I must point to it as illustrating how absurdly positiveness is asserted as the character of systems, far more speculative than the metaphysical had often shown itself, before the day when all the scientific arrogated rank as positive. To this illustration we may add yet others.

Moved by the consideration, that forensic learning cannot safely be entirely ignorant of the irregular, empirical, unwarranted, in anthropology—since lawyers may encounter often such a question as arose in Nancy Farrer's case, concerning the opinion of experts—and by the further consideration, that in the unauthorized and unreceived in anthropology, we may encounter much,

“Which, like a toad, ugly and venomous,
Wears yet a precious jewel in his head,”

I once chose to purchase a small library in anthropology. It was not an expensive library. It promised to convey all necessary learning touching human nature, for a most reasonable consideration paid in money. All the books I purchased were prepared for popular enlightenment. Their learning was learning for the millions.

At the shop of a blind phrenologist, I bought a paper-covered volume, price twenty-five cents, being Alfred Smee's “Principles of the Human Mind,” together with a lecture by the same philosopher on “Electro-Biology, or the Voltaic Mechanism of Man.” At the same time and place, I bought for fifty cents a like paper-covered volume, entitled “Mental Alchemy, a Treatise on the Mind, Nervous System, Psychology, Magnetism, Mesmerism, and Diseases. In Twelve Chapters. By B. Brown Williams, M. D. ;” and, for a like sum, I purchased a like copy of

"The Philosophy of Electrical Psychology; in a course of Twelve Lectures. By John Bovee Dods."

All these books were published by a single New York house.

How much the public honors "Positive Science;" how many readers works of science must attract; the facts just stated very well evince. But if, in sober seriousness, we are to recognize as science what the works alluded to contain, and if theology must yield to such advancement as they indicate, our churches should at once be stripped of all that marks their character, and be converted into colleges of psychological professors.

Mr. Buckle would not treat as scientific much that I have thus presented to the reader as pretended scientific systems. The suggestions of surpassing interest, to which he has alluded, do not rise from Biologic or Alchemic studies.

At the cost of repetition, let me say, that if all that claims the authority of Positive Science must be honored as such, confusion, taking the place of intelligent obedience, and perplexity, restraining the expression of a discriminating regard, may serve as our excuse for failing in the proper demonstrations of respect.

We may submit, when Geology, setting up the altars of its novel Genesis, pronounces the major excommunication of science, not only against the heretic who denies, but against the skeptic who ventures to doubt, the authority of the new revelation. We may not murmur, when Astronomy, altering the received scheme of creation, does unto death all antique believers in the stars. We may not resist, when Physiology, proving the existence of God and His attributes by Positive Science, studied in structural arrangement, thunders its fatal decree against all the Speculative Philosophy of Human Nature. We may even be amazed into silence, when Craniology hangs its map in

the halls of science, and demands the undivided attention of the learned. Nay, more. We may follow the Gallian Phrenology, through all its phases, into its development and correction by our own Buchanan. But patience, beginning to grow faint when we encounter such a science as the learned Smee condenses into 347 lines of printed letters, pica, is exhausted, when we are commanded to pay all the honors due to what is positive in Science to the works of Davis or of Dods.

I trust, however, none will understand me as denying to the truly scientific all that science fairly challenges from any, the most ardent, lover of the true in knowledge. I am anxious only to distinguish between what is positive in learning and what falsely arrogates that character, and to do but simple justice to the useful learning which may be discerned in metaphysical philosophy.

I may add, that if, as I have suggested, we have lately revived the rage for science, which Macaulay has described among the follies and extravagances of a former period, our affectation is not such as should be most severely censured. Our science has been positive enough to work a thousand wonders, soon reduced to blessings, in the realm of Art. Our day of the world is a day of material splendor and power; and we learn by the "perfectest report" of science and experience, that such material splendor and power, is sometimes wealth to the mind and the heart, as well as to the coffers, of the world. A day of the world, let us add, which subjects the tissues of the human body to the microscopic revelation of wonders, wondrously delineated, as soon as revealed, and with a precision mocking belief; which almost begins to demonstrate to the sensible eye how near this immaterial is to this material self; which, by making man better acquainted with his nature, enables him better to lay down the laws of his conduct; such a day promises to do much for Positive

Science and for priceless truth. But we must not fancy in the mere promise its own fulfilment, or hasten to degrade all learning which does not assume the name of positive.

If in what I have written of metaphysics, I have seemed to acquit the learning in question, of all disparaging criticism, I have not in fact overlooked the striking imperfections of its science of human nature. An obvious source of its errors and uncertainties has already been brought under observation, at least incidentally. It paid too little attention to Physiology, Hygienic as well as Pathological. Nor was the motive of this disregard very creditable to some of its disciples. Fear of ridicule, induced by some conspicuous failures to show the relation between bodily structure and mental constitution, induced the metaphysical philosopher to turn away from the studies, in which these failures occurred.

On the other hand, the effort to define the yet unknown, or the yet imperfectly known, or even the naturally indescribable, is often made by metaphysical philosophers. That they should often fail in their attempts, is not a cause of surprise. Nor need we be amazed, if we shall sometimes find the metaphysical philosopher delighted with supposed success in definition, when, in truth, he has deceived himself far more than enlightened others.

The already mentioned temptation, which many writers find irresistible, to essay the description of the indescribable, and to essay the definition of what really defies all definition, deserves more attention than the learned have devoted to it. In the same connexion, it might be well to bring under observation the curious fact, that the very act of writing, or, rather, the contemplation on paper of thoughts signified by letters, *especially if the letters be printed*, will sometimes deceive the most modest writer into the belief, that there is a certainty in the thought signified, which it had not before it was joined to its symbol. An

air of something like authority thus seems to lurk in printed letters.

Facts like these, perhaps, account for much that is exceptionable in the books of metaphysical philosophy. The arrogance by which some, the air of making us acquainted for the first time with long known truths, by which others, make their writings subject to unfriendly criticism, may be due to just such facts, as those to which I have referred.

But, however this may be, in metaphysical philosophy the reasoning of learned men has well established certain theories, of which vulgar observation had not dreamed; and when we take a fair, comparative view of the collection of facts and inferences contained in metaphysics, comparing it with any well known science, we shall find its facts as certain, and its inferences quite as useful, as the facts and inferences contained in any other system. They enforce moral lessons of the greatest interest to all the busy strugglers and competitors of civilized society. They warn us to attend, in order first to understand, and next to keep in mind, all our surroundings. They enable us to give direction to our thoughts by showing how they tend, when uncontrolled, and how we may control them. They distinguish between soundness and its opposite in reasoning. They show us what is madness by producing vividly before us the conception of a mind entirely free from every taint of the unwholesome and from all the wants of the defective.

That the best metaphysical works do most of this by mere suggestion—just as Shakspeare paints a Perdita, or colors a Miranda—I admit. But they are not, therefore, so imperfect as to be contemptible.

Without dwelling longer on my reasons for reserving liberty to draw from metaphysical philosophy, some portion of the light, in which I hope to make some explorations of the ground of Anthropology, I here reserve that

liberty. I may not exercise it largely. In the works which Medicine has carefully prepared with reference not only to the Medical in Science, but to forensic purposes, I may find so much derived from metaphysics as to render it but seldom necessary to resort to the metaphysical works themselves.

CHAPTER VI.

THE SAME SUBJECT CONCLUDED.

THE writer was chiefly moved to notice what has been objected against metaphysics, by the desire to prepare the reader for an estimate of Medicine, which otherwise might seem too hastily made up, if not too rudely brought before the public eye.

In view of what I have already drawn from Physiology as part of the science due to Medicine, as well as in anticipation of what I expect to derive from the same science, I should show myself insensible to obligation if I should approach the medical in science with any thing resembling disrespect. In truth, I could not speak without respect of Medicine as a science, save at the expense of feigning what I do not feel. But, as already intimated, I do not allow respect for any science or its cultivators to release me from allegiance to the truth. In Medicine, therefore, I cannot recognize that positive and certain science which some of its cultivators have discerned in it. That it is partly speculative—that its physiology is largely metaphysical—I wished to show before approaching such a view of it as that attempted here. That it is worthy of high honors, I do not deny, but rather shall endeavor plainly to display as we proceed.

The great anthropological value of the science due to

the necessity of providing for the cure of disease, will be apparent in a simple statement of the parts into which the science branches.

First of all, we have Anatomy. Here, science as it were *dissects* the human body, in order to point out the number, shape, situation, structure, and connexion — in a word, of all the apparent properties, of organized bodies.^a Another form of expression may be, that anatomy teaches the structure and relative position of the different parts of an organized body. Now to know the structure and relation of the different parts of the human body is of great concern to all who wear the human shape. Its nearest interest, however, is to the physician, and its next succeeding importance is, perhaps, to lawyers practising in courts, which have the cognizance of crimes. But what more nearly touches us at present, is the value of anatomy considered in relation to forensic physiology.

This value is far less than the value of the same anatomy considered in its relation to the physiology of medicine; but some acquaintance with anatomy is quite essential to the study of forensic physiology. We may draw from the anatomist somewhat as we proceed.

In analysing Medicine as science, we encounter next that Physiology to which I am to be so much indebted in the present undertaking. Carpenter defines the object of this part of Medicine. This object is to bring together, in a systematic form, the phenomena, which normally present themselves during the existence of living beings; and to classify and compare these in such a manner, as to deduce from them those general laws or principles, which express the conditions of their occurrence, and to determine the causes to which they are attributable.^b But when we look

(a) *Dungl. Med. Dic. tit. Anatomy.*

(b) *Introduction to 5 Am. ed.* In general, I quote from the smaller edition of 1855.

beyond the introduction, in which the learned Physiologist so limits Physiology, we find some reason for regarding this part of medical science as really embracing nearly all contained in medicine. Not only is it treated as inclusive of Psychology, of which a definition is varied by Carpenter from his own definition of Physiology, showing its object to be "to bring together, in a systematic form, the phenomena which normally present themselves during the existence of thinking minds; and to classify," etc.;^c but Physiology is treated as related to Pathology, Therapeutics, Hygiene, and Forensic Medicine. And in the Psychological division of the book, we are very fully informed of phenomena which *abnormally* present themselves during the existence of thinking minds; just as, in other parts of the work, we find the author treating of defective and of excessive development, of normal and of abnormal growths, and the like.

All this is eminently proper; and I point to it without objection. But I must explain, that, while I shall, like Carpenter, concern myself alike with the abnormal and the normal, I may not attempt to draw much light from works, distinctively relating to diseases and their remedy.

With *Materia Medica* and Therapeutics, I may not concern myself at all. I have not more than glanced at them while looking into medicine as science. Yet in works devoted to these titles I have often found materials for such a physiology as I attempt to outline. And in works like that of Dr. Williams on the Principles of Medicine, I find a most inviting presentation of Pathology.

It will be observed, as we proceed, that I avoid discussion of the questions which divide the schools of Medicine. I do not regard myself as competent to engage in such discussion. I prefer the school denominated "old," and "regular," and "allopathic." I am governed in this pref-

(c) Carp. Phys. 5 ed. 770.

erence by such presumptions as are honored in the law. I think, the well known facts of history make a *prima facie* case against the Homeopaths and others, who assail with bitterness the old established practice. But I am not sure that some eclectic system may not yet arise to such importance, as to call for sweeping changes in the theory and practice of regular Medicine.

At Hygiene — or that part of medicine whose object is the preservation of health, I shall but glance from time to time as we proceed.^d

I had almost forgotten the part of Hamlet in the play of Hamlet. I had almost forgotten Surgery.

This now noble and always useful art, was long treated with contempt, and was even lately held to most absurd responsibilities. But now it assumes its proper rank, and forces the respect of all true lovers of the useful and the wonderful in human art.

I need not here refer to history in order to maintain what I have said respecting the once almost contemptible condition of the surgeon. Nor, I am rejoiced to add, need I produce the evidence that a better day has dawned on Surgery. All are familiar alike with its former poor estate and with its present honorable rank.

But all may not be well acquainted with the manner in which law, enacted or defined, has distinguished surgeons and their art.

“The province of a Surgeon,” says a legal writer, “is confined to the reduction and cure of fractures, and other injuries affecting the limb, or such external ailments as may require the operation of the knife; it cannot be extended to internal complaints or local diseases.”^e

(d) *Materia Medica* is that division of medical science, which treats of the knowledge of medicines, their action on the animal economy and mode of administration. Dunglison. Pharmacy is described as “the art, which teaches the knowledge, choice, preservation, preparation, and combination of medicine.” *Ib.*

(e) 1 Steph. Nisi P. 310, referring to *Allison v. Haydon*, 4 Bing. 619.

Mr. Miller, in his work on Surgery, refers to the word denominative of the art as originally signifying "the manual procedure, by means of instruments or otherwise, directed towards the repair of injury, and the cure of disease; in contradistinction to the practice of Medicine, which denotes the treatment of disease by the administration of drugs, or other substances supposed to be of a sanative tendency."^f

Even if we take this medical description of the Surgeon's art precisely as it stands, it shows a great defect in the legal definition. But this is not all. Mr. Miller proceeds: "Such a meagre description applied but too justly to surgery in its infancy, and still more after its separation from its twin-sister medicine, in the twelfth century. When its practice was denounced by the Council of Tours as derogatory to the dignity of the sacred office of the priesthood, and beneath the attention of all men of learning, the term *chirurgery*, in its most literal interpretation, was quite sufficient to comprehend the duties of the degraded and uninformed surgeon, who had degenerated into a mere mechanic, attached to, and completely dependent on, the learned and philosophic physician. But the matured progress of the healing art, fortunately for science and humanity, has rendered such a definition of surgery in these days utterly untenable. Its complete separation from medicine would now be attended with the utmost difficulty; nor is it desirable that the attempt should be made, because its success, however partial and imperfect, would be most hurtful to both. They are now, and it is to be hoped will ever remain, one and inseparable. Their principles are the same throughout, and the exercise of their different branches requires the same fundamental knowledge; but their details are so numerous and intricate as to render it most difficult, if not im-

(f) Historical Notice, prefixed to Miller's Principles of Surgery.

possible, for any one individual to cultivate all with equal success. The consequence has been, that while the theory and principles of physic and surgery remain united, as constituting one and the same science, the practical parts are now frequently separated into distinct professions; each person adopting that department most congenial to his pursuits, and for the management of which he conceives himself best qualified."

It is to be observed, however, in defence of the somewhat narrow legal definition of surgery, that under the English rules of law, it was, and it may continue to be, necessary to find the line which separates the surgical from the other part of medicine. Barristers and physicians were unable to maintain an action for their fees, "thus," as it has been observed, "forming an exception to the general principle, that he who bestows his labor for another is entitled to an adequate compensation."^g Surgeons and apothecaries on the other hand, might, besides their charges for medicine, recover such charges for attendance as the jury should consider to be fair and reasonable.^h Legal purposes, therefore, required the fixation of a line—or the attempt to fix a line—between the province of the surgeon and that of the physician. It was, I need not add, impossible to fix any such line. For, says the learned writer already referred to, "many and labored" — and, he might have added, entirely in vain — "have been the attempts to define surgery according to its present state, so as to prevent interference with the department of physic." This example, Mr. Miller will not follow. He considers, that the arrangement as to what is medical and what surgical, must, in a great measure, depend on custom, not on fixed and permanent rules.

(g) 1 Steph. N. P. 310. It is added, however, that "no action can be maintained against a counsel for negligence, or to recover a fee given to argue a cause which he did not attend."

(h) *Handey v. Henson*, 4 C. & P. 110.

I am unable to anticipate the answer to the question, how far is surgery a source for such a physiology as that here outlined? But I thought it only proper thus to recognize the value and the dignity of Surgery, so long degraded and contemned, now taking elevated rank among the arts of civilized society.

The only remaining sources of light for our intended exploration, which I think it necessary to examine ere proceeding to the body of the task I have imposed upon myself, are: "the mirror of life, contained in history, poetry, the novel, criticism, and general literature;" and "the observation of popular manners, customs, and modes of thought." In these, as in the "personal experience and self-study," which I have also recognized as a source of the Floating Philosophy of the Bar, the lawyer grows familiar with those standards or ideals, with which he may compare all cases of supposed abnormality, or with reference to which he may ascertain the harmony of given characters, when that becomes an object.

We shall see, hereafter, that the same learned medical writer, who will be found pointing to the creations of Shakspeare and Moliere as better teachers of mental philosophy than Locke and Stewart, has denied the value of the standards or ideals alluded to with reference to such a purpose as that, with reference to which I hold them priceless. We shall give attention in another place to his opinion. For the present, let us simply point with him to Shakspeare and Moliere, as worthy teachers in the school of anthropology.

In the succeeding chapter, we shall find that not the poet only, but the painter and the sculptor, have so pictured human life, as to deserve respect in a forensic Physiology.

And yet I cannot fail to foresee, that my work may be subjected to unfavorable criticism, in so far as it thus re-

cognizes ideal Art as a source of Physiology. True, none dispute that history, which teaches by example, is a proper source of Physiology. Indeed, the Physiologists have lately shown a disposition to invade the province of the historian.ⁱ And some historians invent a Physiology with reference to history.^j But when I thus allow Imagination to assist us with examples, I may be informed, that I forget the proper dignity of science. And the fearful precedent of one Macaulay may be cited as a warning against the proposed consultation of the poets, the painters and the sculptors.

Even if such consultation should in truth involve a loss or lowering of the severe and solemn dignity of scientific treatises, I have already shown, that I would not regard it as objectionable in a work like this. This is a *familiar* Forensic View. And I am not convinced that the Macaulay precedent contains the warning which to some may be apparent in it. If Macaulay has forgotten, sometimes, what historians ought never to forget, I cannot find the cause in his determination to consult the poets and the novelists, the pamphleteers and the journalists, as well as grave and reverend and recognized "authorities."

In very truth, I am compelled to own, that if I could not turn from the "authorities" in Physiology and Metaphysics to Shakspeare and his fellows, I would be inclined to doubt, at times, the value of Psychology in any form. It is in studying the scientific portraitures of Man, and even scientific treatises of the other contents of the sphere in which man's life is active, that we feel so often the uncertainty and littleness of human knowledge. Science, even when conversant with the simply natural, as I define it, often seems but vain and useless speculation. Nature often gleams upon us through the theories of science as the

(i) See Draper's Physiology, Chapter on "Social Mechanics."

(j) See Buckle's Hist. of Civ. in Eng., Vol. 1, ch. I.

yet unpenetrated mystery, unknown—unsearchable. The sighs of Gœthe and of Felltham then recur to recollection. With the former, we are ready to exclaim, that though surrounded by the natural, and unable to recede from its embraces, we are still unable to attain to deeper insight into nature.^k With the little known but interesting author of “Resolves, Divine, Moral and Political,” we often feel inclined to confess with sadness, that we can “sound Nature” only “in the shallows of her revelations. We may trace her to her second causes; but beyond them, we meet with nothing but the puzzle of the soul, and the dazzle of the mind’s dim eyes.” It is in the works of science, that we find, that “learning is like a river, whose head being far in the land is at first rising, little, and easily viewed; not without pleasure and delightful winding, while it is on both sides set with trees, and the beauties of various flowers. But still the further you follow it, the deeper and the broader ’tis; till at last it inwaves itself in the unfathomed ocean; there you see more water, but no shore—no end of that liquid fluid vastness.”

In the study of the poets, and the painters, and the sculptors, we are reassured a little. Here we find imagination teaching by examples, even as we find history—in which imagination is involved—a teacher by examples. Novels, poems, in a word, ideal art of all descriptions, may be treated as a species of history and of historical philosophy. The higher, purer efforts of the reason are involved in poetic Art. Imagination, as hereafter we may see more plainly, is the understanding dealing with ideal objects, just as it at other times is conversant with reality.

I shall not, therefore, scruple to acknowledge Art of all

(k) “Natur! wir sind von ihr umgeben und umschlungen; unvermögend aus ihr herauszutreten, und unvermögend tiefer in sie hinein zu kommen. . . . Sie schafft ewig neue Gestalten; was da ist, war noch nie; was war, kommt nicht wieder; alles ist neu, und doch immer das Alte.”

descriptions as a source of this Forensic Physiology. I shall, indeed, begin the effort, which I here approach, to bring before the reader some portion of the contents of such Physiology, by looking into the poetic Arts for introductions and suggestions. Let the issue test the justness or the erroneousness of such a mode of introducing what we are about to study. I am quite content with such a test.

CHAPTER VII.

VIEW OF AN IDEAL STANDARD MAN.

ART has often taxed Imagination to conceive Ideals of Humanity as perfect. Pictures of the Savior may be mentioned as among the proofs of this assertion. Sculpture also furnishes some illustrations—as in the Apollo Belvidere and the Laocoon.

The Apollo Belvidere displays the god “in a movement of indignation against the serpent Python, which he has just killed with arrow-shots, and in a sentiment of contempt for a victory so little worthy of a divinity. The wise artist, who proposed to represent the most beautiful of the gods, placed the anger in the nose, which, according to the ancients, was its seat; and the disdain on the lips. He expressed the anger by the inflation of the nostrils, and the disdain by the elevation of the under lip, which causes the same movement in the chin.” Such is the result of the analysis of Winkelmann.^a It is plain, therefore, that the Apollo Belvidere will not supply us with the realized conception of a perfect human being. What is wanting is not the reduction of the god to the level of the man. Anthropomorphic art sought only to express idealized humanity in its objective conceptions of the gods. Greek art, especially, could hardly look above

(a) Quoted in Cousin's *Lec. on the True, Beautiful and Good*—Lec. VII.

idealized humanity for the conception of divinity. It would not be impossible, therefore, to discover in the celebrated statue of Apollo as described by Winkelmann, and after him by the philosopher, Cousin,^b the characters of perfect but mere humanity, if only what Lavater calls the physiognomonic state of the divinity had been depicted. Physiognomonic character is character at rest; the pathognomonic is the character in motion. Character at rest alone displays perfection. The Apollo is but slightly removed from the physiognomonic state; but it is not perfectly at rest.

The Laocoon is, I would say, from the descriptions I have read, a noble effort, to balance in an "admirable equipoise," as Schlegel has it, "the efforts of the body in enduring, and of the mind in resisting." The story of Laocoon is known to readers. At the altar of his god, engaged in sacrifice, the priest beholds his children in the serpent's coils, and, vainly offering to aid them, is himself involved in their destruction. How the sculptor has succeeded in expressing this catastrophe, let Schlegel tell us: "The children calling for help, tender objects of compassion, not of admiration, recall our eyes to the father, who seems to be in vain uplifting his eyes to the gods. The wreathed serpents represent to us that inevitable destiny which often involves all the parties of an action in one common ruin. And yet the beauty of proportion, the agreeable flow of the outline, are not lost in this violent struggle; and a representation, the most appalling to the senses, is yet managed with forbearance, while a mild breath of gracefulness is diffused over the whole."

Of course, the writer never has examined any remarkably well executed picture of the sculptured group alluded to. Indeed, having seen nothing but pictures of it, the best executed picture he has seen is but a wood-cut. Yet he

fancies that pen-pictures such as that of Schlegel have enabled him to form a not remarkably inaccurate conception of the Laocoon. Laocoon, himself, alone attracts attention here. He is the central figure, and the most attractive feature, of the group. In his sublime endeavor to preserve the balance of endurance and resistance, he approaches nearly to our highest, true conceptions of humanity. Perhaps, if features more Adamic, if I may be suffered so to speak, had been depicted in his countenance—if he had been portrayed as representative of Man, and not as representative of a single type of humanity—we might have found Laocoon an unexceptionable realization of the ideal of perfect humanity, in a noble exaltation of its powers. But the state of the Laocoon, however beautifully it may balance endurance and resistance, is not such a state as we desire to find depicted in the portraiture of human perfection.

Even when we come to the attempts to represent the physical characters of the Savior, we can only hope to find the indication of perfection in such pictures as display the look and bearing of the Savior at a time not nearly connected with the passion.

But, after all, the Savior is the only conceivable representative of perfect humanity. The painters have, I think, endeavored to avoid the Jewish physiognomy, while aiming to express a just conception of the Savior. That they have, in every instance, failed in some particular, cannot surprise us.

In the first place, while avoiding Jewish physiognomy, the painter has not always well avoided that peculiar to his own nationality, while forming the conception of the outward look of the Savior. In the next place, while forming such conception, the conception of the moral qualities of Jesus as God-Man would always be attempted, and would always be imperfect. Thus, the artist being

but imperfect man, has always failed in his ideal of the Savior. But, moreover, painters have in general, failed also in expressing on the canvas even their ideal of the Savior. Yet the purpose of the artist, in attempting to produce a statue or a picture of the Savior, has always been, simply, to conceive and represent an ideal standard man, through whom, indeed, the Deity might seem to shine with more than human luminousness, but who should be after all but perfect man.

Perhaps, the very sense of the divinity of Jesus may account for all the failures to portray His body as expressive of His mind. However this may be, a plain, unquestionable failure always is discernible in the attempts of art in this direction. Features representative of nationality, and a figure representative of a division of the race rather than of the race itself, may be pointed out in all the well known pictures and images of the Savior.

I have pointed to these examples for a double purpose. In the first place, I desire to remind the reader, that the conception of an ideal type, or standard man, is not impossible. In the second place, I wish to remind my fellow-students, that such a conception is not easy, when it is attempted for a given purpose.

I believe, that we are constantly, though quite unconsciously, comparing our conceptions of the human beings who surround us, with a more or less inaccurate conception of a standard man, which we have formed, we know not how. And I desire my fellow-students to correct, as far as they may be able to correct, the standard conception with which they are accustomed to compare their conceptions of individuals. For, intending to examine human life as it appears in the differential characters produced by varieties of organization, age, sex, size, shape, and the like, I wish to begin with the examination of life as it appears in an ideal standard man. The ideal standard here allu-

ded to is such as the anatomist conceives when he describes the place, the form, the size, the connexions, and the constituents, of the components of the human body. It is such as the physiologist conceives when he examines functions and their modifications.^c It is such as the pathologist conceives when he describes the deviations from the standard of health, their causes, the elements of the complex states and actions involved in them, their phenomena, their symptoms, and the like.^d It is such as, notwithstanding Dr. Ray's opinion,^e I maintain, each competent observer of insanity regards while examining supposed evidences of disordered mind. And finally, it is such as human laws regard, when pointing out the modes of artful life, the limitations of legal restraint, the boundaries of individual freedom, the discriminations necessary to distinguish guilt from innocence. It may not be precisely what I thought it, when, in another form of publication, I ventured to relate it to the very constitution of the national varieties of government. The legislator, such as Moses, Solon, Alfred, may not have regarded it, when forming the conception of a polity adapted to a people. But that it may be conceived—that such a standard may be used for purposes of grave importance—that, although unconsciously, we all regard it with a greater or a less approximation to correctness, I have not a doubt.

At all events, with reference to the design of our intended studies, the conception of an ideal type or standard man may be of great advantage. I intend to make the effort to produce, suggestively, at least, the outline portraiture of such a man. While making such an effort, we shall have, of course, some glimpses of the deviations from the standard. We shall not be able to produce the por-

(c) Compare Draper, *Hum. Phys.* 565, with Carpenter (5 ed.), § 1041, § 1045.

(d) Williams, *Princ. Med.* §§ 5 and 7.

(e) *Med. Jur. Insan.*, § 114, § 115.

trait of a standard man without some reference to the varieties of differential character, which, after the production of the portrait, we design to bring into comparison with the suggestively delineated standard. But the value of the conception of the ideal of a standard man will not be thereby lessened. We shall find as we proceed abundant reason for proceeding as I prefer to proceed in this particular.

I am aware, that Dr. Carpenter has intimated that a work of Mental Physiology, in which the development of human life from its beginning moments should be traced, would be of great value. And I do not question that it would. But after all, could any one begin to write, could any one begin to study, such a work, without such a conception of a standard man as that I have supposed?

A standard man for all the human race would not be a man of commanding stature. He would measure just five feet four inches.^f Nor would he in any thing move us to admiration, when compared with other men, until attentive scrutiny should slowly recognize his close approximation to perfection. If, indeed, a theory of Beauty such as might be made from the materials supplied by St. Augustine and Buffier might be accepted, we might find in such a man a standard of the beautiful. But we should not, on first observing such an individual, pronounce him beautiful, or approach him with the awe with which we near commanding forms of our humanity. He would be neither weighty nor the opposite. He would be neither so strong as to excite our wonder, nor so weak as to excite compassion. All his qualities would be of moderate and even character, and all would be assembled in the harmony of moderation. All his moral qualities would be in harmony with this description of his body. Mind and body both, in other words, would be entirely free from what

(f) Draper's Physiology, 540, citing Quetelet.

amazes us in greatness, or delights us in the eccentricities of genius, or awakes our sympathy in the remarkably imperfect. Here, however, as in all varieties of man, we should perceive the "looking upward" of the life of man—its present imperfections, and its expectations of the perfect life to come. Religion here as elsewhere sets its seal on our humanity.

A higher elevation seems the proper rank of such a standard man as we have here the interest to bring before our minds for observation. Such a standard man as we are interested to observe, is not a standard for the human race. He is only a standard for christendom. And such a standard man is of a greater altitude in body and in mind, than would be such a standard man as we could look upon as representative of all mankind.

To find his height precisely is not here important. Nor is it important to distinguish his precise temperament. He may be of the Blond Race or the Brown Race, according to the system of the learned surgeon,^s who describes these races as primitive in Europe. Yet I would prefer to think him an American of the composite order, in which all our promise of true greatness is manifest. And if there is a real "tonic" temperament—of which a word or two hereafter—I would much prefer to have my standard man considered as approximating that peculiar combination of varieties in action and in tendency.

I do not look for any thing like accuracy in our standard portraiture, although the reader fully aid me in the task of its delineation. But the reader must assist me, or I must inevitably fail in all I undertake.

The reader must conceive, as clearly as he can, the bodily and mental character of some one whom he can regard as approximating such a standard as is here in question. When he has succeeded pretty well in this particular, he may begin to look into the books of science, with a view

(g) Bodichon. Quoted in *Types of Mankind*, 106.

to the correction of his conception. Here, among other things, he will encounter Dr. Ray's suggestion, as to the defect of metaphysical descriptions of humanity. Not perfectly agreeing, perhaps, with the learned Medicus, he will not overlook the metaphysical delineations of a standard man. Proceeding out of physiological metaphysics into what I might be suffered to denominate *mere* metaphysics, he will crown his studies with the study of Shakspearian portraitures of character. If he will do so, faithfully, and if he can return to these poor studies after such a preparation for them, he may well assist me to suggest the portrait of a standard man, such as we here desire to contemplate.

If, however, the importance of the object here proposed should seem to warrant more extensive preparation, Art as it exists in painting or in statuary may be studied with advantage. But I warn the reader, that he will probably discover what may much surprise him in this respect. It will be more in poetry and in the background of the celebrated pictures, than in sculpture that he will encounter models. For, the chisel chiefly images remarkable peculiarities of human nature. And our standard man is neither an Apollo nor an Æsop. So it is with painting. In the foregrounds of the pictures, we admire the noble or the wonderful in some of its varieties, far oftener than we discern the simple representatives of our humanity.

If it is but seldom that we find in statuary or in the foregrounds of pictures, what we seek, be sure we are not to detect it in the sighing, speculative Hamlet, in the rash Othello, or in him whom "fate and metaphysical aid" betrayed into the murder of the sleeping Duncan. None of these are for our purpose. Even the Laertes whom Polonius painted, would be too remarkable a man—and, on the other hand, would not, in moral traits, be equal to the needed standard. In Laertes so portrayed, we have the

perfect model of a prudent man, with not a little dash of the heroic. But the noble qualities which He, who lived the model life of Christians, left for Christian imitation, are entirely wanting in the chamberlain's description of Laertes, as the father hoped to find him when perfected at the court of France. In such a standard man as we are seeking, much that old Polonius wished to find developed in Laertes must appear; but christian faith and charity, of which Polonius spoke not, must be part of the distinctive character of him we seek.

Yet, I repeat, when we shall find our standard man, the sense of wonder will not be exalted till we shall have scrutinized him closely. For, as I have already intimated, nothing awakening a special admiration, nothing disagreeable, no marked peculiarity of any kind, must be discernible in such a standard man as I attempt to bring before the reader by these suggestions. He must be a man in whom we recognize the representative, but not the hero of the multitude. In person neither tall nor short, neither thin nor fat; in movement neither heavy nor light; in action neither awkward nor uncommonly dexterous; in mind neither narrow nor remarkably comprehensive; neither brilliant nor dull; neither notably strong nor notably weak; such is the character, in mind and body, of the desired ideal type or standard man.

And yet, when we consider what mysteries of wish and aim — what hidden hatreds or what secret loves — what powers either for the good or for the evil — are alive within this naked and unweaponed man, we cannot near him rudely or too freely. We might almost say with Herder, as we near this common, unimposing human being, "where is the hand that shall grasp that which resides beneath the skull of man? Who shall approach the surface of that now tranquil, now tempestuous abyss? Like as the Deity has ever been adored in sacred groves, so is

the Lebanon, the Olympus of man, that seat of the secret power of the Divinity, overshadowed! We shudder at contemplating the powers contained in so small a circumference, by which a world may be enlightened, or a world destroyed."

But it is not the "Plastik" of a writer such as Herder that can most exalt our wonder or excite our fear as we approach the human being, to observe what is apparent to the sight of nature, and to look through this into the inward man as only science could enable us to look. We may indulge poetical conceits while we are gazing on the mere exterior of man. But when, with scientific instruments, we look quite through

"the blooming tincture of the skin,"

we cannot dwell in poet fancies. Speculation, with the light of science, does indeed discern materials for yet unwritten poems, in the most interior structure of the human body. Even the bases of the forming structure of the body are not hidden from this scientific speculation. It detects the blastema or cyto-blastema, the apparently homogeneous glass-like medium, in which the microscope reveals the nucleolus, and the nucleus, and the cell-wall of the little cell, which some theorists have erroneously fancied to be the universal primitive form of every tissue.^h Tissues of a wonderful variety appear to us, as, with the light of science, we illuminate the body of our standard man, that we may see what even microscopic scrutiny, unaided by scientific logic, could not show us. Here we find the tissues, known as primary, which science may present to us in such dissolving views as we have seen in dioramas. Thus the tissue which subserves the mechanism of the frame in the various forms of areolar or connective tissue,ⁱ

(h) Morton Hum. Anat. 20.

(i) Simple fibrous.

as in tendons, ligaments, aponeuroses, and the like,^j appears to our inspection. It is followed by the membranes known as Fibro-Cellular — composite structures, showing textures of the interwoven fibres, simple basement membrane covering the surface of these, and one or more layers of cells upon the free surface of the basement-membrane. This appears in the exterior covering of the body, in the mucous membranes prolonged from the skin through all its open cavities, and in serous and synovial membranes. Tissues known as purely cellular are next revealed to observation. Here we find the tissue known as adipose. The study of this tissue is suggestive, variously. It suggests excessive and deformed development, and with it some peculiar and absurd ideals of the beautiful. But, as we shall perceive hereafter, woman's beauty, and the beauty which appears in children, are indebted to this tissue for no little portion of their loveliness. At present we cannot permit ourselves to dwell upon the *æsthetic* relations of adipose tissue. We must note as part of the tissue known as cellular, the cartilaginous — with which we may contrast the "sclerous" tissues, bones and teeth, which next appear. Here also we can only pause a moment. But the bones perform such offices in artful operations, and in guarding and upholding all the inward frame, that we cannot dismiss them with mere mention. Bony cavities contain the tissue, which will prove of highest interest in these investigations — that called nervous — though the bones be not permitted to approach the neurine with too rough embraces. That they share with membranes the defence of nervous matter, that they serve the nerves and muscles in expressing the emotions and volitions, that they are the strong sustaining frame of the body, must invest them with no common interest in observations such as these. But now we must allow them to

(j) Apononeuroses are white shining membranes.

dissolve a moment, while we view another tissue which may seem of even greater interest.

What we here observe is that system of tubular tissues, seen in the blood vessels and in the absorbents.

The nature of the contents—not constituents—of the blood vessels, even as discerned by minds quite unfamiliar to the light of anatomy and physiology, is such that we must give it close attention. We are not required, indeed, to measure the corpuscles which the microscope detects in the constituents of blood. Some notion of their wonderful minuteness may be formed from the consideration of the name by which the smallest vessels are distinguished. Blood corpuscles, as contained in *capillaries*,^k must be very small. And it may aid us to appreciate the interest of such an observation as the present, to consider this minuteness of the blood corpuscles. But the nice examinations of anatomy and physiology need not be here attempted. It may be enough to note a few particulars, preparing us to view the yet remaining objects of concern to our investigation. The performances of blood throughout the system may be here considered chiefly with mere reference to the functions of digestion, respiration, nutrition, secretion, and excretion, some of which may seem entirely disconnected with the blood, but all of which are nearly related to the circulation. In the circulation itself, however, is the object of our greatest interest in this examination. This is manifest as visiting with the arterial current all the tissues of the body, and especially the nervous matter. Blood and neurine are distinguished as the only all-pervading contents of the body.^l In a portion of the neurine, known as generating nerve-force—for I venture so to designate it^m—we discern the presence of the blood,

(k) From *capillus*, a hair.

(l) Holland, *Mental Physiology*, 273.

(m) Sir Henry Holland is more cautious. But of this hereafter.

and note the differences in the colors of the blood. Arterial blood is recognized as that required with reference to what we call nutrition, and to the already mentioned generation of the nervous force. Regarding in the latter something which we may discriminate from that in which it acts, and making like discrimination of the so-called mind-force from the mind in which it acts, and of which it is the immediate instrument, we find that sanguine states have much to do with the proper action of these forces. We are told, that if the scarlet or red-colored blood be not prepared for its accustomed visit to the matter of the brain, and venous or dark-colored blood be substituted for it, some phenomena of curious interest ensue. The forces recognized as mental and as nervous are thereby disordered. Death by drowning has been studied with the purpose of comprehending these phenomena. And some phenomena which are not fatal have been studied with the like design. If I have understood what I have read as the results of these examinations, I may mention some of a decidedly forensic interest.

It seems, that not only in the presence in the blood of toxic agents, such as alcohol and other poisons, but in any state of blood which shows the venous characters where the arterial are proper, we may find the source of mental action in the nature of insanity.ⁿ And we shall find hereafter, that emotional conditions, which disturb the circulation, are productive of effects analogous to those already mentioned. I will not at present enter into discussion of the questions thus suggested. I have only purposed in the present observation to distinguish leading characters of tissues, and their obvious relations to the mental and the nervous forces, in the correlation of which the mind and the body seem to have their yet mysterious union.

But I ought to note, in this connexion, that "oxygena-

(n) Brodie, *Mind and Matter*, Dialogue III.

tion" of the blood, which seems to have relations of such interest to normal action of the mental and the nervous forces. Here we find another illustration of the wonderful dependence of the artful life of man, as I define that life, on vegetative life as known in physiology, and of the like dependence of the latter on the atmosphere of nature which surrounds all human life of all descriptions. Nature, which according to my notion of the natural, composes part of animal existence—even part of mind—here manifests itself as reaching into the interior organism of the human being, to perform an office of exceeding interest and beauty. The oxygenation of the blood is this most interesting office. Here we find the blood, which, in its visitations for nutrition, has contracted what we call its venous characters, restored to its lost characters by the removal of the deleterious carbon, and prepared for the renewed performance of the function known as nutritive. We need not scrutinize the pulmonary system. It is enough to note it as we pass. The blood is our concern at present, and especially the blood as it appears in the "intimate connexion of the nervous and vascular systems."

But before proceeding to a further view of that connexion, let us merely notice the absorbent system.

Interposed between the walls of the intestine and the sanguiferous system, we discover vessels, taking up imperfectly solved components of the nutritive matter, and preparing them for introduction into the sanguine current.^o But, in addition to these "absorbents of the intestinal walls," we find yet others, of a higher order. I will not describe the glands and vessels which make up the system, nor will I discuss the question, of "the degree in which the function of nutritive absorption is performed by the lacteals and the sanguiferous system respectively."^p It may suffice to note, that "the whole absorbent system

(o) Carpenter (5th ed.), 439.

(p) *Ib.* 442.

may be looked upon as constituting one great Assimilating Gland, dispersed through the body at large," of which the leading purposes are nearly related to sanguification.^q

We may also properly refer in this connexion to secretion. This we chiefly see in glands, elaborating or separating the materials of the blood at the very extremities of the arterial system, or rather of the vascular excretory system.^r All of the secretions are connected nearly with emotional conditions, and the lachrymal and lacteal are of special interest in any study of the nearness of the body to the mind.

We need not longer keep away from the intended further view of blood in its intimate connexion with the nervous system.

Physiologists, here speaking as anatomists as well as physiologists, have pointed out "the close and constant intertexture of nerves and blood vessels throughout every part of the body, and especially in those organs whence the nerves originate, and in the sentient surfaces over which they are diffused."^s

Finding the nervous distribution of the blood as chiefly notable in what we shall distinguish as the cineritious or vesicular description of nervous matter, we are not surprised to learn, that the capillaries perform the more important offices of the blood. The mechanism in which these performances occur is described as "a mechanism of parts, vascular or interstitial, so exquisitely minute and complex, that our finest instruments can hardly find access to the spaces within which they are included."^t

It may be proper to subjoin, that the only known all-pervading agents in the human body are the blood and

(q) See at large Carpenter's Chapter on Absorption and Sanguification, *Phys.* (5th ed.), 438.

(r) *Dungl. Med. Dic.*, tit. Secretion.

(s) *Mental Physiology*, 272.

(t) *Ib.*

the nervous force. "We cannot designate a single portion in the whole economy of animal life in which we do not find these two great powers conjointly concerned; their co-operation so essential that no single function can apparently be performed without it; their relative parts in action so determinate that disorder ensues, if either one or the other is deficient or in excess." ^u

The so-called *vitality* of the blood is more important in another species of Physiology than in the present. So are all the questions raised upon the supposition of the *innervation* of the vital fluid. Whether nervous influence do or do not affect the blood, as those who argue for the innervation of the latter have supposed, we know enough to satisfy us of the near relation which subsists between the nervous matter and the blood. To what we have already seen of this relation, we may add, though it involve some repetition, that with reference to it we must distinguish the arterial from the venous blood. Thus, though we have not thought it necessary to describe the capillaries with minuteness, we are led to notice the distinctions of the vascular system, so far as to remember, that arteries convey the bright red-colored blood employed for the nutrition of the tissues; that veins are the returning channels of the dark-colored blood; and that the capillaries form the net-work of connexion between veins and arteries. We may be interested to examine the relation between the nervous matter and the blood on remembering, that the "influence of the scarlet or arterial blood is necessary to the due performance of the cerebral functions. If dark-colored or venous blood be substituted for it, and transmitted to the brain by the arteries, the animal lapses into a state of total insensibility to external impressions." Considering this fact as established according to the views of Bichat, Sir B. Brodie proceeds to observe: "We cannot be surprised that blood

(u) Mental Phys. 273.

of an inferior quality, or containing something which healthy blood should not contain, may disturb the functions of the brain, so as even to affect the mind itself." ^v

It may not be of practical importance in this course of studies, to determine how it is that the disturbance of the brain is occasioned by the venous blood. But it may be of interest to add, that the phenomena of drowning have been studied with reference to this subject. By the action of the heart in one drowning, venous blood must be transmitted to the brain. In two or three minutes, the sensibility as to external impressions, and the power of voluntary movement, are suspended or destroyed. And it is maintained by those who have studied these phenomena, that they are chiefly due to the fact that "the dark-colored blood affects the brain simply by a negative influence; by depriving it of that, whatever it may be, which exists in the scarlet blood, but not in the dark-colored blood, and which is necessary to the generation of the nervous force." ^w

It cannot be entirely uninteresting, however, to note that the near connexion of the blood with nervous force and nervous action is but part of its importance to the life of Man. Taking its components from the organic and inorganic constituents of food, it yields to each tissue of the body those constituents of the tissue, which either pre-exist as such in the blood, or may be chemically transformed from the latter. It also furnishes the means of removing the effete particles, which are freed by the disintegration of the tissues.^x And it is to be added, that introducing oxygen from the atmosphere, and taking carbonic acid to the lungs and skin that it may be eliminated, blood performs a service like to that in which we have just encountered it as aiding in construction and removing the products of waste. The presence of oxygen

(v) *Mind and Matter*, Dialogue Third.

(w) *Ib.*, Dialogue Fourth.

(x) Carpenter (5 ed.), 154.

“appears to be an essential condition of the peculiar vital activity of the nervous and muscular tissues.”^y What is the necessity of eliminating carbonic acid needs not to be stated. We have seen it in the difference between arterial and venous blood.

Other services are performed by the blood; but these are all we need remember as we pass. Whatever else needs mention, may be mentioned hereafter.

So many actions of the mind, though operative first of all in nervous matter find expression in the actions popularly known as muscular, that we may well proceed from the examination of the blood to that of muscle. Of the delicate performances of muscle in the hand and in the parts connected with the management of language, we have seen a little. I do not expect to make these much more intelligible, or to make their wonderful variety much more apparent, by my draught upon anatomists and physiologists in this connexion. But I think it may be well to look a little into the learning alluded to with reference to muscular tissue and the functions of the muscles.

Muscle plays no undistinguished part in human life. In dignity, it seems to occupy a place below the nervous matter and the blood. But its connexion with organic life is most important; and its offices with reference to the volitional in man are of a yet more remarkable description. Voluntary life, the life of Art, employs the muscles largely. But the wonders we behold in muscular expression of volition, whether in manual performances or in vocal action, are not all that moves the sense of wonder, when we treat of muscles. Some emotional excitements find expression through the nerve and muscle, not alone *without* the intervention of the will, but even in contempt of the volitions! Will, as we shall see hereafter,

(y) Carpenter '2 ed.), 154.

is not always master of emotion, or of instrumental action, such as commonly expresses will. This is a point of first importance in the study of the differential characters of age, of sex, and of disease. It will be more apparently of interest hereafter, but we ought to note it as we pass, and we cannot too often bring it into proper estimation.

The relations of the tissue here in question to the nervous system cannot be examined without some reference to quantity, etc., as they will presently engage attention in respect of nervous force. Sir Henry Holland, having learnedly discussed quantity, quality, and intensity, with reference to nervous force, proceeds to view the contractility of muscles with like reference. He refers to mooted questions touching the relation of the nervous matter to the proper contractility of muscular fibre. These, he tells us, "principally regard the varying proportion which the nervous and muscular powers bear to each other in the numerous phenomena of action, exhaustion, intermission, and reparation: and further, their respective relations in the voluntary and involuntary muscular actions — a physiological problem of high interest, but not less obscurity."^z According to this learned writer the quantity of muscular contractility is like that of the nervous power, "of very variable amount; depending partly on its expenditure in action, partly on other natural or morbid conditions of the body. But in themselves the two powers [muscular contractility and nervous power] are independent and dissimilar. They have their origin in different sources; and presumably often exist at the same time in very different proportions and capacity for action."^a

I am not aware, that any of the purposes which lie before us call for nice examination of the two orders of muscular tissue, known, respectively, as striped and unstriped,

(z) *Mental Physiology* (2 Lond. ed.), 324.

(a) *Ib.* 324.

striated and non-striated. It may be enough to note that such distinction has existence, and that it has been supposed to mark the voluntary (striated) from the involuntary (non-striated) muscles, though, it seems, the demarcation is not accurate.^b But it may not be improper to observe, that in the organ which we name so often in connexion with emotion, a peculiar fibrous structure and arrangement are discernible. It seems, that in the heart, we find the general arrangement of the non-striated muscles, as regards a peculiar interlacement of the little bundles (fasciculi) of fibrils, and the absence of fixed points of attachment with the ultimate structure of the striated.^c And we ought at least to glance at that wonderful rhythmical propulsion by the heart of the vital current, which, almost entirely independent of the will, is so affected by emotional conditions.

The vital and distinctive character of muscular tissue is that contractility, with reference to which, as we have seen already, we have no occasion to make ourselves parties to the controversies prevalent among the physiologists.

The last of our dissolving scientific views of the organic structure and the wonderful congeries of functions, making up the body and the life of body in our type ideal man, will show the nervous system.

Here we have renewed occasion to remark how all the most important efforts of the scientific blend discovery with speculation. Here we are compelled to own how often we must act on mere hypothesis. However valuable the known truths respecting nervous matter and its functions, we are forced to own, that much remains in speculation, which we might expect to find in knowledge. But whatever the defects of scientific knowledge, as to

(b) Compare Carpenter (5 ed.), 303; Morton Hum. Anat. 159.

(c) Carpenter (5 ed.), 310.

nervous matter and its functions, let us not imagine them as greater than they are. We may approach the nervous system with assured conviction, that we near the mind in nearing nervous action.

So assured, we may appropriately honor the approaching view of nervous matter by a rapid repetition of the views already taken, noting as we pass, particulars but slightly noticed, or not at all noticed, in our former observation.

Looking through the skin, we find its structure bearing wonderful relations to the inward life, which only science, and the speculation near akin to science, could reveal to us. Accepting the results of art which has explored with microscopic light and ever-careful scrutiny of chemical examinations, all that forms or substances the human body, we have pierced quite through and through the tissues hidden from our common vision. Starting now at the surface, we are able to discern the *cutis vera*, with its complex fibrous tissue, nerves, lymphatics, and blood vessels, its investing basement membrane, and the thick, tenacious *epidermis* which is its exterior protection. Having seen the pigment cells, which, mingled with the ordinary epidermic cells, secrete the matter that gives color to the skin, we hasten with increasing wonder to the other revelations made by observations but "skin deep." The ridges called *papillæ*, taking in impressions known as tactile through afferent nerves, which bear to the sensorium the vast varieties of touch—the capillary plexuses, through which the flowing red and colorless corpuscles, measurable only by the art perfected by the microscope, seek the parts connected with excretion, and perform yet other offices—the local branches of the "great Assimilating Gland,"^d which may be said to be composed by the Absorbent system—these and other wonders would seduce us into lingering exam-

(d) Carpenter, 450 (5 ed.)

inations, if the deeper mysteries to which they only serve as invitations, did not summon us to more interior views of our humanity. The vital, visiting arterial currents and the altered and returning venous tides—the blessing, blessed influences of the circulation in each part of body—brain renourished constantly as mental exercise subjects its substance to continual waste—the muscles, even the unyielding bone, deriving nourishment from visitations of the vital fluid—oxygen employed to purify it in the tiny vessels which we find in pulmonary regions—liver serving it—digestion keeping up its substance—all the functions of organic life engaged in friendly offices in its behalf—all this cannot be hidden from the curiosity of science, all this science curiously scrutinizes and most carefully describes. But, vital as the circulation of the blood, and admirable as the system most subservient to it—interesting as the action of that central muscle, which our fancy will not suffer us to look upon as other than the seat of all affections—neither heart, nor arteries, nor veins, nor organs of secretion and excretion, nor, in short, the wonderful machinery considered as the whole of what distinctively pertains to life organic, can detain us long. More wonderful machinery than this attracts us. Higher life than the organic life we have been contemplating, inwardly invites us. Not the bones of the extremities, nor the protecting bones which form the spinal column or compose the cranium and the face, though they be wonderfully instrumental and subservient to what is most attractive to our scrutiny, make us impatient for their nearer observation. Nor do those yet nearer instruments of mind, distinguished as the muscles, now attract us with an irresistible attraction. Their contractile properties could not, indeed, be passed without examination. We saw their close connection with the nerves, and with the harder substances which keep the frame erect. Now, we

note that the aid they render to the contents of the tissue, called areolar, in giving beauty to the shape, and the service which they pay the Graces in the movements of the body, as well as what they do for Art in manual accomplishments; must make them objects of exceeding interest to all observers. But there is a system, very near to that in which we find the muscles, more attractive in an observation such as this than any other part of our corporeal humanity. Through the "mother membrane," through the *pia mater*, through reflected membranes, Neurine, in its various forms, invites our most attentive scrutiny. There, in that little cord, defended by the vertebræ, we find what nerves, afferent and efferent, and the nervous masses, also show, the white and gray—the fibrous and vesicular—components of the nervous matter, which we find distributed throughout the system. And, when we have marked how white and cineritious neurine are to be distinguished in a microscopic observation, we observe how, in the little cord we are examining, the columns sacred to sensation and the columns sacred to the nerves of motion, find superior connections, leading upward or conveying down the afferent or efferent influences. Nearing yet more closely our delighted observation, we perceive how this connection finds its highest point, in that mysterious "mass of convolutions," called the cerebrum, in which mind may be regarded as especially residing, and converting its peculiar forces into those which nerves conduct throughout the body.

Even here, although the microscope refuses further to enlighten us, the light of science does not wholly fail. Hypotheses deserving scientific rank, bring Mind before us, not to mock us with absurd attempts to weigh, or measure, or describe it; but to recognize its presence in its sanctuary, and to point to evidence that here the images or concepts of the outward are presented to its

contemplation. Even so! When touch originates its proper motions, when the yet imperfectly explored retina is impressed, or other points devoted to the service of sensation are invaded, we do not merely mark the course of the conveyed impression to the friendly ganglia, and so to the expectant mind. Nor when a sudden anger flushes in the cheek, or threatens in the eye, or rushes into fatal action through the armed hand, is what we see confined to delicate machinery, on which the swifter lightning of converted mind-force leaps from thought to action. Nor, again, when warmer, fuller action of the heart, attests the sympathy of bodily conditions with the spiritual, in the presence of some deed of mercy or of love, do we content ourselves with tracing quickened currents, due to the emotional excitement of the brain. For, Speculation, born of Science yet producing Science, here, with steady inquisition, looks still inward, more and more inward, finding evidence in all her careful scrutiny that something in us is to live beyond the grave—that something in us reasonably looks to live forever, and with reason fixes its supreme affections on the things which speak to it of the hereafter. Thus the physiologist, perceiving how immortal mind gleams through its mortal body, may well become a theologian; and thus may all perceive, through all the present imperfection, promise of the perfect life beyond the grave.

CHAPTER VIII.

MIND-FORCE AND NERVE-FORCE.

THE view which we have taken of the nervous system falls far short of the requirements of these studies.

I have yet to justify what I have said of force.

I have, to some extent, adopted Carpenter's peculiar theory of force.

But if I understand that theory, I do not thoroughly accept it. It does not discriminate, as I discriminate, the forces acting from the things in which they have activity. Without the clear discrimination of the so-called Mind-Force from the Mind itself, I cannot look on Mind-Force and Nerve-Force as convertible.

I do not undertake a definition of the thing called Force. I do, indeed, denominate it immaterial. But by the immateriality alluded to, I only mean an unknown something operative in material substances, which is not manifest to us as matter is. By matter, here, I mean what the unlearned understand by matter—that of which the concepts visit the mind through sensual intelligencers. From matter such as this I think I can distinguish all the forces operative in and through and from it. And, not venturing to make a definition of the mind, I find it likewise possible to make discrimination of the mind itself from its peculiar force or forces.

"Two ideas," we are told, "may be formed of the relation between force and matter. We may either consider force to be independent of matter, separable from it, and influencing it, perhaps, in the manner in which we conceive that the Deity influences the Universe as its Creator and Ruler; or force may be considered as being inseparable from matter, as are the body and soul in the living being."^a

Whether we adopt the former or the latter view, we may distinguish, clearly, force from matter. Mortal body and immortal mind are quite inseparable in the living human being, as we know him here; but I am quite content with such a view of force and matter as would illustrate their difference by pointing to the union of the body and the mind, as we are conscious of its nature.

We are sometimes told, however, that we ought to abandon the old conception of the material universe, as being made up of matter and forces and phenomena, in favor of the doctrine that the universe is matter in motion.

I adhere to the old conception until some more cogent argument than any I have yet encountered shall compel me to abandon it.

But I do not desire to quarrel about names.

The crude conception which I venture to regard as worthy of attention, may be entertained without reviving ancient quarrels touching immateriality. The immortality and indestructibility of mind may not depend upon its immateriality, in any given sense of immateriality. It is enough for all our present purposes, to establish, that a certain force may be *of* the mind, and *in* it, and productive in it of phenomena, without being mind or part of mind. This being shown, it follows, that there may be another force, or another form of the same force, *of* nervous matter, *in* it, and productive in it of phenomena, without being nervous matter or part of nervous matter.

(a) Schœdler's Book of Nature, 14th Eng. ed.

But it has been said, there is no necessity for such hypotheses. A simpler and more philosophic doctrine is that force is not merely inseparable from matter, but is matter.

It is enough to say, that if by the hypotheses in question, we can form a better notion of the union in which mind and body manifest their various phenomena, we ought to entertain the hypotheses. For, we have thus far seen, that they are subjected only to the exception that they are needless. But they are not needless if they tend to make more comprehensible that union of the faculties and functions, which we know to be a real union, not a fanciful conception.

But it may not be conceded, that the only conceivable exception to the hypotheses in question is their needlessness. It may be said that, supposing force to be distinct from mind, we do not lessen the mystery of the mental and bodily relations by supposing force to be the connecting link.

But, I must think, it is not quite so easy to suppose the mind conversant with the matter of the body as to suppose it conversant with a force, which acts upon and in that matter. And I fancy that no reader will dissent from such a proposition, when it is remembered, that of force the natural conception is that of something finer, more ethereal, than the material in which it is active.

Let us here examine Carpenter's conception of the correlation of the forces known respectively as Mind-Force and Nerve-Force.

1. The essential nature of the two entities, Mind and Matter, is such that no relation of identity or analogy can be supposed to exist between them.^b

2. But a very close relation may be shown to exist between Mind and Force.

(b) See also Brodie, *Mind and Matter*, Dialogue.

3. Force, like Mind, can be conceived of only as in a state of activity.

4. Our consciousness of Force is as direct as is that of our own mental states.

5. In the phenomenon of voluntary movement, Mind plainly appears as one of the dynamical agencies, capable of acting on matter.

6. In the change of condition in the nervous matter of the brain effected by an act of will, we see that the immediate operation of the will is not upon the muscle but upon the brain.

7. The operation of the will upon the brain excites that active state of Nervous matter, designated as Nerve-Force.

8. Mental activity, on the other hand, may be excited by Nerve-force.

9. Thus we are led to perceive, that as the power of the will can develop Nervous activity, and as Nerve-force can develop Mental activity, there must be a correlation between these two modes of dynamical agency.

10. The connection between Mind and Body, thus and otherwise apparent, is such, that each has, in virtue of its constitution, a determinate relation to the other during present life.

11. Facts^c and inferences fairly warrant us in holding, that the nervous matter of the cerebrum is the material substratum through which the metamorphosis of Nerve-force into Mind-force, and of Mind-force into Nerve-force, is effected.^d

12. The same facts and inferences warrant us in holding, that the cerebrum is the instrument of all the Intellectual

(c) Some of these have been already brought before the reader.

(d) The argument, if not the theory, apparent in these 11 propositions is almost as distinctively and peculiarly the property of Carpenter as the theory relating to Sensory Ganglia. For a fuller statement of them, see Carp. (ed. of 1855), 540, et seq.

operations, and that it also affords, in part at least, the instrumental conditions of Emotional States.^e

13. The cerebrum has no communication with the external world, otherwise than by its connexion with the Sensori-motor apparatus.^f

I will not at present bring before the reader a description of the cerebrum, or of the Sensori-motor apparatus. Let it be enough to know, that the cerebrum is the superior portion of the brain—sometimes called the true brain.

My object is only to examine the notion of Mind-Force and Nerve-Force, as apparent in the thirteen propositions just submitted to the reader.

As I understand this system, it does not necessarily treat the mental forces as a part of mind. We may accept it, still regarding force as merely produced or set in motion by the mind. It does indeed assert, that only in the idea of succeeding states of mind are we enabled to conceive of mental essence; and it teaches, that force, like mind, can be conceived of only as in a state of activity. But while succeeding states of mind are thus regarded as its manifestations, no severe requirement calls upon us to treat the succeeding states of mind as the essence of force, nor are we urgently required to look on force as part of that in which it is produced or which it manifests, or in which it is the operative cause of changed conditions. If I am in error here, I am not ready to accept the theory of forces which the learned physiologist advances.

If, in other words, force of a certain order is not merely of a mental origin, but is a part of mind itself, I cannot look upon it as convertible into force of another order, which, according to a like hypothesis, not only appertains to body, but is a part of body.

Let me be indulged in yet another statement of my view of force.

(e) Carp. 535, 536, (ed. of 1855.)

(f) Ib. 438.

Regarding force as it has been long regarded—namely, as *distinct* from that in which it causes alteration of conditions and of action—it is easy to accept the Carpenterian view of Mind-force as convertible into Nerve-force. But if we are to hold with certain theorists, that the universe is matter in motion,—motion being nothing distinguishable from the moving body,—and that force is not a thing, but only a state of things;^g in other words, if force and matter are but one and indivisible; we may be led to look on Carpenter's peculiar theory as not entirely unobjectionable.

In holding, as he does, that the production of Nerve-force in the central organs, is dependent on the development of the peculiar cells constituting the ganglionic or vesicular neurine; and, that either cells or cell-nuclei are the agents in the origination of Nerve-Force, at the peripheral extremities of the nerve-fibres; Carpenter does not confuse the notion of the production or origination of the force in question with the notion of the essence of the nervous matter wherein the production or origination manifests itself. One may, while following with absolute devotion doctrines such as those of Carpenter, follow other teachers, who inform us, that “we must assume, that in addition to matter, there exists a special cause of the phenomena which are exhibited, a cause which is termed Force.”^h I think, that I can mark essential differential characters of mind and body, yet conceive of mind and body as connected, and alike affected and affecting, through a force, distinct from both, appurtenant to both, and variant in its phenomena accordingly as it is active in the one or in the other. If a thought like this, expressed as I express it, be not absolutely void of meaning, Carpenter has not afforded aid and comfort to absurd

(g) Holcombe on Homœopathy, 88.

(h) Schœdler's Book of Nature, 14.

materialistic doctrines in his theory of a converted mind-force playing through the nervous system.

On the other hand, Dr. Carpenter has argued with great interest, that his peculiar theory does not conflict with doctrines, teaching christians of a life beyond the grave. The reader who will take the trouble—manifesting so his taste for real learning—to procure a copy of the work of Carpenter, will find it full of argument in favor of the fundamental thought of christianity, considered as a metaphysical philosophy. I am assured that I do not materially dissent from Carpenter, in taking such a view as that I have presented of a force, distinguishable from the matter which it affects with motion or reduces to the state, which all but the philosophers continue to describe as rest.

The learned author of a recent work has ridiculed a theory which we must carefully distinguish from the theory of Carpenter. He tells us of a lecturer, by whom “the interposition of ‘a very attenuated nervous fluid’ was made the scapegoat of all the old difficulties in the action of the Mental upon the Material. ‘What can be more absurd,’ the learned gentlemen proceeded to say, ‘than that the ethereal mind should directly act upon coarse matter?’ The absurdity, he thought, was ‘done for,’ when he made his ‘ethereal mind’ act upon an ‘exceedingly rarified nervous fluid,’ and this fluid upon the body. He did not seem to suspect, that, according to his own statement and view, his ‘exceedingly rarified fluid’ must be either material or mental, so that at best he added to the plight by complicating nature’s ‘machinery.’”¹

Assuming that the lecturer exposed to ridicule intended to maintain, that his exceedingly “rarified nervous fluid” is neither material nor mental, nor a thing distinct alike

(1) *Philosophy of Nature*, 36, note *.

from mind and matter, there may be good warrant for the terms in which Judge Stallo treats his theory.^j

But if the lecturer intended only to point out the probability that the communication of mind with matter is through some very delicate material, his theory would hardly be ridiculous.

Without attempting to defend such theories from ridicule, however, we must note that Carpenter advances no such theory.

Perhaps, he dangerously enters ontological domains, when he pronounces that the entities, known to us as mind and matter, cannot be related identically—in other words, that no relation of identity can exist between them. Here he wanders darkly, as we all must wander, when we talk of matter and of mind. Here he seems about to justify the language used by Stallo: "Matter is essentially crazy; the understanding becomes *literally insane* in following it up to its ultimatum."^k But he does not lose his head, although he ventures into speculations which endanger wisest heads. The "matter" which he distinguishes from mind and force alike, is manifestly matter, *manifest to human senses as extended*. Force, for all he says, may be an indescribable something, fit to intermediate between material life, of which it may itself be the inscrutable, invisible, yet evidently present principle, and life the immaterial, to which it may be near enough in characters for such a purpose. Force, thus viewed, is, if I may be a little paradoxical—or Irish—entirely viewless, and so wholly indescribable, that we will show our wisdom by avoiding all endeavors to describe it, yet so evidently part of being that we may, with great propriety, declare our faith in its existence.

But whether Force be such a thing as I have here sup-

(j) Op. cit. loc. cit.

(k) Ib. 40.

posed, or something more describable, the learned physiologist has certainly advanced no theory of nervous fluids, rarified exceedingly, in order to connect the body with the mind.

On the whole, it is but just, therefore, to Dr. Carpenter, to own that nothing of materialistic tendency appears in his peculiar theory. And it is likewise only simple justice to acknowledge, in bringing this particular discussion to a close, that his hypothesis concerning forces of the Mind and Forces of the Body is as reasonable as hypothesis of its description well can be.

Perhaps, before proceeding further, we may well examine other theories relating to the "force" or "power" known as nervous.

Sir Henry Holland has evidently devoted great attention to the questions, which have been discussed with reference to this power or force. With Dr. Carpenter, Mr. Solly, Sir B. Brodie and others, he regards it as generated in the cineritious neurine, and as conducted by the white or fibrous neurine.¹ What it is, how nearly it may come to absolute identity with electricity, he will not undertake to decide.

But in favor of the hypothesis which supposes the existence of a single agent of nervous power, the learned writer alluded to has argued with great clearness, and great strength. And he has well examined the properties or conditions which may be assigned to the nervous power. Quantity he finds to be, among these, the most determinate. A constant supply of nervous power from the organs generating it to the conducting nerves, is needed to maintain the efficiency of the latter in minister-

(1) Mr. Solly is quoted by Dr. Morton (*Hum. Anat.* 485), as contending, "that the cineritious portion of the nervous system stands in the same relation to the rest of the system as the secreting portion of a gland does to the rest of that organ, though one portion would be useless without the other." "*The Human Brain*," 37.

ing to the peculiar actions, single or sympathetic, of animal life. Nor is this relation of demand and supply apparent only in the given instance. In the seemingly quite independent but in truth subordinate system of the nerves of organic life, the quantity of nervous power, though only observable in obscure relations, is apparently involved. And so the language of physicians, which distinguishes excess and deficiency, exhaustion and repair, in nervous power, seems but reasonable to the learned writer. It is interesting to all students to observe how mental action of a given kind may have for consequence deficiency of nervous power. Thus, protracted, intent thought, or deep emotion, may exhaust the power in question.^m Not less interesting to forensic students is the learning which relates to the excess of nervous power. We shall see hereafter that in mania we have a morbid exaltation of the faculties and functions. But there are conditions not distinctly morbid in which this excess is obvious. "Every one," says Sir Henry Holland, "must recollect moments of unusual energy in the active powers both of body and mind, but still under control of the will. These natural effects pass, by a series of continuous gradations, into the more extreme cases, which constitute disease."ⁿ

I will not dwell on Sir Henry Holland's views of what he regards as the very obscure notions of intensity, considered as distinct from quantity, and the like obscure notion of quality, as applied to the nervous power.

Here it may be proper to observe, that nothing is less satisfactory in its results, than speculation either as to force or as to motion. I have kept as well away from all such speculation in the present work, as I have found myself enabled to keep away from it. This statement may provoke a smile; but not in readers well informed with

(m) *Ment. Phys.* 307.

(n) *Ib.* 308.

reference to the philosophy of human nature. I do not refer alone to such philosophy as bears the name of metaphysical. Nor do I here refer alone to Anthropology, assuming to possess a clearer positiveness than belongs to metaphysics. Nor do I confine myself to such Psychology as we encounter in a work like that of Carpenter. Quite independently of psychological discriminations, Physiology at large, and the Pathology connected with it and with Therapeutics, are conversant with innumerable speculations, very few of which I have considered as a necessary part of our examinations. And we ought to bear in mind, in this connexion, what I have already noticed as to metaphysical distinctions made in legal science, and by lawyers who would be alarmed at simple mention of a purposed metaphysical examination. It is not to be forgotten, that we are compelled to act with reference to the most important interests, upon the mere belief of many things which have their root and their development in simple metaphysics, or in theories of only hypothetical verity. We often wander darkling, where we boast a clear and unmistakable acquaintance with our pathway.

Yet I feel the difficulty of encountering speculative theories of force. I feel it the more keenly in my sense of little learning such as I discern in many of the theories which I cannot accept. But I have thought it proper to encounter all the criticism which may be provoked by simple statement of my simple notions. The exposure of whatever fallacy may be detected in them may do service to the cause of science.

My unvarnished statement of my unpretending notions may, moreover, serve as indication of the vulgar notions on this subject. And the ascertainment of these vulgar notions is of interest to science. Science ought to interest itself not merely to present its learning to unlearned

minds, but to dispel the mists of ignorance which might prevent the general acceptance of correct ideas. I believe, whatever may be fairly charged against the learned, they cannot be fairly charged with any disposition to withhold their learning from the vulgar mind. And I am willing to expose to proper scrutiny and fair exposure my unlearned notions as to force.

I am not certain, then, that I have full capacity to comprehend the learning which relates to force. Perhaps, however, few of those who have advanced, with seeming philosophic accuracy, quite imposing theories of force, have an unquestionable understanding of their theories. Philosophers sometimes appear to have experienced the short reach of the line of learning, and the dazzle of the mind's dim eyes,^o while painfully elaborating their peculiar notions.

Other theorists present their theories in forms not unattractive to unlearned minds. And I have tried to comprehend such theories. I may have failed. But I have done my best to deal with theories respecting force, with some regard to the proper estimation of them.

On the whole, whatever may remain for ascertainment, it seems plain enough, that theories of force like those we have encountered in the Physiology of Carpenter and in the Mental Physiology of Holland, well deserve examination.

(o) Ante p. 203.

CHAPTER IX.

NEARER VIEW OF THE NERVES.

WE must now proceed to nearer views of nervous matter. In connexion with them, I purpose to explain and to defend my view of what we call Sensation and Perception.

I have made it plain, from the beginning of these studies, that I do not follow Reid and his disciples as to what they call the immediateness of our perceptions. I prefer hypotheses which Sir William Hamilton has lately made it perilous to treat with honor. I consider all perception as in fact amounting to conception. I deny that there is any evidence that we perceive immediately the objects of perception, as defined by Reid or by Sir William Hamilton. And I propose to show, that I must so deny and so consider until better reasons shall be urged in favor of immediate perception, than philosophers have yet assigned in that behalf. I purpose to establish, that the theory I have preferred must stand until the revelations of the microscope shall be subordinated to the seeming testimony of the so-called consciousness.

Philosophers, other than physiologists, observing facts which seem to indicate the inwardness of mind with reference to body, and unable to account for the optical apparatus of the eye, and for other things relating to the

sensual supplies, without supposing that the mind embraces only images of what exists externally to the sensorium, have so supposed and so contended. Reid, however, followed by thinkers far more learned if not far abler, has insisted that this hypothesis is not to be received.

I believe, that the hypothesis in question is as nearly necessary as hypothesis can be without ceasing to be hypothesis.

But I do not regard myself as quite at liberty to found an argument on the simple statement, that I accept the doctrine of one set of philosophers in preference to the teaching of another set of philosophers. *My* set is, indeed, the larger; but it may not be the apparently stronger. For some of those who belong to the smaller set, have boasted that their learning is in harmony with the natural, unforced opinions of all who have not embraced a false philosophy. It is, perhaps, familiar to the reader, that Dr. Reid, admitting that most philosophers had decided against his theory, assumed, in favor of that theory, that it commanded the assent of all the vulgar, with whom he proudly chose to stand on such a question. Being of the vulgar, I must here record my vote against this philosophical assumption.

I propose to try the question, whether we should follow Reid and his disciples, or that other set of thinkers, whom the learned Hamilton distinguishes as Hypothetic Realists, Cosmothetic Idealists, etc. I propose to try it *here*, where we are studying the learning which relates to man, in presence, and with full remembrance, of the practical.

It will be found desirable to "enter at the eye," in viewing man for such a purpose as we have in view at present. Visual perception, first of all, invites attention. And it will be found most richly to reward attentive study. In its organs, we shall find an object of exceeding beauty and of such a complex structure as the curious delight to

analyse and reconstruct. Nor is this all my reason for preferring thus to enter at the eye. The movements of the eye, though often of the kind distinguished as reflex or automatic, are so often nicely governed by the movements of the will, that when we study visual perception, we are students also of the nervous and the muscular, as agents of the will.

Before proceeding to the view of visual perception here intended, it may be of interest to note the value of the view intended to forensic students. And it will not be of interest to them alone to indicate that value. For, apart from the consideration that the interest of a forensic physiology is, after all, a common interest, there is a feature in forensic tests of scientific theories, which shows their special interest to all investigators. In the trial of a cause, the objects are too real to be reached through idle speculation. Real interests, ruin or prosperity, a life of honor or a death of infamy, may be dependent on the right pursuit of truth in testimony. When, therefore, I show my purpose to subject to the forensic tests whatever I shall offer, touching visual perception, I but show my purpose to inquire into the absolute reality or relative certainty of what I may produce for estimation. Now, intending to make a forensic estimation of the theories or doctrines which we are to notice, I desire to show that the forensic student has a special interest in all the real revelations and all the sober speculations touching visual perception.

It is observed by a favorite writer on the law of Evidence,^a that "the highest degree of certainty of which the mind is capable, with respect to the existence of a particular fact, consists in the knowledge of the fact derived from actual perception of the fact by the senses; and even this degree of evidence is obviously capable of being

(a) 1 Starkie's Evidence, 37, note (b).

strengthened by particular circumstances." And, having found the second degree of evidence in that information derived from others, he says: "The truth of the fact in question depends upon the powers of perception possessed by another; the opportunity afforded him of applying them; his diligence in making that application; the strength of his recollection, and his inclination to speak or to write the truth."

It is, perhaps, a common error in the trial of causes to overlook certain indisputable truths in the science of mind and body, to which I desire, through the foregoing citation, to direct attention. Allowing that the witness examined is normally constituted and up to the average of capacity; conceding that his opportunity to apply his perceptive powers has been good; admitting that he has diligently applied those powers in the particular instance; and not denying that his purpose as well as his power of reporting what is registered in his memory is unexceptionable; we may still find that he has strangely varied from the apparent and certain truth of the facts which he observed.

In looking into books for explanation of these facts, we find a learning touching what it calls hallucinations and illusions, in which the forensic student as well as any other student may feel deeply interested. It is not absolutely accurate, perhaps, to say that the forensic student ought to feel the deepest interest in this most interesting learning; but it is quite certain that he cannot safely be indifferent to it.

It is of interest to the practical lawyer to note, that beside the fixed varieties in the power of perception which are discernible in the well known varieties of bodily and mental structure and organization, there are varieties of mental and bodily condition, even in the normally constituted individual, by which his power of perception is

seriously affected. This will be apparent in another place; I only mention it at present, to reveal the practical interest of the intended view of visual perception. That the *sane* may be hallucinated or illuded, all have learned from personal experience and observations; but, it may be, all have not become acquainted with the ascertained or supposed causes of hallucinations and illusions.

I propose, while examining visual perception, to keep an eye to legal interests in this particular.

It will be found that the phenomena to which we have alluded, as relating to disturbed or false perception, are of interest to all connected with the practice of the law.

It is not merely in the practice under the so-called criminal law, that the knowledge of the phenomena alluded to is interesting. In purely "*Civil*" cases, the facts sometimes appear in depositions, that is to say, without the presence in court of the witnesses examined—and the barrister who tries the case is often thus deprived of much that he finds available when witnesses are present. But when witnesses can be examined thoroughly, in presence of the jury, knowledge of the facts relating to perception is of great importance, even in the trial of "commercial" cases. Even as to such controversies, careful scrutiny of inconsistencies in testimony produced by false perceptions may be necessary. For the question may arise upon a claim of damages in a collision case, on water or on railway or the like, and terror may have "supervened," as the doctors say, in those who testify.

I shall proceed, therefore, with the intended trial, quite assured that the forensic *student* cannot be indifferent to its result. Nor can I doubt that even such *practitioners* of the law as most affect contempt for metaphysics, may be won to listen patiently as we proceed with witnesses to prove what we advance, especially when visual perception is in question. For, knowledge touching visual percep-

tion cannot be without some interest to experts, constantly endeavoring to estimate the testimony of witnesses.

Finding in the eye "an optical instrument of great perfection,"^b the forensic expert ought to add to legal knowledge some acquaintance, such at least as school-boys have, with optics. Whether light be an emanating fluid or not, he may indeed decline to make the inquiry in the present state of science. But he cannot be entirely ignorant of optics, if he wishes to be up to the requirements of his art. His art is constantly engaged in estimating testimony. Whether testimony is to be regarded as true evidence, as amounting to proof, he must assist the triers to pronounce. And since the witnesses are testifying chiefly to what visual or auditory consciousness has registered in memory, forensic art should not be ignorant of what belongs to visual supplies or auditory information. That a witness may be honestly mistaken as to what he saw, or over-positive in statement, just because he is entirely ignorant of optics, or because he has not happened to remember what he knew of optics; that a witness, on the other hand, may forge a narrative, entirely false, without regarding optics, leaving optics to expose his falsehood; all this is conceivable, not as remotely interesting to forensic art, but as of near concern to the forensic expert. And if this be not enough to make the lawyer study optics, or brush up the studies of his school-boy days, perhaps, a sentiment of gratitude may lead him to such study. Coke and Blackstone, and "most reverend" Fitzherbert, would be names of little light to him, but for the operation of cause and effect in optics. All the learning of executive devises, all the dear delights of the conveyancer and of the special pleader, would have been to him as though they never were, but for the like succession of phenomena in optics.

And now we come once more to neurine, and the nerv-

(b) Carpenter, 66

ous system. Here, there must be talk once more, of cells. According to Dr. Carpenter, there can be no reasonable doubt of the dependence of the production of Nerve-force in the central organs, upon the development of the peculiar cells which constitute their ganglionic or vesicular substance. We shall presently scrutinize this substance with some interest. Meantime, it may be proper to add this additional remark of Carpenter: namely, "that the progress of physiological inquiry seems to justify the belief that cells or cell-nuclei are usually the agents in the origination of nerve-force at the peripheral extremities of the nerve-fibres. "This nerve-force," continues Carpenter,^c "may be regarded as the very highest manifestation of Vital Power, in virtue alike of its intimate relation with Mental agency, which it serves to excite, and by which it is in turn excited, of its power of exciting or checking Muscular movements, and of the control it exerts over the Vital operations of cells in general, whether these take the form of multiplication or chemico-vital transformation, or present themselves under any other aspect."

The neurine just distinguished as vesicular constitutes the gray or cineritious portion of the brain and spinal cord. Fibrous, medullary, or tubular neurine, embraces the pearly white or medullary^d portion of the brain and spinal cord, and the whole of the peripheral nervous system, excepting only the sympathetic nerve."^e

It may be proper before proceeding to examine nervous trunks and ganglia and their connexions, to remind the reader, that the brain is often used as a collective term, signifying those parts of the nervous system, (exclusive of the nerves themselves,) which are contained within the cranium. These are the *cerebrum*, or brain proper, the *cerebellum*, or little brain, and the *medulla oblongata*. This

(c) Physiology (5 ed.), 132.

(e) Morton, 485-487.

(d) Medulla—marrow.

last is a pyramidal prolongation of the *spinal cord*. By "the brain," however, we shall generally signify the *cerebrum*.

It may also be useful, before proceeding further, to point out, without minuteness, the positions of the spinal cord and its superior connections.

The spinal cord is limited, and its place supplied, below, by the *cauda equina*, a little bundle (fasciculus) of large nerves, branching from the cord. The "horse tail" begins towards the upper part of the region of the loins. The cord ascends to the line arbitrarily fixed for the beginning of the *medulla oblongata*.^f The medulla oblongata lies within the cranium, upon the basilar portion of the bone, at the posterior and inferior part of the cranium. The little brain, or *cerebellum*, is a portion of the medullary mass, contained within the cavity of the cranium. No particular description of its boundaries, or those of the cerebrum, is necessary at this time.

The nervous trunk is a fasciculus of fibrils, in which we have the fibrous (otherwise called medullary) neurine. In the swelling or enlargement in the course of a nerve, formed by an accumulation of what are called ganglion globules, we discover neurine of the kind distinguished as vesicular.

The fibrous neurine, in its most complete form, is distinctly tubular, the diameter of the tubes varying from the $\frac{1}{20}$ th of an inch to half as much. These tubes are larger in the nerves than in the brain, and they diminish in the latter as they approach the vesicular neurine.

We may well indulge ourselves with curious examinations of the delicate component parts of that machinery in which the body executes the purposes of mind, or fills the mind with images and other store of mental wealth. The fibrous neurine is especially inviting to such curious

(f) Medulla—marrow.

examinations. Morton describes every fibre as enveloped in a very delicate, transparent, elastic membrane, similar to the *sarcolemma* of the fibres of voluntary muscles, and, like it, serving more completely to isolate the contained substance. The investing membrane—*neurilemma*—receives no blood vessels and does not intermouth (*anastomose*) with other sheaths. It is therefore supposed to be continuous from the origin to the termination of the nervous trunk. Its contained neurine is readily distinguished into an external portion, lining the cylinder, and an inner portion constituting its central mass. The external portion, being the white substance of Schwann, differs in chemical composition from the contained nervous matter. It is supposed to serve, like its investing membrane, for the more complete isolation of the internal cylinder.^g The latter or central substance is transparent; it is called the axis cylinder by Rosenthal, and is regarded by Solly and others as the active portion of the fibrous neurine.^h

The ganglia of nerves, as we have seen already, introduce us to a nearer view of vesicular neurine. This, when examined by the microscope, is observed to consist almost entirely of cells, having a nucleus and a nucleolus, in various stages of development. The envelope is finely granulated with nucleated particles, and of an extremely delicate structure. The general form of these cells is spheroidal, whence they are sometimes called ganglion globules; but in some instances they assume other shapes, being more or less flattened, and presenting remarkable tail-like prolongations. "These last," says Dr. Morton, "are sometimes subdivided into filaments, which are probably a medium of connection with other cells. The interior construction of the cells is of a finely granular nature, in the midst of which are pigment granules collected around the nucleus and giving it a reddish or yellowish brown color."ⁱ

(g) Morton here refers to Carpenter.

(i) Morton, 484.

(h) Morton, 485, 486.

The cineritious substance is, it appears, extremely full of vessels, the capillaries being arranged in an intricate plexiform manner, and so numerous that Ruysch supposed the cineritious substance of the spinal marrow to be entirely composed of blood vessels.¹

The ganglia, in which we find the accumulated globules of this cineritious substance, also contain, according to Morton, a portion of gelatinous neurine. This is more abundant, however, in the sympathetic than in the cerebro-spinal ganglia. It may be proper here to note its characters.

Morton, following Henlé, described this modification of nervous structure as homogeneous in appearance, resembling the vesicular neurine in containing numerous cell-nuclei of a round or oval shape, their long diameter being in the axis of the nerve.

This form of neurine Morton represents as destitute of the white substance of Schwann. It would seem, he adds, that the gray color of some nerves is owing to the presence of a large proportion of gelatinous neurine. The mode of connection between the gelatinous fibres and the elements of the nervous centres seems to be as yet unknown. They are chiefly found, as we have seen already, in the sympathetic nerves, and are regarded as their distinctive element by Dr. Carpenter, who calls them organic nervous fibres.

Our purposes require, that we should not content ourselves with such a view of nervous centres and connections as we have already taken. Nearer yet and nearer must we come to trunks and ganglia, and all the wonderful varieties of nervous matter. We must not forget, that we have yet to vindicate the doctrine of Perception, which we have preferred.

Approaching the examination of the nervous system once more, we must encounter one of those quite unex-

(j) Morton, 484.

ceptionable theories, in which the dignity, the calmness, of a true philosophy will be apparent.

Very interesting is the history of theory and theorist alike, at which we ought at least to glance, when we attempt to state the theory of Bell, concerning the *afferent* and *efferent* nervous fibres.

This most beautiful as well as interesting theory, is elaborated in the Physiology of Carpenter, recognized and stated in the work of Morton, and accepted generally by the (medical) scientific. Yet, I think, few lawyers are familiar with it.

Science is indebted for this theory to the same Sir Charles Bell, who has so beautifully illustrated the perfection of the human hand, not merely by a scientific description of the hand, but by artistic use of that unequaled instrument. Familiar with Anatomy, "the admirable use of his hands, exhibited both in his dissections and his drawings," became conspicuous at a comparatively early age. We learn, that his operations as a surgeon were distinguished by their dexterity and simplicity. Being, at Edinburgh, one of the surgeons of the Royal Infirmary, he eagerly availed himself of all the means thus afforded to him for improvement in pathology. In view of his desire for such improvement, it appears, that he invented a method of representing morbid parts in models, some of which are still preserved in the museum of the Royal College of Surgeons of Edinburgh.

After difficulties such as genius often owes to its adversary dullness, Bell removed to London, where he rapidly rose to distinction, chiefly through a course of lectures on anatomy and surgery. Before leaving his native place, however, he had written a work on the Anatomy of Expression. This was published soon after his arrival in London. It immediately attracted attention. There is said to be reason for believing, that the inquiries into

nervous function which were made by Bell in connexion with the anatomy of expression, led him "to prosecute those investigations, which terminated in the most remarkable anatomical discovery of our time. In the same manner as it had been taught before the discoveries of Harvey, that there was a flux and reflux of the blood in the arteries and veins, so it was taught, before the discoveries of Bell, that the same nerves transmitted the mandate of the will *from* the sensorium to the organs of voluntary motion, and likewise carried *to* the sensorium intelligence of the conditions of their extremities or sensation; and that, in some mysterious manner, these two impulses might be simultaneously communicated along the same cord in opposite directions without impairing the efficiency of either. This doctrine, which now appears to be startling, continued to be taught, or was left to be inferred, by every anatomical teacher in Europe for at least a year after Sir Charles Bell had announced—in letters still extant, and bearing the London and Edinburgh post-marks of the 5th and 8th December, 1807—his ideas on the nervous system. To him we owe the discovery that no one nerve serves the double purpose of ministering both to motion and sensation; that the spinal nerves and the fifth nerve of the brain, which had been regarded each as one nerve, consisted each of two distinct nerves connected with different portions of the brain, inclosed in one sheath for the convenience of distribution, but performing different functions in the animal economy, corresponding with the different portions of the brain, to which they could be traced—the one conveying the mandates of the will *from* the sensorium, the other conveying *to* the sensorium intelligence of the condition of distant parts, or sensation; that, as the arteries carry the blood from the heart, and the veins carry it to the heart, so one set of nerves carries the impulses of volition from the brain,

and another carries the impulses of sensation to the brain; that the brain is divided, together with the spinal marrow which is prolonged from it, into separate parts, ministering respectively to the distinct functions of motion and sensation; and that the origin of the nerves, from one or other of these sources, seems to endow them with the particular property of the division whence they spring." ^k

In introducing this most interesting theory, I do not much expect the "practical" to censure it. I must acknowledge, indeed, that Bell was in some degree inclined to what the practical regard as almost sinful. Something like enthusiasm glances through his conduct. When deprived of the advantages before referred to in the Royal Infirmary of Edinburgh, he did not, indeed, attempt to hang or to drown himself. But he did offer to pay £100 a year, and to transfer for the use of the students the museum he had collected, on condition that he should be "allowed to stand by the bodies when dissected in the theatre of the infirmary, and to make notes and drawings of the diseased appearances." And he did voluntarily proceed to the scene of action during the war in the Peninsula, in order to attend the wounded on the field of battle!

Worst of all, if Mr. Buckle is a true philosopher of progress, Bell displayed a disposition to connect theology and science. He was so reactionary as to write on the evidences of divine design to be found in the anatomy of the human body!

But, for all that, the practical will not be much averse to such a theory as Bell advanced, and men like Carpenter, and Brodie, and Morton carefully elaborate and learnedly support by argument.

In Carpenter's elaboration of this theory, we have the distinction plainly marked between the afferent (*sensory*)

(k) Encyc. Brit. tit. BELL, *Sir Charles*, K. H.

and the efferent (*motor*) fibres of the nerves. And we are told, that there is reason to believe that every fibre runs a distinct course between the central organ, in which it loses itself at one extremity, and the organ of sense, muscle, or other tissue, in which it terminates at the other; in the terminal ramifications of the nerves, however, a sub-division of the fibres is frequently observed. "Each nervous trunk is made up of several fasciculi of these fibres; and each fasciculus is composed of a large number of the ultimate fibres themselves. Although the *fasciculi* occasionally intermix and exchange fibres with one another (as occurs in a plexus), the fibres themselves never inosculate. Each fibre would seem, therefore, to have its appropriate office, which it cannot share with any other."¹

Of the statements made by Carpenter, as adopting the doctrines of Prof. Mueller with some modifications, I will only give the skeleton—referring all to the book itself for the entire argument. I. When the whole trunk of a *sensory* nerve is irritated, a sensation is produced, which is referred by the mind to the parts to which its branches are ultimately distributed; and if only part of the trunk be irritated, the sensation will be referred to those parts only, which are supplied by the fibrils it contains. II. The sensation produced by the irritation of a branch of the nerve, is confined to the parts to which that branch is distributed, and does not affect the branches which come off from the nerve higher up. III. The *motor* influence is propagated only in a centrifugal direction, never in a retrograde course. It may originate in a spontaneous change in the central organs, or it may be excited by an impression conveyed to them through afferent nerves; but in both cases its law is the same. IV. When the whole trunk of a motor nerve is irritated, all the muscles which it supplies are caused to contract.

(1) Carpenter (ed. of 1855), 442.

CHAPTER X.

THE EYE AND ITS CONNEXIONS.

AND now, I trust, we are prepared to near the organ of vision.

We are not at present to examine all its parts and characters. Its great perfection as an optical instrument will only come before us after we shall have looked upon it merely as the point to which the visual sensation draws our notice when we see.

None need to be informed, that the eye-ball is a hollow sphere, of which the solid portion is made up by three concentric envelopes, and that this hollow sphere is filled with what have been named humors. That these humors are fluid or semi-fluid bodies—that the concentric envelopes are known as the coats of the eye—all readers are informed. That, somewhere in the eye, a nerve, known as the optic, is expanded into the retina, and conveys, or is supposed to convey, some likeness or suggestion of the images which light has painted on that yet mysterious retina to the special seat of mind; this also is familiar to all readers.

In order to enable readers to understand what is to be said of the retina, it is quite convenient to make a description of the contents of the eye-ball. But the reader is to bear in mind, that, while, as we proceed, the evidence

will more or less unfold itself, that the eye has a capacity which is not ill-compared with that apparent in the photographic process, I do not now describe the eye in order to produce such evidence.

Among the envelopes distinguished as the coats of the eye, the most exterior is the sclerotic. Within we have the choroid coat with the iris as its front. And, most interiorly, we have that wonderful retina.

The white, opaque, glossy, blue-tinted, strong tunic, known as the sclerotic, is of fibrous tissue, the layers crossing each other at right angles. This unyielding, dense sclerotic, though considered as including the transparent cornea, may be described as letting the cornea into a circular perforation in front, above which the arched projection of the cornea resembles a watch-glass. The cornea reveals the iris and the pupil, which, as we have seen, belong to the choroid. A firm, elastic membrane, the cornea is set firmly in the beveled edge of the sclerotica, of which it may be said to form the sixth part of the contained sphere, although, as we have seen, it is more convex than the sclerotica. Neither the sclerotica proper nor the "cornea proper" show blood—and though perforated by the optic nerve, the sclerotica is, strictly speaking, wholly destitute of nerves.

The cornea, though it seems "pellucid as glass," and in effect is so, is composed of five laminæ, distinguished as the conjunctival epithelium, the anterior elastic lamina, the cornea proper, the posterior elastic lamina, and the posterior epithelium. The "cornea proper" consists, it is said, of more than sixty lamellæ.^a Two sets of blood "vessels, superficial and deep-seated, surround its margin: the former are extended a short distance upon the conjunctiva, but they terminate in veins at from $\frac{1}{8}$ to $\frac{1}{2}$ a line from the point of ingress. The deeper vessels appear at

(a) Draper, Phys, 384; Morton, Anat. 600.

first to enter the cornea proper; but they terminate in veins at the point of junction, between the cornea and sclerotica.”^b At the “line of junction, the fibres, which in the sclerotica, have been densely interlaced in various directions, and mingled with elastic fibrous tissue, flatten out into a membranous form, so as to follow, in the main, the curvature of the surface of the cornea.”^c

The iris, perforated by the pupil, next attracts us, and its observation shows it as a part of the choroid. United round the edge of the cornea, with the coat distinguished as sclerotic, the membrane called *choroides* is not unlike the coat containing it, in tissue, but is chiefly made up of blood vessels and certain cells, which we must not omit to notice with attention. Pigment cells, or particles containing the coloring matter of the choroid coat, appear, of a pentagonal or hexagonal shape, in the third layer of the choroid (called the choroidal epithelium), and also, in variable shapes, in the substance of the choroid. The choroid, it is to be observed, is “usually, though artificially,” described as composed of three coats. Of these, the first or external tunic, is a curvilinear arrangement of veins, “converging, before they leave the choroid, into four or five trunks, called *vasa vorticosa*, which empty into the posterior ciliary veins.” “The second layer is the *tunica Ruyschiana*, a plexus of arterial capillaries disposed in a close net-work, more elaborate behind than in front, and all derived from the posterior ciliary arteries.”^d The third layer we have already distinguished. It is sometimes called the *membrana pigmenti*, and is the “black pigment” of Draper, in which he supposes images to form, and which darkens the interior of the eye. That learned physiologist describes the choroid, at large, as “a sheet of blood capillaries arranged in two layers, an arterial and a

(b) Morton, 601.

(d) Ib. 602.

(c) Ib. 600.

venous, in such a way as to give the utmost freedom of access for the arterial blood to the retina within."e

The iris, commonly regarded as a process^f of the choroid coat, floats freely in one of the humors, glanced at at the outset,^g called the *aqueous* humor. It is, indeed, "attached by its periphery to the ciliary ligament," (not yet examined here,) "and by the latter to the choroid coat, which it is by some anatomists regarded as a continuous, though modified structure. Where it joins the ciliary ligament, it also becomes continuous, through its anterior surface, with the posterior elastic lamina of the cornea."h It is, as we have seen, perforated, for the admission of light to the retina, by the pupil, an opening of which the size is varied by the dilation and contraction of the iris. The "color of the eye," as commonly described, depends upon the pigment of the anterior surface of the iris. Its posterior surface is also covered by pigment. The iris has in front, the cornea, and, behind, the lens, of which we shall see more hereafter.

The tissue of the iris, though arising from the choroid, is generally considered as a modification of muscular tissue—that distinguished as unstriated.ⁱ It is by the power of the radiating fibres converging from the periphery to the centre, that the dilation of the pupil is accomplished; whilst contraction is produced by another and circular set surrounding the pupil. These two sets of fibres are distinguished as the lesser and greater circle.^j

The ciliary ligament, a bluish white ring more than a line in width, and composed mainly of a dense cellular tissue, connects the choroid and sclerotica. It adheres more closely to the former than to the latter. Neither this ligament, nor the ciliary body, as described by the anatomists, need more than mention here. A "ciliary

(e) Drap. Phys. 384.

(f) Prolonged part.

(g) Ante, p. 253.

(h) Morton, 604.

(i) Ante, p. 223.

(j) Morton, 604.

muscle," as to which I find no certainty in any book I have examined, is described by Dunglison and Draper — by the former, as part of the muscle, called *orbicularis palpebrarum* in the vicinity of the ciliary margin — or as the grayish, semi-transparent structure behind the ciliary ligament, and covering the outside of the ciliary body. The latter, according to Dunglison, is "a ring of the choroid surrounding the chrystalline in the manner of a crown" — "resembling the disk of a radiated flower," and "formed by the union of the ciliary processes." Dunglison further describes the ciliary body as placed behind the iris and the ciliary circle.^k Draper describes the ciliary muscle as of the unstriped kind; and tells us that its action is to move the lens. And Dunglison informs us, that "by its contraction the ciliary processes, and with them the lens, must be drawn towards the cornea."

I am not aware that any of our purposes require a close description of the arteries which branch to the choroid from the ophthalmic artery, or of the veins which enter into the beautiful arrangement of blood vessels in the choroides and iris. The ophthalmic artery, however, may be mentioned as entering the optic opening (foramen) beneath the optic nerve, and running a spiral course within the orbit, which it leaves at what is called the inner canthus^l of the eye. This artery gives off the *lacrimal* artery, the *central artery* of the retina, the *supra orbital* artery, and the *ciliary* arteries. The latter are distinguished as the *short ciliary* (ten or twelve in number), the *long ciliary* (two in number), and the anterior ciliary, (variable in number.) It is the ciliary which compose the beautiful and complicated vascular network within the ball of the eye.

I reserve the description of the nerves connected with the choroid.

(k) Dung. Med. Dic. tit. Ciliary Body and Ciliary Muscle.

(l) Corner angle.

Coming now to the retina, we begin to feel that we are nearing wonders. Beginning at the point of entrance of the optic nerve, of which it is described as an expansion, it is interposed between the vitreous humor and the choroid coat. It terminates behind the ciliary body in an irregular border. It arises from the tubules of the optic nerve, which have cast off their covering investitures on their passage through the sclerotic. It is thicker behind than before. Its color is grayish white with a tinge red. Morton tells us that it is "of a pulpy consistence and nearly transparent;" Draper, that it "is perfectly transparent during life, though it soon becomes semi-transparent."^m The orange-colored spot, about the twentieth or twenty-fourth of an inch in diameter, called the yellow spot of Soemmering, dots the retina, in the optical axis of the eye. Its uses are unknown.ⁿ

In the order of dissection, the retina shows, 1. The membrana or tunica Jacobi; 2. The nervous membrane, lamina nervosa; 3. The vascular membrane, lamina vasculosa. The first of these laminæ is described as forming the connecting link between the choroidal epithelium and the retina, and as attached to the exterior of the retina in flocculent portions. It is an extremely delicate structure.^o

In the nervous membrane, we find a thin, semi-transparent bluish white layer—a most intimate intertexture of filaments forming a perfect membrane, of which the texture is analogous to the vesicular neurine of the brain.

The remaining membrane is regarded as a congeries of minute blood vessels, connected, so as to form a perfect membrane, by cellular tissue.

Such is the substance of the Morton view of the retina. In the physiology of Draper are distinguished four "strata," namely—1. The membrane of Jacob, which Draper

(m) Morton, 606; Draper, 385.

(n) In this account of the retina, I have followed Morton and Draper.

(o) Morton, 606, 607.

calls a layer of rods and cones; 2. The granular layer, a congeries of granules; 3. The vesicular layer; 4. The fibres of the optic nerve. But he prefers, to any such view of the retina, what he calls the radiated fibre system.

This system, introduced by Mueller, examines the retina in its radial section. From this it appears that the layers just enumerated are all so connected, that, passing in a radial direction, as respects the globe of the eye, all the different enumerated elements are successively combined. "Thus, from each of the proper fibres of the optic nerve, a thread-like body passes radially through the thickness of the retina, including in its outward passage a vesicle, and again, beyond that, a granule, and still further, a cone, and terminating in a rod; so that from the extremity of the rod, there is a continuous communication through the thickness of the retina to the fibres of the optic nerve; the rods are therefore to be regarded as the termination of the optic fibres. In the opinion of Mueller and Kolliker, the rods and cones composing Jacob's membrane are the true percipients of light, communicating their condition to the fibres of the optic nerve by means of the connection which they thus maintain with it; or, perhaps, the rods and cones are conductors of the luminous impressions to the nerve-cells of the retina, which constitute a ganglion capable of perceiving light, and the fibres of the optic nerve merely communicate those impressions to the sensorium." ^p

Leaving for examination in another connexion what we have distinguished as the humors of the eye, I purpose here to follow each optic nerve in its inward course, as it departs from the expansion known as the retina. Each optic nerve, originating where we find that expansion, and being but the coalition of the expanded fibres, perforates the choroid and the sclerotic, passes through the optic

foramen already mentioned, joins its fellow of the opposite side, and becomes involved with it, in the optic commissure or chiasm.^(q) Within the commissure or chiasm, anatomists have found a remarkable "decussation" or crossing of fibres—the innermost being sometimes described as crossing each other to pass to opposite eyes, and the outer as continuing their course to the eye of their own side.^(r) According to Draper, the commissure consists of three distinct systems of tubules—an anterior set, which are commissures between the two retinae, a posterior set, commissures between the two optic thalami, (yet to be examined, as supposed important parts of the sensorium,) and an interior set, the proper tubules of the optic nerve, which cross those from the right eye going to the left side of the brain, and those from the left eye going to the right side of the brain."^(s)

Two flattened bands, the optic tracts, diverging from the chiasm, wind around the two white cords, respectively, in which we recognize "peduncles"^(t) of the cerebrum, under the designation *crura cerebelli*; and terminate, respectively, in the corpora geniculata of the optic thalamus, and, by scattered fibres, in the medullary surface of that ganglion, and also in the peduncles of the pineal gland; also, in the tubercula quadrigemina.^(u)

By the corpora geniculata of the optic thalamus, we are to understand three little elevations, found on each of the two convex, pear-shaped bodies, called the thalami optici. A nice description of these elevations is unnecessary here. But all our purposes require us to give a particular account of optic thalami and the tubercula quadrigemina.

The latter are sometimes described as the optic lobes.

(q) Morton, 569.

(r) Wilson, Anat. 395.

(s) Draper, 391.

(t) A prolongation, which suggests the notion of a foot, is called a peduncle.

(u) In this description, I have followed Dr. Morton, who has followed Mr. Solly.

Their aspect is that of four rounded elevations, separated from each other by a crucial furrow. Without a full description of the cranium and its contents, I could not indicate their places. Let it be enough for all our present purposes to know, that they are situated at the base of the brain, and that they are connected with the optic thalamus, in a manner presently to be described. Divided into pairs, the tubercula (commonly known simply as corpora) quadrigemina are distinguished as *nates* and *testes*—of which the former are placed above the latter. The *nates*, which are the larger, are covered externally by neurine of a grayish-white color. The *testes* are, externally, nearly as white as medullary matter elsewhere.* Internally, the corpora are wholly cineritious or gangliform† in structure. Their connexion with the thalamus is by a rounded fasciculus of medullary fibres. This fasciculus extends from the cerebellum to the testes, thence proceeding to one of the little elevations already distinguished as the corpora geniculata.

The thalami themselves are, as we have already seen, pear-shaped. Bodies, known as the *corpora striata*, lie before them, and, as it were, embrace them; thus, as we shall see, enjoying a proximity of place, not unsuggestive of the near relation which the physiologist discovers in their functions. The thalami themselves, in like manner, embrace the crura cerebri, already mentioned.

The external aspect of the thalami is that of medullary neurine,‡ but, internally, the medullary is blended with the cineritious. Each thalamus is continuous with the corresponding “olivary” ganglion of the medulla oblongata.¶ This olivary ganglion may be described hereafter. For the present, let me beg the reader to remember these descriptions. Dry as they appear, they are of real interest to this investigation.

(v) Ante, p. 203.

(w) Ante, p. 249; Morton, 559.

(x) Ante, p. 248.

(y) Ante, p. 248.

The peduncles of the pineal gland have been distinguished as a point of termination for the optic nerve. These peduncles are the two cords of medullary neurine, which connect with the brain, a conical mass of vesicular neurine (the gland), placed upon the nates of the corpora quadrigemina. They run along the upper internal border of the optic thalami.^z

I have thus traced the optic nerve, from what with Mr. Solly, here indorsed by Morton, I prefer to recognize as its beginning to its "double termination," as described by competent anatomists. I thought this tracing necessary to a complete description of the eye itself. And now, albeit such a course may look capricious, I propose to hold yet in reserve all further scrutiny of the eye-ball, and to proceed to view the ganglia, of which the thalami just now examined constitute a part. My object in proceeding so, may vindicate the course I take to reach it, as we proceed.

I have referred, under the name of corpora striata, to the ganglia, distinguished by anatomists as the anterior ganglia of the brain. The thalami and the striata, I have hinted, are of near relationship, and we shall see, though their supposed functions differ, they reciprocate or correspond in such a manner as to bind the *thalami* and the *striata* in an intimate relationship. But the *thalami* and the *striata* are only parts of a chain of ganglia beneath the hemispheres of the cerebrum. "Anteriorly, we find the olfactive ganglia, or bulbs of the olfactory nerves, which are seated upon peduncles, though their character is manifest from the gray matter they contain. Behind these are the tubercula quadrigemina, to which the optic nerves run, and which are therefore their ganglionic centres. What answers to the auditory ganglion is lodged at a distance back, at the fourth ventricle, and

(z) Morton, 560.

the gustatory ganglion is in the medulla oblongata.^a These," says Dr. Draper, here adopting the important theory of Carpenter, to be examined presently; "these are the ganglia of special sense, and to be regarded as subordinate to the thalamus, which is their common register."^b

This observation may appropriately introduce a theory, deserving all the honors due to truly scientific articles of faith.

Bell's discovery of the distinction between fibres afferent and fibres efferent was followed by discoveries less striking, but of great importance. Hall first clearly recognized the conversion of impressions made at the periphery into that peculiar action already glanced at in another part of this volume.^c Now we are to recognize in Carpenter the accredited and worthy author of a theory, which many may regard as hardly of inferior rank to that which made the name of Bell illustrious.

It is considered by Carpenter, that the assemblage of ganglionic masses, lying along the base of the skull in man, and partly included in the medulla oblongata—with which may probably be associated two pairs of ganglionic bodies known as the corpora striata and thalami optici—may be comprehended under the term Sensory Ganglia. Into the corpora striata and thalami optici may be traced the greater proportion of the fibres that constitute the various strands of the medulla oblongata, "and which," says Carpenter, "seem to stand in the same kind of relation to the nerves of touch or 'common sensation,' that the olfactive, optic, auditory, and gustative ganglia bear to *their* several nerve-trunks."^d In the other ganglionic masses, comprehended under the term Sensory Ganglia, the nerves of the "special senses," taste, hearing, sight and smell, have their central terminations.

(a) Ante, p. 248.

(b) Drap. Phys. 315.

(c) Ante, 83—referring to "reflex" acts.

(d) Carpenter (ed. of 1855), 437.

It is remarked, as not a little interesting, that the cranio-spinal axis, (consisting of the spinal cord, the medulla oblongata, and the sensory ganglia,) and representing in Vertebrated animals the whole nervous system of the Invertebrata (with the exception of the rudiments of the sympathetic which they possess), exists in the lowest known Vertebrated animal without any superaddition, and yet is sufficient for the performance of all its actions. This condition, it is said, has its parallel, even in the human species, in infants born without either cerebrum or cerebellum. Such infants, we are assured, have existed for days, breathing, sucking, crying, and performing various other movements. Carpenter, indeed, finds no physiological reason, why their lives should not be prolonged, if they be nurtured with sufficient care.^e

The cerebral hemispheres, or hemispheric ganglia normally superimposed on the Sensory Ganglia in all the higher Vertebrata, are in man so greatly developed as to cover in and obscure the Sensory Ganglia. But "it is a point especially worthy of note, that no sensory nerves terminate directly in the cerebrum, nor do any motor nerves issue from it; and there seems a strong probability that there is *not* (as formerly supposed) a direct continuity between all or any of the nerve-fibres distributed to the body, and the medullary substance of the cerebrum. For, whilst the nerves of 'special sense'^f have their own ganglionic centres, it cannot be shown, that the nervous fibres of 'general' sense, which either enter the cranium as part of the cephalic nerves, or which pass up from the spinal cord, have any higher destination than the thalami optici. So the motor-fibres which pass forth from the cranium, either into the cephalic nerve-trunks, or into the motor columns of the spinal cord, though commonly designated as cerebral, cannot be certainly said to have a higher origin than the corpora striata."^g

(e) *Ib.* 438.(f) *Ante*, p. 265.

(g) Carpenter (ed. of 1855), 438.

CHAPTER XI.

THEORY OF PERCEPTION.

CARPENTER himself does not present this theory as clashing with the theory of Reid, improved by Hamilton. Indeed, I half suspect, that interfering shadows of authoritative names obscured his clearness of "mental" perception, when he recognized the presence of the learned theories respecting the immediateness of perception.

But the simple statement of his theory assures us, that the learned physiologist cannot well believe, that in perception, mind immediately knows the objects of perception. Indeed, he says expressly: "However difficult it may be, under the influence of our life-long experience, to dissociate any sensation of which we are cognizant, from the notion of its external cause—since the moment the feeling is experienced, and the mind is directed to it, the object from which it arises is immediately suggested—yet nothing is more certain than that all of which we are ourselves conscious, in any case whatever, is a certain internal or subjective state, a change in our previous consciousness; and that the mental recognition of the object to which that change is due, is dependent upon a higher mental process, to which the name of *Perception* or *Perceptive Consciousness* is now generally accorded." ^a

(a) Physiology, 554.

Carpenter has also quoted and approved the language of a writer on the "Philosophy of Religion," who has well observed: "If we could by any means transport ourselves into the mind of an infant before the perceptive consciousness is awakened, we should find it in a state of absolute isolation from everything else in the world around it. Whatever objects may be presented to the eye, the ear, or the touch, they are treated simply as subjective feelings, without the mind's possessing any consciousness of them, as *objects*, at all. To it, the inward world is *everything*, the outward world is *nothing*." And again: "A sight or a sound, which at first produced simply an involuntary start, now awakens a smile or a look of recognition. The mind is evidently struggling *out of itself*; it begins to throw itself into the objects around, and to live in the world of outward realities." ^b

And, in immediate connection with the last preceding sentence, Carpenter observes, that "a similar transition, more rapidly effected, may be distinguished in ourselves, during the passage from sleep, or from the insensibility of a swoon, to the state of complete wakefulness; when we are at first conscious only of our own sensations, and gradually come to the knowledge of our condition as it relates to the world around, and of the position and circumstances, new and strange as they may be, in which we find ourselves." ^c True, the learned physiologist proceeds to say, that "the apprehension, or formation of an elementary notion, of the *outness* or *externality* of the cause of a sensational change, is an operation, which the mind seems necessarily to perform, when it has attained a certain stage of development; instinctively or intuitively making a definite distinction between the *self*, and the *not-self*, the *subject* and the *object*. "We do not," he observes, as if by way of concession, and I think he thought

(b) Morell, *Philosophy of Religion*, 7. (c) Carpenter (ed. of 1855), 554.

of Hamilton when so conceding; "we do not *infer* the existence of objective realities by any act of the Reason; in fact, the strict application of logical processes tends rather to shake than to confirm the belief in the external world; but the qualities of matter are directly and immediately recognized by our minds, and we gradually learn to interpret and combine the impressions they make upon our consciousness, so as to derive from them a more or less definite notion of the object." But it is to be observed, that Carpenter has hastened, by a note, to qualify this doctrine. He informs us,^d that "outness" or "externality" is to be understood in the present inquiry, as implying what is external to the mind. "Viewed in that aspect, the bodily organism stands in the same kind of relation to it, as does the world beyond; and the changes in the former which gives rise to sensations, are as much objective as those of the latter." But the language of the learned physiologist in the (supposed) concession, is not happy, even if we take explanatory notes into account. The *necessary* character of the operation performed by the mind, when it has attained a certain stage of development, is not quite clearly shown; nor do I find myself disposed to accept the proposition that we do not *infer* the existence of objective realities by any act of the reason. The yet unknown experiences of the foetal mind, and of the mind of early infancy, may be experiences of such acts of reason as we cannot even conceive of; and I am disposed to add, that the strict application of logical processes does *not* tend rather to shake than to confirm the belief in the external world. At all events, I quite deny the right of any reasoner to lay it down, among the things incontrovertible, that the qualities of matter are directly and immediately recognized by our minds. On the whole, I am disposed to think, that Carpenter is not quite consistent with him-

(d) *Ib.*, note 2.

self when he concedes as we have seen; and I adhere to what I may distinguish as the body of his theory, which, well adhered to, ranks its author where he ought to stand, in opposition to the views of Hamilton.

I deny not that what we call perception is "an immediate knowledge of the present." All that I contend for is the true distinction as to what it is of which the mind has this immediate knowledge. Is it a sensation which is present to the mind, or is the thing sensated also present? I maintain with Newton and his school, and all the ancients whose opinions were approved by Newton, that there is present to the mind only the yet imperfectly known suggestion of the outward, which sensation and attention, with the aid of memory and understanding, may present as signals of the outward. I believe with Mr. Mill, that "in almost every act of our perceiving faculties, observation and inference are intimately blended. What we are said to observe is usually a compound result, of which one-tenth may be observation, and the remaining nine-tenths inference.

"I affirm, for example," continues our logician,^e "that I hear a man's voice. This would pass, in common language, for a direct perception. All, however, which is really perception, is, that I hear a sound. That the sound is a voice, and that voice the voice of a man, are not perceptions, but inferences. I affirm, again, that I saw my brother at a certain hour this morning. If any proposition concerning a matter of fact would commonly be said to be known by the direct testimony of the senses, this surely would be so. The truth, however, is far otherwise. I only saw a certain colored surface; or rather, I had the kind of visual sensations which are usually produced by a colored surface; and from these as marks, known to be such by previous experience, I concluded that I saw my

(e) System of Logic, B'k IV, ch. i, § 2.

brother. I might have had sensations precisely similar, when my brother was not there. I might have seen some other person so nearly resembling him in appearance, as, at the distance, and with the degree of attention which I bestowed, to be mistaken for him. I might have been asleep and have dreamed that I saw him; or in a state of nervous disorder, which brought his image before me in a waking hallucination. In all these modes men have been led to believe, that they saw persons well known to them, who were dead, or far distant. If any of these suppositions had been true, the affirmation that I saw my brother would have been erroneous; but whatever was matter of direct perception, namely, the visual sensations, would have been real. The inference only would have been ill grounded; I should have ascribed these sensations to a wrong cause."

How plainly Mr. Mill has recognized the truth, that what we "see" or "hear" is the result of Reasoning—that is to say of Inference—is now apparent to the reader. But it may be well to add, that in all the instances of what are vulgarly called errors of sense,^f he finds erroneous inferences, but holds that "there are none of them properly errors of sense."

It is in view of the facts as I understand them, however, rather than of the authority which may be recognized in the name of any man, that I contend against the theory of Reid. The facts appear to warrant us in holding, that the Will, directing the Attention, and the Memory, associating with the product of Sensation all that must be noticed for Induction, and the Understanding, acting on the facts thus brought before it, are productive of Perception when it is most perfect; and that in involuntary Per-

(f) Here distinguished as Hallucinations, or as Illusions, according to a given rule. *Post.*

ception, only Will is wanting, all the other acts occurring, be it even with an inconceivable rapidity.

I am not, then, to be regarded as denying, that what we call perception is, as described by Reid, "an immediate knowledge of the present." What I hold is only a discrimination as to what is truly present, and as to its mode of presence, to immediate cognition. Nor need any pious apprehension startle at the statement of the simple theory which I prefer. It will be found, as we proceed, that the doctrine of perception, which the learned Hamilton improves without establishing, is subject to animadversion like that made by Brown, respecting Reid's own version of the theory. I will attempt to show, that the doctrine of Hamilton "affords, in truth, no better evidence of the existence of an external world" than the theory which I prefer, and which I look upon as proved by Carpenter.

But do the facts support our theory?

We have seen the neurine, known as cineritious or vesicular, and the medullary or white variety of nervous matter. We have tried the reasons for distinguishing the roots of nerves as Bell distinguished them. We have discerned afferent and efferent nerves. In the nervous ganglia, we have discerned what is apparently devoted to the "motor" influences, and what is apparently sacred to sensation. In the ganglia, distinguished as the true Sensorium, we have found a point *to* which afferent nerves may probably convey impressions; *from* which the efferent tissue may conduct the mental influences into action or expression. Objects which composed and sober physiologists distinguish as the "central terminations" of the nerves devoted to the "special senses," taste, hearing, sight and smell; and objects which Carpenter describes with approbation as the analogous terminations of the nerves of touch or common sensation,^g are presented to

(g) Ante, p. 265.

the scrutiny of the anatomist. These objects indicate the inwardness of the percipient mind.

And when we come to the renewed examination of the eye-ball, still we find renewed inducements to believe as I prefer to hold concerning visual perception. This I am disposed to hold without completing our examination of the eye-ball. Still reserving our description of the lens and its connections, as they most assure us that the eye is an optical instrument, I find in the other machinery connected with the eye-ball, and in the sensations which accompany a visual perception, ample proof of the hypothesis—if I may call it so—which I prefer.

The optic nerve, which we have traced from its beginning, as the coalition of the fibres which compose the retina, to its "double termination" in the ganglia devoted to sensation, is to be here considered as belonging to a special system. Of this system, are, of course, the olfactory and auditory as well as the optic sensory nerves; and all the motor nerves of the encephalon,^h as well as those distinguished as "of compound function."

In such system, we should also find the muscles which are active in the movements of the eye. For, though, at present, we are not examining what constitutes the eye an optical instrument, strictly speaking, that its muscles are responsive to the action of its nerves in movement is a fact of interest in this immediate connexion. Even if we totally reject the theories, which argue that upon the black pigment, or upon the retina, images are formed, the eye is still a point at which the visual sensation points attention during visual perception. And the muscles, playing here their beautiful responsive part, would form a part of any special system such as that I here suppose.

It is not necessary for my present purposes to enter into a

(h) A word of various use. Here used to signify the contents of the cephalon alone.

nice description of the muscles, active in the movement of the eye. Let it serve our purpose to consider simply, that they answer to the power of nerves in ministering to the optic movements. So considering the muscular and nervous system, which we may for present purposes describe as visual, we may regard it simply as a part of that arrangement of nervous and muscular tissue, in which we find the plain distinction between the afferent and the efferent—between the motor and the sensory. The nerve called motor oculi would then appear, as it does now, to have its origin within the cerebrum, the seat of higher mind, and thence to pass, in branches, to the eye-ball muscles, there to bear the messages of mind to which the eye is so responsive. Then, as now, the pathetic nerve would bear like mental messages to the pathetic muscle.ⁱ Then, as now, *trigeminus* would play his part of motion and his part in mere sensation. All the motor nerves or parts of nerves would do their offices almost as evidently as at present. And the nerves and parts of nerves which now apparently relate to mere sensation, would plainly so relate, if we should still regard the optic nerve with its expansion just as we regard the other nerves of special sense. The *feeling* which accompanies a visual perception, would then as now direct attention to the eye. And, in view of the facts produced by Bell, and the additional facts produced by those who have adopted his system, verifying the distinction between fibres of sensation and efferent fibres,^j I would venture to maintain the theory which I prefer, without the aid of what remains for scrutiny within the eye-ball.

To justify this proposition, I must bring before the

(i) The action of the *trochlearis* muscle is to roll the eye downwards and outwards. "It gives a sentimental expression to the eye, and is hence called the *musculus patheticus*; and the trochlear or pathetic nerve is exclusively distributed upon it." Morton, 179.

(j) Ante p. 253.

reader certain views of Dr. Draper, which I cannot be too guarded in producing. I would not be understood as eager to adopt or ready to reject them. Here, in presence of the ministry of justice; here, where testimony, which is but the revelation of what memory has registered or otherwise preserved, is constantly in question; such a theory as that of Dr. Draper may appear too fanciful, but it cannot be treated with indifference or disrespect.

The theory in question is, in substance, found in Carpenter. But Dr. Draper has improved upon it, and extended and applied it, so that now, whoever may have first produced it, it presents itself as Dr. Draper's own peculiar theory.

By Carpenter himself, some species of registry for the impressions taken to the ganglia in which he finds the seat of consciousness, is evidently contemplated—nay, expressly shown to be supposable. But it is in the language of the more enthusiastic Dr. Draper, that the doctrine is most startling. Here, we find the designation “registering ganglia” employed so frequently and with such perfect confidence, as to persuade us, that a little caution in approaching Dr. Draper's views, may be desirable.

How Dr. Draper has supposed the functions of the ganglia in question to be involved in perception, we have partly seen already. We may see it more distinctly in another place. At present, it is only just to add, that Dr. Draper does not find “any necessary coincidence between an external form and its ganglionic impression any more than there is between the letters of a message delivered in a telegraph office and the signals which the telegraph gives to the distant station; yet these signals are easily retranslated into the original words—no more than there is between the letters of a printed page and the acts or scenes they may chance to describe; but these letters call up with clearness in the mind of the reader the events and scenes. Indeed,” he continues, “the quickness with which

the mind interprets such traces or impressions in its registering ganglia is illustrated by the rapidity with which we gather the sense of a printed page without individualizing each of the letters it contains; or as a skillful accountant runs his eye over a long column of figures, and seems to come by intuition at once to the correct sum. The capability which we thus possess of determining a final perception or judgment of results, without dwelling on the intermediate traces or steps, is also illustrated by our appreciation of music without concentrating our thoughts on the time and intensities of vibration or interference of the notes, though these mathematical relations are at the very bottom of the harmony; and conspicuously does the Supreme Intelligence, God, reach with unerring truth to every final result, without any necessary concern in the intermediate steps."

If there be anything in such a theory as this, it well deserves forensic study, and may well excite forensic expectation. When it is connected with the notion, that upon the retina, after death, may be discovered traces of the object last presented to the vision of the dead, it cannot be regarded with indifference.

I adopt, then, as hypothetically probable, a part of Dr. Draper's theory. I may thereupon observe, that, if the theory so preferred, involves the notion that impressions must be made on nervous tissue, still we must remember, that the characters impressed need not be characters of representation or iconographic characters. They need not make what we would call a picture of the outward, represented object. And, withal, I do not propose absolutely to commit myself to any theory respecting *registry*. But I do believe, quite independently of all that we have yet to scrutinize within the eye-ball, that the impressions taken inwards by the nerves, do, in some shape, stand before the mind as though legible.

But when we add, what the anatomist and the optician

teach us of the humors of the eye, and of the instrument which they complete, we may with confidence conclude against the theory of Hamilton.

I will not here attempt minute description of the lens, (called crystalline,) or of the other "humors" of the eye. It is enough to know, that no observer doubts, that, added to the parts we have already scrutinized, the humors constitute the eye "an optical instrument of great perfection." Thus, at present, we need only note, that the aqueous humor, which is mostly water, fills the anterior and posterior chambers of the eye as formed by the vertical septum of the iris; that the jelly-like vitreous humor fills the area of the retina; and that the double-convex lens, distinguished as the crystalline, is placed in the anterior body of the vitreous humor, the one being excavated in a cup-shaped manner for the reception of the other. For, in all the books of physiology, however unpretending, we have read of lens and humors and retina. And we know, that, whether images are photographed, as Dr. Draper argues, on the black pigment, or impressed on the retina, as believed before his theory suggested reëxamination, images are *somehow* formed within the eye, by the admitted light, to serve *some* purpose of the inward contemplative mind.

Without concluding, therefore, all I have to say of visual perception, I will venture here to stand against all comers in defense of the theory of visual perception here preferred.

The facts collected by the learned for the information of the vulgar of the present day, have led us, vulgar, to believe with Newton, rather than with Dr. Reid or any of his followers. Nor can we suffer any one to frighten us into the notion that the ghost of Berkely or the shade of Hume has paid us some nocturnal visit, and seduced us into infidelity or skepticism. We are just so foolish and foolhardy as to hold, that the facts collated by science are entirely inconsistent with the theories of Reid, of

Stewart, and of Hamilton. They seem to prove to us, that the object of consciousness in perception is what Hamilton contends we are not warranted in supposing it, if not "a modification of the percipient subject," then, in some sort, "a phenomenon numerically different from the object it represents." They seem to warrant a large enlistment under the banners of the Hypothetic Dualist, otherwise called Cosmothetic Idealist and Hypothetic Realist. They do not contradict, as Sir William Hamilton insists, that the theory founded on them contradicts, the fact given in consciousness. The theory founded on them does not bely the testimony of consciousness to our immediate perception of an outer world, and does not therefore "bely the veracity of consciousness altogether." It explains, without belying, the testimony of consciousness. It ascertains that "our immediate perception of an outer world" is not a fact given in consciousness.

In various forms of objection, Sir William Hamilton contends, that the theory here preferred cannot show, that the fact of an intuitive (or immediate) perception as given in consciousness, ought not to be accepted; that it is unable, therefore, to vindicate its own necessity, in order to explain the possibility of our knowledge of external things. He tells us, that the fact or facts for which a hypothesis is excogitated to account, must not themselves be hypothetical. And he insists, that "to account for the possibility of an unknown external world, the hypothesis of representation is devised; and to account for the possibility of representation, we imagine the hypothesis of an external world."

If the fact of an immediate or intuitive perception be indeed given in simple consciousness, it ought to be accepted, and all argument is plainly needless to convince the Hypothetic Dualist that he maintains a foolish theory. But if only a seeming fact can be discovered where the

"Natural Realist" asserts the presence of a real fact; if nearer observation of the fact supposed by the Natural Realist, discloses, that it is not of the supposed character, no testimony of our consciousness is wounded, and we may still regard the testimony of consciousness as unbelied.

It was not in order to explain the possibility of our knowledge of external things—it was not to account for the possibility of an unknown external world—that the hypothesis of representation was devised. Certain facts representative of other facts—certain objects representative of other objects, were discovered in the external world. An apparatus of representation was discovered in the human organism. The uselessness of such an apparatus, if the perception of the outer world be immediate, was and is apparent. Useless faculties and powers are not willingly attributed to human nature. Finding, in the eye, an apparatus apparently fitted to perform a part in the process of representation, and, in the nerves connected with the eye, a provision fit to take yet further inward what the eye receives; and finding in the apparent relation of all the nerves to the brain in one direction, and to other parts of the bodily organism in another direction, the constant suggestion of the inwardness with reference to body of percipient mind; philosophers have, not too hastily, concluded, that the mind does not immediately know things outward to itself. The theorist, who challenges this conclusion—who asserts that perception is not representative but immediately presentative—may seem to carry the voice of vulgar consciousness, when he so challenges and so asserts. But he who challenges conclusions in astronomy may similarly boast of what the vulgar once believed, and what the ignorant continue to imagine.

I admit, that the fact or facts for which a hypothesis is excogitated to account, must not themselves be hypothetical, except where we are unable to substitute for the

hypothesis to be accounted for an absolute certainty. But if I show, that the hypothesis in question is the most probable of all hypotheses, where we have nothing higher than hypothesis, I sufficiently show the necessity of the hypothesis which I prefer. And if the main hypothesis be thus vindicated, the number and variety of the subaltern hypotheses to which Hamilton objects, will hardly be allowed to set aside the chief hypothesis.

I admit, that when we consider only the apparent testimony of our consciousness, it makes as strong a case for the doctrine of intuitional or presentative Perception, as this: The seeming testimony of Perception seems to furnish evidence against the scientific doctrine that the earth really bears the relation to the sun, which the sun apparently bears to the earth. I admit that our minds—that we—seem to look out of our bodies on the outward; and that it requires the same species of reasoning, which proves, that mind and body, though apparently identical, are truly distinguishable—that the sun, though apparently rising and setting with reference to the earth, is quite otherwise related to the earth—in order to establish that a picture of the outward is inwardly presented to our contemplation. I further concede, that no individual human being ever born into the world could ever remember how or when he began to regard the inward appearance as representative of the outward reality. But I insist, that there is no such unimpeachable veracity in the seeming testimony of consciousness as Sir William Hamilton supposes. I insist, that we have no certainty of that, for which we have the seeming testimony of our consciousness—that we do not *know*, and cannot certainly declare, that in perception we immediately perceive what I regard as only the primary, mediate, and remote object of perception.

But, we are told, the representative theory being, as aforesaid, merely hypothetical, violates the rule, that a legitimate hypothesis must account for the phenomenon

about which it is conversant, adequately and without violence, in all its dependencies, relations, and peculiarities. And it is here objected, "the hypothesis in question only accomplishes its end — nay, only indicates its utility, by a mutilation, or more properly, by the destruction and recreation, of the very phenomenon of the nature of which it would account. The entire phenomenon to be explained by the supposition of a representative perception, is the fact given in consciousness, of the immediate knowledge or intuition of an existence different from self. This simple phenomenon it hews down into two fragments; into the existence and the intuition. The existence of external things, which is given only through their intuition, it admits; the intuition itself, though the *ratio cognoscendi*, and to us, therefore, the *ratio essendi* of their reality, it rejects. But to annihilate what is prior and constitutive in the phenomenon, is in truth, to annihilate the phenomenon altogether. The existence of an external world, which the hypothesis proposes to explain, is no longer even a truncated fact of consciousness; for the existence given in consciousness, necessarily falls with the intuition on which it reposed. A representative perception, is therefore, an hypothetical explanation of a supposititious fact: it creates the nature it interprets."

Under another head of objection to the representative theory, it is said, that the fact, which a legitimate hypothesis is devised to explain, must be within the sphere of experience. The fact, however, for which that of a representative perception accounts (the existence of external things) transcends, *ex hypothesi*, all experience; it is the object of no real knowledge, but a bare *ens rationis* — a mere hyperphysical chimera.

Another head of objection is, that "an hypothesis itself is probable in proportion as it works simply and naturally; that is, in proportion as it is dependent on no subsidiary hypothesis, as it involves nothing petitory, occult, super-

natural, as an element of its explanation. In this respect, the doctrine of a representative perception is not less vicious than in others. To explain at all, it must not only postulate subsidiary hypotheses, but subsidiary miracles. The doctrine in question attempts to explain the knowledge of an unknown world, by the ratio of a representative perception; but it is impossible, by any conceivable relation, to apply the ratio to the facts."¹

It may be refreshing to know, that the grave Sir William is able to indulge in the humorous observation, that "the Hypothetical Realist, in his effort to be 'wise above knowledge,' like the dog in the fable, loses the substance in attempting to realize the shadow."^m

The learned philosopher allows that the doctrine of intuitive perception is not without *its* difficulties. It calls, he admits, for careful distinction between perception proper and sensation proper. It must encounter disputes among its advocates as to what qualities are to be referred to the object perceived or non-ego, and what qualities to the percipient subject or ego. It must assert, as the law governing the manifestation of perception proper and sensation proper, "that perception and sensation, the objective and subjective, though both always coexistent, are always in the inverse ratio of each other"—in other words, that "above a certain point, the stronger the Sensation, the weaker the Perception."ⁿ Nevertheless, he insists, that the scheme of Natural Realism (in which the immediateness of Perception is asserted) is the only system in which the truth of consciousness and the possibility of knowledge can be vindicated; and, like Dr. Reid, Sir William Hamilton triumphantly takes position with the vulgar against the learned, maintaining with heartiness and trenchantly, that the external reality itself constitutes the immediate

(l) Op. cit. 192, et seq.

(n) Ib. 199-419.

(m) Ib. 198.

and only object of perception. "All perception," says our Philosopher, "is an immediate or presentative cognition, and has, therefore, . . . only one univocal object, that, to wit: which it apprehends as *now* and *here* existent."^o There are, according to the same doctrine, two forms of perception—one of which, however, may, as conversant about a subject-object, be designated as Sensation proper; the other, as conversant about an object-object, being distinguished as Perception proper. "All Perception," says Sir William, "is a sensitive cognition: it, therefore, apprehends the existence of no object out of its organism, or not in immediate correlation to its organism; for thus only can an object exist, now and here, to sense."^p

By way of showing, that the representative or vicarious hypothesis does not work so simply and naturally as the theory of Natural Realism, Sir William Hamilton expends great learning in dividing, subdividing, subalternating, and otherwise *torturing*, the theories objected to. Some of the Cosmothetic Idealists (as we have already observed, I think) are represented as endeavoring to maintain, that the representative object is a modification of the mind or self. Others are distinguished as endeavoring to maintain, that the representative object is something in, but not a mere mode of mind; in other words, that it is a *tertium quid*, numerically different both from the subject knowing and the objected represented. Of the first class, some are represented as holding, that the immediate or ideal object is only logically distinguished from the perceptive act; others, as holding, that the immediate object is a mode of mind, existent out of the act of perceptive consciousness, and though contemplated in, not really identical with, that

(o) Op. cit. 417.

(p) Ib. 418. I do not desire the reader to understand that Sir William Hamilton has made no other objections to the doctrine of Hypothetic Realism, than those I have stated. All I mean to indicate is, the character of the objections he has made.

act. It would be alarming to many of my readers if I should simply proceed to transcribe what is written by Sir William, in dividing this form of Hypothetic Realism in both its degrees, into "certain subaltern genera and species, according as the mind is supposed to be determined to represent by causes—either (a) natural, physical, or (b) supernatural, hyperphysical." But, after informing the reader, that I do not mean to ask more than a passing notice of the distinctions made by Sir William, I may proceed. "The natural determination to represent, is," continues Sir William (explaining the rejected theories), "either (1.) one foreign and external (by the action of the material reality on the passive mind, through sense;) or (2.) one native and internal (a self determination of the impassive mind, on occasion of the presentation of the material object to sense;)—or finally (3.) one partly both (the mind being at once acted on and itself reacting.)" "The hyperphysical determination, again, may be maintained—either to be (1.) immediate and special; whether this be realized—(a) by the direct operation or concurrence of God (as in a scheme of Occasional Causes)—or (b) by the influence of inferior supernatural agencies:—or (2.) mediate and general (as by the predetermined ordination of God, in a theory of Preëstablished Harmony.)" If the representative object be viewed as something in, but not a mere mode of, mind; this second form of Representationism falls, we are told, "with certain inferior species: for the ideal or vicarious object has been held (i.) by some to be spiritual;—(ii.) by others to be corporeal;—while (iii.) others, to carry hypothesis to absurdity, have regarded it as neither spiritual nor corporeal, but of an inconceivable nature between, or different from, both."^a

I confess, that if I had followed Sir William Hamilton through his notice of the "inferior species" of the second

(q) Op. cit. 269.

form of Representationism, I would have presented an alarming picture of the variety of opinion, to be found among the advocates of the theory which I prefer.

But what of that? If, answering the objection of Sir William, that the hypothesis which occasions this variety of opinion is itself unnecessary, I show that it is opposed to no certainty; that it is the most probable of all hypotheses, where we are left to simple supposition, the variety of subordinate or subaltern theories need not alarm us. We have much to learn, and many theories to reconcile, in all departments of scientific investigation. The world of physics as well as the world of metaphysics is familiar with contending theories. And we have seen, that the Natural Realist cannot boast of an unbroken harmony in the schools of his Philosophy, and that the doctrine of intuitive perception is not without its difficulties.

I am wholly unable to perceive, that to explain his hypothesis, the Hypothetic Dualist "must not only postulate subsidiary hypotheses, but subsidiary miracles." I have, indeed, in my picture of Adam's first perception of the outward, ventured to suppose, that his first knowledge of the outness of what he perceived was supernaturally bestowed upon him. But that supposition was chosen, because it supposes a shorter process than that of the inference which may acquaint the infant mind with the outness of things outward to itself. No miracle need be supposed in order to the supposition, that the knowledge we have of things outward to ourselves, is due to the representation of those things with which the mind is conversant. Supposing that the object of consciousness in perception is a modification of the percipient subject, or, at least, a phenomenon numerically different from the object it represents, we may suppose the knowledge that the representative object is such modification, is so numerically different, to be acquired in processes of fœtal or of infantile experience yet unrevealed to us. We are in no danger of

supposing, that there is no real "object-object" because there is, apparently, a representative "subject-object." At the time of earliest recollection we believe in outness. How we came to know of outness yet remains for question. *That* we know of it, cannot be questioned. Let it be supposed, that the unseen guardians of our earliest moments of existence have informed us of the outward. Let it be supposed, that unremembered trains of reasoning informed us of the outward. Let hypothesis of any kind, not violative of our consciousness, be entertained. The fact remains, that we believe in outness, that we know of outness—that the doctrine of outness does not surprise us, that it harmonises with our reason, that to contradict it sounds to folly.

I fear I do not understand Sir William, when he says, that the fact for which the hypothesis of a representative perception accounts (the existence of external things) transcends, *ex hypothesi*, all experience. I am too unlearned to say whether or not any advocate of the hypothesis in question ever entertained it for the purpose of accounting for the existence of external things. But I know, that it may be entertained without any such purpose. The existence of external things does not depend upon experience—it does not depend upon perception. The knowledge that there are things external to the knowing mind is assisted by perception, applied by it, and made various in it. But it cannot properly be regarded as dependent on perception. The reason does not reside in mere perception. Knowledge, higher than the knowledge of perception, able to correct the errors of the latter, antecedent to it, and surviving it, may certainly reside in the human soul. The existence of external things, though unperceived and not experienced, may be the proper object of a real knowledge, more than a bare *ens rationis*, other than a mere hyperphysical chimera. And the acceptance of the doctrine that external things are specific-

ally and particularly known through objects representative of them, does not necessitate the admission, that we know only through perception that things external to percipient minds really exist.

I have, perhaps, already sufficiently answered the objection, that the representative theory hews down into two fragments, the fact given in consciousness, of the immediate knowledge or intuition of an existence different from self. But let us look once more at this objection. It is said, that our hypothesis divides the simple phenomenon given in consciousness into the existence and the intuition. Now, can one even speak of consciousness without distinguishing the existence from the intuition? How is the distinction made by the Hypothetic Dualist to be distinguished from the distinction involved in the very notion of consciousness? Is not the existence of self-contemplative self distinguishable from the intuition of self by self? Is the existence of self resident only in the contemplation of self? Is the *ratio cognoscendi* of self the *ratio essendi* of self? Is the intuition of things perceived prior and constitutive in the phenomenon of perception—or do we require, in order to perception, first, existence, and, next, intuition, of the presented or represented fact of existence? The only difference between the Hypothetical Dualist and the Natural Realist, is that the former limits the intuition to internal things representative of external things, while the latter extends the intuition to external things, and quite ignores the apparent provisions for representative perception. The one says: What I behold directly is a phenomenon numerically different from the thing which I perceive as outward to myself. The other says: What I behold directly *is* the thing which I perceive as outward to myself. Each distinguishes, or may distinguish, between the existence of the thing looked upon and the intuition of that thing.

Without pretending, then, to have either the under-

standing of Sir William's reasoning, which would enable me to state with perfect clearness what he means, or the capacity to answer with perfect clearness all his various objections, I presume to keep away from his peculiar doctrine of Perception. I prefer the beautiful hypothesis which makes the mind conversant with the outward through the instruments, and in the modes, which we have partly contemplated while observing visual perception.

I do not forget the great uncertainty, which still belongs to all relating to the nervous system.

But, in the face of all that may be said in this respect, if I could try the Carpenterian theory of the Nervous System, presenting it entire, and with its author's arguments, I might demand a verdict, quite in harmony with all the rules of legal findings and of the peculiar logic of forensic reasoning, as follows:

I. We find, that nothing in the theory of Carpenter, peculiar to his system, or derived from that of Bell, belies the testimony of our consciousness, even if the theory in question be construed as hostile to Natural Realism as explained by Hamilton.

II. That Carpenter's entire expression of his theory perfectly agrees with all the testimony of enlightened consciousness, with all the facts now certainly discovered, with the probabilities of future ascertainment and the progress of discovery, and, in a word, with all the rational in speculation.

III. That the beautiful and interesting theory of Carpenter, considered as a whole, reposes on such facts and inferences as may be regarded as a rational foundation for a scientific theory.

IV. That, taken to be true, the theory in question has the merit of removing difficulties and enlightening obscurities, not otherwise to be enlightened or removed.

V. That such a theory presents so many marks which

commonly declare the presence of a truth, that we may safely treat it as a proven theory, until its fallacy, or some ill-consequence of its adoption, shall be made quite indisputably apparent.

Such a verdict being gained, I must insist upon the conflict of the theory so favored, with the theory of Reid, of Stewart, and of Hamilton, concerning the immediateness of perception. And, reiterating that I arrogate no philosophic rank; that only love of learning, not the fancy that I have it, has emboldened me to quarrel with the learned; I insist that the immediateness of our perceptions is not proven, and is quite improbable. Thus we perceive, that though a certain school of metaphysics has attempted to go backwards, metaphysical investigation did discover something which may well be added to our store of knowledge, and that Jeffrey^r has mistaken the true value of that method of investigation.

(r) Post.

CHAPTER XII.

VARIETIES OF CEREBRATION.

WE have now reached a point at which it may be convenient to review what we have observed of human life.

We have seen, that this life is partly natural and partly artful. We have seen, that it is partly organic or vegetative, and partly animal. We have seen, that the natural in human life extends beyond the limits of the merely organic or vegetative. We have seen, that the life of will, or volitional, or artful life, is informed of the world external to its organism through sensual intelligencers. We have seen, that that part of the mind which belongs to the volitional in human life, receives the information of the outward through the operation and correlation of mind-force and nerve-force. We have seen, that this information of the outward is conveyed to the mind through the operation and conversion of the forces alluded to, in presenting to the mind a *representation*, or *appearance*, or *suggestion* of the outward. While examining the facts and theories connected with the observations thus made, we have glanced at most of the known facts and probable hypotheses relating to the manner in which the artful life of man connects the human body with the human mind. But we have yet more to see of mind and body as related in the entirety of human life.

Recurring to the distinction between the life of Man as

it belongs to the Order of Nature, and the same life as it appears in the Order of Art, we may remark, that human life in the Order of Art does not engross the services of sensation and perception. Life in the Order of Art has, indeed, great dependence on the sensual supplies presented in perception. And it does to great extent control and order those supplies. What shall be seen, what shall be heard, what shall in any manner be perceived, above all, what shall be so perceived as to be remembered—must, to a great extent, depend upon the wilful operations of the mind. But we must not forget how much the mind unconsciously receives through merely natural, unpurposed, entertainment of the information furnished by the senses. Nature teaches Art, while Art is, as it were, asleep. The operations of the mind, which Art may regulate, do not cease when Art ceases to regulate them. Nay, the very operations of the mind involved in reasoning are sometimes apparently unconscious, and, of course, merely natural. And a portion of what we call consciousness is evidently merely natural.

Having thus again remembered that there may be discrimination between the conscious and the unconscious, we may have occasion to make a further scrutiny of the conscious and the unconscious in human life.

We have just completed an examination of the mind as informed of outward things through sensual intelligencers. We have seen sensation founding what perception, better called, perhaps, conception, hastens to build up into the full idea. We have seen affections playing round the will like livelier electricity. We have seen the human being in its conscious intellections and affections.

Having also seen the human being when unconscious of the outward as external to itself,^a we are prepared for an examination of unconsciousness.

(a) Ante, p. 11.

What do we mean by consciousness? And what is the condition of the mind in what we call unconsciousness?

More than one learned physiologist has warned us against false conceptions of unconsciousness.

One tells us that he has avoided using the term, because it is plain, that we know nothing of the thing which we mean to mark by the term. What we call unconsciousness, he thinks, may be an altered mode of mind. The mind, in what we designate as an unconscious state, may be cut off from communication with other minds, and may lose its connexion with the external world. This may result from the suspension of the sensibility of the nervous system, and of the influence of volition over the muscles, yet the mind may be in operation.

It is Sir Benjamin Brodie who thus warns us, not in these very words, but in their substance.^b

And another physiologist of great distinction challenges the terms "unconscious cerebration." Cerebration being taken for the name of mental action in the brain, it is maintained, that such action may take place "unconsciously."

Sir Henry Holland, questioning this doctrine, states it thus: "That there exists a faculty (if faculty it can fitly be called) of 'unconscious cerebration'—that is, of intellectual and emotional activity of the brain, presenting results as such, without any consciousness of the mind of the operations so going on. This opinion is mainly founded on the fact, familiar to our experience, that the mind, after being wholly detached for a time from some previous subject of thought or emotion, often returns to it again under a very altered view of what had before so engrossed it. The hypothesis assumes, that such changes are real

(b) Mind and Matter, Dialogue Fourth.

acts of the brain, going on without consciousness of their occurrence."^c

Sir H. Holland has objected, that this view, "virtually annuls for a time the connexion of mind with that consciousness which is the sole interpreter to us of mental existence; substituting for thought and reason, automatic acts, which are assumed to be equivalent in their effect. It is a far more simple view, and one more congruous with all other mental phenomena, to suppose, that when such changes in the mode of thinking or feeling on any subject do occur, they are due to fresh combinations of objects and ideas coming before the mind after the interval of time supposed; some that had effect before being weakened or displaced; others pressing forwards, which before were feeble or unseen." He doubts "whether there is any case which does not admit of this, or some analogous explanation."^d

I own, that these objections do not seem to me so formidable as the learned writer appears to consider them. And I am not inclined to be cautious as the learned physiologist so often quoted in this volume shows himself to be, in speaking of unconscious cerebration as unconscious reasoning, or as unconscious emotion.

I admit, with Brodie, that "the mind may be in operation, although the suspension of the sensibility of the nervous system, and of the influence of volition over the muscles, destroys its connection with the external world, and prevents all communication with the mind of others."^e But although the mind may be in such a mode of operation as Sir Benjamin Brodie supposes, it may surely be unconscious. Is not the very language of the learned physiologist a happy description of a certain form of un-

(c) *Mental Physiology* (2d London ed.), 288, note.

(d) *Ib.*

(e) *Mind and Matter*, Dialogue Fourth.

conscious cerebration, though designed for quite another use?

I do not, however, pertinaciously insist upon the doctrine, that consciousness may be discriminated from the special modes of mental activity. I do not mean to quarrel violently with philosophers who frown upon such discrimination. I intend, indeed, to give some "reasons" for, as well as some against, the doctrine which regards the consciousness as but the mind itself. But I hold, with mildness, the belief that consciousness may be discriminated from the modes of action which it contemplates, or which, as some would say, affirm themselves to consciousness. In view, however, of the opposite hypothesis of others, I may here concede, that "*unconscious* cerebration" may not be a happy designation of the interesting state of involuntary or "automatic" cerebration here in question. But I quite agree with Dr. Carpenter, that there may be an automatic cerebration, such as he describes under the designation of unconscious cerebration. And I cannot see the force of Dr. Holland's objection to the substitution of "automatic acts" for "thought and reason." Does the learned writer seriously mean to question, that the process of a thought, and the process of the mind in reasoning, are often automatic? Some contend, I think, that the processes referred to are *always* automatic. I concede, however, that when thinking is volitional, when reasoning is voluntary, though the mind at large may be in truly automatic action, thinking and reasoning are not properly automatic. But "thought and reason" surely may be automatic, in the sense in which that term is used by Dr. Holland. Simple consciousness, as I define it, or suggest its characters, may be, what we have seen that some contend it must be, part of all our thinking. There are high authorities for holding, that in simple conscious-

ness we have no more, no less, than mind itself.^f Of this, however, I am to say a word hereafter. For the present, I am satisfied with holding, that there may be unreflective, inattentive, and involuntary cerebation, and that this may be emotional as well as intellectual.

On turning to what the writer says of the probably unconscious participation of certain political sentiments,^g it will be observed, that the writer has quite "*unconsciously*" employed the word unconscious in a sense which, speaking strictly, he might now reject. But he would now suggest that one may unreflectively, inattentively, and involuntarily entertain a sentiment or an opinion. And he must insist on the proposition stated at the close of the preceding paragraph.

In order to the maintenance of such a proposition, it is necessary to distinguish intellections from affections or emotions.

Intellections have been thought distinguishable from understandings; just as reason is sometimes distinguished from understanding. But I apprehend, it will be quite convenient to consider intellections as including understandings, and to treat the reason and the understanding as but one and the same. If so, the intellections are all operations of the mind which end in understanding, or which ought to end in understanding. And the intellectual may be considered as embracing all cerebation, which is purely percipient and comprehensive, or apprehensive.

Such an account of intellectual cerebation is manifestly so far from satisfactory, however, that I am not much encouraged to attempt a definition of emotional cerebation.

(f) Hamilton's Philosophy (by Wight.) See also Mill's System of Logic, Buckle's Hist. of Civ. in Engl.

(g) Post.

Yet I must maintain my proposition, which, I think, properly discriminates the volitional from the emotional.

What is that we call Affection? What are the Affections? What is the Emotional?

I offer no apology for having examined the thought, that affections and emotions being only forms of love, the latter may be simply named as life.^h But I would not be understood as arguing in favor of so fanciful a notion.

Here, however, I concede, that all discriminations such as I attempt may seem but fanciful. There is a clear distinction between the volitional and the emotional, but I have found it difficult to *word* my understanding of the distinction.

I will cautiously approach the statement of my notion as to the distinctive characters of Emotion and of Will.

Here, as in many other instances, I must accomplish all I can for all my purposes, while aiming specially at one important object. I will here examine what we call affections, not, indeed, with thoroughness, but with remembrance of the interest we shall hereafter find to form distinct conceptions of the things so designated. "Once for all," is often, and inevitably, my rule of examination in these studies.

In every determination of the mind, some preference is given, which emotions prompt, or which they seek to negative. This is not plainly true perhaps, in all the acts of mind, but I consider the affections as unsleeping, though the will may be at times inactive. Nature never rests—and Nature keeps the thoughts and the emotions active in the mind of man. I have already indicated my opinion, that even reasoning may often be a natural, and not an artful operation,ⁱ though the will may operate to hasten or retard its action, or to turn it in the one direction or

(h) Post.

(i) Ante, p. 294.

the other. But however this may be, an ever active part of life is the emotional. The intellect appears to be employed by the affections to seek out their objects, to distinguish them, to bring them up before the judgment seat of Will and Understanding. How the Memory does service in all this we cannot find it difficult to ascertain.

We know that even in perception the condition of the will is an important circumstance. If it, indeed, be simply unexerted, and no passion be aroused which blinds and overmasters it, the mind may live the life of Nature, and the contents of the Natural may visit it through all the senses. But if Will allow the passions to become its masters, or exalt them to perform its purposes, the blood no longer has its normal circulation, and, in some yet undiscovered process, the perceptive powers are perverted. Thus emotional disturbance, even in a state of body known as healthful, may affect the percipient apparatus so that the perceptive powers act, as we may say, abnormally and treacherously. So it is that what I shall distinguish as Hallucinations and Illusions are produced.

Indeed, if I have rightly studied this most interesting subject, all the so-called automatic tendencies of thought are more or less affected by the emotional. At all events, the mind may be regarded as affecting or loving thoughts as well as persons. I shall not agree with those, who make distinction between affections, on the one hand, and appetites and desires on the other. As affections, I regard all motive feelings. In the Will, I recognize the Mind presiding over motives, and preferring this or that, or yielding or resisting the attractions of affections. In the Understanding, I discern the Mind regarding intellections and affections, and finding their connections and their order. In the Memory, I find the Mind custodian of its knowledge, knowing and continuing to know.

I am aware, that this may sound like flippancy. But

after an attentive study of the subject, I am quite as much disposed to try the chances of a lucky hit at mere suggestion, as to make a definition of the Will, for instance, with the books before me.

Yet, perhaps, I ought to honor the "authorities" by looking into them on such a question.

What is the Will? Will law-books tell us? Will philosophy inform us?

In the law-books, we are told, that without the consent of the Will, human actions cannot be considered as culpable. And this they tell us in connection with the doctrine, that the capacity to distinguish right from wrong is the test of the presence and consent of will. It would appear, therefore, that the law-books do not well distinguish between will and understanding; but that legal science plainly distinguishes between will and wish, emotion, or desire.

"Will or Volition," says a philosopher, "is the last step of intention, the first step of action. It is the internal act, which leads to external acts."^j

Such a statement looks quite promising. Let us look a little at this notion.

"We direct our thoughts," says the same philosopher, "to an action which we are about to perform: we *intend* to do it: we make it our aim: we place it before us, and act with purpose (*propositum*): we design it, or mark it out beforehand (*designo*.)" And Will is the last step of intention, so explained.

"An action," adds the learned moralist, "that proceeds from *my* will or volition is *my* act. But if it do not proceed from my will, it is not my act, though my limbs may be employed in it; as, for instance, if my hand, moved by another man, whose strength overmasters mine, strikes a

(j) 1 Whewell Elements of Morality, including Polity, 7.

blow. In such a case I am not a Free Agent. Human Actions suppose the Freedom of the Agent. In order to act, a man must be so circumstanced, that his volitions take effect on his limbs and organs, according to the usual constitution of man."

This writer recognizes Springs of Action as stimulating the will to action, and holds, that "instinct as well as reason operates through the will, to direct the actions." ^k

Among the springs of action he enumerates as follows: The Appetites, or bodily desires, common to man and brutes; and the Affections, which are tendencies or cravings directed towards conscious individuals. To these he adds the Mental Desires, the Moral Sentiments, and the Reflex Sentiments.

As I have indicated, this looks promising. But when we look at it a little closely, it does not content us. We cannot accept a definition of the Will, which only tells us, that it is the last step of intention and the first step of action. And when we attempt to trace the operation of the will as stimulating to conclude intention and begin action, we do not distinguish it as clearly in the Whewell system as we would distinguish it, if possible.

We feel disposed, therefore, to look yet further.

Yet, why should we hope for better definitions or descriptions of the Will than this, which we have seen? How wishes ripen into warm desires, how warm desires express themselves in will, some teachers may inform us; but they will not satisfy us with such information. Others may inform us, that the will is that within us which is able, in the words of Locke, "to begin or forbear, continue or end several actions of our minds, and motions of our bodies, barely by a thought or preference of the mind ordering, or, as it were, commanding the doing or not doing such or such particular action."^l But we still

(k) *Ib.* 9.

(l) *Hum. Underst.* b. ii, c. 21.

inquire, how is the will to be distinguished from its affections on the one hand, and its actions on the other? And, wherever we examine, we return at last to simple introspection, and determine to regard the will as only the imperial mind in presence of its thoughts and its affections, moved to contemplation or to action by the latter, and supplied with objects of contemplation and of action by the former.

This account of Will and its relation to the Intellectual and the Affective Powers may at least suggest the truth. At all events, I will not try another definition. But yet a word or two, by way of illustration, may be useful.

I have said already that emotion may disturb the circulation of the blood in such a manner as to make disturbance of perception. If I was not wrong, I brought before the reader a new and most interesting view of the relation which we have already otherwise encountered as connecting mind and body. Now, I have to add what may still further illustrate that wonderful relation.

In nearing the examination of the will with its attendant pleasures and its motive passions; with its joys, and hopes, and prides, and loves; and with its tender sympathies, and shame, and anger, and excessive grief, and other pains of body and of mind; in nearing will, so moved and so attended, we approach new evidence of the exceeding intimacy of our minds and bodies. Anger, whether pale or red; and shame, the blushing or the blanching; grief, the tearless, and the grief that weeps the very wantonness of wo; these show us body suffering because the mind is pained.

The great importance of the life of Will, if I may speak of such a life, is strikingly apparent in a forensic observation of human life. We have already seen the mind as present to its intellections and its motive affections. We have seen it reddening or paling in the tell-tale face. We

have beheld it blushing, blanching, tearless, weeping, in the body which expresses its emotions, and which is obedient to its will.

And now we come to such a view of what we call affections as may more and more inspire us with the wish to know precisely what they are.

The moral theologians, as well as certain physiologists, have recognized a most important truth, which judges have, on more than one occasion, treated as a foolish fancy.

Without the slightest *notable* impairment of the powers known as intellectual, the Will appears at times unable to control the actions, which, in general, are subject to volition.

This may be considered as substantially the proposition, which the physiologists and writers on insanity are urging on the courts, and which the courts, misunderstanding it, refuse to entertain.

Expecting to discuss it when I come to treat directly of insanity, I now proceed to such a view of it as may prepare us for its future entertainment.

In the examination of Hallucinations, I expect to take some exception to nearly all the language to which I shall refer, in seeking explanations of the etiology of false perceptions.

I cannot pretend to be entirely satisfied with any thing which Carpenter or others have presented, in attempted explanation of Emotional Insanity. And I refer to my dissatisfaction with attempted explanations of the process and the causes of hallucinations, just because I think whenever any one shall well explain hallucinations, we may look to him for full and clear descriptions of Emotional Insanity. And, notwithstanding my regard for nearly all I find in Carpenter, I cannot, I repeat, regard as absolutely full, and clear, and satisfactory, what he advances touching the Insanity in question.

Yet it is but just to Carpenter to add, that if we study carefully all he presents concerning this mysterious form of mental trouble, we may find our way to a conclusion such as judges may adopt and juries may apply.

It is a doctrine of the learned physiologist, that the emotional and volitional movements differ as to their primal sources. And he holds, that involuntary movements may be due to the influence of emotion, strongly excited. He finds emotion and volition often hostile to each other. Will, endeavoring to check Emotion, he discovers sometimes as succeeding, sometimes as succumbing to Emotion. He asserts, as part of what I may denominate, with great respect, the *Carpenterian system*, that "even the cerebrum" responds automatically to impressions fitted to excite it to "reflex action," "when the force of the idea" possessing the mind "is morbidly exaggerated, and the will is not suspended, but merely weakened, as in many forms of insanity."^m And we may add, that Carpenter considers, that "the influence of emotional conditions, when strongly excited, in directly producing involuntary movements, is readily explained on the idea, that the Sensory Ganglia are the seat of all consciousness, and the Cranio-Spinal Axis the real source of all movement. For there is no more difficulty in understanding, that the excitement of peculiar states of consciousness in the Sensorial Centres through the instrumentality of the Cerebrum, should give rise to automatic movements, than that such movements should follow similar states of consciousness, when excited by impressions made upon the organs of vision, hearing, etc."ⁿ Dr. Carpenter, in connection with the quoted language, has referred to laughter, tickling, etc.

This most careful thinker also points to a curious fact, which I cannot but regard as truly significant in this con-

(m) Phys. 569.

(n) Ib. 567.

nection. Pathological investigation has, it seems, revealed the fact, that "muscles which will still act in obedience to emotional impulses, may be paralyzed to volitional, and *vice versa*. Thus, for example, the arm of a man affected with hemiplegia, which no effort of his will could move, has been seen to be violently jerked under the influence of the mental agitation consequent upon the sight of a friend." °

We may here pause to observe, that if this fact is rightly verified and rightly understood, it proves that we must carefully discriminate between the will and the affections. And, referring here to what the moral theologians of certain schools have held, it is to be observed, that some of them have recognized distinctions such as I attempt to explain.^p

Indeed, it is familiar to the lawyer that the definitions of malicious homicide and of manslaughter, make a clear distinction between simple passion fatally expressed in homicidal acts, and malice wreaking its designs through passional excitement. We have here the same distinction on which Carpenter insists. Emotion, that is to say, is, by the law of homicide, distinguished from the will; and it is recognized as capable of acting just as will may act, through nerve and muscle.

We are now prepared for Carpenter's expression of the doctrine, which I recognize as worthy of acceptance in the courts of justice.

Dr. Carpenter regards it as unquestionable, that many "criminal" actions are committed under the irresistible dominance of some insane impulse, the individual being at the time perfectly aware of their evil nature and of his

(o) Carpenter (ed. of 1855), 568.

(p) Compendium Theologiae Moralis, autore J. P. Gury, S. J. in Collegio Romano et in Seminari Valsensi prope Anicium Professore. Tractatus De Actibus Humanis, Caput Primum and Cap. II, Art. III, § II.

amenableness to punishment. "Such an impulse," he contends, "may lead the subject of it to kill, to commit a rape, to steal, to burn, and so on, and this without the least intention of doing injury to another; and many instances have occurred in which the individuals, thus affected, have voluntarily withdrawn themselves from the circumstances of whose exciting influence they were conscious, and have even begged to be put under restraint."

I must here remind my reader of the proposition I expect to prove, and which the views of Dr. Carpenter will much assist me in explaining.

I have not asserted, that when the will, in certain cases, seems to be unable to control the actions, commonly controlled by will, there is in fact no wounding of the powers known as intellectual. Far from it. All I say is, that the lesion of the intellectual powers, in the supposed cases, is not notable. Ordinary observation certainly would not detect it. Whether any kind of observation can detect it so as to describe it, may be doubted.

Sometimes, if not always, the unfortunates, who avoid what they are conscious may attract them into homicidal acts, yet, being overcome, commit the fatal acts without intention to commit a crime, are evidently yielding to what we commonly distinguish as hallucination. But the fact remains as Carpenter has stated it. And now for his account of it.

A certain limited and settled disorder of any one portion of the emotional nature is said, by Dr. Carpenter, to have one essential feature. This feature is, that "some one particular tendency acquires a dominance over the rest." And it is considered, that this may proceed "either from an extraordinary exaggeration of the tendency, whereby it comes to overmaster even a strongly-exercised volitional control; or, on the other hand, from a primary weakening of the volitional control, which leaves the pre-

dominant bias of the individual free to exercise itself." "Again," continues Dr. Carpenter,^q "the exaggerated tendency may operate (like an ordinary Emotion) either in directly prompting to some kind of action which is the expression of it, or in modifying the course of thought, by habitually presenting erroneous notions upon the subjects to which the disordered feeling relates, as the basis of intellectual operations."

How the reader will regard this explanation, I cannot anticipate. But while I do not look upon it as accounting *perfectly* for the unquestionable facts for which it attempts to account, I must consider that it places on a scientific basis the important doctrine which it advocates.^r

The remarkable phenomena, of which the scientific writers have collected evidence, in order to establish that insanity assumes a certain form, appear at times without seeming in the least remarkable. We see them in the "nervous" woman, and in the infant. And they teach us to distinguish Will from its affections. They will not allow us to consider the affections as the mere constituents of Will.

We further learn from what we have observed, that actions commonly controlled by will may sometimes be produced by the affections, without the action of the Will.

In view of what we thus derive from studying the action of the Will and that of the affections, it is wise to abandon all endeavors in the way of definition, when we treat of the affections. But regarding these as identical with the emotions, and refusing to confine them to the relations of conscious individuals, I venture to consider the affections as the attractable and attracting forces of the mind. And I conclude as I began, by looking on the Will as

(q) Carpenter (ed. of 1855), 630.

(r) I ought, perhaps, to add the remarkable illustration furnished by the learned physiologist. But I shall have occasion to produce it in another place.

acting in the midst of intellections and affections, attracted to decide in favor of this or of that by its affections, but enabled through its conscience to resist all evil promptings, and to choose, among its motives, those which tend to good.

CHAPTER XIII.

THE SAME SUBJECT CONTINUED.

RETURNING here to the important proposition, which I ventured to submit concerning unreflective, inattentive, and involuntary cerebration, I consider that I may with confidence insist, that such cerebration may be either simply intellectual or emotional as well as intellectual.

I have surely made it clear, that the emotional and the volitional may be discriminated.^a And I cannot think it necessary to add much to the showing made by Dr. Holland in favor of the doctrine, which he has rejected.^b Yet it may be proper here to add, from Carpenter, the following:

“Most persons who attend to their own mental operations, are aware that when they have been occupied for some time about a particular subject, and have then transferred their attention to some other, the first, when they return to the consideration of it, may be found to present an aspect very different from that which it possessed before it was put aside; notwithstanding that the mind has since been so completely engrossed with the second subject as not to have been consciously directed towards the first,

(a) Mr. John Stuart Mill, as well as Dr. Carpenter, distinguishes emotions from volitions. *System of Logic*, Book I, ch. III.

(b) *Ante*, p. 305.

in the interval. Now a part of this change may depend upon the altered condition of the mind itself, such as we experience when we take up a subject in the morning with all the vigor which we derive from the refreshment of sleep, and find no difficulty in overcoming difficulties and in disentangling perplexities which checked our further progress the night before, when we were too weary to give more than a languid attention to the points to be made out, and could use no exertion in the search for their solutions. But this by no means accounts for the *entirely new development* which the subject is frequently found to have undergone, when we return to it after a considerable interval; a development which cannot be reasonably explained in any other mode, than by attributing it to the intermediate activity of the cerebrum, which has in this instance automatically evolved the result without any consciousness." ^c

The student of the Physiology of Carpenter will well remember this important doctrine. And he cannot have forgotten, that the learned physiologist insists, moreover, that "emotional states, or rather states which constitute emotions when we become conscious of them, may be developed by the same process; so that our feelings towards persons and objects may undergo most important changes, without our being in the least degree aware, until we have our attention directed to our own mental state, of the alteration which has taken place in them. A very common but very characteristic example of this kind of action, is afforded by the powerful attachment which often grows up between individuals of opposite sexes, without either being aware of the fact; the full strength of this attachment being only revealed to the consciousness of each, when circumstances threaten a separation, and when each becomes cognizant of the feelings entertained

(c) Phys. (ed. of 1855), 587.

by the other. The existence of a mutual attachment, indeed, is often recognized by a by-stander (especially if the perceptions be sharpened by jealousy, which leads to an intuitive interpretation of many minute occurrences, which would be without signification to an ordinary observer), before either of the parties has made the discovery, whether as regards the individual *self*, or the beloved *object*; the Cerebral state manifesting itself in action, although no distinct consciousness of that state has been attained, chiefly because the whole attention, being attracted by the present enjoyment, there is little disposition to Introspection. The fact, indeed, is recognized in our own ordinary language; for we continually speak of the 'feelings' which we unconsciously entertain towards another, and of our not becoming aware of them until some circumstances call them into activity. Here, again, it would seem as if the material organ of these feelings tends to *form itself* in accordance with the impressions which are habitually made upon it; so that we are as completely unaware of the changes which may have taken place in it, as we are of those by which passing events are registered in our minds, until some circumstance calls forth the conscious manifestation, which is the 'reflex' of the new condition which the organ has acquired. And it may be desirable to recall the fact in this connection, that the Emotional state seems often to be determined by circumstances of which the individual has no distinct consciousness, and especially by the emotional states of those by whom he is surrounded; a mode of influence which is exerted with peculiar potency on the minds of children, and which is a most important element in their Moral education."

It only remains to observe, in fairness, that there is, in Carpenter's expression of his theory, a yet unnoted difficulty. The learned physiologist attempts to justify his

use of the terms "unconscious cerebration" by distinguishing between the unconscious mental action, which he designates as we have seen, and the reasoning or emotion into which mere consciousness converts that mental action. Such distinction is unnecessary, and I think it is unreal.

But with all its imperfections, I submit the theory of what I call an unreflective, and involuntary cerebration, to the judgment of my readers. And I beg them to consider it with fairness. I entreat them not to think, that it degrades the reason or reduces the emotions to the rank of mere material forces, as we have already glanced at these. There is no degradation of the reason, or of the emotions, in the theory which I attempt to recommend in this connexion. True, we shall perceive, if we adopt it, that the natural has far more operation in the life of man than the artful.^d True, we shall discover automatic action where we are accustomed to consider all as merely expressive of the will. But we shall not be led to look on Nature as possessing all the life of man. The clear distinction, which we have already made, between the Natural and that in which the Art of Man distinctly shows itself, will not disappear in presence of the theory here brought before our minds. The artful life of Man is not annihilated by the truth; that much of human reasoning, and much of the emotional in man, flows through his being like a stream of light, unheeded by the consciousness. Still is the artful higher than the natural in which it moves and has its being, as a creature in its element.

If I have vindicated my attempted modification of the doctrine of unconscious cerebration, I have prepared the reader to agree with what I shall submit with reference to simple consciousness.

My view of consciousness supposes it to be the lowest degree of what we call reflection. Some activity of mind

(d) Ante, p. 1 .

may be involved in it. And yet I must regard it as involving little action of the mind. It is the mental intuition of the mind, and intuition is not simply passive. So we must regard the consciousness as active. Yet a close regard of it will much incline us to regard it as inactive, as a merely passive state of mind. It seems to me distinguishable not alone from what we call attention, but from what we designate reflection. In reflection I would recognize a voluntary or involuntary introspection.^e And the introspection which I find in mere reflection ought to be distinguished from another introspection. In the latter, I would recognize a voluntary deepening of introspection as involved in mere reflection. This species of introspection is a *study* of the operations of the mind. It is the understanding consciously applying its capacity to the inspection of the mind or of its operations, with a view to clearer ascertainment of their nature or relations. It may be a painful operation of the mind. Indeed, the mind is not inclined to it. There seems to be involved in it a painful tension of the mind. Long-protracted introspection is attended by illusions, such as mere inspection, long-protracted, of an outward object, may produce. A darkening of mind may also seem to follow long-protracted introspection. If the introspection be continued, after this effect is produced, the known obscurity of metaphysical speculations may present itself, unnoticed by the thinker, but too evident in the results of thought in language.

Morbid introspection and reflection have a yet unwritten history, which De Quincy might have written. He has furnished good materials for such a history in writing his Confessions. Opium-eating is suggestive of an introspection-eating, which might be described by such a

(e) Carpenter.

writer as De Quincy, with great interest to all reflective readers.

Mere reflection may, as I have intimated, be regarded as a lower degree of voluntary introspection. But it may be quite involuntary. When involuntary, it may not be easily discriminable from that dreaming of our waking moments, known as reverie. And yet I think there is a difference between mere reverie and the involuntary introspection called reflection. I may treat of this hereafter. In reflection, such as I would designate as voluntary, we must note the almost total disappearance of volition, on the turning inward of the mental intuition. Common language is, indeed, familiar with the admonition to "reflect." But the reflection thus admonished is equivalent to the suggestion of a train of thoughts in what we call remembrance, or in what we commonly describe as reasoning. In true reflection, as I think I recognize it, the volitional is chiefly active in the turning of the mind to inward contemplation. This accomplished, will is little active, save when deepened introspection, such as we may properly distinguish by the name of introspection, is desirable, or, at least, is purposed.

If reflection be what I consider it, no reader needs to be instructed as to its relation to certain morbid states of mind. Reflection, then, and introspection, though available for useful purposes, though entirely indispensable to rational behavior, may be so abused as to become a cause of what we call disease. Disease, as we shall see hereafter, even when distinguished as insanity, is manifest in body, and has been supposed by some inherent in the body only. But of this no more at present.

In Attention, I have sometimes fancied, that we ought to recognize the mere superlative degree of consciousness or of reflection. In common language, we do not always discriminate attention from reflection. In a certain sense,

attention is involved in simple consciousness, as I define it. Abercrombie has described the mind in consciousness as attending to its operations. I would not attempt to set aside this usage of the word attention. But I would discriminate, in such a course of studies as the present, as I would not as to ordinary modes of speech. In such discrimination, specially relating to our present purposes, I would distinguish in attention the direction of the mind in mental vision, and its concentration on some single object of regard. The object of attention may, indeed, be simple, or it may be complex. It may be a train of thought, perhaps; although in mind, attentively regarding trains of thought, I would prefer to recognize simply the deepened introspection which I have attempted to describe. Attention rather seems to me the mere direction and concentration of the mind, exclusively of consciousness. That consciousness does commonly attend such direction and concentration of the mind, I do not dispute. Nor do I question, that to discriminate the attendant consciousness from what I recognize in mere attention, may be difficult. But I have shown, I think, that it is not impossible.

But here I must encounter theories quite hostile to this notion. I am not disposed to quarrel violently with the authors of those hostile theories, or with the theories themselves. But, all for love, I am disposed to grapple with the theories alluded to.

Abercrombie tells us, that consciousness appears to be simply the state of attending to what is passing in the mind at the time. And in reflection, he distinguishes "a compound operation of the mind, including various mental processes, especially consciousness, memory, and the act of comparison or judgment." Reflection seems to him to be "connected with a power of remembering past perceptions and past mental processes—of comparing them with

present feelings, so as to trace between them a relation, as belonging to the same sentient being—and further, of tracing the laws by which the mental processes are regulated.” He considers it also as employed “in tracing the relations and sequences of external things, and thus proving the source of certain notions expressive of these relations.”^f

Mr. Mill observes, that “a Feeling and a State of Consciousness are, in the language of philosophy, equivalent expressions: everything is a Feeling, of which the mind is conscious: everything which it *feels*, or, in other words, which forms a part of its own sentient existence. In popular language, Feeling is not always synonymous with State of Consciousness; being often taken more peculiarly for these states which are conceived as belonging to the sensitive, or to the emotional phasis of our nature, and sometimes with a still narrower restriction, to the emotional alone: as distinguished from what are conceived as belonging to the percipient, or intellectual phasis. But this is an admitted departure from correctness of language; just as, by a popular perversion, the exact converse of this, the word Mind is withdrawn from its rightful generality of signification, and restricted to the intellect. The still greater perversion by which Feeling is sometimes confined, not only to bodily sensations, but to the sensations of a single sense, that of touch, needs not be more particularly adverted to.

“Feeling,” continues Mr. Mill, “in the proper sense of the term, is a genus, of which Sensation, Emotion, and Thought, are subordinate species. Under the word Thought is here to be included whatever we are internally conscious of when we are said to think; from the consciousness we have when we think of a red color without

(f) Intellect. Pow., Part. II, sec. II.

having it before our eyes, to the most recondite thoughts of a philosopher or poet." And the learned writer also warns us to distinguish between thoughts and sensations on the one hand, and the *objects* of thoughts and sensations on the other. He calls attention, likewise, to the proper "distinction between the sensation itself, and the state of the bodily organs which precedes the sensation, and which constitutes the physical agency by which it is produced." ^g

Sir William Hamilton, like Mr. Mill, regards the consciousness as but the Mind at large. His doctrine is not so attractively presented as the doctrine of Mr. Mill, but we may quote a paragraph or two with reasonable hope of understanding what we quote.

Hamilton's opinion is thus expressed: "Aristotle, Descartes, Locke, and philosophers in general, have regarded consciousness, not as a particular faculty, but as the universal condition of intelligence. Reid, on the contrary, following, probably, Hutcheson, and followed by Stewart, Royer Collard, and others, has classed consciousness as a co-ordinate faculty with the other intellectual powers; distinguished from them, not as the species from the individual, but as the individual from the individual. And as the particular faculties have each their peculiar object, so the peculiar object of consciousness is, *the operations of the other faculties themselves, to the exclusion of the objects about which these operations are conversant*. This analysis we regard as false. For it is impossible, in the *first* place, to discriminate consciousness from all the other cognitive faculties, or to discriminate any one of these from consciousness; and in the *second*, to conceive a faculty cognizant of the various mental operations, without being also cognizant of their several objects.

(g) System of Logic, Book I, chap. III.

"We know," continues our severe philosopher; "and we know that we know: these propositions, *logically* distinct, are really identical; each implies the other. We know (i. e., feel, perceive, imagine, remember, etc.,) only as we know in some particular manner (i. e., feel, perceive, etc.) So true is the scholastic brocard: '*Non sentimus nisi sentiamus nos sentire; non sentimus nos sentire nisi sentiamus.*' The attempt to analyze the cognition *I know*, and the cognition *I know that I know*, into the separate energies of distinct faculties, is therefore vain. But this is the analysis of Reid. Consciousness, which the formula *I know that I know* adequately expresses, he views as a power specifically distinct from the various cognitive faculties comprehended under the formula *I know*, precisely as these faculties are severally contradistinguished from each other. But here the parallel does not hold. I can feel without perceiving, I can perceive without imagining, I can imagine without remembering, I can remember without judging (in the emphatic signification), I can judge without willing. One of these acts does not immediately suppose the other. Though modes merely of the same indivisible subject, they are modes in *relation to each other*, really distinct, and admit, therefore, of psychological discrimination. But can I feel without being conscious that I feel? can I remember, without being conscious that I remember? or can I be conscious, without being conscious that I perceive, or imagine, or reason—that I energize, in short, in some determinate mode, which Reid would view as the act of a faculty specifically different from consciousness?"^h

A measureless audacity may seem involved in questioning such reasoning as this. But I confess that I cannot regard this reasoning as quite conclusive.

(h) Philosophy of Sir W. Hamilton, 171.

Consciousness, the name, should be abolished, if the thing so named cannot be discriminated from the things which it examines, contemplates, interprets, or which, as I prefer to say of simple consciousness, affirm themselves to it. That consciousness is merely mind, receiving the impressions of the outward, I cannot concede. I must consider it as mind (what shall I say but merely) *conscious* of the mental states and modes of action, and activity, which may be psychologically as well as logically discriminated from the mental consciousness. I own the difficulty of the analysis which Hamilton rejects; but I cannot regard it as impossible, or as a merely logical analysis of mental constitution. Consciousness may commonly, and almost invariably, seem a part of all the mental operations, yet it may not truly be a part of them at any time. It may be mind self-contemplative, in the lowest sense of contemplation, but it is not mind as active in the modes it contemplates. And it deserves to be regarded as a state of mind, in which the lowest form of faculty, distinctly seen in what we call reflection and attention, may be discernible.

But I have said already, that I am not minded to insist, with pertinacity, on my conception of the conscious and unconscious. Dogmatism, I have owned, is not becoming even in philosophers, who treat of mental modes and faculties. It would be grossly unbecoming in a simple student of psychology, such as the writer of this unpretending volume.

In what follows, therefore, touching consciousness, reflection, and attention, as in all that I have said, and in the whole of what I shall hereafter say of mind, I beg the reader to remember, that I speak as student only, not as metaphysical philosophers might speak.

It may be necessary, ere proceeding further, to demand what many readers may not willingly accord without demand, or even on demand. I am the humblest in capacity,

and among the humblest in pretension, of all "metaphysicians" and "physiologists." But in the interest of true philosophy, I feel emboldened to demand of readers close attention to the mental operations known to their own introspection, as those operations may accompany these studies. I have said, that such attention is not always a delight. I have acknowledged, that it may be painful, and that it is often painful. We may find, moreover, that to give it to such studies as the present, may be quite beyond the common capacity of men. And yet I must demand it here.

Nor is this all that I demand. I must demand, that readers shall remember all they know of the distinction between faculties and functions, simple acts and complex action, acts of mind and their expressions in and through the body.

Faculties are commonly, and very justly, regarded as simply mental. Webster tells us, that faculty is "that power of the mind or intellect which enables it to receive, revive, or modify perceptions; as the *faculty* of seeing, of hearing, of imagining, of remembering, &c.: or, in general, the faculties may be called the powers or capacities of the mind." Without agreeing to this definition as precisely accurate, we may regard it as substantially correct, and place it in clear contrast with the functions of the body as we have already seen the latter.¹ We have seen, that the coporeal life of man is double—animal and vegetative—and that animal as well as vegetative life may be regarded as the simple aggregate of functions.

Physical phenomena—perhaps, I ought to say with greater definiteness, coporeal phenomena—attend all forms of consciousness. But in the simple consciousness I do not find what others find in it, and as I understand this state

(i) Ante, ch. I, B. I.

of mind, it cannot well be distinctly marked by attendant physical phenomena.

The phenomena attendant on reflection, as I would discriminate it, may not be describable. But that the mind when self-contemplative feels its state of consciousness within and through the brain, and that new waste of nervous force attends the deepening of simple consciousness into reflection, I suppose to be unquestionable.

Attention,—the superlative degree of consciousness,—which concentrates the mental vision on a single object of regard, is known to be attended by outwardly visible phenomena. A point between the eyes, below the centre of the forehead, is connected somehow with attentive thought, in such a manner as to manifest the presence of such thought within the organism.

I have said, *within* the organism. I have not a doubt that mind, whatever it may be, exists internally to body; that it is contained by body; that the greatest inwardness of body may be properly conceived as bounding on the greatest outwardness of mind; and I may boldly state what I believe in this respect. Observe: I do not here profess to have attained to certainty with reference to the nervous organism of the mind. I do not say, that I have not a doubt with reference to propositions which I have already checked the physiologist for stating with too much positiveness. All I say is, that the mind is evidently inward in relation to the body.

Here it may be proper to examine with a closer scrutiny than any yet attempted, the degree in which the body limits, influences, and is instrumentally subservient to the mind.

We have already more or less informed ourselves with reference to this examination. We have seen the mind informed by sensual intelligencers. We have seen the blood disturbing cerebration by the substitution of dark

colored blood for that distinguished as arterial. We have discovered, more or less distinctly, that hallucinations and illusions may be thus induced. We have encountered theories with reference to mental alienation which assume that the excess of nervous force may be connected with the exaltation of the faculties and functions seen in mania. And we have learned that grave and scientific hypotheses regard the nervous force as generated in the cineritious neurine, and as physical in character, however it may be convertible into mind-force. We have seen, moreover, that the nervous matter has been thought to register impressions.

We may add in this connection, that some new development of what we call phrenology, appears to be a thing of fair expectancy.

The physiologists, condemning craniology, (and well condemning it, I think,) have lately shown some favor to some notions reminiscent of the Gallian craniology. Not only the views of Carpenter and Draper are so reminiscent—those, I mean, with reference to registering ganglia. Sir B. Brodie seems inclined to favor another so reminiscent notion, if he does not directly entertain it. He apparently holds, with Hooke, “that there are various structures in the brain adapting it for the part which it has to perform in connection with the mental principle—that there is an organ of memory, for example.”^j He concedes, indeed, that “at present we must be content to acknowledge that we know nothing as to the locality of the function” in question, “nor of the minute changes of organization which are connected with it.” But he holds, that the brain is not a single organ, but a congeries of organs, coöperating for one purpose; he supposes the different capacities of individuals for the perception of colors, musical

(j) Mind and Matter, Dial. 2.

sounds, etc., to be probably dependent on different organization of the brain; and he entertains the question whether there may be an organ of speech. At all events, he contends that "memory is closely allied to sensation," and that "the resemblance between the two orders of phenomena is so great as to justify the suspicion that the nervous system is instrumental in producing the one as well as the other; while a multitude of facts show that the suspicion is well founded."^k

Here the reference is to facts of which nearly all readers have some knowledge. That a blow on the head, and fever, and the corporeal changes due to age, may variously alter the mysterious capacity of memory, is well attested and well known. Sometimes they appear to work material impairment only, sometimes the entire destruction of the memory.

Facts such as we are thus compelled to consider, joined to urgent argument in favor of improvements of the Gallian Phrenology, may call upon us to consider whether Physiognomy is all delusion, and whether old or new Phrenology deserves respect.

I ought not to *pronounce* in answer to such questions. Even in the most extravagant enthusiasm of the Swiss Physiognomist, there is so much for science to consider, that even the learned ought to be a little careful in pronouncing judgment against Lavater.

I have not studied Gallian Phrenology with any thing resembling thoroughness. Nor have I found myself induced to study thoroughly the system of Buchanan.

It is not because I find no virtue in these systems, that I have not studied them with thoroughness. One cannot study all things. Even Anthropology may take such shapes as put us on our guard against the doctrines they

(k) Mind and Matter, Dial. 2.

embody. Having little time for study even of the truly scientific Anthropology, we ought to study only such as on preliminary view, we find apparently worthy of thorough study.

I repeat, I find some virtue in Lavater.

Who, indeed, can fail to find some virtue in the system of the Swiss enthusiast? Will any one pretend that there is not one lurking truth in all his system? Far from so considering, I look upon his system as defective, not because it is ill-founded, but because it is not well erected on a good foundation. In man, then, says Lavater, "each species of life is conspicuous; yet never can his properties be wholly known, except by the aid of his external form, his body, his superficies. How spiritual, how incorporeal soever, his internal essence may be, still is he only visible and conceivable from the harmony of his constituent parts. From these he is inseparable. He exists and moves in the body he inhabits as in his element. This material man must become the subject of observation. All the knowledge we can obtain of man¹ must be gained through the medium of our senses." And again: "There is no object in nature the properties and powers of which can be manifest to us in any other manner than by such external appearances as affect the senses. By these all beings are characterized."

I cannot follow the enthusiast, when he proceeds to say that the external appearances which affect the senses, "are the foundations of all human knowledge." But the sentences I quote with approbation may be ranked, I think, with principles. It is passing strange, that, having recognized them, the enthusiastic Swiss was able to enunciate the propositions most distinctive of what is erroneous in his system. They are truly warnings that we must not

(1) Lavater does not here allude to our self-knowledge. *Essays on Physiognomy*, Vol. I, 10.

judge of character too hastily. They warn us that our knowledge of the character of others is not intuitive, but only the result of mere perception, as I have explained perception. They should constantly admonish us to be more careful, when we judge our neighbors. Our prejudices and antipathies, our sense of beauty, our disgust in contemplating what we regard as deformity; all these are so produced or so affected by the bodily peculiarities of others, as to lead us often into error in our estimates of character. What would delight us, if it were the action or the speech of a certain man, moves us to contempt, or wakens prejudice, or excites anger, or produces nothing but disgust, when done or spoken by another man, whose body is not comely in our sight.

Body, however, has, in general, more influence in modifying character and influencing conduct than the learned have, at times, seemed willing to concede.

The extravagant opinion of Lavater, on the "profound and important question" of freedom and necessity, is, he informs us,^m "that man is as free as the bird in the cage; he has a determinate space for action and sensation, beyond which he cannot pass. As each man has a particular circumference of body, so has he likewise a certain sphere of action. One of the unpardonable sins of Helvetius, against reason and experience, is, that he has assigned to education the sole power of forming, or deforming, the mind. I doubt if any philosopher of the present century has imposed any doctrine upon the world so insulting to common sense. Can it be denied, that certain minds, certain frames, are by nature capable, or incapable, of certain sensations, talents and actions?"

The extravagance of the proposition, that man's body is his cage is quite apparent. We know better. The action

(m) Vol. I, 166.

of the body does, indeed, *tend* to make the mind its prisoner, and men who never rise above their natures are, in fact, the prisoners of body. But the mind may, in some directions, rise as it were out of the body. Body then becomes the instrument of mind. And here the particle of truth in Lavater's proposition clearly comes before us. Body is an instrument of limited subjection to the improving operations of the mind. Beyond a certain point, the mind cannot improve, or develop, or apply the body. Body thus appears to limit mind; but mind is really limited only by the finity of all things human. It is limited by bodily impossibilities, as it is by its encounter with impossibilities of any kind.

Abating thus what is extravagant in the proposition of Lavater just examined, we may admit, that bodily and mental qualities reciprocally influence each other, and that there is, in general, a correspondence between the bodily constitution and the mental character. I have given reasons for doubting, whether this correspondence is precisely such as Dr. Buchanan teaches in his "Science" of Sarcognomy. We cannot say with him, that there is a "science of corporeal development, which recognizes the indications of mind in the bodily frame, and traces the entire correspondence of the body with the brain and the mind—thus doing for the body what craniology has done for the brain." We cannot take with him a picture of the Greek Slave, and mark upon it, as the craniologist would mark upon the picture of a human head, distinguishing in one portion of the body the indication of Benevolence, and in another that of Fear—here contemplating the region of Disease, and there distinguishing the home of Love. But as in what Lavater tells us, we find some truth to separate from the extravagance with which the Swiss enthusiast connected it, we find in the Sarcognomy of Buchanan not extravagance alone, but much suggestive truth.

It is certainly true, as Lavater tells us, that "each individual can but what he can, is but what he is." It is not mere extravagance to say, that each individual may arrive at, but cannotⁿ exceed, a certain degree of perfection, which scourging, even to death itself, cannot make him surpass." And it is true, as Buchanan lays it down, that "the mind is connected with the body, and to a great extent controlled by its conditions."^o I see, indeed, no reason to doubt, that the supposed connexion "must exist in a definite manner, and through specific channels," and that "each portion of the brain is connected with a specific portion of the body."^p

Indeed, as I have intimated in another place, there is in part of the Buchanan system much to waken thought, if not to merit scientific approbation. Some of the conceits in the Buchanan lesser system of Sarcognomy are very beautiful. Among them is the thought—I dare not call it by a more scientific appellation—that the proper home of the affections, or, perhaps, their place of special expression in development, is the chest. "The association of the mammæ with the sentiment of love," says our anthropologist, "is very obviously true. They are more developed in woman, in accordance with the fact that love is a more prominent element of her character and life. Their development is connected with the period of the greatest activity of that sentiment—and with the existence of children, upon whom the sentiment concentrates. The whole physiological history of parentage illustrates this matter very forcibly, and the psychological associations are nearly as decisive. Caresses of the female bosom excite irresistibly the amiable emotions, and the sight of the breasts in full development excites the love of man. Loveliness is so essential to our conception of woman, that

(n) Lavater, Vol. 1, 166, 167.

(o) Anthropology, 359.

(p) Ib.

a full development of the breasts is necessary to female beauty and attractiveness." ^q

But if there be in the poetical conceit just brought before the reader, something sounding like a scientific truth, and if there be in the Sarcognomy, to which we owe the fancy, or the more than fancy, just examined, truth confused with error; let us not forget how truth is mostly overlaid by error in such "systems." I have, indeed, plainly shown a feeling far removed from all unkindness, whenever I have spoken of the book in question. I dare not assume capacity to judge it with severity. I only know that, like Lavater's system, like a thousand other systems, it has not the air which we expect to find in real science and in useful learning. It attacks too much and it defends too much. It cannot bide its time. It displays in the beginning a feverish desire of crucifixion. In the end, it shrinks from what it went to seek. Internally, moreover, it does not constantly commend itself to rational acceptance. It tells us of astounding facts, and leaves them quite unproven, save as simple statement is to be accepted as the needed proof in such a case. But, even if it were improper to require the testimony of a fair number of witnesses, when we are asked to yield our credence to what seems miraculous, we should certainly require the single witness who presents himself, to show that he is calm, and self-possessed, and anxious only to declare, to testify, and not to advocate. On looking into the Buchanan Anthropology, we find no little application for such observations. It is not so verified as to induce us to devote the time and labor requisite to test it thoroughly. It asks us to believe what almost seem to us impossibilities, on testimony mixed with all the forms of anxious advocacy. A single witness, advocate as well as witness,

(q) Buchanan, Anthropology, 367.

judge as well as witness and as advocate, presents it for rejection or acceptance, yet forecloses both acceptance and rejection. It displays the evidence of having sought for crucifixion and declined the erst desiderated martyrdom.

To these objections to the mode in which Buchanan's Anthropology presents itself, I ought to add, that it has not secured a favorable hearing from such physiologists as Carpenter. I know, that Dr. Buchanan may consider Dr. Carpenter as either wholly indisposed or quite incompetent to pass upon the novel system now referred to. But, whatever *he* may think, I think that we may recognize in Carpenter such liberality as would at once embrace a system, such as that alluded to, if it were proven, and as would not refuse, on fair persuasion, to examine evidence produced to prove it.

Craniology had once forensic prospects not to be despised. Prosaic Chitty, even, seemed enamored of it. But not even he discovered in it art to be relied on, or such science as the lawyer could embrace with confidence.^r

Now, such views as those of Carpenter respecting Craniology, are widely honored. The enthusiasm of the Craniologists finds little to increase its fires, in scientific quarters. Carpenter considers, that the *mere* comparative size of the cerebrum affords no accurate measurement of the amount of mental power. Nor does this conclusion war with his concessions. For, there are, in his work, many real or seeming recognitions of the at least partial truth of craniology. We are told that "those unfortunate beings, in whom the cerebrum is but little developed, are guided almost solely by their instinctive tendencies, which frequently manifest themselves with a degree of strength that would not have been supposed to exist; and occasionally new instincts present themselves, of which the human

being is ordinarily regarded as destitute." And we are told, that "on the other hand, those who have obtained most influence over the understandings of others, have always been large brained persons, of strong intellectual and volitional powers, whose emotional tendencies have been subordinated to the reason and will, and who have devoted their whole energy to the particular objects of their pursuit." ^s

The seeming conflict between these sentences and that in which the mere comparative size of the cerebrum is shown to afford no accurate measurement of mental power, is not real. For, as Dr. Carpenter observes, "we not unfrequently meet with men possessing large and well formed heads, whose psychical capability is not greater than that of others, the dimensions of whose crania have the same general proportion, but are of much less absolute size. Large brains, with deficient activity, are commonly found in persons of what has been termed the phlegmatic temperament, in whom the general processes of life seem in a torpid and indolent state; whilst small brains and great activity, betoken what are known as the *sanguine* and *nervous* temperaments."

In other places, Dr. Carpenter refers to the growing of the brain to the conditions of its exercise, and the like. Here he but recognizes what all observation teaches. But in this as in whatever else he advances, apparently countenancing craniology and its derivatives, the learned physiologist is constantly upon his guard against conceding what the craniologist demands in favor of his system.

(s) Carpenter (ed. of 1855), 533.

CHAPTER XIV.

BODY AND MIND—HALLUCINATIONS AND ILLUSIONS.

BUT though we thus reject such systems as Buchanan's fanciful Sarcognomy, with its connected "sciences," we ought not to forget the thousand facts, which manifest how body limits, influences, and expresses mind.

I have already looked a little at this subject as connected with emotional disturbances of the perceptive powers.

We may here return to the consideration of that subject in connexion with an examination of the theory of registered impressions, once already mentioned.^a

It is at the eye, that we discover most to interest us, when we scrutinize perception. It is at the eye, that body most appears the "element in which the mind is active." Visual perception, then, will most attract us, in returning to the observation of phenomena connected with perception at large.

As to visual perception, Dr. Draper holds, that the function of the receiving screen on which the images form, belongs, according to the views of early optical writers, not to the retina, but to the black pigment of the eye.^b

(a) Ante, p. 319.

(b) "The coats of the eye are three in number: the sclerotic, the choroid, and the retina. The sclerotic, which is the exterior, is a white fibrous membrane, very tough, and possessing the necessary resistance to give mechanical protection to the parts within. Within this is the choroid, a vascular layer or tunic, presenting on its interior the black pigment which darkens the interior of the eye. The innermost coat is the retina, an expansion of the optic nerve." Draper, *Physiology*, 382.

He considers the optical and anatomical arguments against the retina, which has lately been considered as performing the function in question, as perfectly unanswerable.^c But what particularly here engages our attention, is his theory respecting the "manner of perception by the retina."

"It might almost be said," says Dr. Draper, "that vision is a photographic effect, the receiving surface being a mathematical superficies," acting under a condition described by him. From examination, Dr. Draper has come to the conclusion of Count Rumford, that all photographic effects are the effects of a high temperature. "The impinging of a ray of light on a point," he observes, "raises the temperature of that point to the same degree as that possessed by the source from which the ray comes, but an immediate descent takes place through conduction to the neighboring particles. This conducted heat, by reason of its indefinitely lower intensity, ceases to have any chemical effect, and hence photographic images are perfectly sharp on their edges. It may be demonstrated that the same thing takes place in vision. . . . All objects will therefore be definite, and sharply defined upon it."^d

Dr. Draper holds, with other physiologists, that "impressions made upon the retina do not disappear instantly, but gradually fade away, and in so doing occupy a certain period of time, which varies with the brightness of the original light, the existing condition of the eye, and the illumination to which it is exposed. This duration of impression is commonly estimated at about one-third of a second. It is a phenomenon analogous to that of the continuance of sound in the ear, and subserves an important purpose of keeping vision continuous and distinct during the winking of the eyelids. Commonly, it is illustrated by referring to the familiar experiment of a stick lighted

(c) Phys. 387.

(d) Ib. 393.

at one end and twirled rapidly round, which gives rise to the appearance of a continuous fiery circle. Many ingenious and interesting toys, such as the thaumatrope or wonder-turner, act on this principle."^e

The theory of visual perception advocated by the learned physiologist may serve as introduction to the promised view of certain learning, touching the hallucinations and illusions which consist with sanity.

And here, perhaps, I ought to make my meaning clear, by offering a definition of insanity. But who will venture to define insanity? I may not make the effort to define it, even when we come to treat of it directly. But, for all our present purposes, insanity may be considered as any deviation from the standard of mental health, which has a notable tendency to continue, and to deepen its traces, or increase its volume, unless subjected to curative treatment.

That there may be important, even fearful, hallucinations and illusions where no such insanity is present, is averred by De Boismont and others.

Hallucinations are distinguished from illusions, by De Boismont, thus: Hallucinations are said to "start from the nerve to form an outward image;" while illusions follow a directly contrary course; "so that the one may be said to be subjective, the other objective."^f

It is elsewhere said,^g that "the perception of external objects depends on the rays of light entering the eye, and converging so as to produce images which make an impression on the retina, and, through the optic nerve, are recognized by the brain. The direction of the influences, so far as the observer is concerned, is from without to within—from the object to the brain. But the inverse of

(e) Draper, *Phys.* 393.

(f) De Boismont on Hallucinations (Lindsay & Blakiston's ed.), 104.

(g) Draper's *Physiology*, 401.

this is possible. Impressions already existing in the brain may take, as it were, an outward direction, and be projected or localized among external forms; or, if the eyes be closed, or the observer is in darkness, they will fill up the empty space before him with scenery of their own."

"The psychological study of man," it is said, "proves that hallucinations can exist without disordering the mind."^h Again: "Nothing is more common with the insane, and, especially, with maniacs, than to mistake one person for another, and to take an object for what it is not. . . . These errors of the senses are not confined to the deranged. They exist equally among men of the most healthy minds; but judgment and experience correct their false notions."ⁱ Hallucinations are divided into two sections: 1. Hallucinations corrected by the understanding. 2. Hallucinations not corrected by the understanding.^j There may be no notable lesion of the powers, whether intellectual or affective, when hallucinations or illusions are present. A momentary pain, a twinge of the gout, a mere touch of fear, may produce the one or the other. Darkness, the feeling of loneliness, the presence of solemn warnings, any deep feeling, may give them birth. Fear is their prolific parent. The double vision of drunkenness is not more remarkable than the false vision of alarm and the wonders conjured up by simple fright.

Here, it is proper to observe, that what we mean by supposing hallucinations and illusions to visit a mind yet untouched by insanity, has reference to the already hinted notion of insanity.^k We do not mean, that the hallucinated or illuded is not a patient, a sufferer, one out of mental health, but that he is not such a patient, not such a sufferer, not so notably out of mental health, as to be designated as an insane person.

(h) De Boismont, 45.

(i) *Ib.* 103.

(j) *Ib.* 45.

(k) *Ante*, p. 331.

That there may be hallucinations or illusions produced by simple terror, we all know by the surest of means—our experience and observation. That a witness, who was present at the commission of a homicide, may often honestly differ, in his narrative of what he saw or heard, from all others who were present, is one of the earliest lessons of the forum. That the sudden gleam of a knife, or the quick report of a pistol, may have exalted his alarm so that he became absolutely hallucinated for the moment, is alike the testimony of science and the teaching of common life.

When we attempt to study these things carefully, we may derive light from sources before regarded as unworthy of exploration.

Etymology, even, assists us from time to time.

Fear is the opposite of courage. But the word courage comes to us through a French derivative from the words *cordis actio*, signifying the action of the heart. The *robur et erectio cordis* constitute the high courage, which furnishes a visible sign that fear is absent, and that the courageous person is prepared to do or to defend, to attack or to resist, as becomes a true man or a brave one. That the simple action of the heart should thus come to have a distinctive name, may, at first, seem unaccountable. But if we only consider, that, in moments of sudden alarm in the nature of fear, the action of the heart does not normally continue—that the heart becomes constricted, flutters, stops its beating—we shall discover a good reason for naming with a distinctive and favorite title, the regular coursing of the blood, which characterizes the bold and the brave in the presence of a danger. In fear, then, there is not a regular action of the heart. The supply of blood to the brain is then not normal. *How* this is connected with the startling of hallucinations from the nerve to form an outward image, or from without to within, so as to form a

distorted image, it remains perhaps for the learned to inquire, and for science to reveal. But that the passion of fear *does* affect the action of the heart; that the action of the heart, when so affected, does disturb the nervous mass which we distinguish as the brain, or some of its immediate connections; and that these things are nearly connected with the formation of false perceptions and conceptions; all this is too evident for question.

Here, perhaps, I do injustice to the learned physiologist, who has attempted to establish, that hallucinations are nothing but the emergence, in certain conditions, of old impressions.

It cannot fail to startle the forensic student, when he finds how confidently Dr. Draper holds discourse of registered impressions in connection with visual perception.

Dr. Draper fairly teaches, that "a shadow never falls upon a wall without leaving its permanent trace—a trace which might be visible by resorting to proper processes." And "if," he says, "on such inorganic surfaces impressions may in this way be preserved, how much more likely is it that the same thing occurs in the purposely constituted ganglia."¹

We have already seen the account given by the learned physiologist, of the characters employed to register impressions. What concerns us now is chiefly Dr. Draper's doctrine, that inverse vision or cerebral sight "depends primarily on the condition, that former impressions, which are inclosed in the optic thalami or registering ganglia at the base of the brain, assume such a degree of relative intensity that they can arrest the attention of the mind. The moment that an equality is established between the intensity of these vestiges and sensations contemporaneously received from the outer world, or that the latter are

(1) Draper, Phys. 288.

wholly extinguished, as in sleep, inverse vision occurs, presenting itself, as the conditions may vary, under different forms, apparitions, visions, dreams." ^m

Dr. Draper elsewhere seems to hold, not only as to what we here distinguish as illusions, but with reference to what we call hallucinations, "that all spectral appearances refer to things that are past, persons who are dead, events which have taken place, scenes that we have visited; or, if we have not seen the actual reality, then pictures, statues, or other such representations thereof." ⁿ

But he has told us, that "visual hallucinations are of two kinds: those which are seen when the eyes are open, and those perceived when they are closed. To the former, the designation of apparitions; to the latter, that of visions may be given." ^o And he has conceded, that "between apparitions and visions is an intermediate class," which may be styled "deceptions." These, he says, "take their origin in some outward existing reality, and are exaggerations of the fancy." Now, precisely as deceptions (which we call illusions), are "*exaggerations* of the fancy," so hallucinations are probably *creations* of imagination. How imagination is excited to create the contents of hallucination, how the thing apparently perceived in the hallucination so presents itself as to appear a real object, I will not attempt to indicate. But I repeat, emotional conditions, which disturb the circulation of the blood, or heighten it, or lower it, without what we distinguish as disturbance, may be intimately connected with hallucinations. Is it otherwise with what we call illusions?

In thus supposing, that hallucinations are imaginations, due, in some yet undiscovered manner, to emotional excitement, I do not encounter anything in the authorities which frowns upon my supposition—unless, indeed, the

(m) Draper, Phys. 402. See Ante, p. 331.

(o) Ib. 404.

(n) Ib. 408.

theory of Draper is regarded as opposed to it, and is authoritative. By Carpenter it is supposed that hallucinations "are not attributable to original perversions of the reasoning process, but *arise out* of the perverted emotional state." "This," he says, "gives rise, in the first place, to a misinterpretation of actual occurrences in accordance with the prevalent state of the feelings; but when the disorder has lasted some time, ideas which have had their origin in the imagination alone, and which it has at first presented under a very transient aspect, are habitually dwelt upon in consequence of the interest with which they are invested, and at last become realities to the consciousness of the individual, simply because he has not brought them to the test of actual experience." ^p And Dr. Draper allows us to perceive, that in a work which I have never seen, a well approved observer (Dr. Hibbert) lays great stress on the mechanical influence of the circulation of the blood. This fact, taken in connection with the known relation of emotional conditions and the circulation of the blood, appears at least to point the way of investigation into the causes of hallucinations.

Here it may be proper to explain, that in considering hallucinations as *creating* the object seemingly perceived, I do not quarrel violently with philosophers attempting to define imagination. That imagination is to be regarded as producing combinations of things previously present in the mind—as working in its percepts and its concepts, and whatever may belong to the first furniture of mind—I may admit, without adopting Dr. Draper's theory respecting inverse vision. I cannot look on a hallucination as the mere emergence of old impressions from the registering ganglia.

The cases seem to warrant my refusal to adopt the Draper theory.

(p) Phys. (ed. of 1855), 632.

Among the cases cited to prove, that there are hallucinations consistent with reason and corrected by the understanding, none is more remarkable than one of which the story is related by Sir Walter Scott.¹

A man distinguished by a large endowment of "good sense," trustworthy, prudent, versed in management, and often visited for counsel in affairs, was haunted by hallucinations till he died. He knew that what he seemed to see was quite unreal. Yet he seemed to see at first a "great cat," which came and disappeared he knew not how; and, some months afterward, "a gentleman usher, dressed as though he were in the service of the Lord-Lieutenant of Ireland, or of a great functionary of the church, or of any other person of rank or dignity;" and after a few months more, a skeleton.

It is impossible, I think, to look at this as an instance of the emergence of old impressions. The cat was a "great" cat. The "gentleman usher" that succeeded was often "like the shade of Beau Nash." In neither of these cases, could remembered individual impressions furnish all involved in the hallucination. Each of these so-called hallucinations was a false conception," or "imagination," wearing such a look as commonly belongs to the conception, which, as I believe, belongs to each complete perception.

Nor is any other of the well known cases more harmonious with Dr. Draper's theory. In Nicolai's case, the thing at first apparently perceived was a dead body—not the body of a person known in life, but what I might distinguish as a type or representative dead body. Other figures afterward appeared—and though among these some were representative of friends, "more generally strangers" were apparently perceived by the tormented

but still sensible bookseller. None of his intimate friends, indeed, were presented to his troubled vision. And he was not able even "by an intense objectivity" to make "exterior the interior perception" of his intimate acquaintances, when he attempted to produce their phantoms at will. All he could accomplish by any voluntary effort of this description, was "to see two or three of them distinctly in [his] mind."

This case, like the preceding, is connected by De Boismont^r with the case related by Sir Walter Scott, and with others.

A case^s related by Bottex, is that of a man, resident at Strasburg, who visited St. Etienne, where he had remained two months, when, one night, he heard something walk round his bed and pass over the coverlet. Next day, at the same hour, the same noise, but with the addition of the words: "Ah! I have found you, then!" The voice was recognized as that of a young person he had left at Strasburg. It afterward followed him everywhere; asked for money, spoke of marriage, and menaced him with the devil if he did not comply with her wishes. He did not see her, but distinctly heard her voice. No hour passed that she did not talk to him. When requested to listen to her, he leaned his head to the left, and immediately heard her, when he repeated word for word what she said. This man was perfectly sane; he knew perfectly well that the woman whose voice he heard was not near him. "She must," said he, laughing, "have made a compact with the devil;" but he did not hold on to the idea, knowing it to be absurd.

A lady, about sixty years of age, extremely susceptible, had, from time to time, visions of a robber entering her chamber and concealing himself under her bed. She was

(r) 53, op. cit.

(s) De B., 47.

instantly seized with violent palpitation and universal trembling. She perfectly knew the falsity of these impressions, and her reason made great efforts to dissipate the fears they produced.

In connection with these cases, De Boismont has produced the following, apparently to prove, that "a great struggle of mind, great pre-occupation, an association of ideas which can not always be detected, may produce a fact already forgotten, and give it all the freshness of a living picture."

A stranger in Edinburgh, a middle-aged, well-dressed man, died suddenly in an omnibus. The corpse was exposed in the police office until it was claimed by his friends. On the following day, a medical man was called in to report on the cause of his death. On entering the room where the body lay, the reporter was struck with the open, intelligent and agreeable expression on the face of the dead. He had afterward forgotten the matter, however, when it was recalled to him in the following manner: After several days' close study of a medical subject, he perceived, on raising his eyes, the form of the stranger opposite to him, as distinctly as he had seen him the first time on the table in the police office, with the difference, only, that he had on his hat.

But the difference between the phantom, hatted, and the body which, remembered, had assisted in suggesting the hallucination, is a most important difference. In all the cases I have cited apparitions have appeared, not always thus or so, but variously.

Similar remarks apply to the illusion which a great tragedian of France was wont to conjure up, by an intense volition. We are told of Talma, on the authority of Langlois, to whom the actor had in confidence declared so, that when the tragedian trod the stage he could, by the force of his will, make all the brilliant dresses of his

audience disappear, and substitute skeletons for the living characters.

On the whole, the evidence is quite against the notion of the learned physiologist, as here in question, and as I have understood it.

But while we thus refuse to follow Dr. Draper in his view of inverse vision, let us not allow ourselves to be deceived into adopting any other theory.

When Carpenter, for instance, tells us, as we have already seen, that hallucinations "at last become realities to the consciousness of the individual, *simply because*," etc., let us look at his "because" before adopting it. If this "because" is not an entirely inaccurate, it is at least an insufficient reason. We are not informed of what we seek to know by the assignment of the supposed reason. What we wish to learn is how a mere conception comes to stand before the mind, not as a mere unreal conception, but as a perceived reality? In other words, what we are seeking is the explanation of the difficulty with which the sane mind, in certain conditions, makes distinction between pure imaginations and conceptions such as ordinarily belong to pure perception. What is but a difficulty to sane minds, becomes impossibility to minds affected with certain kinds of insanity. And what we desire to know is the nature of the confusion of a real with a seeming object of perception. This we do not learn when we are told, that the mind has abandoned itself to an emotional regard of the mere conception, until that conception becomes a reality to the consciousness.

Nor can I regard as much enlightening this subject, another but kindred suggestion of the learned English physiologist. "It is not clear," says Carpenter, "how far the act of Perception (using this term in the sense to which it is properly restricted)^(t) is itself perverted," in a case of

(t) Ante.

what is commonly termed false perception. He considers it as "certain, that the source of the distortion frequently lies, chiefly or even solely, in the emotional medium through which the perceptions are interpreted."^u Emotions may dispose us to regard one set of thoughts in preference to another set; but how it can interpret falsely what we think so that we seem to see it, is not yet apparent.

That emotional conditions are connected nearly with hallucinations and illusions; that they are so through the action of the blood which such conditions cause; I am inclined to hold for certain. But I cannot point to any theory as tracing the connection between the supposed action of the blood and the formation of hallucinations or illusions.

This I must the more regret, because I find what seems a glimpse of the yet unknown connection, in the theory of Dr. Draper touching the process of true perception. If painful emotional conditions overheat the eye through the unwonted quickness of the circulation, then—but I will not do more than hint my notion.

But, without asserting anything definitive of the connection which apparently subsists between a normal circulation of the blood and true perception, we may safely lay it down that such connection does in fact subsist. And this conclusion is but the reiteration of the truths apparent in a thousand passages, in which the poets have advised us that the passions are the clouds that darkle in the sky of reason.

That the blood may run the fiercest current ever known to passion, yet but stimulate the powers of the reason to the almost perfect service of the judgment, I do not deny. We shall see, that, as I ventured once to say, judicially,^v

(u) Carpenter (ed. of 1855), 634.

(v) *State v. Walker*, West. Law Journ.

the essence of an act of reason is not coolness. Malice, equally with good affections, may possess itself of reason; and the passions may be made the servants of malicious purposes as well as of the thread of thought which runs through innocent emotion. Reason, turned to malice may appear as it is painted by Macaulay in describing certain oratory—penetrated with anger, and made red hot with passion. But while such exceptions to the rule which I have stated, may be easily conceived, the rule remains, that even normal circulation of the blood is necessary to the perfect enjoyment and exercise of the perceptive powers. If so, Memory, of course, depends, in a great degree, on the affections.

It may be wise to set aside as yet unproven all theories relating to the registry of impressions, and to the peculiar organization of the brain with reference to memory.

And we may probably do well to be a little cautious in accepting all we read about association, in connection with mere memory.

In Abercrombie we are told, that memory is chiefly dependent on Attention and Association. Of the value of attention, we have seen enough already. That "memory is very much influenced by attention, or a full and distinct perception of the fact or object with a view to its being remembered," is familiar to all students.

Nor have many yet to learn that in recollection much depends on what we call association. That some species of association naturally takes place among ideas, and that this is "governed," in a certain sense, by so-called "laws," we may admit. That, in order to remembrance, we seek out some thought which we regard as probably associated with the thought of which we are in quest, all are ready to testify. But it does not appear to me, that memory itself—that is to say, the preservation of past knowledges—

can be dependent on association. Here, however, as elsewhere, we may well avoid all over-nice discussions. I do not regard it as important to insist on such discrimination as I here suggest.

CHAPTER XV.

THE UNDERSTANDING AND THE WILL.

PERHAPS, the view which we have taken of the Memory may be sufficient for the present. We may find ourselves still further taught concerning it, while further viewing Understanding and Volition. But, however this may prove, I am inclined to glance once more at what we have already seen, and then to look a little further at the Understanding and the Will.

We have discussed the learning which relates to what we call sensation. We have seen that sensation is but an inward sign of outward being, which the powers of perception, being in themselves the reasoning or understanding powers, can and do interpret into an idea. We have seen how the attention of the mind is necessary to a perfect judgment in interpreting the sign of outward being carried to the mind in a sensation. We have seen how an emotional excitement may disturb perception. We have glanced at theories relating to the process of perception. We have seen how mind and body are involved in it. We have examined mind as it attends to itself and ascertains how it acts and what may be distinguished as its so-called laws. We have enforced the value of a full but moderate attention. We have learned a little of the Memory, of its relations, and dependencies. And we have looked at love

of knowledge as connected with the relations and dependencies of memory.

Now, we may properly proceed to a further examination of this love of knowledge as it has relation to the Understanding and the Will. We shall not examine it with microscopic scrutiny, in this connexion or in any other. Let it be enough to say at present, that it moves the reasoning capacity to exercise itself, and moves the Will to make that exercise volitional. In other words, among the motives of the reason to engage its powers in investigation, whether inward or external, is the love of knowledge. Whether any other motive can, in strictness, be assigned for intellections of a voluntary character, may be a question. But, assuming it to be a question, I will not discuss it. I discover that I have so dwelt on many things, that others must be passed with simple mention.

Going straightly then to Understanding, we may take such view of it as we have space to take.

Is it to be regretted that our here disposable space is little, and that we must only glance at the logician's delectations touching Understanding? I think not. I am inclined to think that learned disquisitions have not added much to our capacity to understand the Understanding. I am, therefore, not disposed to make apologies for having left myself so little room for the examination of Logic. Yet we must not treat the logical as quite unworthy of attention.

Either in the simple consciousness as he defines it, or in reflection as he defines it, Abercrombie finds the source of a knowledge of the mental processes, with their "laws" and relations. Here he also finds the source of "certain notions arising out of the exercise of the mental processes, in reference to the successions and relations of things; our notion for example," of time, "of cause, of motion—number—duration—extension or space."^a With "a certain

(a) *Intellec. Phil.*, Part II, sec. II.

exercise of mind," he says, "spring up in the mind certain convictions, or intuitive and instinctive principles of belief." "These," he observes, "are the immediate result of a certain exercise of the understanding, but are not referable to any process of induction or chain of reasoning, and can be considered only as an original and fundamental part of our constitution."^b

Is all this certain? I think not.

In its mysterious self contemplation, and especially in voluntary Mental Introspection, mind, even as we discover it in men of merely average capacity, acquires a knowledge fit to govern mental conduct. I am not prepared to hold, with Jeffrey, that such mind as we are contemplating in a standard man, becomes acquainted with itself as one becomes acquainted with his native language or his native parish. But we cannot doubt that mind may come to be self-knowing, in a process quite suggestive of that which the learned critic has so strikingly described.

No study of the mind, however, though it be well aided by comparative examinations, can inform us fully of the first beginnings of our knowledge. Speculation is not useless, when it seeks to penetrate the mysteries of mind developing its principles and widening its sphere of knowledge; but no such speculation has been so successful as some speculators have fondly fancied. We may take the facts presented by enlightened physiology to guide us through a course of suppositions which are not to be despised; but nothing higher than hypothesis can be entirely reconciled with facts, as physiology has ascertained them. We are not to pause where Abercrombie would advise us to abandon speculation;^c but we ought to bear in mind the

(b) *Intellec. Phil.*, Part II, sec. II.

(c) "Let us then be satisfied with the facts, when our utmost faculties can carry us no farther; let us cease to push our feeble speculations, when our duty is only to wonder and adore." *Intellec. Philos.*, Part I, sec. I. This relates to speculations touching Mind and Matter.

littleness of all our real information, when we engage our thinking with the principles of knowledge.

Questions touching certainty have filled the books of metaphysical philosophy; but certainty does not depend on any doctrine, or on any mere hypothesis. Each individual begins to know, without a doubt of what he learns;^d and only when philosophers begin to teach him that a doubt is possible, does he begin to understand, that it is possible to doubt, that what apparently presents itself to contemplation really exists externally to contemplation. When he entertains such doubt, it troubles him as any foreign substance may disturb the body. Thorough inquiry into all the facts supposable in rational hypotheses, does not disturb his confidence in the apparent facts of consciousness. It may explain the latter, so that he may look upon them in a novel light; but nature does not leave us to a course of hypothetical investigations, in order to acquire a real certainty. In speculation fit to be applied to the endeavor to discover the origin of knowledge, nothing truly tends to shake the certainty, which nature has established, of the outness of the external or represented objects of cognition.

I must not, however, dwell in repetitions. We have seen already how the principles of certainty may be relied upon, although all speculation fail to make a definition of them.

We must here proceed with our examination of self-knowledge in the common, non-logical mind, with reference to proper estimation of the learning known as Logic.

The mind, uninformed by logical or other scientific training, *naturally* learns from mere self-contemplation, the unquestionable value of attention. Voluntary introspection in our standard man, will teach him many truths,

(d) Balmes. Fundamental Philos., Book I, ch. III, on "Certainty of the Human Race and Philosophical Certainty."

set in the gold of scientific learning, though he never dream of logic.

Let me give an instance, which I may develop into something more than a single illustration of my theory.

The common, undistinguished mind, now contemplated, learns, from mere self-study, the inestimable value of Attention. It is argued by philosophers, that, not with reference to memory alone, but even as a requisite to clear and full perception, it is necessary that the mind should be attentive to its acts. In Abercrombie's system we are told, that "when the mind is closely occupied, numerous objects may pass before our eyes, and circumstances may be talked of in our hearing, of which we do not retain the slightest recollection; and this is often in such a degree as implies, not a want of memory only, but an actual want of the perception of the objects. We cannot doubt, however, that there was the sensation of them; that is, the usual impression made upon the eye in the one case, and the ear in the other. What is wanting, is a certain effort of the mind itself, without which sensation is not necessarily followed by perception;—this is what we call attention."

Brodie holds that an act of the mind, additional to the conveyance of an impression to the brain, is necessary in order that the impression be remembered.^e Carpenter, indeed, appears to hold, that in certain entirely inactive states of mind as well as in certain conditions of concentrated attention, even the sensations commonly produced by impressions may not be produced at all.^f But after all, we are not warranted, perhaps, in going even as far as Abercrombie goes. We have learned, indeed, that the recollection of perceptions is, to some extent, dependent on attention, and on what we call association. But we hardly have a right to say, that no perception follows a

(e) *Mind and Matter*, Dialogue I.

(f) *Phys.*

sensation, unless the mind so turns to it, that we can say the mind is attentive to it. If I have adopted the true theory with reference to sensation and perception, each perception is a series of mental acts, involving judgment, reasoning, or inference. That the judgment, reasoning, or inference, may be of a merely conjectural and quite imperfect kind, when it relates to a sensation to which only an imperfect attention is given, or no attention at all, may be conceded freely. But the mind has what we might almost permit ourselves to call an infinite capacity for various and simultaneous action. Even when the mind is inattentive, or has concentrated its attention, objects not attended to may be imperfectly perceived. That is to say, being presented to the mind through their sensational suggestions, objects may be conceived of by the mind in what we call perception, yet imperfectly—so that ideas not entirely false and yet not absolutely true, are added to the mental store.

On the other hand, a too attentive state of mind—an over-concentration of the mind on any object—may produce a false perception. Moderation here, as elsewhere, seems to be the rule of life.

Abercrombie has related an instructive anecdote, which we may well remember here.

“A distinguished theatrical performer, in consequence of the sudden illness of another actor, had occasion to prepare himself, on very short notice, for a part which was entirely new to him; and the part was long and rather difficult. He acquired it in a very short time, and went through it with perfect accuracy, but immediately after the performance forgot every word of it. Characters which he had acquired in a more deliberate manner he never forgets, but can perform them at any time without a moment’s preparation; but in regard to the character now mentioned, there was the farther and very singular

fact, that though he has repeatedly performed it since that time, he has been obliged each time to prepare it anew, and has never acquired in regard to it that facility which is familiar to him in other instances. When questioned respecting the mental process which he employed the first time he performed this part, he says, that he lost sight entirely of the audience, and seemed to have nothing before him but the pages of the book from which he had learned it; and that if anything had occurred to interrupt this illusion, he should have stopped instantly.”^g

This anecdote displays, perhaps, a certain repugnance of the mind to reëngage itself with what had been encountered painfully. But it displays moreover that for which we cite it. It displays the truth, that over-concentration of the mind in an attentive study is unfavorable to remembrance. And the truth so manifest is known to every practitioner of the law, whose practice often calls for quick and close examination—*cramming*—as to the “authorities” or as to the facts, important in a case at bar. It is a most important truth with reference to the attention, which is requisite for memory. And is it less important as to understanding? Is not understanding, indeed, involved in memory, and is not memory involved in understanding?

I incline to think, that reasoning, like memory, requires that the attention paid by mind to its as yet so little understood processes, should be moderate. Not only must the “blood and judgments” be “commingled” properly—not only must the passions be subjected to a due restraint, or bear a due proportion to the action of the intellect—when we would understand, or keep in memory what we conceive. There must be something more than this. There must be fit attention, not permitted to become

(g) Intellec. Philos., Part III, sec. I.

an over-concentration of the mind. There may be an insanity of the retina of the mind as well as insanity of the retina of the body. So all our observation and all our experience inform us. Here, therefore, we come once more to "Introspection." Here we come to Introspection, wholesome and unwholesome. Here we might anticipate the warnings we shall meet hereafter as to occupation, over-taxing mind as well as altering the growth of body, leading to disease of body and of mind. But here we also have occasion to remember, that in such a standard man as he whom we are contemplating, Introspection is of the description contemplated by the learned physiologist, who would choose to designate reflection by the name of Introspection.

Introspection in a man like this enables him to attend with due and not with over-strained attention to the processes of thought. It teaches him what metaphysical philosophers take pains to tell us of the value of association and abstraction. Of association and abstraction as the names of mental acts, our standard man may be profoundly ignorant. But of the *acts* so named, he cannot be entirely without useful knowledge. He must learn from mere experience, indeed, great part of what I must suppose the reader to have studied somewhat in the school-books, or in more pretentious treatises of mind and mental operations. He must inevitably learn, that for the purposes of recollection—I would not say, for the purposes of simple memory—a natural association of ideas constantly takes place, and that an artificial process of association may most notably assist the power of recollection. He must learn, that the mind occasionally may and indeed must attend to some of the qualities or attributes of objects known to it without attending to the rest; and that this process of abstraction is of inexpressible account to memory and understanding. He must learn, moreover,

that abstraction and association, let him name them as he may, have near relation to affections, even as they have to intellections. He will note the differential characters of memory and understanding, and volition, in the various individuals, whom observation or report makes known to him. He will begin to make comparisons and contrasts in this respect, even if he should never hear the name of metaphysics. And he will be able to distinguish the fallacious from the sound in reasoning, although he never hear of logic. And, without discoursing of invention, combination, or imagination, he will soon discover that whatever is involved in these is possible to thought, and may be realized in action. Thus, he will become an Artist—thus he will adapt the means of Art to the ends of Art, and thus will artful works be undertaken for the uses of man's common life, or furnished for the delectation of his sense of Beauty.

If Jeffrey's estimate of Metaphysical Philosophy was accurate, what have we more to add? If such an estimate be accurate, why need we dwell on any question, smacking of the metaphysical?

The reader knows that Jeffrey was a lawyer, and he may remember this writer that he has magnified the judgment of the lawyer. If, in Jeffrey's estimation, therefore, little can be learned of mind by any study of it, we have wasted time, and we should waste no more, on metaphysical investigations.

Jeffrey once apparently considered, that all formal, systematic Introspection would interrogate the consciousness to little purpose. He contended, that "the labors of the metaphysician, instead of being assimilated to those of the chemist or experimental philosopher, might, with less impropriety, be compared to those of the grammarian, who arranges into technical order the words of a language which is spoken familiarly by all his readers; or of the

artist who exhibits to them a correct map of a district with every part of which they were previously acquainted. "We acquire," proceeded Jeffrey, "a perfect knowledge of our own minds without study or exertion, just as we acquire a perfect knowledge of our language or our native parish."^h

Even if the merit of philosophy, deriving its chief light from mental Introspection, reached no higher than this view of Jeffrey's indicates, it would not be contemptible. For Jeffrey well subjoins the concession, that we cannot, without much study and reflection, compose a grammar of our native language, or a map of our native parish. But the merit of the philosophy in question is much higher in its reach than Jeffrey thought it. He considered, that with regard to Perception "and some of the other primary functions of the mind, philosophy could be of little use," and that "the profoundest reasonings lead us back to the creed, and the ignorance, of the vulgar." We have seen, however, that in so considering the learned critic was mistaken. We have seen, that science has confirmed the views of Newton, whatever may be said of Berkley's views or Hume's philosophy of doubt. We have seen, therefore, that even as to the proper metaphysical investigations, which the profoundest reasonings and the closest scrutiny agree to treat as reasonably certain, there have been discovery and progress.

As to the laws of Association, Jeffrey himself admits, that metaphysical investigation has discovered something worth revealing. And we have a right to carp a little when he adds, that "after all, perhaps, the chief value of such speculations will be found to consist in the wholesome exercise which they afford to the faculties, and the delight which is produced by the consciousness of intellectual exertion."

I repeat, that I have never seen much evidence that the

(h) Article on Stewart's Life of Reid.

consciousness of the intellectual exertion involved in the self-study of the mind, is productive of delight. Nor can I look upon the speculation in question as affording a remarkably wholesome exercise to the faculties. One addicts himself to Introspection very much as some addict themselves to opium eating. And no little injury is often suffered by the Introspector. Darkling and obscure expressions soon begin to mix with his attempts to word his thinking. He is ever seeking more and more precise expressions, ever finding language more and more unfit to be the instrument of thought. A painful tension of the mind is even manifest in his demeanor. He is like a haunted man, the spectres of ideas troubling him, as the remembered murder troubles him who has committed homicide. The study of the mental states and of the so-called mental "laws" is no inviting study. If it be not useful, it ought not to be encouraged. But, like the dissection of the human body, the analysis of mental states, and the discovery of mental "laws," is necessary to a truly scientific knowledge. Being necessary, it is not to be discouraged in those competent to prosecute it thoroughly.

I might have made these observations properly, while treating of the sources of this physiology. But I regarded it as proper to reserve them until we should come to treat of Consciousness, Attention, and Reflection.

Treating here of Logic, we have yet considered only certain operations of the mind subsidiary, according to logicians, to an act of reasoning or inference.

Approaching Logic for a nearer view of reasoning or inference, it is to be observed, that nothing can be easier than over-estimation of the value of Logic, except a flip-pant condemnation of that branch of learning.

What logicians such as Mr. Mill have taught us, has at least enabled us to be upon our guard against the various

fallacies, and to appreciate the value of precision, care, and patience, in investigation.

The design and province of Logic, we have partly seen already. But it may be proper, here, to add a word or two.

The object of Logic, according to Mr. Mill, is merely to direct or to correct the action of the mind with reference to understanding. The communication of our thoughts to others, he maintains, is not within the purview of the logical. It appertains to Rhetoric. But we are not to understand, therefore, that Mr. Mill considers language as entirely out of view, and out of use, when Logic does its work. He is too accurate a thinker to fall into an error such as would have been involved in such a doctrine, as would have restricted language absolutely to the province of the Rhetorician.

It is easy, however, to exaggerate or to depreciate the true relation of language to the processes involved in reasoning or understanding.

Reason, we are sometimes told, has language for its instrument, and the perceptions for its lights. But we ought to bear in mind, that intimate as is the connexion between the perceptions and the reason, reason cannot be the creature of perception, that it is in fact involved in each perception, and that it is rather the creator than the creature of perception. And we ought to add, that intimate as is the connexion between language and the operations of the mind, reason utters language as the mere expression of its thoughts, and that reasoning is only aided in arriving at correct conclusions by its spoken or its written combinations of the things called words.

Logic, according to Mr. Mill, whom we may further quote with profit, "is the science of the operations of the understanding which are subservient to the estimation of evidence: both the process itself of proceeding from known truths to unknown, and all intellectual operations auxiliary

to this. It includes, therefore, the operation of Naming; for language is an instrument of thought, as well as a means of communicating our thoughts. It includes, also, Definition and Classification. For the use of these operations (putting all other minds than one's own out of consideration) is to serve not only for keeping our evidences and the conclusions from them permanent, and readily accessible in the memory, but for so marshalling the facts which we may at any time be engaged in investigating, as to enable us to perceive more clearly what evidence there is, and to judge with fewer chances of error whether it be sufficient. The analysis of the instruments we employ in the investigation of truth, is part of the investigation itself; since no art is complete, unless another art, that of constructing the tools, and fitting them for the purposes of the art, be embodied in it."ⁱ

I am not entirely satisfied with even this description of the relation subsisting between language and Reasoning or Inference. Here, indeed, we find no flippancy, but grave yet clear and flexible expressions of well studied thoughts. Yet I am half inclined to think, that language is not quite so necessary to the operations of the understanding, as the learned writer seems to hold it.

Let us look a little at the Understanding as involved in artful life as I define the latter.^j

Artful Life, as we defined it in initial chapters, constantly produces its distinctive works, by the simple combination of purpose, power, and performance. In this combination, we discern that intelligent and voluntary adaptation of means to ends, from which I ventured to derive a definition of Art. An act of reasoning, therefore, accompanies each artful act. For, reasoning is often if not always just the process of ascertaining the cause of the effect, or the effect of the cause; and in every true relation of a

(i) System of Logic, Introd. § 7.

(j) Ante.

means to an end, we have a true relation of a cause to an effect.

An act of the affections also must be part of every artful, that is to say, of every purposed act. For though the will may be distinguished from affection,—though emotions may contend for the determination of the will—the will is, after all, determined by affections, even when it most resembles simple intellection.

But we are not now concerned with anything except the intellection. Viewed with reference to this, each artful act involves, simply, an act of reasoning. This, I repeat, it must involve, simply because it is the intelligent and voluntary adaptation of means to ends.

The reader will remember what I mean by artful acts. These acts are merely purposed. They may or may not be artful, in the sense of artful as that word is generally used. For, though a purposed act is commonly called an artful act only when it departs from the simplicity of Nature; and though “artificial” acts are commonly spoken of only as operative in producing what we commonly distinguish as the works of art; the use of language which I found inevitable when defining Art and Nature, must distinguish every purposed act as an artful act. Each artful act, therefore, is but a purposed act; and every purposed act of which I think at present, is an artful act.

The process of reasoning is but the process of discerning the succession of effect to cause, or the precession of the cause to its effect; in other words, it is but the process of ascertaining the unknown cause of the known effect, or the unknown effect of the given cause. And since every artful act proceeds upon the ascertainment of the means which will produce the end desired,^k and since, in every true relation of means to an end, we have a true relation of a cause to an effect; we may conclude that every artful

(k) Ante.

act is the expression of an act or process of the reason, such as we call reasoning.

In the very simple operations of the mind here contemplated, language may accompany the thinking, either as outspoken or as consciously associated with the thinking. Wonderful are the phenomena of thought and language. Many have contended that we think in language—and a certain kind of thinking *may* be thought in language. I remember well, when nearly all my thinking—owing, doubtless, to peculiar habits and a particular occupation—was attended by the contemplation or the rapid notice, not of ideal words alone, but of ideal *printed letters*. Yet we must remember, that, in general, no such attendance of the thoughts exists, or is supposable. And, to resume, it is not necessary to the simple operations of the understanding just presented to the reader.

Is it otherwise with artful acts, in which what we distinguish as Imagination is involved? The intelligent and voluntary adaptation of means to ends, be it observed in passing, is, in general, not simple, but complex. And we may easily ascend from the examination of the simple operations of the understanding which we have observed, to others, in which the means of Art are adapted to the ends of Art, in the production of a statue, or a picture, or a poem. Here we find Imagination prominent. It was, indeed, involved, even in the simple illustrations first presented of the intelligent and voluntary adaptation of means to ends. But now we find it so distinctive of the adaptation of means to ends—so distinctive, chiefly, of the object, which the means are to accomplish in producing as their end a work of what we call fine Art—that we denominate it by the known distinctive name. Here is an elevated form of understanding. It includes Imagination!

And yet it may be questioned, whether works of finest, highest Art—involving most imaginative understanding—

working various faculties—requiring greatest skill—presenting many combinations of the beautiful and of its proper foils and contrasts—whether any of these works necessarily involve one *worded thought*. If so, we may, with great propriety, a little qualify the doctrine of Mr. Mill with reference to language as an instrument of thought. That language is, at times, an instrument of thought, not only as delivering the thought of one mind to another, but as aiding thinking to arrive at understanding, I am not disposed to question. But I am disposed to add, that there are modes of thought, divested even of ideal language, or at least quite separable from ideal language, in which reasoning is nearest to perfection. To create, as poets have created, an ideal sphere of action, to create ideal characters to act in such a sphere, to make such actors active in harmonious relations such as we perceive in what we sometimes call reality and sometimes designate as Nature—this is to display the very greatest power of the fancy, since it is to manifest the understanding in its greatest purity. Or if there be a higher, purer exercise of Understanding, it is that of the political philosopher, who, from the facts which he can verify, proceeds to form a picture of society as Art, subjected to the Law, may work its transformation, or develop it according to its present normal tendency. And here, as in the former instance, the ideal is regarded by the understanding, without any necessary aid from even an ideal language. Some restraining or explaining qualification should be applied, therefore, to Mr. Mill's description of language as the instrument of thought.

But the value of Naming, of Definition, and of Classification, to a *written* or a *spoken* "science of the operations of the understanding which are subservient to the estimation of evidence," it would be difficult to over-estimate. And Mr. Mill has masterly performed that part of his unequalled adventure, in which Naming, Definition, and Classifi-

cation are most directly involved. Indeed, his account of the supposed subservient operations of the understanding is seldom open to exception of any kind. And when he comes to Mind, considered as the operator in these operations, I find him full and clear and interesting, and, in general, more accurate than any recent writer, Carpenter alone excepted, with whose views I am acquainted.

We have seen already some of his opinions. It is proper here to add, that, with a view to his intended scrutiny of Reasoning or Inference, this fine logician looks on Mind, essentially, as we have chosen to regard it. He regards it as conversant with the outward only as unknown, original, or innate notions and ideas, added to the inward contemplation of perceptions, teaches it of things external to itself. We have already quoted some of his expressions, which display this feature of his system. We may add, however, that he carefully distinguishes the "psychological facts, which take place in the mind," from "the external or physical facts with which they may be connected."¹ In the "so-called perceptions, or direct recognitions by the mind of objects, whether physical or spiritual, which are external to itself," he sees "only cases of belief; but of belief which claims to be intuitive, or independent of external evidence."

That, starting from this point, our logician should distinguish names as not the names of our ideas, but of things whereof ideas are but representative, will not surprise such reasoners as have escaped the meshes of the reasoning of Reid and his disciples. We have seen, that the outness of the things which we regard in their ideal representatives, is quite as evident to theorists like Mill as it can be to any other theorist. And I would recommend the work of Mr. Mill, as well directing students of the mind, in the endeavor to approach a correct observation of reasoning through an

(1) Syst. of Log., Book I, Ch. II, § 4.

analysis of language. Mr. Mill has well distinguished names, and well described the things denoted by them. His "enumeration and classification of all knowable things," may not be quite correct, but it is worthy of attentive study. He distinguishes: "1st. Feelings or States of Consciousness. 2nd. The Minds which experience these feelings. 3rd. The Bodies, or external objects, which excite certain of these feelings, together with the powers or properties whereby they excite them; these last being included rather in compliance with common opinion, and because their existence is taken for granted in the common language from which" the writer considers that he "cannot prudently deviate, than because the recognition of such powers or properties as real existences appears to" him "warranted by a sound philosophy. 4th and last. The Successions and Coexistences, the Likenesses and Unlikenesses, between feelings or states of Consciousness. These relations, when considered as subsisting between other things, exist in reality," he thinks, "only between the states of consciousness which those things, if bodies, excite; if minds, either excite or experience."^m

I would like to show the reader how the learned writer follows up these views, with theories relating to Propositions, to their distinctions and their import, to the Nature of Classification, and Predicables, to the requisites and uses of the several species of Definition, and to all that properly prepares the mind for Reasoning or Inference. But not intending to examine closely what relates to Proof, I here merely glance at that to which Proof is applicable—namely, Assertion. Reasoning or Inference will be dismissed without close observation. To examine it with thoroughness would far transcend the purposes with which I entered on this study of Man and Law. And, while I disagree with Jeffrey in his estimate of Metaphysics, I am

(m) Mill's Syst. Log., Book I, Ch. III, § 15.

satisfied, that logical accounts of reasoning have not thus far exceedingly enlightened reasoners. It may be quite enough to add a few observations to the views we have already taken of the Understanding.

Understanding has been represented as the mere perception of relations, such as that of necessary procession and succession, and coexistence. This may be a very narrow view of Understanding. And, assuming it to be correct, or near enough to accuracy for our present purposes, it does not well inform us touching Induction and Deduction, and the principle of each of these. But I prefer to keep away from all the controversies started by the very name of Induction. All that I propose at present is to glance at one belief, which underlies all reasoning.

"That there are such things in nature as parallel cases; that what happens once, will, under a sufficient degree of similarity of circumstances, happen again, and not only again, but always;"—propositions such as these, are, in some sense, accepted as the basis of all reasoning.ⁿ Accepted in the proper sense, they may be properly regarded as such basis. But we are to near them cautiously. Applied to moral questions, they have done much mischief. Whether they are true of moral action, is a question which I will not fully argue. I could not unrestrictedly discuss that question, save at the expense of wide departure from the purpose of these studies. For, to state it, is to near the questions touching freedom and necessity, which have so agitated Christendom.

The question of Free Will, I will not venture closely to examine. I have cancelled many pages, in which I attempted to discuss it.

But I must permit myself to say, that if the theory of Mr. Buckle, as developed in initial chapters of his *History of Civilization*, is to be accepted, I must hasten to acknowl-

(n) *Syst. Log.*, Book III, Ch. III.

edge, that I have but foolishly distinguished between Nature as Involuntary and Art as Voluntary. If such a theory deserves acceptance, Vegetative Life makes up the sum of our existence.

I have recognized my promise carefully to keep away from such discussions as, not being quite inevitable, may appear to be sectarian. But I cannot accept the doctrine even of the learned Mr. Mill, with reference to the important question of free will, without forgetting legal doctrines. In the opening chapter, I observed, that lessons taught with sharp distinctness, daily teach the lawyer to distinguish well between the Natural and the Divine—between the Voluntary and the Involuntary.^o But I should have been more careful in expression there. I should have made it clear, that I intended to refer to lessons, which enforce the doctrine, that the Natural is simply subject to the power of God—that in the human being God has suffered liberty of choice, a true volitional capacity, to exist and to be active. And I must repeat that such is legal doctrine, taught in clearest lessons, in the courts where crime is carefully distinguished from misfortune.

I regret that I am under the necessity of thus apparently or really declaring my dissent from doctrines, which some churches hold as vital. But I cannot choose in such a case except as I have chosen. And, without pretending to dissolve the mystery which rises into view whenever we compare the doctrine of Free Will with the theological assertion of the predestinating Providence of God, I hold the doctrine of Free Will as legal science, recognizing the responsibility of man for crime, asserts that the will of man is free to choose between the evil and the good. I do not deny the doctrine of Predestination. I do not think I understand it. Nor do I deny the doctrine of the

interfering Providence of God, as I may think I understand it. But, without entering into the discussion of the questions relating to the extent to which we may say that the acts of man are predetermined, and without measuring the limits in which interfering Providence affects the uniformity of Nature, or controls the operations of the artful life of earth, I hold fast to the doctrine, which asserts that God, (however gracious to His creatures, and however liberal in aiding human conduct, exalting human aims, and enobling human affection,) leaves His creature free to act and choose for himself, (though with reference to God.) The exercise of this free will, I find, for instance, in the erection of an ordered legal system, and in human obedience or disobedience to law. In accepting this doctrine, I do not overlook the happiness annexed to acting well and choosing wisely. Nor do I forget the penalties annexed to acting ill and choosing foolishly. What follows disobedience is not the question. All that now concerns us, is the *liberty* of choice. When God seems to overrule that liberty, it is always in favor of the Good. That He does, for His great purposes, so shower graces on some human souls that the very possibility of choosing evil almost ceases to belong to them, at least, until the Divine purpose is accomplished, I see no good reason to doubt. That, even in such instances, however, there is a real choice on the part of the inspired creature, we can hardly lead ourselves to deny. That, at least within certain limits—limits in which guilt is possible and goodness is not a mere notion—human hearts have liberty to choose between the Good and the Evil, the True and the False, the Beautiful and the Unlovely, I believe, in believing that I have lived, and chosen, and determined.

The application, therefore, of the fundamental faith of reason—namely, the belief in what is called the “uniformity of nature”—to the motives of human conduct, I

must not too rashly recognize. And yet that, in some sense, and with a greater or a less degree of strictness, it may be so applicable, I am warned by some presumptions of the law.

I have already alluded, and I shall again refer, to the presumptions in favor of virtue. These are what we call disputable presumptions. Evidence of particular facts may overcome them. But a good man is expected to avoid the criminal in conduct, and a bad man does not much surprise us when he violates the law. So that the tendency of goodness to the good, and the tendency of badness to the bad, appears to be asserted in the moral philosophy of courts of justice. But the power of the will to check the tendency to evil, while the impulses are healthy and the understanding sound, is certainly a legal doctrine. And we are to guard ourselves against the unrestricted application of the doctrines, which relate to uniformity of action, to the artful life of Man. Where will begins, we must discover some restraint upon the uniformity in question.

I have little more to say of understanding.

We have seen how the emotional may interfere with the perceptions. I need not enlarge upon the influence of the emotional on the fixation of perceptions in the memory, or on their quality as fixed, or on the recollection of them. I refer to memory once more, however, to enforce the observation, that emotional conditions may affect all intellects, those involved in understanding quite as well as any other. Understanding must depend upon the accuracy of the memory, precisely as the Memory must be dependent on the accuracy of the understanding. The Understanding must correctly note perceptions and connected thoughts, in order to the accuracy of remembrance. Here, indeed, we have occasion to remark, that Will,

Memory and Understanding are so intimately related, that each involves the others.

Memory supplies the Understanding and the Will not only with the fruits of perception, but with the results of testimony.

We have spoken once or twice, or even oftener, of testimony. We have shown how, treated as expressive of the memory, it may be unintentionally false. We have referred to the hallucinations, which may be produced by certain emotional excitements, by certain kinds of disease, etc. Now, we find occasion to refer to falsehood of another kind. For testimony, which should stand between memory and understanding as the expression of the one and the informer of the other, often forges falsehoods equally remote from true expression of the memory and real information of the understanding. Here, of course, the memory alluded to resides in the mind of the witness, and the understanding alluded to resides in the mind of his hearer. Lying seems to some as easy as to others it is difficult. In general, however, the presumption of the law in favor of veracity is warrantable. If it were not, sad would be the state of man in ordered social life.

The interest of such a standard man as we are contemplating is inclusive of that affection for the True, which we have pointed out on more than one occasion as relating to a state of social order. And it points to testimony as a needful as well as a pleasurable addition to the sources of the information of the individual. The knowledge of the Good and of the Beautiful, as well as of the True, depends not slightly on the information which we take through testimony. The individual mind cannot acquire a knowledge competent to form correct ideas or true notions of these objects of affection, save as it is aided by communicated knowledge, passing from one sentient being to another. Language, whether oral or otherwise

significant—the language of the countenance not passing here for nothing—serves as medium for the necessary communication of ideas. But the grounds of faith in the communicated information interest us quite as much in this connexion as the medium of communication.

We cannot permit ourselves, however, to indulge the speculative disposition, which would here tempt us into theoretical excursions, if we stood not well upon our guard. We know how vital is the disposition to believe, how constitutional it is in man, how foreign to man's nature is the worship of the skeptical divinity, which certain writers seem to idolize. We know how necessary is belief to all the operations of man's artful life. We know what poison lurks in all the false philosophy that seeks to bring about the apotheosis of doubt. And this may be enough to know respecting testimony, if we remember how the mind is shielded against false credulity by such a spirit of investigation as exists in wholesome constitutions. That, abhorring doubt, the mind is still compelled to guard itself against too ready faith in testimony, we have learned from all experience and observation. That, avoiding mere credulity, the mind receives all offered information as presumptively in harmony with truth, we also learn from all the history of man, and from our own experience and observation. Mr. Buckle, even as he qualifies his startling advocacy of a doubting spirit,^p is too evidently wrong, to enamor us of skepticism. He, and such as he, have written much in favor of the doubting spirit, which, "if trusted home," would do incalculable mischief. But the tendencies of human nature, and the pressing interests of human artful life, are all against acceptance of the arguments in favor of the "wholesome skepticism," which these writers advocate.

(p) Compare page 242 and page 258, note 40, of Buckle's *Hist. Civ. in Eng.*, Vol. I.

Without dwelling on testimony, however, let us only add, that testimony, added to the information otherwise acquired, enables will to do its office with the proper understanding of enlightened conscience.

In Adam, as we saw him, entering the realm of Art, the artful and the natural were so confined, that nothing sensual prevailed against the harmony in which his body was the servant of his mind. But even in the mind and body which we now distinguish from the morbid and abnormal, no entire subjection of the body to the mind presents itself to admiration. Rather, we perceive a war of mind and body, gently waged, it may be, in our standard man; but even in this instance quite perceptible. Yet we have nothing to retract of all we have advanced, concerning the *expressiveness* of body. For, in strictness, the contention just alluded to, is purely mental; and the body is not otherwise concerned therein than as the fruit that tempts the appetite is to the appetite it tempts.

The standard man whom I attempt to bring before my reader is no highly philosophic thinker. But he recognizes what he feels to be the normal tendency of his affections, in the strong attraction which he feels towards the Good, the True, and the Beautiful. It may be, that without the slightest reference to Christianity, a lower degree of this attraction would be manifest in human nature. But in such a standard man as I attempt to bring before the reader, the influences of the christian morality have developed an affection for the Good, the True, and the Beautiful, which governs life and gives a certain harmony to character.

The reader will not understand, that such a standard man as I attempt to outline loves the Good, the True, and the Beautiful, with a poetic love. As we shall see directly such affection as I have in view will not exalt the character to the poetic elevation.

CHAPTER XVI.

CONCLUDING VIEW OF STANDARD MAN.

THE sense of the Good, the True, the Beautiful, may be, as philosophers insist when treating of Right, Truth, and Beauty, intuitive. But I confess that the notion of the Good, as I shall attempt to define it, and of the True and the Beautiful as I will consider them, seems to me a notion formed through reasoning on the affections.

Be this as it may, the affection in question is, in my opinion, the efficient sanction of human law. It is, therefore, a practical concern of human life, and not merely the dainty delectation of poetic fancy.

I am not well prepared at present to vindicate what sometimes seems a clear distinction, and always appears to be a real one, between the Good, on the one hand, and the True and the Beautiful on the other.

If we could always see the Good in the fullness of all the light which may be shed upon it, it would be impossible to distinguish it from either the True or the Beautiful. We are reminded of the mystery involved in the doctrine of the Trinity whenever we attempt to distinguish the Good, the True, and the Beautiful, each from the others. The Good constantly presents itself as truly the True, and really the Beautiful, in being only the Good. We always regard the highest Good as God. His perfect Goodness seems to be inclusive of the most beautiful Truth and the

truest Beauty. We feel that it must be so inclusive, because in all the works of God, we find the suggestion of what the poet has sung for us :

"Thou art, O God! the life and light
Of all this wondrous world we see!
Its glow by day, its smile by night,
Are but reflections, caught from Thee!
Where'er we turn, Thy glories shine,
And all things fair and bright are Thine!"

We contemplate all the works of God as embodying, if I may so express my thought, a unity of Good, in a trinity of the Good, the True, and the Beautiful. But it is only when some great thought lifts our minds to a height from which they may survey all objects in the grandeur of their united relation, that the distinction between the Good, the True, and the Beautiful entirely fades away. In general, we do not find in the Beautiful simply the True and the Good, or simply the Good. And so of the True. We do not commonly find in this only the Good. And the Good does not always present itself to us as the True and the Beautiful, or as either the one or the other.

It is certain, that in the Order of Nature all things are good; that they all have a quality in which their conformity to the end for which they were designed, though it may be undiscoverable at present, would be discoverable had we unlimited comprehension. It is equally certain, that, in the same Order, all things, being conformable to the end for which they were designed, must be true in relation and real in being, as well as good in quality. Nor can it be doubted, that things conformable to the end for which they were designed, and true in relation, must be beautiful as well as good and true, when surveyed from a proper height of observation, in a light sufficient to reveal them perfectly.

But, in this practical philosophy, we may, without at-

tempting definition, separate in thought, the Good, the True, the Beautiful, assembled and combined in the order of art as regulated by the laws and forces of the state.

The property in lands—the property in the productions of the earth and in the productions of man's labor and his skill,—the liberty to act, the limitation of the liberty to act—the safety and security of life, health, reputation—which are assembled and combined in social order; these, like conduct and opinions harmonizing with the end for which man was created, are among the things which I would designate as *of the Good*. The knowledge of these things and their relations, I would call *the True*. The qualities of objects, which the vision of the body or the eyesight of the mind embraces with delight—the things of which the only use is to exalt the sense of pleasure—these I would distinguish as belonging to *the Beautiful*. That these may be distinguished—that they are distinguished, and are made, distinctly, objects of affection in the ordered life of man—I need not argue.

But I may be pardoned, if I here attempt to make a somewhat nearer scrutiny of what the mind of man embraces with so much affection. I will not venture much on definition. But I will present a few suggestions, which may interest some readers.

The Good may be conceived as that of which the chief distinction is, that it conforms the life of man, in body or in mind, to the design for which that life was given. The lower forms of the Good relate, perhaps, to bodily desires. The higher forms relate to mental aspirations. The lower forms relate to earth—the higher forms relate to Heaven.

If we consult authorities, this view of what we call the Good, may seem quite unexceptionable.^a Every object of

(a) "Good. Goth. *Gods*; A. S. *God*; Dut. *Goed*; Ger. *Gut*; Sw. *God*. Junius remarks, that (in the Codex Argenteus) goth passim est *bonum*, whence he infers that *goth* is taken e medio. Gr. *Agathos*. Skinner prefers the Latin *Gaudeo*. It is

desire is certainly desired with reference to satisfying, or with reference to heightening, the sense of life conformed to its design. "Every object of desire as contemplated by the mind," says Whewell,^b "may be described as a *Good*. *Quicquid petitur petitur sub specie boni*." Again: "The Supreme Rule of Human Action may also be described by its Object. The Object of the Supreme Rule of human action is spoken of as the True End of human action, the Ultimate or Supreme Good, the *Summum Bonum*. There are various other ways of expressing the opposition of right and wrong, and the Supreme Rule of Human Action; namely, the Rule to do what is right and to abstain from what is wrong. We say, we *ought* to do what is right; we *ought not* to do what is wrong. To do what is right is our *Duty*; to do what is wrong is a transgression, an offense; a violation of our Duty. The question *Why?* respecting human actions, demands a reason, which may be given by a reference from a lower Rule to a higher. *Why* ought I to be frugal or industrious? In order that I may not want a maintenance. *Why* must I avoid want? Because I must seek to act independently. *Why* should I act independently? that I may act rightly. Hence, with regard to the Supreme Rule the question *Why?* admits of no further answer. *Why* must I do what is right? Because it is right. *Why* should I do what I ought? Because I ought. The Supreme Rule supplies a reason for that which it commands, by *being* the Supreme Rule."^c

This view of the *Why?* involved in the desire of Good,

from the A. S. Godian, *juvari*, *prodesse*, *meliores facere*, *meliorescere*, *bene cedere*, *conducere*, *ditare*; to serve or assist; to aid, to benefit, to profit, to prosper; to advance, or confer an advantage; to promote, to forward the welfare or well-being. So Richardson—who gives among other suggested meanings: "Serving, aiding, or assisting the completion or fulfilment, the validity or force, the virtue, the value; complete or full, valid, forceful, valuable."

(b) *Elements of Morality*, including *Polity*. Vol. I., § 37.

(c) *Ibid.* §§ 73, 74, 75.

or in the feeling that one ought to embrace the Good rather than its opposite, reveals the motive for embracing Good as a first principle—as part of spiritual life itself. Good is often designated as right. Howsoever designated, it is contemplated by the mind with a desire, which turns to gladness when the object of desire becomes an object reached, attained, possessed.

That such a feeling is attendant on the attainment of the Good when it relates to the life of the body, none will be disposed to question. And it may be worth a thought, that the heart—which is so gladdened by the presence of a good that is such with special reference to body—rejoices also in the presence of a good which is such with special reference to mind. If we may trust to what we read and what we hear, it is the heart of man which turns with manifest or secret scorn from baseness; it is the heart of man, which, electing to be happy, chooses what its nature needs to make it happy: it is man's heart, on which God's finger has inscribed the preference which man should give to good.^d

With only, though with perfect metaphorical propriety and veracity of language, are we told of laws inscribed on human hearts. The muscle called the heart is surely not a table whereon laws may be inscribed. But action of the heart is not always the simple exercise of mere corporeal functions. Mind affects it. Fear, as we have seen, gives us examples. Courage, as I have already mentioned, takes its very name from the observed connection between a certain species of mental action and the circulation of the blood, of which the heart is at once the regulator and the witness. When, therefore, we do an act—nay, even when we contemplate an act—promotive of the end for which we were created, harmony between the ac-

(d) The Catechism of the Council of Trent—Melancthon—Blackstone—may be here referred to.

tion of the heart and our perception of the harmony between the mental action, and the end for which we feel we were created, gives a normal, pleasant circulation to the blood, diffusing over all our being what we designate as happiness. And thus the body shares with its immortal tenant the exalted feeling which attends the harmony of our experience with the nature of our bodily and spiritual constitution.

The indicated action of the heart in presence of what we distinguish as a good, is heightened by the connexion of the latter with the ascertainment or the revelation of a certain truth. When truth itself, however, unconnected with the doing of a good, is contemplated by the mind, the feeling of approval, though as natural and regular in the reflected action of the heart, is lower. Although truth is always more attractive than its opposite—falsehood is never lovely save when masked to look like truth—the contemplation of a truth not always moves the heart to answer with a higher beating, what the mind experiences. Truth affords less foretaste of the life to come than goodness. The pleasure which we feel in contemplating truth, may be described as quite analogous to that which we experience in mere security—in the assurance that we are not menaced by a danger. Yet the love of truth is very active in supplying man with motives to erect and to maintain the order of the state. The love of truth is but the love of knowledge. Knowledge magnifies itself in ordered social life, and is diminished by the degradation of the social order. Love of truth is therefore part of that affection for the Good—the Good, I mean, considered as inclusive of the True as well as of the Beautiful—by which the heart of man is motivated in inventing and maintaining law.

The love of beauty holds no undistinguished place in the same affection. What forms the beautiful assumes—

none lovelier than those in which our own humanity appears—I need not here attempt to specify. How all the arts of life, but how especially the arts distinguished as devoted to the finer forms of beauty, minister in ordered life to man's appreciation of the beautiful, I need not here remind the reader. What was the peculiar charm of beauty in the earliest form of social order—what the beautiful in Eden boasted, lost to all the beautiful of earth since Eden ceased to be the home of man—I will not here draw into speculation. Nor will I attempt to reconcile conflicting theories, respecting beauty. Let the reader, if he will, adopt the Jeffrey doctrine, that “our sense of beauty depends entirely on our previous experience of simpler pleasures or emotions, and consists in the *suggestion* of agreeable or interesting sensations, with which we had formerly been made familiar by the direct and intelligible agency of our common sensibilities; and that vast variety of objects, to which we give the common name of beautiful, become entitled to that appellation, merely because they all possess the power of recalling or reflecting those sensations of which they have been the accompaniments, or with which they have been associated in our imagination by any other more casual connection.” The writer does not hold the Jeffrey theory. As little can he hold with confidence the theory which Jeffrey so decidedly rejects as that of St. Augustine. The rejected theory alluded to appears to be—I cannot say it is—that the beauty of all objects is dependent on their unity, or on the perception of that principle or design which fixed the relations of their various parts, and presented them to the intellect or imagination as one harmonious whole. Another theory, of which I know but little, but in which I would expect to find a near approximation to the truth—is Buffier's theory. It amounts, perhaps, to this: Mediocrity, or conformity to what is usual, is the essence of beauty.

I venture to adhere to nothing yet proposed by way of definition, so far as beauty is concerned. I only know, that there is such a charm in beauty, that a good thing or a true thing most attracts us when it seems not only good or true, but beautiful; and that in beauty, even when it is not joined to truth or to goodness, man perceives a loveliness too often only too attractive. I only know, that all the forms of beauty, which the arts harmoniously assemble in regulated life, are there orderly assembled to gratify the love of beauty, by which man's affections are distinguished.

In our standard man, affection for the Good, and the True, and the Beautiful, is, let me repeat, a moderate affection. Nothing like extravagance, no mere enthusiasm, enters into such a character as I attempt to outline. Here, the

"Blood and judgment are so well commingled,"

that although we find, occasionally, inconsistencies of conduct, even violations of the laws, divine and human, prudence may be said to rule the life we contemplate. This bearded and hard-muscled man is formidable as an enemy and useful as a friend. Nor is all softness wanting to his character. We have already seen, that an affection for the Beautiful assists to form that character; and we may add, that the affection for the Good is softened in the household, even as it is exalted at the altar. Woman's beauty we have seen already as among the objects which affection for the Beautiful embraces. We may add, that woman's beauty, physical and psychical, is also object of man's affection for the Good. Woman "queens it" in his household as pre-eminent in all that hallows home and hearthstone, teaching him the while, that home and hearthstone point, like all the objects of his true affections, to the higher and yet higher exaltation of his being.

We have now prepared ourselves to bring to a conclusion our examination of the qualities of standard human life.

We have not, it is true, discoursed with metaphysical particularity of life itself. But we are not obliged to make the nicest metaphysical examinations in a course of studies like the present.

I discern, indeed, a reason for devoting some few sentences to life considered as the aggregate of faculties and functions. Laws respecting fœticide have been subjected, recently, to reëxamination. Projects of reform have been submitted to the public. In connexion with the theories of life presented by reformers, some assumptions have been made, which I expect to show are not so warrantable as they may appear to theorists. Without a full anticipation of the views which I expect to submit in this particular, I may observe, that I have more objection to the reasoning of the theorists alluded to than to their propositions for amendment of the law. I think they have not well discriminated what may well be treated as constituents of life corporeal from what may be involved in life, considered as including mind and body.

I have therefore felt at liberty to speculate a little, but a very little, as to the analysis of life as we discern it in an ideal type or standard man.

What then, essentially, is life?

Will law-books answer? Will the Commentator tell us? I fear not.

Advising readers to forget, for a moment, the distinction between animal and vegetative life, corporeal, on the one hand, and the life of Will, Memory and Understanding, spiritual, on the other, I proceed to compare the legal view of life with views not yet encountered.

Among the views of life, poetical and philosophical notions often seem to near each other.

Thus, some fanciful philosopher might tell us: "The affections—the emotions—of the human being are but forms of human love." . . . "And human love," some Swedenborg might add, "is nothing less than human life!"

But let us not too hastily conclude, that love is life and life is love.

We may not find it easy to describe the thing called love. We may not find it easy to describe the thing called life.

To begin with life: We feel it and we know it. But, who can define it?

I do not remember any attempt, made by a legal writer, to define life. We are told, indeed, by Blackstone, that life is "the immediate gift of God—a gift inherent by nature in every individual," and that it "begins in contemplation of law as soon as an infant is able to stir in the mother's womb."* It would seem, therefore, that the legal notion of life is that of *power*. It is when the being, so mysteriously prepared for the important part, which after birth it shall perform, is able to make a movement distinctively *its own*, and involving the activity of an organism which may be regarded as complete, that the law considers the life of that being as having its commencement. And, at first view, at least, one may be inclined to think this legal notion not unworthy of acceptance. Man, as his very name imports, is he who *may*—who is strong or able to do or to forbear. The notion of the power embodied in that "combination" and that "form," which are given to the human being,

"To give the world assurance of a Man,"

might seem to be also the notion of human life.

In the simplest acceptation of the word life, however,

physiologists detect simply the idea of "Vital Activity." Life, we are told, involves change. Whatever is not undergoing continual, perceptible alteration, however slow and obscure, cannot, according to this view of life, be regarded as living. The growth and extension of the organic structure, as well as molecular changes in its substance producing no ostensible increase, may evidence the alterations in which life consists: or, life may be "most obviously manifested in movements, such as cannot be attributed to any physical cause."^f Each elementary part of the fabric having, however, its own independent power of growth and development, its own proper term of existence, and its own sequence of vital actions, "the life of any complex organism, such as that of Man," must be "in fact the aggregate of the Vital Activity of all its component parts."^g

But let me here inquire of all the learned, whether they be lawyers, metaphysical philosophers, or others: What do we mean by life? We know not what the *something* is, which we so variously name. We call it by the name of vital principle, or vital spark, or vital flame, or vital activity, and know not what it is which we so designate. It is, says one, the "aggregate of the functions which resist death."^h It is, says another, nothing but love; "love is the very life of man;" "it is his very life, not only the common life of his whole body, and the common life of all his thoughts, but also the life of all the particulars thereof."ⁱ But alas! who tells us what these functions essentially are, which resist death, and who will tell us what is death? Or, on the other hand, who tells us what is love? Well may Swedenborg begin by the acknowledgment, that "man is aware of the existence, but not of the nature, of love." Though love be life and life be love, if we cannot

(f) Carpenter, Human Phys. 46, (ed. of 1855.)

(g) Ib.

(h) Bichat, quoted in Dunglison's Med. Dic.

(i) Swedenborg, Divine Love and Wisdom. Part I, i.

define either love or life more certainly, we may abandon all attempts to fix the notion or idea of this human life. Assured, indeed, that all our efforts to define life would be fruitless, let us only notice one of the distinctions which may be taken between what is and what is not life.

The life of the body, whatever body may be, is to be distinguished from the life of the mind, whatever mind may be. To establish, that a species of human life begins at the moment of conception, it is not necessary to argue, as certain physiologists appear to feel constrained to argue, that the union of body and mind takes place at the moment of conception. I desire, therefore, to guard the reader against supposing that if I shall hereafter deny the sufficiency of all the evidence presented by science to establish with certainty that soul and body are united at the moment of conception, I must necessarily deny that life may be certainly declared to begin at the moment of conception. We can conceive of the presence of life without supposing the presence of mind. In the life of vegetation, we do not pretend that mind exists. The vegetative life of Man is not a life of mind, however intimate with mental life. Though mind may be regarded as permeating the life of the body, and though we may even fitly speak of mental life, we ought never to forget that the presence of mind in life is not the presence of life itself. Life may be a tenant, or a tenement of mind—but it is not mind.

How many other distinctions may be taken between what is and what is not life, I will not undertake to specify. Whether life is identical with force or distinguishable from force; whether life and change are more or less distinguishable than life and mind; and how the life of the body is to be distinguished from the body in which it is active; we need not at present ask the scientific to explain, with scrupulous precision and undoubting certainty. Yet we may venture

to consider yet a little further what is life, and whether we have well distinguished it as natural and artful.

The view which we have taken of the mind, its forces, faculties, and actions, would appear to show it as made up of states, faculties, forces, and actions—if, indeed, we may distinguish faculties from acts and forces, or from either. And corporeal life would seem to be composed of states, forces, and functions, with a species of action, which, for the want of a better name, might be denominated instrumental and expressive, or executory. The mind appears to have the body, as Lavater has expressed it, for its element. The mind, in other words, appears to be active in the body. Life, corporeal, however, having forces of its own, and instrumental actions of its own, appears to hold communion, as it were, with mental or spiritual life, through the conversion of the nervous force, which we have seen described by Carpenter, into the mental force which Carpenter calls Mind-Force.

Having noted, that physical life is double—animal, that is to say, and vegetative—we have also seen that all of vegetative life is simply natural, and that part of animal life is also merely natural. But we have not discriminated, as we must discriminate, in the latter particular.

In a certain sense, the whole of Animal Life belongs to Nature. But whenever any part of animal life is instrumentally active under the operation of converted mind-force *voluntarily* exerted, that part of animal life as distinctively belongs to Art—is as essentially artful, and, in some sense, artificial, as any other conceivable form of the artful or artificial.

The artful life of man, however, is distinctively a life of mind. And we have seen, that even here discrimination must be made. Unconscious cerebration, as we have explained it, is perhaps as merely natural as breathing.

Here it might be interesting to examine so-called auto-

matic actions of the mind and body. We should find that certain actions having been commenced by voluntary effort, being therefore artfully produced, continue in a species of automatic action, beautifully showing life in natural and not in artful play.

We might in this connexion also look into the wonderful phenomena of sleep. Physiologists have lately paid a greater attention to these phenomena than was in former times devoted to them. One learned physiologist, indeed, devotes the opening chapter of his *Mental Physiology* to an examination of the interesting questions, which relate to the phenomena in question. He has noted many facts of interest and many interesting plausible conjectures.

In his view of sleep, Sir Henry Holland has informed us, that the healthy individual devotes to sleep nearly a third of his existence. He has speculated on the comparative activity of mind in sleep, discerning in the latter not a unity of state, but a series of fluctuating conditions. Of these conditions, he observes, no two are perhaps strictly alike. He considers, that there is probably no moment of sleep without some condition of dreaming. In the wonderful phenomena of dreams, as well as in some other things belonging to the state of sleep, he finds a close interpretation of the varieties of mental derangement. Sleep, moreover, he regards as "singularly shadowing forth to our conception the greater and more lasting changes the mind may undergo without loss of its individuality."^j

It might be useful to consider all that is so well presented to consideration by the learned physiologist. But I have thought it necessary only to remind the reader of the leading characters of sleep, with reference to the proportion in which the life of man is simply natural, according to my own discrimination between the natural and

the artful. We may not be free to say that all of sleep is simply natural, in this sense of natural; but we must plainly see how little can be found in sleep belonging to the artful, as I have defined the latter.

In conclusion of this view of life as we behold it in a standard man, we may proceed from viewing healthy states of mind, to simple recognition of disease and crime.

A standard man in a standard condition—*mens sana in corpore sano*—ought not to be considered as completely described without a more distinct recognition of his liability to suffer and to sin.

While treating of the differential characters of sex, we shall have more occasion than we have at present, to distinguish the predisposition to disease discernible in sex. All may imagine the nature of this predisposition with sufficient accuracy for our present purposes.

It may be proper to observe, however, that, in a man, predisposition to disease, beyond the peculiarities of the generative organs, points to the brain and its functions, and to the corporeal peculiarities, in which we find provision for man's greater strength of impulse and of action.

In a standard man, of such an age as we have contemplated, no predisposition to disease is very notable, except as it may be discovered in the mode of life.^k But this exception, as we shall perceive hereafter, is a large one.

We must not fail to note with clear distinctness as we pass, the criminal propensities which may betray our

(k) "Adult age can hardly be said to predispose to any diseases, unless it be such as arise out of the mode of life then pursued. It is commonly a period of comparatively steady health, because the functions are then very evenly balanced; but if the mode of life be unfavorable, bad habits are apt to become established, and by their continuance to induce disease. Thus gout, gravel, rheumatism, indigestion, and various other disorders, are apt to occur in middle life, because the predisposition to them is then gradually engendered by some error in diet or regimen, too slight to excite disease at once, but sufficient by accumulation to dispose to it, and so to allow of its being manifested on the application of some exciting cause." Williams, Prin. Med., Chap. I, § 47.

standard man into infraction of the law. There is, indeed, in such a man as we have sought to bring before our minds no marked propensity to crime. Indeed, subjected to the influences, more or less direct, of christianity, our standard man deserves the credit of that beautiful affection, which I have considered as man's motive for erecting and maintaining legal order. Crime, however, may appear in such a standard man. What crime is, and how it works, and how it ought to be abhorred, is so well taught by christianity, that hardly any thing could be suggested here concerning crime, which christian readers have not well considered. Yet I may hereafter find occasion to examine a variety of differential characters, supposed to be the product of the criminal in conduct or in inclination.

For the present, we may merely glance at sin and suffering as they may be discerned in our humanity, and, having noticed them, proceed to look once more upon our standard man, with all his imperfections on his head.

As we consider his proportions and his powers, bodily and mental, body yields to mind in that mysterious combination. All the physical which science has revealed, becomes exalted by our contemplation of the destiny of an immortal soul. However curious the speculations which we have indulged—however interesting the scientific theories we have examined—we forget them as we stand in admiration of this man, and in appreciation of the powers, which he can so easily abuse, but which were given him for the noblest purposes. We look no longer at the delicate machinery of nerves and muscles—works, and the results of works, attract our observation. Like a panorama, all the scenery of Art prevailing over Nature, limited by Nature, blessing Nature and enjoying Nature's benedictions, passes in review before us. If a little pride—a little human pride—mix with our contemplations, shall we not be pardoned? If a new and true devotion to the in-

terests of human life be kindled by that pride, it needs no pardon. For a true devotion to the interests of life is not devotion to the transient, not devotion to a part; it is devotion to the Unity, of which the parts are members, and to the Permanence, for which the transient is but preparation.

But the semi-scientific purposes in contemplation call upon us to consider rather the corporeal peculiarities of man, than the peculiarities which point to immortality.

We must endeavor once more to produce a just conception of the body of our standard man.

Remember his proportions, not heroic, not god-like, only human, of the ordinary *Christian* stamp. Remember his peculiar beauty; not the radiant loveliness of woman, not her soft and melting outline, not her nameless grace. Remember his capacity of body. In his hand you see an instrument of delicate prehensile power, but not delicate as woman's hand, or that of childhood. Strength has wrestled with the softness and the grace of childhood, habit has established many manly limitations of the manual capacity. The attitude, the voice, the mind illuminating all the countenance, proclaim the elevated zoologic rank of such an animal as this. All corporeal peculiarities here contemplated, show us man's exalted rank among the animals. But in our type ideal man, we must incessantly remember, nothing of the genius which creates ideal worlds, or of that which governs, awes, confounds the real world, presents itself to admiration. Here is but a common Christian man. Here is no hero, no Apollo; here is only Christian man. Admire him—study him—but do not deepen study into false conceptions. Manly qualities are present; bear them well in mind.

CHAPTER XVII.

TYPE WOMANHOOD.

WHEN I attempted to describe the first appearance of the father of mankind in Nature and in Art, I did not venture to attempt even a suggestive portrait of Eve.

Now I must place beside our ideal standard man an ideal standard woman.

Thus, I am compelled to note the characters of the moral and physical beauty of woman, woman's weakness and her strength, the plain inferiority, the evident superiority, of woman.

Michelet has written much of woman, in his book on "Love," which does injustice to the nature, as it also violates the sweet reserve and secrecy, of conjugal affection. Woman, as described by Michelet, is lower and yet higher than woman, as she is. And, after all, the book of Michelet, is, in effect, a sensual rather than a spiritual picture of the love, which is the very life of woman. Such a book was never needed, is not needed now. It rudely brings into the profanation of a public show what nature teaches woman to conceal, and what only the purest purposes of science can enable us to study with advantage. Michelet is not a writer animated and directed by a purely scientific object. What he writes of woman's body is not written purely in the interest of needful knowledge—what he

writes of man's affection for the sex is not a simply scientific composition.

Yet, it can hardly be doubted, that such a book as Michelet's may do good, and that, when it is compared with many other active agencies, considered as encourageable, it may not be entirely without pretensions to usefulness. There is at least this virtue in the book alluded to: It teaches us to study physiology with interest and expectation. I had ventured into physiology—had even closed this volume—ere encountering the book of Michelet. But I could not resist the temptation to compare the views of Michelet with those of more subdued and sober physiologists; and thus I set aside some sentences already written, so that I may thus refer to Michelet.

Michelet, then, tells us much of woman, which we ought to think about, and this among the rest: That the question of the superiority of one sex over the other "is, above all, a question of age. You will see it solved, the day after the marriage, to the man's profit, when the wife is yet a young girl—solved, later, to the advantage of the woman."

Nature is a truer teacher than philosophy like that of Michelet. In the things wherein the woman is superior to man, man easily recognizes what is set above him; and in what displays man's greater power and his competency to be governor, and head, and model, woman easily finds the reason for obedience and the attractions to respectful but familiar, tender, and embracing love.

Among the other reasons for assuming to be lord of woman, man discerns in woman's very size and shape the indications of inferiority. He knows, that he can master woman, if it come to such a pass between them, that he shall dethrone the queen of his affections, the supreme delight of all his earthly fancies, and the saint to whom the inmost part of home is but a shrine. And if Nature

had not taught him the inferiority of woman, Christianity would have informed him of the true relations of the sexes. Christianity, indeed, has taught with greater clearness what the simple observation of the sexes teaches and must ever teach. But Christianity, as well as other teaching, tells us, that, in some respects, the woman is above the man; that she is *better* than her mate; that she deserves the preference which man accords to her, when there is question of a duty, or occasion for a beautiful display of moral loveliness.

Strict science coldly tells us, that, in woman, certain movements, as in walking, are attributable to the peculiar positions and connexions of the lower and upper extremities, and that these again are due to the peculiarities of woman's chest and pelvis.^a We are all aware, that the "body" of woman is, comparatively speaking, larger than the body of the man. Few need to be informed that in woman the arms and legs, as well the hands and feet, fingers and toes, are of less size. It may be less familiar to the reader that the peculiarities of movement in the upper and lower extremities of woman are partly attributable to the fact, that the female pelvis is of greater size, especially in its transverse diameter; the heads of the thigh-bones, therefore, being further apart, and the bones themselves including a larger angle than in the case of the male; that the female chest, like the female abdomen, is more convex than the male, and that the transverse diameter of the female at the shoulders is smaller than that of the male.^b Woman's predominant bodily functions are the nutritive, and what are called the involuntary excitomotory;^c "and the perceptive and instinctive faculties,

(a) Draper's Phys. 546.

(b) Ibid.

(c) Williams, Prin. Med. 51. The term excitomotory is applied by Dr. Marshall Hall to a division of the nervous system—comprising the gray matter of the spinal marrow, with the afferent and efferent nerves connected with it;—

and moral emotions, preponderate in the mind. Hence the greater proneness of females to changes in flesh and blood; to disordered sensation, spasm, convulsive and other affections of the spinal system; and to the direct and indirect consequences of indulgence or thwarting of instinctive moral feelings."

Carpenter, indeed, informs us, that there is no obvious structural difference in the nervous system of the two sexes, except in respect to local peculiarities of the distribution of nervous matter to the organs of generation, and excepting also the inferior size of the cerebral hemispheres in the female. But in the structural differences thus excepted he discovers facts of great importance. As to that relating to the size of the cerebral hemispheres, we cannot doubt its great significance. It is connected with the difference observed between the woman and the man, in which we see that the volitional powers of woman, like her intellectual powers at large, are less than those of man. It is connected with the greater prominence of the emotional and instinctive in woman. Here we find the secret of the fact, that although woman's perceptive faculties are more acute than those of man, "her capability of sustained mental exertion is much less;" and that though woman's views "are often peculiarly distinguished by clearness and decision, they are generally deficient in that comprehensiveness, which is necessary for their stability."^d

It seems, that the muscles of woman contracting with less energy than those of man, and being more easily wearied, woman's strength is to that of man as 16 to 26.

The temperament, constitution, or diathesis, of woman, like that of genius, irrespectively of sex, appears to be a pre-

all of which are concerned in *reflex* actions; or those by which impressions are transmitted to a centre, and reflected so as to produce muscular contraction without sensation or volition. See *Dungl. Med. Dic. tit. Excito-Motory*.

(d) Carpenter (5 ed.), § 1020.

disposition to disease of certain kinds. Her structure makes her liable to structural diseases different from those to which the male, as male, is subject. In her moral constitution, she is especially liable to derangement. If there is Impulsive or Emotional Insanity, as many physiologists assert and many well attested cases seem to prove, in woman we should look to find it more than in man. And cases, such as are collected in the books of Physiology and of Forensic Medicine to prove the reality of moral mania, display the probability that Emotional or Impulsive Insanity is in fact a peculiarly feminine affliction. In a future chapter, I expect to glance—I cannot more than glance—at the cases alluded to. At present, I may be permitted to remark, that disordered states of blood might be expected to occur most frequently in females. Heat of blood, an over-rapid circulation, and the reaction of languor consequent thereon, must be expected most frequently to occur in constitutions such as that of woman, in which the emotional predominates over the intellectual. An excessive supply of blood to the brain, a consequent deficient supply to the same part, as well as a perverted supply, whether in excess or deficiency, are most likely to occur in constitutions in which we find the predominance alluded to.

In this connexion, it is proper to refer to the disorder of the blood occasioned by disordered menstruation. Menstruation is, we are informed, among other things, a species of excretion. Now, we have already seen—if not, we shall hereafter see—that certain disorders of excretion change the characters of the blood visiting the brain, so as to produce disordered action of the brain, and very curious phenomena of mental action. What is the precise description of the cerebral disturbance due to the disorder of the menstrual secretion, I will not, at least at present, venture to pronounce. I content myself at present with this simple reference to the questions which may be suggested, in

connexion with the doctrine of Emotional or Impulsive Insanity, by the observations that have been made of disordered menstruation.

When I come to treat of disease as productive of fixed or temporary alterations of the characters, physical and psychical, of individuals, I may discuss the questions suggested by the peculiar liability of woman to hysteria, and other ailments, making striking changes in the mental phenomena. At the same time, I may discuss the question whether woman is more liable than man to what we call insanity at large, and other questions, of a kindred interest and character.

Reserving the right, in the connexion indicated and in others, to enlarge the view here taken of the distinctions which may be made between what may be called respectively the male temperament and the female temperament, I wish to look at some of those distinctions at which we have already glanced.

On comparing a standard woman with a standard man, we should find the man of greater height, of greater weight, of greater strength, of evidently greater capacity to rule by violence.

The muscular and voluntary excito-motory system of the male is more highly developed than that of the female. The animal affections of man are of bolder character than those of woman. The harmony of intellections marks the man; the harmony of affections marks the woman. Superior force of logic accompanies the greater steadiness of nerve and strength of muscle, seen in man. Superior moral influence accompanies the greater warmth of woman's beauty, her softer outline, her more pliant organization, her superior sensibility.

I have spoken of the beauty of woman. If Lavater is extravagant when he declares that "the beauty and deformity of the countenance is in a just and determinate

proportion to the moral beauty and deformity of man," the peculiar charm of woman's beauty still would seem to countenance his doctrine, and to prove "the morally best, the most beautiful."

Let us dwell a little on the pleasant theme of woman's beauty. It may be approached with higher purposes than those which animated Michelet.

The supreme attraction of woman's physical beauty, so far as its attractiveness to man is concerned, seems to dwell in softness in the outline, variety in the coloring, and a *sunnyness* in the whole effect of the expression, which does not belong to manly beauty.

We have seen something of the tissues of the human body.*

The tissue, known as Adipose, may be considered as a lodger or a content of the tissue called cellular. It may almost be described as the beautifier, the distributor of graces, the softener of angles. Hiding, here, a grace for movement to reveal, and there depositing a lovely contrast to the graceful revelation, this tissue is, in a word, the final formative of beauty in the human form. It is indeed a misdevelopment of this same tissue which so often takes from forms once beautiful their fair proportions. But, in all the loveliness of the human being, which resides in shape, and especially in that of woman, deposits of this tissue are to be accounted as the source of the corporeal beauty. So it is, that in the microscopic revelations of the fatty vesicles, forensic students may discern objects of no inconsiderable interest. For, if I have correctly pointed to the motive for erecting and maintaining legal order, as residing in affection for the Beautiful as well as for the Good and the True, the beautifying tissue we examine has relations to man's motive in obeying and conserving public law. This will be quite apparent, though it seem but

trifling to refer to it, if we but consider with attention such a thought as that I have suggested. We may seem to make comparison of very little things with very great ones, when we think of the relation which may bind a vesicle of the peculiar tissue here examined, with the fabric raised by polity and constantly upheld by public arms. But if we think but worthily while making such comparisons, they cannot be themselves unworthy. This, which I have ventured to suggest between the influence of a peculiar tissue in producing beauty, as attractive to observance of the law, and other influences which have a more obvious relation to the sanctioning of laws, will bear examination. Fairly scrutinized, it is but one among the countless instances in which the things deemed insignificant when only glanced at, prove of high significance when closely examined. The tissue which contributes to make woman beautiful and man attractive, bears a near relation to the sanctioning of laws. Apart from the consideration, that the order natural to man as a progressive being, elevates and purifies the beautiful, it is to be observed, that civil order is essential to the government of passions kindled at the shrine of beauty, and that the affection for the beautiful, including as it does affection for the beauty of the human being, clings to social order as its guide and its protector.

We shall see this same affection for the Beautiful embracing in the family the first beginnings of the State. In so beginning to develop Order such as we now recognize in national establishments of Law, the affection for the Beautiful is also an affection for the Good. But, as will be apparent in the present view of woman, love of woman's beauty is not love of mere corporeal beauty only. There is in her character a moral loveliness quite equal to her loveliness of form and feature. But of this hereafter.

For the present, let us look a little further at the thought I have suggested touching woman's beauty.

An enthusiast of sight has painted the physique of woman, not precisely as a Shakspeare would have painted it, but yet in a sufficiently striking light:

"Like to the clear in highest sphere,
Where all imperial glory shines,
Of self-same color is her hair,
Whether unfolded or in twines.

Her eyes are sapphires set in snow,
Refining heaven by every wink;
The gods do fear, when as they glow,
And I do tremble when I think.

Her cheeks are like the blushing cloud,
That beautifies Aurora's face;
Or like the silver crimson shroud,
That Phoebus' smiling looks doth grace.

Her lips are like two budded roses,
Whom ranks of lilies neighbor nigh;
Within which bounds she balm encloses,
Apt to entice a deity.

Her neck is like a stately tower,
Where Love himself imprisoned lies,
To watch for glances every hour,
From her divine and sacred eyes.

With orient pearl, with ruby red,
With marble white, with sapphire blue,
Her body everywhere is fed,
Yet soft in touch and sweet in view.

Nature herself her shape admires,
The gods are wounded in her sight;
And Love forsakes his heavenly fires,
And at her eyes his brand doth light."

This picture, painted by the poet-actor, Thomas Lodge, is somewhat heathenish, and may be somewhat overcharged with colors. But it leads us well towards the gallery of portraits painted by the master in the art of portraiture by phrases.

When one I know was younger than he is at present, he composed an essay, proving from the poets, that cold marble cannot well express a woman's beauty. He conceded, that the sculptor may express abstractions, goddesses, and nymphs; and he was even willing to admit that the angelic may be represented in the pure white marble. But he warmly argued for a warmer, brighter, sunnier substance than the sculptor works in, when a woman's beauty is to be portrayed. I think, he has repented of his folly in composing such an essay; but I know that he "insists as he insisted."

And the fancy may not be entirely baseless. When we look into the question in the light of science,^f we discover many reasons for adopting something like the theory of the aforesaid essay. And the poets will not suffer us to think of any other theory.

I might amuse the reader with the proofs of this assertion by quotations from the leading poets.

And I will refer to several instances.

The instance found in Shakspeare's *Tempest* is of a peculiarly Shakspearian character.

The "O you wonder!" with which Ferdinand encounters Miranda, and his willingness to lie in prison, if "but through" his "prison once a day," he might "behold this maid," prepare us for the scene in which the lover quite directly likens his beloved to the source of light.

Miranda pities Ferdinand, exclaiming,

"You look wearily."

The tender and suggestive answer is:

"No, noble mistress; 'tis fresh morning with me,
When you are by at night."

Like pictures are to be discovered in many other plays.

(f) Ante, p. 392.

But all the wantonness of the conceit appears in Romeo and Juliet. Romeo speaks:

"But, soft! what light through yonder window breaks?
It is the east, and Juliet is the sun!

* * * * *

Her eye discourses; I will answer it.
I am too bold; 'tis not to me she speaks:
Two of the fairest stars in all the heaven,
Having some business, do entreat her eyes
To twinkle in their spheres till they return.
What if her eyes were there, they in her head?
The brightness of her cheek would shame those stars,
As daylight doth a lamp; her eye in heaven
Would through the airy region stream so bright,
That birds would sing, and think it were not night!"

This "taking on" of tender, foolish Romeo is quite suggestive of a more modern poet's fancy:

"And see! the matin lark mistakes!
He quits the tufted green:
Fond bird! 'tis not the morning breaks!—
'Tis Kate of Aberdeen!"

The "*breaking*"—that is to say the dawning—of the beauteous Kitty also brings to mind a ballad, which begins, I think,

"Up rose the sun, and up rose Emily!"

Indeed, all through the poets we can find the like conceit. We find it well expressed by Burns:

"She, the fair sun of all her sex,
Hast blest my glorious day;
And shall a glimmering planet fix
My worship to its ray?"

Though the poets be extravagant, we must acknowledge that their portraitures of woman have presented her in a most lovely light. And we can better understand the love of woman in mature and sober manhood, when we find how warmly colored are all poetical pen-paintings of her beauty.

But the beauty, after all, which most attracts man's love, is moral beauty. This may not, at first view, seem so attractive as the beauty of the person. But the beauty of the person always is presumptively expressive of the beauty of the mind. And when the hidden or the slowly self-disclosing beauty of the mind is recognized, the love which it inspires is deeper, stronger, more like love, indeed, than any which pays homage to the graces or perfections of the body.

Let it be remembered, that I speak of things as they exist among the nations, which have not yet given up the Christian standards. Christianity has lately been assailed as though it had done nothing to advance the interests of artful life. It has been charged with lowering its standards, that it might ingratiate itself with barbarous and sensual nationalities. It has been charged with standing in the way of progress. Last of all, and most ungraciously of all, it has been charged with degradation of that "state of grace," in which anticipated motherhood would naturally elevate the soul of woman to a holy exaltation.

Christianity has more advanced the interests of artful life than all the sciences and all the arts combined, in which philosophers have found so much to glorify. It is not easy to overestimate these sciences and arts, when they are rightly related. But it is still harder to exaggerate the services of Christianity in their direction and development. To say nothing of the direct employment of the sciences and arts in the service of the Christian religion, and of the sanctuary given to them when they were in danger of extinction, Christianity was the conservator of Art in being the conservator of Law. Religion always was the cultivator of the affections, which support society. But most remarkably has Christianity been the cultivator of those affections. Most of all has she done service to the State in purifying and exalting the affection which unites

the woman and the man in marriage. Even Michelet finds Love to be the true foundation of the State, in being the foundation of the family. The vice of his idea is its sad attempt to bring into the glare of broad, unblushing daylight, what the modesty of love instinctively enshadows or conceals, and its vain endeavor to exalt the natural to a supernatural elevation. Long before his book was known to me, I had developed what the reader has already seen, and what he will encounter in another place, concerning the relation of the family to what we call the State. And though I want the genius of a Michelet to make my theory attractive, I am well persuaded that the theory itself is far more consonant with the truth as well as far more honorable to the true affections of the human soul, than is the fearfully attractive system of the French Philosopher. I find in Love, as Michelet has found in it, the basis of the Family; and in the Family I find what Michelet has found in it, the basis of the State. But I do not forget the nature of the Love which Christianity has smiled upon as it developed, or has more directly educated and directed. And in Love, so purified by Christianity, I find another and a different Love from that of which the French Philosopher profanely teaches. Not such ecstasies as he describes, does wedded love embrace in its supreme felicity. I am unlearned—I am no philosopher;—but I dare not adopt a theory like Michelet's, and I am not at liberty to keep away from warfare with its ideas.

Christianity must be acknowledged as the author of the true philosophy of the relation which connects the sexes in the order of the family.

In that relation, the woman is the bright example, the attractive concrete moral beauty, which the man regards as moral model. Virtue takes her loveliest proportions in

the character of woman, and she shows her graces most in woman's actions.

Thus, while beauty of the body, and instinctive tendencies of nature, are involved in the attractions which unite the sexes in the conjugal relation, higher motives consecrate the nuptial union.

But we must not forget that, in our law, no sacramental character belongs to marriage. The relation of Husband and Wife is legally that of contract. And the family, though it is higher than the nation—though it was the earliest form of social order—and though what we call the State is but developed out of the domestic state—this family is looked upon in law with colder eyes than those with which it is regarded by religion.

What the law has ordered in respect of disabilities imposed upon the wife, and benefits conferred upon her, as the consequences of becoming party to the conjugal relation, nearly all my readers know sufficiently for all our present purposes. I will not here discuss the disabilities, or enter into a description of the benefits. All our concern with them, at present, is to note the plain distinction that they indicate as taken by the law, between the feminine and masculine capacities and tendencies. To say that the philosophy of such distinction is entirely accurate, is to betray a confidence in legal views, which an examination of the legal anthropology will hardly vindicate. But that the legal view of the distinction between the sexes is not wholly or absurdly variant from true philosophy, will be readily admitted by any one except an advocate of Woman's Rights.

CHAPTER XVIII.

LIFE IN ITS BEGINNINGS.

THE view which we have taken of the differential characters of the sexes, has also been an observation of their union in the marital relation. Thus we have prepared ourselves for such a view of human life, from its beginning moments to its earthly end, as may enable us advantageously to contemplate yet other differential characters of our humanity.

We venture, then, with reverence and recollection, to attempt a view of human life, as it develops or declines throughout its interesting course. We are not to attempt minute and close examination of this course of life; but we may well attempt to look upon its epochs and its most remarkable distinctions.

We have witnessed Adam's first appearance in the Order of Nature, and his first appearance in the Order of Art. We could not look unmoved on that appearance. Words, inclining us to the poetic view of human life, sprang up, unprompted, to our lips, when we attempted to describe, though only in the merest outline, the beginning of the active life of our humanity in Nature. Now, we are to speak of life, beginning, not as Adam's life began, in the full light of day in Eden, but in darkness, penetrated only by the light of science. Now, instead of attitude

erect, and form attractive, and grace combined with strength, we look upon a simple cell, in which the microscope detects no promise of the form or faculties of our humanity.

The light of science has enabled us to find this simple cell, to measure it, to trace its changes, and to recognize the earliest resemblance of the embryo to our humanity as we have lately contemplated its proportions.

If the view of life already taken^a is defensible, there is a human life in the primordial cell to which the light of science guides us, when we seek the germinal form of our humanity. And I am not disposed to question, that there is, from the beginning, that mysterious association of the physical and psychical which we have been attempting to examine.

But I cannot thus agree with the theologians and the physiologists, without explaining, that I do not share the zeal of some reformers, who apparently desire to make the law of fœticide analogous to that of murder. And I cannot accept many of the arguments advanced, to prove that soul and body are united at the moment of conception.

I repeat: I do not question that the physical and psychical are joined from the beginning in each human life. But I cannot accept some of the arguments advanced to prove, what I am not disposed to question.

In arguing, that the moment of conception is not only the beginning moment of human life, but the moment when the soul and the body are united, Professor Hodge insists: That then only can the father in any way exert an influence over his offspring—that then only is the female germ in direct union with its mother—that the connexion afterwards is indirect and imperfect. We are told that, “to

(a) Ante, p. 369.

suppose, that the body only is generated at conception, and that the spirit is subsequently added, is, in the absence of all direct revelation on the subject, philosophically untrue — being at variance with the facts and with reason.”^b

A view of embryonic and foetal life, in connexion with certain well known facts, will probably quite indispose us to agree with the learned Professor. It will also indispose us to attach much importance to the assertion, that it is only at the moment of conception, that the female germ is in direct union with the mother.

It is doubtless true, that long before any consciousness of the condition of pregnancy dawns upon the mind of the mother, changes of importance have been busy in developing the cell—the vesicle—in which we are compelled by science to recognize the beginning of a human body. It is also true, that the consciousness or unconsciousness of the mother, and the direction of the mother's thoughts, together with the state of her affections, though they may aid or retard, conserve or pervert the regular course of embryonic and of foetal development, may still have only such relation to that development as individuals in more than common intimacy may be supposed to sustain towards each other. The intimacy of the relation sustained by a mother to her unborn child, is yet imperfectly made known to science. Whether it is a relation of mind to mind, or whether all the mother's influence upon her unborn child must be regarded as affecting only *bodily* development, we are not ready to pronounce as though with scientific warrant. Whether, however, body only, or mind as well as body, is affected in the foetus by maternal states of mind and body, we cannot doubt, that the maternal mind and body do, within no very narrow limits, influence the foetus. And, without nicely inquiring to what extent the father influences the maternal states of mind, and, therefore, to

(b) Professor Hodge, quoted in Wharton & Stille's Med. Jur. 232.!

what extent the father may be considered as exerting an influence over his unborn offspring, after conception, we shall not be inclined to concede, that only at the moment of conception can the father in any way exert an influence over his offspring.

I have said, we cannot doubt that, within no very narrow limits, the maternal mind and body influence the foetal development.

"The only part of the child that really touches the mother is the blood of the child." So says a distinguished Obstetrician.^c But physiologists have found in this same touching of the mother by the blood of the child no insignificant connexion between maternal mental habits, at least, and embryonic growth; while popular belief (not yet, I think, condemned by any just scientific sentence) points to strong, though transient impressions on the maternal mind as marking the foetus with memorials of their occurrence.

The influence of maternal mental states on the condition of the maternal blood seems to be well known. Although the processes of Nutrition, Secretion, and the like, are not dependent upon Nervous agency—and although, "throughout the animal body, it may be observed, that, the more Vegetative the nature of any function, the less is it under the influence of the Nervous System, save where that influence is required to bring it into harmony with other functions;"^d we are not to forget that "the influence of the Nervous System is not alone exerted upon the motor or contractile tissues of the body."^e It has a direct operation upon the molecular changes which constitute the functions of Nutrition, Secretion, etc. When, therefore, the relation which exists between mind and nerves, is borne in mind, and when it is also "borne in mind that, during the entire

(c) Meigs on Obstetrics, 187.

(d) Carpenter, 733.

(e) *Ib.*, 732.

period of gestation, the Embryo is deriving its nutriment exclusively from the blood of the Mother," "it cannot fairly be thought improbable, that the developmental processes of the Embryo should be powerfully affected by strong Emotional excitement on her part." ^f Nor is this all. Whether in or through the blood, or otherwise, it appears to be conceded, that "*habitual* mental conditions [other than emotional] on the part of the mother may have influence enough, at an early period of gestation, to produce evident bodily deformity, or peculiar tendencies of the mind." We are told, indeed, in connexion with such a concession, that "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; and that "the error of the vulgar notion on this subject, lies in supposing that a *sudden fright*, speedily forgotten, can exert such a continual influence on the nutrition of the Embryo, as to occasion any personal peculiarity." ^g But when we take into view the opinion of the same writer, that a strong impression made upon the female by a particular male, may give the offspring a resemblance to him, even though she has had no sexual intercourse with him, we may find ourselves still inclined to hold the substance of the popular opinion, rather than to accept the precise correction of that opinion offered by the learned. A momentary impression on the mind of the mother may affect the embryo, if that impression be but deep enough. But we need not dwell in such discussions. All I wish to insist upon at present is, that during the period of gestation, or during the earlier part of that period, maternal mental conditions, reflecting the paternal influence, may have effect upon the body and the mind (if we may speak

(f) Carpenter, 782.

(g) *Ib.*, 783.

of mind) of the embryonic human being, and that we are not allowed, in the present state of our knowledge, to say, with Professor Hodge, that it is only at the moment of conception that the father can in any way exert an influence upon his offspring.

Professor Hodge appears to base his argument upon the supposition, that parental mind is transmitted in the act of generation.

I do not deny, that something taken from parental mental characters seems present in the fruit of the parental congress. But we must not hasten to concede, that any part of the parental mind, or any thing distinctly mental, passes in the act of generation.

In examining this question, I will touch upon some others, which we have already more than once encountered. But the question of exceeding interest, is this: How far do the parental characters, and what parental characters, enter, modified, into the offspring of parental congress?

The interest of this question relates in part to the duty of society as to the fit production of human life. All must acknowledge, that the law is vitally concerned to make provision for the production as well as for the protection of the life of individuals.

With reference to the production of the life of individuals, the law has made provision in providing for the marital relation. This relation may have objects higher and holier in seeming, or, it may be, in reality, than that here brought before our minds. But it is difficult to estimate too highly the importance of that object.

Legal science teaches, touching marriage, little of its great importance as respects the fit, desirable production of the life of individuals. Yet nothing can be plainer than that regulated marriage much affects the quality of life—if I may be allowed so to express my thought—in indi-

viduals. A regulated marriage is, in general, a life-long union. At least, it is designed to be such union. Parties, contemplating such a union, will, in general, consult each other's dispositions, study all that tends to harmony of character, and earnestly endeavor to conform their minds to the design of marriage. Laws, therefore, providing permanence in conjugal relations, regulating marriage in respect of age, affinity, etc., must be regarded as, in general, affecting favorably the production of the life of individuals.

The lawyer is concerned to know much more than this with reference to marriage, as relating to the production of life. He is concerned to know, that according to certain theories, the qualities of life produced are much affected, not alone by the parental characters, but even by parental states, when life produced begins.

That the peculiarities of the parental organisms enter, modified, into the life produced by the parental congress, is a familiar theory. Not so familiar are the theories, respecting the relation of parental states, at the moment of conception, to the peculiarities of the *conceptus*.

That theories, like those referred to, ought to interest the lawyer, is quite obvious. How far, and in what way, parental characters and parental states affect the offspring of the marital connexion, may, at any time, become a question for consideration in a court of justice.

Popular belief is perfectly in harmony with science, when the latter points to the influence of both parents on the constitution of the offspring as "strikingly manifested, not merely in the admixture of their characters normally displayed by the latter, but also in the tendency to the hereditary transmission of perverted modes of functional activity, which may have been habitual to either."^h

(h) Carpenter, 780.

Less familiar to the popular mind are certain theories, some of which attribute to the mother the furnishing of certain parts, and to the father the furnishing of other parts, in what is constitutive of the offspring. One of these supposes, that the characters of the animal portion of the fabricⁱ are especially, but not exclusively, derived from the male parent, and that the characters of the *Organic* apparatus are, in like manner, derived from the female parent.^j

Without entering into prolonged discussions of this subject, I concede, that some tribute from whatever inheres distinctively in the body may be transmitted—perhaps, must be transmitted—in the fecundating process, with which we are still so imperfectly acquainted. But when we come to inquire whether the parental mind must be transmitted in the act of generation, we may pause before the facts revealed by science, ere pronouncing either way.

Among the interesting facts assembled by the industry and ingenuity of science are such as those referred to by Carpenter, in the following terms: "Attention has recently been directed to a very curious class of phenomena, which show that where the mother has previously borne offspring, the influence of *its* father may be impressed on her progeny afterwards begotten by a different parent; as in the well-known case of the transmission of Quagga-marks to a succession of colts, both whose parents were of the species Horse, the mare having been once impregnated by a Quagga male; and in the not unfrequent occurrence of a similar phenomena in the Human species, as when a widow who marries a second time, bears children strongly resembling her first husband. Some of these cases appear referable to the strong mental impression left by the first

(i) I here remind the reader of the Physiological distinctions taken in the initial chapter of this volume.

(j) Carpenter, 779.

male parent upon the female; but there are others which seem to render it more likely, that the blood of the female has imbibed from that of the foetus, through the placental circulation, some of the attributes which the latter has derived from its male parent; and that the female may communicate these, with those proper to herself, to the subsequent offspring of a different male parentage." ^k

Such facts as these seem to reveal the preëminence of the mother's influence over the bodily development of the foetus. If collated with certain other facts, of which we may have a glimpse hereafter, showing how another kind of mental impression may affect the foetus through the mother, they would seem to indicate a wonderful dependence of the foetus on maternal conditions, even after the process of development is somewhat advanced.

But, allowing that such facts establish all that I have just suggested as to the overruling character of the maternal influence, they do not set aside the facts, to which I first directed the attention of the reader. These are so well known as not to need more than the simple reference which I have made to them. That the parental qualities of body—those of *both* the parents—enter modified into the constitution of the offspring, is, as I have said, familiar to the popular belief, as well as taught in Physiology.

Evidence of it is daily springing up, and, though not causing surprise, awakening the sense of wonder.

Atavism has of late attracted much attention. This, I hardly need explain, is the name of the phenomenon, in which, even when the distinctive peculiarities of one parent have been overborne, as it were, in the immediate progeny, by the stronger influence derived from the other side, they reappear in a subsequent generation.

Facts of this description are of great interest in such discussions as the present. Do they show, however, or

(k) Carpenter, 782.

does any set of facts or arguments establish, that the *mind* of the parents has been combined in the offspring, or that any part of the parental mind has been transmitted through the act of generation? I think not. The resemblance between the mental constitution of the parents, and the mental constitution of their offspring, may be due to the resemblance between the physical constitution of the child and the physical constitution of the parents.

I have shown,¹ that body may have more to do with forming character, than we are always ready to acknowledge. And, however the learned, when required (and willing) to examine fairly, may decide in this particular, we know that bodily resemblance may, to some extent, account for what Mr. Mill would call the ethological resemblance between parent and child. Now, add to this not only the indirect influence on embryonic and foetal life of paternal and maternal states of mind, but the influence of education and the effect of imitativeness. You have thus quite enough to account for the ethological^m resemblance between parent and child, without supposing that the *soul* of the child is derived from its parents.

But while I thus insist, that nothing in the arguments thus far encountered, absolutely proves, that soul and body are united at the moment of conception, I do not deny that to believe so is in harmony with all the facts.

My object is to temper the zeal of reformers, and to induce them to pause, at least, before proceeding to absurd extremities.

But while I seek this object, I concede yet further, that the doctrine I regard as yet unproven, is precisely such a doctrine as enlightened theorists will be inclined to look upon with favor.

(l) Ante, p. 320.

(m) Ethology is Mr. Mill's name for a new science of the formation of character.

And, upon the whole, I am disposed to state these propositions, as resulting from the learned observation of embryonic life:

1. The laws respecting marriage tend at least to the proper production of human life.

2. The beginning moment of human life is that mysterious instant, when the most mysterious of nuptial mysteries is consummated in conception.

3. The life thus produced is probably a life in which the soul and body are united.

4. But science cannot yet declare with certainty that soul and body are united at the instant of conception.

5. Laws respecting fœticide may need amendment so as to provide severer penalties; but we should hesitate before agreeing to the utmost now proposed by some reformers.

Subordinately to these propositions we may add:

1. The corporeal peculiarities of the parental organisms enter, modified, into the organism of their offspring.

2. Whether mind itself may be regarded as transmitted from the father in the fecundating process, may be questioned.

3. The parental states at the mysterious moment of coition are of great importance to the offspring.

Before proceeding to complete our view of embryonic life, it may be proper to devote a thought to one hypothesis yet unexamined.

If the moment of conception is the moment when the soul and the body are united, mind is active from that moment, even in the little cell. And processes of thought undreamed of by philosophers may be developing throughout the course of fœtal life.

It argues nothing against this hypothesis to say, that we have seen already that the infant mind but slowly learns of anything without its own immediate organism.ⁿ

(n) Ante, p. 159.

Slowly may the principles of reasoning develop in the darkness of the womb; but we are not allowed to say, that no activity of mind precedes the moment known as that of birth.

CHAPTER XIX.

INFANCY AND IDIOCY.

AND now we come to life at birth and life succeeding birth.

A course of life begins at birth, which in the law is known as infancy.

Of infancy, the law books chiefly give us information by a simple statement of the legal rules.

Among those, in the English law books, we discover such as the following: A person is styled an infant until he arrives at manhood. But the "legal" infant may do many binding and obligatory acts. The difference of sex, already partially examined, here again appears. An infant female of the age of seven might be betrothed or given in marriage; at nine, she might be entitled to dower; and at twelve, she was considered as "at years of maturity," and therefore might "consent or disagree to marriage." At the same age, an infant male, as well as an infant female, might select a guardian, and, on proof of the required discretion, might be considered as competent to make bequest of personal estate. Before arriving at the age last mentioned, infants male might do important legal acts with legal consequences. They might take the oath of allegiance at twelve—and were entitled to be treated as discreet and culpable at years of yet greater tenderness. I do not remember whether English law allowed a

female infant a privilege and distinction of precocity in reference to crime, as well as in respect to marriage. But I know that with a tender care of rising infancy, the English law distinguished, quite as soon as it appeared, the culpable capacity.

As to common misdemeanors, the English law did certainly sometimes suffer infants to escape fine, imprisonment, and the like. This was, indeed, chiefly "in cases of omission, as not repairing a bridge, or a highway, and other similar offences; for not having the command of his fortune till twenty-one," the infant was considered as "wanting the capacity to do those things which the law requires."

But, holding infants only able to contract, in general, at twenty-one—at least, enabling them to contract bindingly, before that time, for schooling and for necessities only—all the acts which smack of criminality were treated as within the infantile capacity at a very tender age, indeed.

For the wrongs distinguished as *torts*, and occupying a position somewhere between crimes and misdemeanors on the one hand, and liabilities arising out of violated contracts on the other, infants were regarded as responsible, substantially, as older persons were. And when we come to crimes, we find the nicety of legal discrimination constantly becoming more and more acute as the offence becomes of more and more enormity—or rather, as it mounts in tragic interest.

The maxim here is this: *Malitia supplet ætatem*. What this malice is which laws regard as making up for lacking age, it is not easy to explain. Its "evil eye" may be seen, however, by a *legally qualified* observer, in a case of homicide, in very tender infancy. It has been seen by such observers in a felon eight years old! It was most fearfully apparent in a girl of thirteen, burnt for killing her mis-

tress!^a Boys of nine and ten, for killing their companions, have been put to death.

The "ancient Saxon law," indeed, fixed the age of twelve years as that at which an infant was first culpable. But now the age of seven is the earliest age of felony.

The acts of persons *non compotes mentis*, from whatever cause, are likened in the courts of equity to acts of infants. "Infants are by law generally treated," says Judge Story,^b "as having no capacity to bind themselves, from the want of sufficient reason and discernment of understanding; and therefore their grants and those of lunatics, are, in many respects, treated as parallel both in law and reason."

And he elsewhere says, that "it is clear that contracts made and acts done by infants in favor of persons, knowing their *imbecility*, and *want of discretion*,^c and intending to take advantage of them, ought, upon general principles, to be held void, and set aside, on account of fraud, circumvention, imposition, or undue influence. And it is upon this ground of an ability to give a deliberate and binding consent, that the nullity of such acts and contracts is constantly put by publicists and civilians. *Infans non multum a furioso distat.*"^d

It may not seem in keeping with the purpose of these studies to connect a view of infancy with a view of incompetency as it is apparent in the idiot, the so-called lunatic, the weak of mind, the drunkard, and the like. The purpose of these studies is, in part, to find the Beautiful in the Good and the True. And I would much prefer to look away from all deformity or imperfection in the mind and body of the human being. But the purpose of these studies is not merely to seek out the Beautiful. And I have never felt at liberty to sacrifice the interests of

(a) English laws, in tenderness to female delicacy, substituted burning for hanging, when a woman was to suffer death!

(b) 1 Eq. Jur. § 240. (c) The italics here are mine. (d) *Ib.*, § 242.

knowledge to the mere delights of taste. If, therefore, infancy, the beautiful development of our humanity, is ever and in any thing comparable for useful purposes, with idiocy or with mania, I cannot shrink from the comparison.

Indeed, it may useful in the highest sense, to look at the imperfectly developed or the overmuch developed, or the morbidly deranged, in human life, while scrutinizing infancy.

Nothing can be more important at the present time, than the reduction of the horror which has heretofore attended the conception of the idiotic or insane. We ought to teach ourselves to look on the unsoundness of the mind, at least as calmly as we look on the unsoundness of the body. All the interests of artful life, as I define it, call upon us to dismiss unwholesome horror, when we near unfortunates, incapable of full participation in that life.

And if we look on idiotic states as not to be compared with infancy, let us learn to look at infancy itself with more attention. We may thus prepare ourselves to look on the unfortunates distinguished by the designations idiotic or insane, without forgetting that same brotherhood which I have been at some pains to vindicate against what seems to me a most unwarranted assault. Wherever our humanity appears, however lowly or repulsive in development, each human being may exclaim, with Cowper :

"I was born of woman, and drew milk,
As sweet as charity, from human breasts :
How then should I and any man that lives
Be strangers ?"

Even in the idiot, we recognize humanity. And even in its most repulsive form, there is in idiocy something to embrace with interest, or to endure with patience.

A traveler, one autumn morning, passing Riddes, a little

village, on the road between Sion and Martigny, in the valley of the Rhone, saw something crouching and burrowing at the foot of a wall, on which the sun was beating with a strong heat. It was an animal, in which the human shape might be distinguished. The traveler went up to it. He found it lying, panting with a quick, short breath, its extremities drawn up, in the manner of a hedgehog, and closely packed on its round, fat belly. One of its arms was over its face, "like a dog with flies at his ears." The expression of the creature's face, if any thing was there expressed, was like to "nothing but a glimmering of melancholy, which, however, disappeared the moment his fine large eyes were opened. But large and fine as those eyes were, they had such a fixed stare that," says the traveler, "I unconsciously compared them to wax, which they much resembled; for when he opened them they seemed to fall rather than be turned upon me, and remained in the same position all the while I looked at him."

This creature was a Cretin. Dr. Blackie has described him with the greatest particularity. The great goître, which is the common accompaniment of cretinism, seemed to drag the creature down, as he crawled, rather than walked. His abdomen was "as disproportioned as the head of a foetus." He apparently had no idea of the presence of the traveler, although the latter spoke to him, with an increasing loudness, first in German, next in French, and then in the proper *patois*.

One might suppose, that such a sight as this would have determined Dr. Blackie not to study further anything connected with those strange developments of our humanity, distinguished as Cretins.

Dr. Blackie, on the contrary, has produced an essay, treating with exhaustive fullness and surprising nicety the questions raised by a comparison of Cretinism with com-

mon idiocy. Whether he accounts for Cretinism, or has failed in this respect, I will not venture to pronounce. I will only point to his example as a bright one, and proceed from glancing at the Cretin to a view of idiocy.

The "drivelling, babbling idiot" is not well pictured in the law books.

We are told, that the custody of the person and lands of an idiot or natural fool, was originally given to the lord of the fee; because an idiot, having had no understanding from his nativity, the law presumed that he was never likely to attain any. Why the lord of the fee should have him and his lands rather than that the next of kin should have them, the Commentator does not tell us. However, by reason of the manifold abuses of this power by subjects, it was at last provided by common consent, that it should be given to the king, as the general conservator of his people, in order to prevent the idiot from wasting his estate, and reducing himself and his heirs to poverty and distress. It seems, that even the royal exercise of this power is regarded as oppressive; and it seldom happens, that a jury finds a man an idiot from birth, but only *non compos mentis* from some particular time; which has an operation very different in point of law.

The language of the Commentator in describing idiocy is not changed by Mr. Stephen in his Commentaries, partly founded on the text of Blackstone.

"A man is not an idiot if he hath any glimmering of reason, so that he can tell his parents, his age, or the like common matters. But a man who is born deaf, dumb, and blind, is looked upon by the law as in the same state with an idiot; he being supposed incapable of any understanding, as wanting all these senses which furnish the human mind with ideas."

Such is the language of the Commentator, who has also told us, that "a lunatic, or *non compos mentis*, is one who

hath had understanding, but by disease, grief, or other accident,^f hath lost the use of reason.”^g Blackstone has provoked the mingled merriment and ire of certain medical writers, by adding, that “a lunatic is indeed properly one that hath lucid intervals; sometimes enjoying his senses, and sometimes not, and that frequently depending upon the change of the moon.”

It may appear hereafter, that, in mania of a certain order, some resemblances to infantile conditions may be pointed out. At present, we must only note how idiocy presents analogies to infancy.

It is only on distinguishing their classes, that we find in idiots the supposed analogies.

“Idiots of the lowest class are mere organisms, masses of flesh and bone in human shape, in which the brain and nervous system have no command over the system of voluntary muscles; and which, consequently, are without power of locomotion, without speech, without any manifestation of intellectual or affective faculties.

“Fools are a higher class of idiots, in whom the brain and nervous system are so far developed as to give partial command of the voluntary muscles; who have, consequently, considerable power of locomotion and animal action; partial development of the intellectual and affective faculties, but only the faintest glimmer of reason, and very imperfect speech.

“Simpletons are the highest class of idiots, in whom the harmony between the nervous and muscular systems is nearly perfect; who, consequently, have normal powers of locomotion and animal action; considerable activity of the perceptive and affective faculties, and reason enough for their simple individual guidance, but not enough for their social relations.”^h

(f) Mr. Stephen says, “or any other cause.” 2 Comm. 530.

(g) 1 Bl. 304.

(h) Second Report to the Legislature of Massachusetts, by the Commissioners

It is impossible to look at these degrees of idiocy without perceiving many points of true analogy between infant and idiotic properties of mind and body. Shortly after birth, the apparent actions of the infant are as largely of the instinctive character as those of idiots. And the reasoning capacity of infants does not show itself superior at first to that of idiots. Idiots of the lower class have been described as not evincing mind enough to guide the body or to make it active, even in supplying natural wants or in the decent performance of the simplest offices of nature. Is it otherwise in early infancy? And if idiots are often deprived of senses, infants seem at first incapable of using them. But we must not forget, that though the harmony of mind and body does not instantly appear in infants, infant mind, like embryonic mind, may be engaged in purely subjective but regular developments of thought, preparing it for reasonings which idiots do not even approximate.

The so-called age of reason has been fixed at a time when the will, the memory, and the understanding seem to have attained a certain harmony of action. No expression of this truth, perhaps, presents itself in law books or in books of moral theology, or the like. I cannot speak with confidence in this respect. But an attentive study of the subject now considered has induced me to advance the statement just submitted to the reader.

For its vindication, I may find it necessary to examine infancy and culpability more closely than I have yet attempted to examine them. If I repeat a little, or anticipate a little, let me hope to be excused by all who know the difficulty of the questions here discussed.

We have already seen a little of the legal sense of crime.

It may be proper to add, however, that the characters of

appointed to inquire into the condition of idiots within the Commonwealth. By
S. G. Howe.

crime appear to be stamped upon certain actions, from the notion that they indicate a carelessness of public duty, or an enmity against the sway of law. A "crime" is distinguished from a "misdemeanor" as being an offence of a deeper and more atrocious dye. But even in a misdemeanor the carelessness or the enmity alluded to may seem discernible. And all offences which the law distinguishes from private wrongs, as well as some acts not treated as requiring punishment by prosecution at the instance of the State, may be considered as, in some sense, malicious.

"Malicious mischief" is defined in law books as "a species of injury to private property, which the law considers as a public crime. This is such as is done, not *animo furandi*, or with an intent of gaining by another's loss, but either out of a spirit of wanton cruelty or wicked revenge."¹

Mischief, not confined to injuries of property, but chiefly pointing to destruction, often manifests itself in infancy. It is, indeed, in the mischievous "freaks" of infants, that we chiefly find the illustration of the incapacity of infant will to govern the emotions, which we have already glanced at. But, in older persons, the malicious disposition to do mischief often manifests itself in wonderful varieties of action. Motiveless, except as love of mischief is its motive, such a disposition often lowers our regard for human nature, and disposes us to institute comparisons between the order of Bimana and the order in which monkeys have been placed by naturalists.

But we must have a nearer view of this same love of mischief, and of malice as defined in law books.

Labored efforts to define the thing called malice may be found in the reports and commentaries.

Hawkins tells us, "that any formed design of doing mischief may be called malice; and, therefore, that not such killing only as proceeds from premeditated hatred or re-

(i) Jac. Law Dic. tit. Mischief, Malicious.

venge against the person killed, but also in many other cases, such as is accompanied with those circumstances that show the heart to be perversely wicked, is adjudged to be of malice prepense."^j

Elsewhere we are told that malice is "wickedness of purpose; a spiteful or malevolent design against another; a settled purpose to injure or destroy another." The writer^k who employs this language quotes as follows: "Any formed design of doing mischief;^l "any evil design in general;"^m "a disposition or inclination to do a bad thing, (*un disposition a faire un male chose.*)"ⁿ And we find that legal writers treat malice as the name of "general wickedness of heart; inhuman or reckless disregard of the lives or safety of others, as when one coolly discharges a gun, or throws any dangerous missile among a multitude of people, or strikes, even upon provocation, with a weapon that must produce death."^o So "deliberate disregard of the rights of others;"^p and "wilfulness,"^q have been regarded as malicious. "The doing any act without a just cause,"^r is "otherwise called malice *in law.*"^s And we are told "malice may not only be presumed from total absence of probable cause, but also from gross and culpable negligence in omitting to make suitable and reasonable inquiries."^t

In all this, we discover nothing like a clear and certain definition either of the mischief, or of the badness, or of the wilfulness, or of the disregard, or of the inhumanity, in which we find the spring of the malicious in behavior. Disregard or carelessness of others' rights, however, is the sim-

(j) 1 Pl. Crown, ch. 21, sec. 18.

(k) Mr. Burrill, Law Dic. tit. Malice.

(l) 1 Hal. P. C. 455 (Am. ed., note.)
2 Stra. 766.

(m) 4 Bl. 198.

(n) 2 Roll. R. 461.

(o) 4 Bl. 199, 200.

(p) 2 Barn. and Cressw. 584.

(q) 4 Mason's R. 115.

(r) 1 Chitt. Gen. Pr. 46.

(s) 12 Mees. & Wellsb. 787. 2 Greenl. Ev. § 453.

(t) Story, J. 3 Story R. 1, 7.

plest form of malice. And this disregard or carelessness may be discernible in conduct such as does not bear the legal stamp of malice. Malice is excluded from the definition of manslaughter. Yet manslaughter must include the simplest form of that carelessness of others' rights, in which we may discern the simplest form of malice as defined in law books. "Formal design" of mischief cannot be discerned in manslaughter. But something like a wilful act must be discernible in it. For, otherwise, the very lowest form of what is criminal in conduct would be wanting—there would not be present that "consent of the will," without which Blackstone will not hear of crime or culpable behavior. But the carelessness of others' rights in the supposed case is not that "wilfulness," that "deliberate disregard," that "wickedness," that "badness," in which legal writers find the malice of the crime of murder. When the laws, therefore, describe the crime of manslaughter as *without* malice, they but signify that malice is but so far present, and in such degree, as to make the act of killing criminal.

"The guilt of offending against any law whatever," says Sergeant Hawkins, "necessarily supposing a wilful disobedience, can never justly be imputed to those who are either incapable of understanding it, or of conforming themselves to it." And in the same connexion, he informs us, "that those who are under a natural disability of distinguishing between Good and Evil, as infants under the age of discretion, Idiots and Lunatics, are not punishable by any criminal prosecution whatsoever."^u

Now, if what I have presented to the reader whilst examining emotions and volition, and what we shall see hereafter, as to infancy and womanhood, with reference to uncontrollable emotions and "possessions,"^v be considered, it will be apparent, that the "mischief" done by infants

(u) Pleas of the Crown, Chap. I.

(v) Post.

may be attributable to the second form of incapacity referred to by the learned Sergeant. Infants, and women of the "nervous" order, may be quite incapable, at times, of conforming themselves to the law, although they understand it fully. Sergeant Hawkins, I acknowledge, did not think of this. He had forgotten infantile conditions, and he had forgotten the emotional disorder which may sometimes be expressed in the apparently culpable, but truly inevitable behavior of the best of human kind. He held, therefore, that the disability to violate the laws defining crime, must be a disability to distinguish between Good and Evil.

Similar remarks apply to much of what we elsewhere find in law books as to this important question.

We are sometimes told, that "it is a general rule, that no person shall be excused from punishment for disobedience to the laws of his country, unless he be expressly defined and exempted by the laws themselves. The inquiry, therefore, as to those who are capable of committing crimes, will best be disposed of by considering the several pleas and excuses which may be urged on behalf of a person who has committed a forbidden act, as grounds of exemption from punishment." ^w

"Those pleas and excuses," continues Mr. Russell, "must be founded upon the want or defect of *will* in the party by whom the act has been committed. For without the consent of the will, human actions cannot be considered as culpable; nor where there is no will to commit an offence, is there any just reason why a party should incur the penalties of a law made for the punishment of crimes and offences. The cases of want or defect of will seem to be reducible to four heads:—I. Infancy. II. *Non compos mentis*. III. Subjection to the power of others. IV. Ignorance."

Such language might be understood to indicate, that infants less than seven years old have either not acquired what we distinguish as the will, or that the latter is defective in the infant. There are reasons to suggest a doubt, however, whether, in the infant, will is either wanting or defective.

That there is in earliest infancy a will, a memory, an understanding, seems to me almost demonstrable. That understanding should always be competent, and memory should always be sufficient, and will should always be enough, for all the purposes of life as life develops, I am led to think by all my study of this subject. True, some time must be required to teach the will, and to supply the memory, and to direct the understanding, so that will shall make its proper choice among the intellections and affections, and that memory shall hold enough for such selection by the will and for the operations of the understanding, and that understanding shall present the thoughts from which the will may make its choice. But I am much inclined to hold with Brodie, that "a child or a peasant" reasons quite as well on all presented to the mind, as greatest reasoners of greatest learning reason on the facts presented to their understanding.^x Innocence in infancy is only ignorance of evil and its tendencies. The knowledge of the evil and of evil tendencies is not, perhaps, acquired, before the so-called age of reason. But, however this may be, I cannot look on early infancy as *wanting* either will, or memory, or understanding. The child, as yet incapable of purpose such as laws regard as criminal, remembers, reasons, wills. His memory is not retentive as it will become; his reasoning is probably less accurate, because less accurately informed, than it will become, when will and memory become more powerful; and the volitional is plainly not enthroned and strong as it will be in after

(x) See Mind and Matter, Dialogue.

years. But it is chiefly in the want of that harmony, which afterwards appears in will, and memory, and understanding, that the infant is incapable of governing his conduct, and of making clear distinctions between right and wrong. It may not be that the will is weak or that it is defective, or that will is wanting; will is evidently present, and we have no reason to suppose it weak or defective. But we have a right to look upon it as not yet accustomed to the sway of thoughts—as not yet able to confine the understanding to the close performance of its office,—and as yet incapable of taxing memory with its peculiar contribution to the fund of duties. And, assuming that these views are not inaccurate, we find the meaning of the law with reference to culpability to be, in substance, this: That whosoever breaks the law, by action which expresses understanding, memory and will, is culpable; but that until the time of life at which, in general, these powers learn to harmonize, it is not safe to punish actions which apparently display their harmony.

This view of infancy would seem to show, that as there are analogies, so are there also striking contrasts, between idiots and infants. And a careful scrutiny of what the books of law and medicine contain, defining or describing mania of the unquestionable order, will reveal alike resemblances of infancy, and contrasts to it.

By mania of the unquestionable order, I would have the reader understand the mania thus described by Dr. Pritchard:^y “2. Intellectual insanity, or madness attended with hallucinations, in which the insane person is impressed with the belief of some unreal event as of a thing which has actually taken place, or in which he has taken up some notion repugnant to his own experience and to common sense, as if it were true and indisputable, and acts under the influence of this erroneous conviction. 3. There is an-

(y) Cyclop. Prac. Med. tit. Insan.

other well marked division of maniacal cases, in which the whole mind, if we may use the expression, seems to be equally deranged. The most striking phenomena in this form of the disease are the rapidity and disorder with which the ideas follow each other almost without any discoverable connection or association, in a state of complete incoherence and confusion."

These forms of mania belong to the unquestionable order, inasmuch as they are easily demonstrable, and inasmuch as no one is disposed to question their reality. The form of mania which Carpenter has named Impulsive, I consider as not properly questionable at this day; but I describe it as a questionable form, because, as we observe, it has been questioned, and is still rejected, in the courts of justice.

That *hallucinations* of the senses often happen during infancy has been remarked by all observers. But *illusions* are, perhaps, more frequent. All of us remember the illusions which were spectres to ourselves or to our playmates, near some churchyard, at the fall of evening; or even in the household, when we thought of one engrossing subject, or too steadily observed some quite familiar object. We have been "bewitched" ourselves, and we have often seen our playmates in a like condition. I must add, that we have all observed, or even known as part of our experience, the truth of Carpenter's description, when he writes of "automatic" actions in the infant.

Nearer views of infancy reveal yet other imperfections.

The infant may take from the parental organisms the inheritance of morbid tendencies. "It is well known," says Dr. Williams, "that scrofula, gout, rheumatism, epilepsy, mania, asthma, blindness, and deafness, run in families. That this depends on individual peculiarities, transmitted from parents to offspring, appears from the fact that all children do not partake alike of the disposition.

Nay, sometimes a generation is free from a disease, which was present in the ancestor and appears again in the offspring.^z So too, we see external organization, family likeness, differently stamped on different children of the same family."^a

The same writer has informed us, that in early infancy the low calorific power of the body disposes it to suffer readily from the bad effects of cold. Hence, he says, the tendency of infancy to suffer inflammation of the viscera. The skin of the newly-born infant, he describes as reddened by the imitating action of the air, and as liable to various eruptions in consequence of its tenderness and its not being habituated to the new and drying medium in which it is placed. How children suffer under various diseases, such as diarrhœa, vomiting, colic, waterbrash, and other ailments connected with disordered digestion, is familiarly known. So also is the fact, that the rapid cerebral development, excited by the perception of the novelties of the outward world, subjects the brain to a proclivity to hydrocephalus, convulsions, etc. What happens at the teething time to the bowels, the air passages, and the nervous system, is familiar to the knowledge of each household, blessed yet rendered anxious by the care of infancy.^b

In the period known as childhood, ending at the time of puberty, life is chiefly occupied with growth. And through that period, the organs of digestion and assimilation are peculiarly obnoxious to disorder.^c That "the natural mobility (or activity of the excito-motory system) of childhood predisposes to chorea^d and kindred affections," is easily comprehended.

Dr. Williams, whom I follow here, informs us of the morbid susceptibilities, especially in females, which appear

(z) See remarks on Atavism. Ante.

(a) Williams, Princ. Med. § 36.

(b) Ib. § 43.

(c) Ib. 44.

(d) St. Vitus' dance.

at the time of puberty. We have already seen a little of disordered menstruation, and we shall be forced to speak of it again hereafter. For the present, we need only mention it in passing.

CHAPTER XX.

CHILDHOOD, YOUTH, ADOLESCENCE.

CHILDHOOD ranges through the greater part of the period known as that of the second teething. Youth is marked by the notable evolution of the organs by which sex may be distinguished, and by accompanying constitutional changes, which, together with that evolution, make up Puberty. Adolescence is distinguished by that entire consolidation of the bony part of body, which is not completed until the stature is completed.^a

What might be discovered in a truly scientific observation of these periods in infancy as it is known in law books, it is difficult to overestimate.

We have already seen, that a writer on the "Philosophy of Religion" has been quoted by one of the most eminent among writers on the laws of life, as well describing the mind of infancy in an interesting struggle. Here the endeavor of the infant mind is to add the knowledge of the outward to that of the inward—to know the objective as well as the subjective.

If one, accustomed to observe with care, and capable of clearly and accurately reporting observation, were to watch unfolding infant mind, well noting what he might observe of its development, we might be furnished with

(a) Carpenter (ed. of 1855), 853, 854.

some knowledge of the mental processes, now much demanded in the interest of psychological investigation.

Carpenter, in whom we find almost all we want with reference to any interest, has examined with characteristic care and capacity the physiological characteristics of different ages. He connects and compares "the progress of the development of the bodily fabric," with "the gradual expansion and invigoration of the mental powers."

It would be ungracious to deny that thus the learned physiologist has much obliged all classes of investigators. But it would be far from accurate to say, that Carpenter's production entirely satisfies investigation as to infancy.

Neither in the physiology of Carpenter, nor in any other work, however valuable, can we find a satisfactory account of infant mind, as it forms associations, acquires language, begins to remember, to imagine, and to reason.

If mothers' wisdom, added to the observations of the physiologist and others, might inform us of the gradual development of mind and body, many theories of education, habit, instinct, and the like, might find correction or confirmation.

Habit, instinct, education! What three words are more suggestive of contention and extravagance!

Of habit, it has been pronounced that it is second nature. Nature, we have seen, is the realm of the involuntary. It extends, as we have observed, to human life, embracing, in that life, all the action of the functions and the faculties, in which the will does not control the action, or in which, in other words, volition does not find distinct expression. Habit, in the actions which may be regarded as displaying it, is certainly but natural as I define the natural. It may be artfully produced. It may be voluntarily acquired. But nature furnishes the essence of the force involved in habit, and the operation of the force, when set in motion, is but natural.

We are told, that "acts, whether of body or of mind, whether single or in series, do, if often repeated, tend to recur afterwards in the same order of time and succession — this tendency being proportionate to the frequency and uniformity of repetition; modified by the will, but sometimes contravening and overcoming it. In fixing the relation between Habits and Instincts, an essential point is their respective relation to the will. Instincts are independent of it in their origin; though afterwards, in many cases, modified by its influence. Habit, in the more limited sense in which we have used the term, expresses the tendency towards automatic character in acts which were originally governed, more or less, by voluntary power."^b

How the purposed repetition of an act produces the described tendency towards automatic character in the acts so regarded, we are not so taught by physiologists, as entirely to satisfy our minds. We are, indeed, informed, that in certain conditions, "every single action may be probably regarded as affording the stimulus to the next; each contact of the foot with the ground in the act of walking, exciting the muscular contractions which constitute the next step; and each movement of the musician prompting that which has customarily followed it, after the same fashion." It is added, that in all the cases thus alluded to, "it seems reasonable to infer, that the same kind of connection between the excitor and motor nerves comes to be formed by a process of gradual development, as originally exists in the nervous systems of those animals whose movements are entirely automatic; this portion of the nervous system of Man being so constituted as to *grow-to* the mode in which it is habitually called into play. Such an idea is supported," continues Carpenter,^c "by all that we know of the formation and persistence of *habits* of

(b) Mental Physiology, 238, 239.

(c) Phys. (ed. of 1865), 486.

nervo-muscular action. For it is a matter of universal experience, that such habits are far more readily acquired during the period of infancy, childhood, and youth, than they are after the attainment of adult age; and that, the earlier they are acquired, the more tenaciously are they retained. Now it is whilst the organism is growing most rapidly, and the greatest amount of new tissue is consequently being formed, that we should expect such new connections to be most readily established; and, it is then, too, that the assimilative processes most readily take on that new mode of action which often becomes so completely a 'second nature,' as to keep up a certain acquired mode of nutrition through the whole subsequent life. It is an additional and most important confirmation of this view, to find that when a nerve-trunk has been cut across, the re-establishment of its conductive power which takes place after a certain interval, is not effected by the re-union of the divided fibres, but by the *development* of a new set of peripheral fibres in the place of the old ones (which undergo a gradual degeneration), this development proceeding from the point of section, and the central fibres remaining unaltered.—That an actual continuity of nerve-fibres, however, is not requisite for the establishment of those connections between excitor and motor nerves, in which the central organs take part, seems probable from the fact, that under particular circumstances we find the influence of such impressions radiating in every direction, and extending to nerves which they do not ordinarily affect. Still there can be no doubt that the nerve-force is disposed to pass in special *tracks*; and it seems probable that whilst some of these are originally marked out for the automatic movements, others may be gradually worn in (so to speak) by the habitual action of the Will; and that thus, when a train of sequential actions primarily directed by

the Will has been once set in operation, it may continue without any further influence from that source."

A like growing of parts of the nervous organism to the conditions of the exercise of their functional activity, is supposed by Carpenter with reference to what he calls sensori-motor actions.^d So in respect of the habits which affect the intensity of sensations, the quality of perceptions, the succession of ideas, and the like.

Until we learn what physiology still fails to teach—the nature of the limitation and direction of the mental forces, which may be supposed to dwell in mere corporeal development, and, in particular, in the development of nervous matter—we shall not be able to regard such explanations as those of Carpenter as perfectly reliable or wholly satisfactory. But they appear to aid us not a little in accounting for the force of habit.

We have seen, that there is great uncertainty in what is said by certain physiologists of Instinct.^e I have ventured to observe, that "I consider our notions of the distinction between instinct and art as very far removed from certainty." We may now proceed to notice the difficulty which sometimes attends discrimination between Habit and Instinct. "We need," says Sir Henry Holland,^f "to

(d) These are "reflex" actions, "performed by the instrumentality of the sensorial ganglia, which, however, differ from those of the spinal cord in requiring sensation as a necessary link in the series of changes." And we have examples in infancy. "In the infant, for some time after its birth, it is," says Carpenter, "obvious to an attentive observer, that a large part of its movements are directly prompted by sensations to which it can as yet attach no distinct ideas, and that they do not proceed from that *purposive* impulse which is essential to render them voluntary. This is well seen in the efforts which it makes to find the nipple with its lips; being probably guided thereto at first by the smell, but afterwards by the sight also; when the nipple has been found, the act of suction is purely excito-motor, as already explained. So in the Idiot, whose brain has never attained to its normal development, the influence of sensations in directly producing respondent movements is obvious to all who examine his actions with discrimination." Phys. 60—504.

(e) Ante, p. 91.

(f) Mental Physiology, 239.

recur often to the definition of Instincts—to their instant perfection, their sameness and permanence for the species, and the preciseness of their objects, extent and limitation—that we may duly separate them from those effects of habit which are ever present to observation. The actions belonging to the latter—various and vague in their origin, differing in individuals of the species, ever liable to be altered or cancelled by the incidents of life, and more or less under the control of intelligence and will—these actions obviously form a separate part of the scheme of animal existence; and in Man, especially, seem designed to represent the attributes of instinct, in the increased facility and certainty they give to the results of reason and voluntary power.”

Habit, as it is established in parental organisms, reappears in their offspring as instinctive action or tendency. It appears as “superimposed” on instincts, which it is able to modify.^g

Each individual, arriving at the age when self-observation becomes a pleasure or a necessity, observes in himself certain habitual or instinctive actions, which he finds it difficult, but not impossible, to modify or to control. For, as I have already intimated, bodily peculiarities, although they may peculiarize the mind, and although they may be in some sort the element in which the mind is active, are not necessarily so powerful over the mind as to be beyond resistance. They *tend* to shape the action of the mind; they do not always control it. One may war successfully even against instincts, within certain limits; he may war against habits still more successfully and to a still greater extent.

Nevertheless, the force of habit is a fearful one.

With reference to it, the duty of the parent as to education, which is, to a great extent, little more than the

(g) Mental Phys. 240.

ordering or establishment of habit, is of great importance. Whether and how far the State should interfere between parents and the performance of this duty — how far the State may properly enforce its performance by the parent if non-interference be the rule—in a word, what should be done with reference to education by the State, I have not well determined even for myself. I will not here discuss the questions thus alluded to. But I must not omit to add, that be the educator's duty that of parents' only, or be it a duty of the State, it is a duty of the highest import to society.

The habits which are involved in occupation begin, in general, to affect the formation of character at about the age of Puberty.

At this age, we commonly distinguish what we call the temperament of the individual. At the same time, in general, appear the indications of the presence or the absence of what we distinguish as genius.

At the time of Puberty, therefore, the choice of occupation may, in general, be safely made. For, the wise choice of a profession or other mode of artful life, depends upon a due consideration of the temperament and the capacity of the individual.

But, before proceeding further, let us ask ourselves, what do we mean by temperament? In the same connexion, we may well interrogate ourselves respecting our conceptions of capacity.

Temperament may be considered as but another name for that variable order and tendency of function and faculty in individuals, which appears to mark individuality, with reference to the capacity to act, resist, or endure. Force, be it of mind or body, seems to be dependent more or less on what is understood by temperament. In other words, mind-force and nerve-force appear to be more or less dependent, for degree, intensity, and mode of action,

on the quality of parts, and the combination of parts, in the entire organization of the individual. Or, perhaps, it were better to say, that the degree, intensity, and mode of action, of mind-force, depends to great extent upon the excess or deficiency, or perverted action, on the one hand, or the proper amount and normal action, on the other hand, of nerve-force. Or, to try another definition, we may say, that temperament is the resultant of a peculiar combination or constitution of parts, and of that peculiar character of the constituent or combined parts of human organization, on which peculiar modes of functional action and of mental tendencies appears to be dependent.

In Mr. Chitty's work on Jurisprudence, we are informed that the *tonic* temperament, as observed by Dr. Bostock,^h "is perhaps to be regarded as the *perfect* state of the human frame, because in it the different powers are the most nicely balanced, and where we have the greatest capacity for action, combined with the greatest strength of resistance. The body, in that state of temperament, is usually spare but hardy, capable of long-continued exertion rather than any peculiar degree of physical strength, while the mind is firm and ardent, and exhibits that happy combination of genius and industry which gives rise to the best directed efforts of human intellect."

Mr. Chitty further remarks, that some of the *deviations* from this tonic temperament "constitute positive disease; whilst, in some persons, there are only *smaller* disproportions, compatible with continuing health, but yet observable and occasionally developed by certain actions."ⁱ

Without describing the *tonic* temperament, as such, Dr. Williams observes, that the peculiarity of constitution called temperament certainly predisposes to particular diseases. It consists, he says, "in a predominance or defect of some function, or set of functions, viewed in relation to others."^j

(h) Chitty's Med. Jur. 49.

(i) Ib.

(j) Prin. Med., § 37.

Mr. Chitty has described as "deviations" or "disproportions" from the tonic temperament, the sanguineous, the phlegmatic, the choleric, the melancholic, and the nervous. Dr. Williams describes only the sanguine, the phlegmatic or lymphatic, the bilious or melancholic, and the nervous.

According to the last mentioned writer, "the sanguine temperament implies an activity of the system which circulates florid blood, and a full proportion of red corpuscles;^k it is manifested by an excitable pulse, flushing cheek, quick movements, and lively disposition. This temperament gives a predisposition to inflammation, determination of blood, and active hemorrhage." According to the same writer, the phlegmatic or lymphatic temperament, being the reverse of the sanguine, and marked by a pallid skin, occurs in those in whom the circulation is languid, the pulse is weak, the extremities are cold. In persons of this temperament, we are taught to discern deficiency of florid blood, and of vascular action, as well as of what is called tone.

The definition of *tone—tonicity*—may not be readily understood. We are told, that *irritability*^l is the distinctive property of muscular fibre. It implies the contraction of that fibre on the application of certain stimuli; and it may be defined as the capacity of the muscle to feel, and to answer, its appropriate exciters. Tonicity or tone is also a property of muscular structures. It is said to belong to yet other textures of the body. It preserves its proper tissues and textures in a certain degree of tension. It may be distinguished as "a tendency to slow, moderate, and permanent contraction, not essentially terminating in relaxation." Holding "muscles and limbs in their places when at rest," it holds them "out of their places when dislocated." "It is seen in the retraction of a living mus-

(k) Ante, p. 216.

(l) Ante, p. 222-224.

cle when divided in the operation of amputation of a limb, which takes place to a considerably greater extent than it would in a dead muscle." We distinguish what we call tonicity from contractility or irritability with reference to facts like these: "Although the slow contraction of tonicity is influenced by the same agents which excite irritability," yet "there is another agent, temperature, which seems to affect them differently. Cold, which impairs irritability, increases tonicity. Under the influence of cold, vessels generally, but especially arteries, shrink in size very remarkably; and the muscles and other textures, under the same circumstances, present a firmness and vigor of tonic contraction, which impede the quickness of motion that characterizes the highest degrees of irritability. Under the influence of heat, on the other hand, muscles are more relaxed, and more irritable; the pulsations of the heart are made by it more frequent."^m

Lack of tone is lack of health, or lack of the security for health. The phlegmatic or lymphatic temperament would therefore appear to be a defect of health, or at least a marked predisposition to disease. A certain "dulness of mind and feeling" is appropriate to it; while cheerfulness of disposition is appropriate to the sanguine temperament.

Gloomy tendencies of mind are commonly detected in persons marked by the indications of the bilious or melancholic temperament. Yet according to the ancients, this temperament might be regarded as that of genius. Dark complexion; probably defective action in some of the biliary or digestive organs; liability to derangement of the organs named; these are among the peculiarities of this temperament.

What is known as the nervous temperament "seems to depend on an excess, or want of right proportion, of some

(m) Williams, Prin. Med. 102.

of the properties of the nervous system." It is said to be "externally manifested only by agitation or trepidation of manner." It amounts to a predisposition to hysteria, nervous pains and spasms, as well as to other nervous disorders.

Mr. Chitty has described the choleric temperament as lying between the sanguine and the melancholic, and as marked by a softer fibre, a more irritable habit, a less dark and hairy skin, a more florid countenance, a quicker and stronger pulse, and a more irritable mind than the melancholic.

We are told, that the person of one having the temperament called sanguine, is of full habit; and that that of one having the melancholic, is of spare habit. We are left, as to the other temperaments, to inference, from the facts already noted.

But here I am disposed to quote with approbation what is said by Dr. Buchanan: namely, that there is "an infinite variety of temperaments. The attempt has been made to classify them by grouping together those in which certain qualities predominate; thus we have the nervous, sanguine, bilious, and lymphatic or phlegmatic. So far from this being a full catalogue of human temperaments, we might remark, that it is not even possible to construct such a catalogue—it would be endless. But if we understand each of these terms as the name, not of a temperament, but of a class of temperaments, we may use it with propriety. We may affirm that there are many temperaments which agree in having a conspicuous development of sanguine characteristics—that in another class the nervous characteristics are more conspicuous; and we may designate these classes as sanguine and nervous, bearing in mind that each of these groups, or classes, contains innumerable varieties.

"If," continues Dr. Buchanan,ⁿ "we consent thus to make classes of temperaments, as has been the custom, the arrangement that we adopt is merely a matter of convenience. If we understand the nature and cause of each temperament, the study of temperaments may be a matter of some utility."

I do not find myself able to accept the guidance of the learned theorist, when he proceeds to connect his view of temperaments with his peculiar organology. I have already shown why I feel compelled to reject such guidance. But in this connexion, as in others, I feel bound to say, that there is much in the Buchanan system which all physiologists and all psychologists may well consider.

All the writers who have treated of the temperaments concede, in substance, what Buchanan has advanced in this respect. Says Dr. Williams: "These temperaments may be variously combined." Says Mr. Chitty, citing Dr. Bostock: "Few individuals are affected by these deviations or characteristics in an extreme degree; . . . and even where they have been the most strongly marked by nature, yet education, climate, habits, and many other causes, may modify them in various ways; . . . and they are also capable of being combined together, by which immediate shades or variations are produced."^o

Thus it would appear that the attention which, in choosing occupation, ought to be given to temperament, must be moderated with reference to the difficulty of determining, 1. What is the temperament of the given individual: 2. For what does such a temperament qualify him? And it would appear, that a simple view of the temperament apparent in the individual at any time preceding manhood, cannot measure his capacity. For, temperament is only known through bodily appearance and certain modes

(n) *Anthropology*, 245.

(o) *Med. Jur.* 50.

of mental and corporeal action—and it is not always fixed, but often may be altered.

But we have spoken of capacity. It is of this that the temperament is the mere indicator.

We have seen already that Lavater's system includes the proposition, that "as each man has a particular circumference of body, so has he likewise a certain sphere of action." We have seen, that, according to the same enthusiast, the body is the cage of the mind—or, in other words, the soul in the body is as free as the bird in its cage. While rejecting this doctrine, I have ventured to receive, with less qualification, the Lavaterian doctrine, that "each individual can but what he can"—that each "may arrive at, but cannot exceed, a certain degree of perfection, which scourging, even to death itself, cannot make him surpass." But I have manifested caution even in the reception of this last proposition. And I have assigned reasons for rejecting that "Sarcognomy" which attempts to reduce to an art the estimation of the mental characters through the mere outward developments of the body: Yet I would not be regarded as under-estimating the value of the bodily indications of psychical peculiarities. Nor would I be understood as forgetting the capacity of body to limit the capacity of mind.

At Puberty, we have that peculiarity of body which we call temperament, as due to the inheritance of parental characters of body, modified by habit, or affected by the many accidents which, obviously, may affect it. Then, in general, we also have some degree of whatever else enables us to judge of what we call capacity. At Puberty, therefore, it is, in general, safe to choose the occupation, or, in other words, the mode of artful life which individual peculiarities point out as proper to be chosen.

I do not, indeed, agree with those who hold, or seem to hold, that if genius be not inborn in the individual, he

cannot win it by self-cultivation, or attain to it through changes of his constitution independent of the will. I cannot, without qualification, accept the language of Carpenter, when he observes, that "no one has ever *acquired* the creative power of Genius, or *made himself* a great Artist or a great Poet, or *gained by practice* that peculiar insight which characterizes the original Discoverer; for these gifts are mental instincts or intuitions, which may be developed and strengthened by due cultivation, but which can never be generated *de novo*." ^p I consider, that even after arriving at manhood—to say nothing of the period of Puberty—the constitution of the individual, bodily as well as mental, may, through habits voluntarily adopted, through disease, and in other modes, be changed in such a manner as that *genius* may take the place of simple talents, or of less than ordinary mental power. Dr. Carpenter himself has furnished me with some of the proofs of this proposition. But I will not here argue the proposition, save by a simple appeal to common observation, as entirely warranting what it asserts.

My purpose is only to note the fact, that a change of body and mind may take place in the individual, long after the period of Puberty, which may call for a change in the mode of artful life then selected. But, in general, at about the time of Puberty, the presence or the absence of the characters which indicate creative power, commonly may be ascertained. But even at an earlier age "the fatal gift of beauty" in the mind may manifest itself. Creative power, as it is attracted towards the Fine Arts, has often quite decidedly appeared at very early ages. And these arts, which in a man of genius do not look like arts, but rather like nature acting in the room of art, are often looked upon as a divine insanity of labor.

(p) Hum. Phys. (ed. of 1855), 573.

Though we joyfully accept the works of this divine insanity, we almost shudder in the presence of the worker. So it is with poets. The poetic power manifests itself at first, perhaps, in questions, or in silent inquisition into facts which feed poetic fancies. Questions indicating a propensity to novel combinations of familiar thoughts, have often startled the parental heart with mixed delight and apprehension. Silent peering into quaint old chronicles, or into long forgotten ballads, often earliest indicate the presence of poetic genius. But, whenever and however it is indicated, well may kindred hearts be startled by that presence. It has carried fire and sword into the territories of the soul. It has made wildernesses blossom with the fruits of order. It has blessed and it has cursed. It is a fearful thing, and yet a lovely. When a poet such as Shakspeare comes to full maturity of power, he is only overmatched in mightiness by powers of supernal origin.

Here, then, we have a most unquestionable variation from our standard of humanity. And here we own the presence of not one, but many differential characters of great importance to the artful life, which human laws assume to regulate.

CHAPTER XXI.

FROM INFANCY TO AGE.

LONG before the period at which, as we have seen, the youth in general may safely choose a calling, stern necessity has often forced the infant into toilsome ways of life. What injury is the effect of this, has been so often and so strikingly described, that little need be said of it in this connexion.

Even when the choice is fairly made, the way of life selected often is too closely followed. The choice of a profession or a "mystery," of any species of occupation, is, in effect, the selection of a class or set of habits, physical and psychical. Habit, modifying natural propensities or tendencies, is well described as second nature. We have seen how it may be superimposed on instinct, and may more or less control the latter. Educators have conspired with physiologists to magnify the force of habit. Mind becomes less and less volitional as habit more and more confirms itself. What we have already seen of habit^a must be here remembered—and it may be well to add a little to our former observations.

If the picture of the arts and of their operation in determining affections, giving course and application to the thoughts, and otherwise affecting character, with which

(a) Ante, p. 430-434.

the Son of Sirach has supplied us, cannot be regarded as a portraiture of artful life as it exists among us, we may still derive from it some useful warnings. It portrays the "craftsman and workmaster" as laboring night and day, making graven seals, and by continual diligence varying the figure. And it says of such a workman, that "he shall give his mind to the resemblance of the picture, and by his watching shall finish the work." It describes in like manner "the smith sitting by the anvil and considering the iron work." He, too, "setteth his mind to finish the work." And so we see "the potter, sitting at his work, turning the wheel about with his feet"—giving "his mind to finish the glazing, and his watching to make clean the furnace."

Here, where we engage ourselves with a forensic view of Man and Law, the picture painted in Ecclesiasticus may not present itself to the vision of the body. But the very character of this forensic scene enables us to bring before the eyesight of the mind the various scenes of artful life, in which we find the artist giving all his mind to what the busy and exacting world demands of him. The world is a hard taskmaster. Skill must be responsive to its demands, no matter what the cost to the skilful. The lessons taught by true philosophy, the lessons taught by dear-bought experience, appeal alike in vain for mercy to the workman. It is not enough to know, that, in certain trains of life, the operator becomes dull and stupid like a beast of burden. It is not enough to know, that "in a country where, from want of hands, several occupations must be carried on by the same person, the people are knowing and conversable," while "in a populous country where manufactures flourish, they are ignorant and unsociable." In vain do writers such as Hazlitt (whom I quote), inform us thus of what may follow the confinement of the mind to narrow rounds of labor. It is cer-

tain, that "various arts or operations carried on by the same man invigorate his mind, because they exercise different faculties." It is equally beyond question, on the other hand, that "constant application . . . to a single operation, confines the mind to a single object, and excludes all thought and invention."^b Let all this be granted—still society will have the best in skill, though at the price of the worst to the skilful.

How is it with the professions? And, especially, how is it with the law?

It would seem, from the chapter of Ecclesiasticus, to which I have referred, that there was a time when the wisdom of a scribe came from "his time of leisure," and from being "less in action." Now, we scribes have little "time of leisure," and we do not often "receive wisdom" by being "less in action."

Mr. Warren, in attempting to defend the law, at least in part against the sentence which we have already encountered as pronounced by Mr. Burke, exclaims: "A mere lawyer! But if, also, a good, a great lawyer, is he not, at worst, as practically useful to his fellow-creatures as the follower of any calling known among men? . . . Trust us, however, if this 'mere' lawyer moves all his days like a horse in a mill, his round is a pretty extensive one." And, citing Mr. Raithby, who protests he does not know "any pursuit in life that requires such various powers: taste, imagination, eloquence," he so describes the round of lawyers' duties as to show it as extensive as he has asserted. Yet, it seems to me, he has not quite made out his "case."

How closely the "mere lawyer" may be confined to the mill-horse round, and whether his circuit blinds his mind as horses lose their eyes, in instances from which the simile is borrowed, we may see hereafter. If the simile be just,

(b) Encyc. Brittan. tit. ARTS.

we may be certain, that the habits of body, marking the mere lawyer, are narrowing to his mind, and his habits of mind deforming to his body.

While I doubt whether, in real life, a lawyer with variety of learning such as Mr. Warren has described, was ever found in such a mill-horse way of life as that which he has designated as the daily toiling of the mere lawyer, I am well aware that men of hardly less attainments than he has embraced in his description, have reduced themselves to moral blindness by the exclusive study of a single subject. Tempted to select a speciality in his profession, the physician, the divine, the teacher, or the lawyer, may become incapable of entertaining any object save his darling study or pursuit.

Chiefly to keen perception of the eccentricity of character and action thus produced in many representatives of medicine, divinity, the law, and teaching, we may credit what those callings suffer from the pen, the pencil, and the mimic art.

We are not to forget that in the picture of the toiler's life which I have tried to outline, all is not of the character already contemplated. Toil is not, in all its forms, a simple slavery. Most lovely contrasts to the groups we have beheld make up the picture. But too often is the picture drawn by Horace Mann, as relative to his experience, presented to the observation of the thinker. He says of those who taught him, in his time of sleeplessness, and overwork, and various privation: "My teachers were very good people, but very poor teachers. With the Infinite universe around us, all ready to be daguerreotyped on our souls, we were never placed at the right focus to receive its glorious images." Society, which should be teacher of the individual, and which is certainly his master, often treats him, or allows him to be treated, as those worthy but misguided teachers treated Horace Mann. It suffers him to

be so ordered in the competition for success, that though the universe be ready to daguerreotype itself upon his soul, he is not at the right focus to receive its glorious images.

I would not be understood to deny, that in some departments of labor, even simple arts may be "split into parts," according to Mr. Hazlitt's expression, with the rational expectation that the productions of the art will thereby be improved. "In mechanic arts," says Mr. Hazlitt,^e "that method is excellent. As a hand confined to a single operation becomes both expert and expeditious, a mechanic art is perfected by having its different operations distributed among the greatest number of hands." But the production—the commodity—the goods—in which human society has the highest interest, is simply human life. If, without deforming and perverting human life, the arts cannot advance as they advance at present, let them be content with slower progress.

Even in America, there is occasion for these suggestions. Even in the cities of this yet new world, we find the twisted shoulders, the perverted growth, and other abnormities, which are the sadly common effect of an unregulated toil in other countries. Even in our workshops, we have warnings against sacrificing health and strength of mind and body, to the blind demands of progress in the "arts of industry."

Let the rule be what it may in the mechanic arts, we cannot doubt with reference to what should be the rule in the professions. Medicine, if I have rightly understood what is involved in its proper science and art, requires in its disciples comprehensive knowledge, liberal pursuits, a various experience. Medicine, as science, might be regarded as embracing all natural science, and as near akin to jurisprudence and to the practical part of theology. An interest

in the whole circle of man's artful life is, indeed, appropriate to each of the professions. That it is so as to law, I need not further argue.^d If I have presented fairly, what I have described as daily occurring in the courts of justice; if I have well suggested what belongs to the experiences and the proper art of lawyers; lawyers may properly aim at something hardly less than universal knowledge. Certainly, the utmost diligence, the noblest exaltation of ambition, will not furnish any lawyer less than Brougham in capacity, with such a universal learning. But the *aim* of such as would exhaust the learning which may be available in legal practice, may be such as I have hinted. And, at least, it is apparent, that no lawyer has a right to confine his mind to the "mill-horse round" described by Mr. Warren.^e Nor can the divine excuse himself for limiting the operations of his mind to narrow circles. For, as we have seen already, Theology is naturally the all-containing science.^f

(d) Ante, p. 145.

(e) Ante, p. 447.

(f) On this subject, I may quote a passage from a work on Mental Hygiene, as showing that the selfish interests of professional men, as well as their peculiar duties, frown on narrowness of mental range. "Mental labors, judiciously varied, will, in general, be far better sustained than those of an opposite character. As the same physical effort soon tires and exhausts the muscles concerned in it, so, likewise, will the same mental exertion produce a corresponding effect on the faculties it particularly engages. Hence, the manifest relief we experience in changing our intellectual operations—just, indeed, as we do in shifting our postures or our exercises. Close and undivided attention to any one object of real or fancied moment, is apt to be followed, earlier or later, according to incidental circumstances, by pains and dizziness in the head, palpitations and irregularities of the heart's action, general lassitude and prostration of strength, diminished appetite, impaired digestion, a contracted, sallow, care-worn countenance, and a whitening and falling out of the hairs. Or the mind, too ardently devoted to a particular theme, too long and intently engrossed by some solitary and absorbing subject, may, at last, as Dr. Johnson has so well illustrated in the history of his astronomer, lose all power of seeing it aright, or, in other words, become actually insane in relation to it." Sweetzer, Mental Hygiene.

Before leaving this subject, I desire to make my meaning clear.

The close confinement of the mind or of the body to the habit of a single mode of action will enable it to act in that mode with greater ease, with greater precision when required, with greater quickness or with greater moderation, where either may be necessary. "Practice makes perfect." But the habit which produces thus a certain species of excellence, may be a most expensive one to body or to mind. It may deform the body or the mind, or both body and mind. Society has no right to call for skill in any art, if skill involve the deformation of the body or the mind. Indeed, a real excellence in the professions is entirely inconsistent with the close confinement of the mind to any department of study or of practice.

What we have observed of occupation when selected and engaged in at or near the time of Puberty, has led us into some anticipation of the course of life in what we call the period of maturity.

As we have seen already, Adolescence is the designation of the period when the bony parts of body are consolidated. We are all familiar with the "neither man nor boy" peculiarities in body and in mind, of Adolescence.

Of the period of Manhood, as it lies before the period of what we call Old Age, we have already made an observation. We have seen the middle point of the period known as that of maturity. It may be added, that the cessation of growth involves a change in the action and proportion of certain functions and faculties. The proportion in which the function of nutrition is active after the cessation of growth, is different from that characteristic of earlier ages. What the psychical changes are, I have perhaps sufficiently suggested. But it may be well to add, that the "*observing faculties*" are greater before the period of maturity than afterwards—and that during that period

the intellectual powers, in general, "act, in the modes which have become habitual to them, with a sustained vigor and completeness which they never previously possessed."^g

The decline of life may now attract attention. Yet I almost fear to bring it under such an observation as the present. A forensic observation of Old Age should be a simple, fair, and rational examination of declining life. It should accept the light of science, rather than indulge mere sentimental fancies. But I find it difficult to speak of age with proper reverence, with due appreciation of its moral worth, with fitting admiration of its moral beauty, save when I forget what physiologists would teach us, touching mind and body in old age. The physiologists may, indeed, point to Shakspeare's portraiture of age as warranting what they advance in this respect. That "second childishness and mere oblivion" which Shakspeare has so strikingly portrayed, is quite as shocking to the natural respect for age, as is any thing contained in physiology. For, what do physiologists inform us? They inform us, that in the decline of life, the formative activity of the organism is strikingly reduced—its nervo-muscular energy and general vigor greatly diminished; its generative power quite enfeebled or entirely gone. They tell us, that two species of Degeneration—the *fatty* and the *calcareous*—may show themselves in age. They describe a progressive deterioration of the organism—and they cannot hide the fact, that many of the faculties decline as that deterioration is in progress.^h Says Dr. Draper: "This corporeal decay is the signal for a depression of the mental powers, the first which begins to yield being probably that of concentrating or abstracting the thoughts. As years pass on, external impressions exert a diminished influence,

(g) Carpenter (ed. of 1855), 862.

(h) Carpenter, *op. cit.* loc. cit.

and he who, at an earlier period, reached the meaning of things, as it were, almost by intuition, now casts his eyes over page after page without an idea being communicated to his mind. The old man querulously complains that he reads his book, but does not understand what it means. With this failure of conception the powers of memory decline, recent events fading away first, but those of early life being recollected last. The present no longer possesses an interest, for the brain is less capable of receiving any new impressions. One after another, the organs of sense fail to discharge their functions; the sight becomes misty, the hearing dull; there is an indisposition for exertion, a desire for repose. The white-bearded patriarch of a hundred years sits quietly by the fireside, resting his hands on the top of his staff.”ⁱ

But we must not forget historic lessons, the deliberate and solemn sentence of all jurisprudence, nay, the judgment of the world, attributing a wisdom to old age which other periods of life do not exhibit. We must not forget what Goethe and Humboldt were, what Brougham is, despite of age. We must be careful to distinguish the decline of body from the failure of the mind. For, although when the mind submits to be the slave or prisoner of body,^j age may bring decline to mind as well as to the instrument and tenement of mind; the decline of the physical is not *necessarily* the decline of the psychical, in man. At least, we ought to bear in mind, that what we call the immaterial in man may triumph over the material in what makes up his constitution. Draper has himself informed us, that the epochs of the maximum of physical and mental strength do not coincide; “that for the former occurring at about the 25th year, as previously remarked, but that for the latter not until between the 45th and 50th

(i) Draper, 544.

(j) Ante, p. 324.

year." And there are other facts, of which some may be encountered hereafter, which may well persuade us to accept with caution any theory that would deprive the aged of the reverence, which all the good and learned have combined to pay them.

Death—the end of earthly life—the dawn of life beyond the grave—might next attract our observation. But we have not yet examined that as yet mysterious friend and precursor of Death, known as Disease. Before completing our observation of the course of life, and before taking our final view of the differential characters of the human body and mind which are of a decidedly forensic interest, it may be proper to look a little at Disease.

CHAPTER XXII.

FACTS AND FANCIES IN PATHOLOGY.

WE are required by systematic writers to distinguish General Pathology and Therapeutics* from Special Pathology and Therapeutics. In the first division, we encounter the leading and general medical facts and doctrines, which are applicable not to individual cases only, but to groups or classes of diseases. In the latter, we engage ourselves with the theory and practice of medicine in relation to individual diseases.

I have intimated, that a knowledge of what is embraced in this latter division of medical science, might be often advantageous to the practical lawyer as such. But here we shall have to pay regard almost exclusively to General Pathology, not even as to this attempting to present more than the merest outline indications, with a few exceptions, as to matters of transcendent interest. The want of space dictates the propriety of so confining our observation; and another want not less important may be mentioned as dictating the same propriety. The want of knowledge on the part of the writer is this secondly suggestive want.

The doctrine of the causes of disease—the Etiology of Medicine—“appropriately introduces the consideration of the effect—*disease* itself.”^b

(a) Ante, p. 197.

(b) Williams, Prin. Med. Expl. of object of work, 3.

And in a system of General Pathology, we next proceed to the learning—Pathogeny or Pathology proper—which reveals the nature and constitution of disease. Combined with the latter, in a work like that of Dr. Williams, we find an elementary view of the principles of treatment (General Therapeutics). Additionally in the work alluded to is “a short general view of the Phenomena of disease (Semeiology)—of the division and classification of diseases (Nosology)—of their detection and distinction from each other (Diagnosis)—of the indications of their probable results (Prognosis)—and of their prevention (Prophylaxis and Hygienics).”

Very evidently, we must be conversant with Pathology within far narrower limits than we find to be the boundaries of medical Pathology. Forensic Physiology may, I am aware, include far more in the direction of Pathology than would be properly included in Physiology as a mere department of Medical Science. I believe, the term Forensic Physiology is either quite original as here employed, or now first treated with approximation to the scientific methods. If so, the word Physiology need not be confined as it is found to be confined in medical systems. But not even a distinctively forensic Physiology need be conversant with the whole of such Pathology, as that of which we have just seen the comprehensiveness. And no reader has failed to perceive, that the writer makes no pretensions to such learning in Pathology, as would enable him to go beyond the mere necessities of a distinctively forensic Pathology, considered as a part of a distinctively forensic Physiology. Indeed, the writer cannot hope to bring before the reader all that these necessities may seem to call for—he is no Pathologist.

The chief design of our excursion into Medical Pathology is to detect varieties of the capacity for artful life not

yet subjected to examination. And I hope my readers will remember this as we proceed.

My notion of disease, in setting out, may be submitted to fair and liberal examination. I consider disease as yet quite undefinable. But whether it be of the mind or of the body, I consider it as a series of varieties in bodily and mental competency, of which the nature is to be discerned by reference to a standard of health. This standard of health would be discernible in certain conditions of such a standard man as I have sought to bring before the reader by suggestive portraiture.

I am aware, that the apparent if not the real opinion of Dr. Ray, already alluded to, is against attaching much importance to the conception of a standard of mental soundness. But I find that medical authorities, while treating of Insanity of Body, point to a conceivable standard. And thus the *mens sana in corpore sano*—the healthy condition of the “tonic temperament”—would seem to be the standard of comparison regarded by the scientific with a view to gravest interests.

“Health,” says a learned English physician,^c “we regard as a standard condition of the living body. But it is not easy to express that condition in a few words, nor is it necessary. My wish is to be intelligible rather than scholastic: and I should probably puzzle myself as well as you, were I to attempt to lay down a strict and scientific definition of the term health. It is sufficient for our purpose to say that it implies freedom from pain and sickness; freedom, also, from all those changes in the structure of the body that endanger life, or impede the easy and effective exercise of the vital functions. It is plain, that health does not signify any fixed and immutable condition of the body. The standard of health varies, in different persons,

(c) Watson, Prin. and Prac. Physic (3 Am. ed.), 18.

according to age, sex, and original constitution; and in the same person even, from week to week, or from day to day, within certain limits, it may shift and oscillate. Neither does health necessarily imply the integrity of all the bodily organs. It is not incompatible with great and permanent alterations, nor even with the loss of parts that are not vital."^d

No one will venture to call this a *definition* of Health. Yet we all understand that Dr. Watson has suggested, very well, the ideal of Health as a Standard Condition, perceptible only as embodied in a Man beheld with the eye of the body, or reproduced by conception to the eye of the mind, or formed by the mere power of what we distinguish as pure imagination.

Similar remarks apply to Dr. Williams' attempt at definition.

"Disease is known," says Dr. Williams, "only by comparing it with the standard of health, which it is the object of anatomy^e and physiology^f to describe. . . . Looking, then, to anatomy and physiology as expressing the standard of health, we may define disease to be, a changed condition or proportion of function or structure in one or more parts of the body."^g

That Drs. Watson and Williams, for scientific purposes, compare disease with a fancied standard of soundness, cannot be denied. Nor can it be asserted, in the light of science, that any such fancied standard ought to be considered as a standard of merely corporeal soundness. While it may be true, that all insanity is only or essentially that of body,^h mind is always complicated with corporeal affections, if not implicated in them.

(d) Watson, Prin. and Prac. Physic (3 Am. ed.), 18.

(e) Ante, p. 196.

(f) Ib.

(g) Williams, Prin. Med. Explanation, 5, 7.

(h) 1 Beck. Med. Jur. 725.

Dr. Ray would not, perhaps, object to the conception of a standard of corporeal soundness, in order to the comparison of diseased conditions of the body with its standard healthy state. But even so allowing in behalf of the opinion which we are about to scrutinize, I cannot quite acquit the learned writer of inaccuracy and of inconsistency.

The language of Dr. Ray is,¹ that "to lay down any definition of mania founded on symptoms, and to consider every person mad, who may happen to come within the range of its application, might induce the ridiculous consequence of making a large portion of mankind of unsound mind. Some men's ordinary habits so closely resemble the behaviour of the mad, that a stranger would be easily deceived; as in the opposite case, where the confirmed monomaniac, by carefully abstaining from the mention of his hallucinations, has the semblance of a perfectly rational man. Hence, when the sanity of an individual is in question, instead of comparing him with a fancied standard of mental soundness, as is too commonly the custom, his natural character should be diligently investigated, in order to determine whether the apparent indication of madness is not merely the result of the ordinary and healthy constitution of the faculties. In a word, he is to be compared with himself, not with others, and if there have been no departure from his ordinary manifestations, he is to be judged sane; although it cannot be denied that striking peculiarities of character, such as amount to eccentricity, furnish strong ground of suspicion of predisposition to madness."

This objection I have elsewhere ventured to encounter with the arguments and suggestions contained in the next two succeeding paragraphs.

(i) Med. Jur. Insan., § 114.

When an individual, suspected of insanity, shall be compared, not with a fancied standard of mental soundness, but with his known former character, what is brought before the comparing mind? If the form, the features, in a word, the body only, with so much expression of the mind as may be certainly detected in look, and voice, and manner, be regarded, as the present state of him whose sanity is questioned, what but an *ideal* of the individual is furnished to the mind? And if to these be added testimony of eccentric conduct, incoherent thinking, and absurd opinions, what is our idea—our opinion—our judgment—of the man but pure conception?^j Even if, however, it were otherwise, with what we may “*perceive*” to be the *present state* of the suspected person, what will bring before us what he was before, in order that we may make his *antecedent character* the standard of comparison? Anything but pure conception? Would the standard, then, be other than a “fancied” one? But this is far from all that may be urged against the doctrine now examined. Who shall say that what had seemed before his “standard” state, was not insanity, without comparing it with other states, acknowledged to be states of sanity?

A “fancied” standard of mental soundness, Dr. Ray admits, may be conceived; for he objects to the too common custom of regarding such a standard, when insanity is, in any particular instance, suspected to exist. It is not, indeed, as we have seen, the only conceivable standard; for the *memory* may furnish one, when it supplies conception with the elements from which it forms a standard, reproducing what has been the character of a person suspected of insanity. But we have also seen, that we must still compare the standard state with an ideal standard. If it be objectionable to bring before us, by imagination,

(j) All these words, of course, are here employed as in common conversation—not in strictness.

such a "fancied" standard, we may have it in conception, formed from memory of other individuals, not created by imagination. And, if it be not safe to form an ideal standard of mental soundness (more or less accurate according to the capacity of the examiner), in order to compare with such a standard whatever we find in the supposed insane person, how much more certainty we shall attain when we attempt to fix the ideal of "the result of the ordinary and healthy constitution of the faculties," in the individual examined, belonging to a date preceding his supposed insanity? What is such result of the ordinary and healthy constitution of the faculties in an individual, but his standard condition as to health; and how—let me repeat—how do we *know* it, after it has passed away, but by conception? How do we remember it except as an ideal already formed in our minds?

Such considerations as I have thus suggested seem to warrant us in holding, that disease of body and disease of mind may be compared, in order to their proper apprehension, with a fancied standard of health in body and in mind.

And Dr. Ray himself has, rather inconsistently with what we have already seen, used language quite indicative of some regard for fancied standards. This regard, moreover, is with reference to purposes of practice. In the final chapter of the work referred to, he observes: "The expert should be prepared for his duty by a well-ordered, well-digested, comprehensive knowledge of mental phenomena in a sound as well as an unsound state. The question which, in one shape or another, is put to him is, whether or not certain mental phenomena indicate mental unsoundness. The true character of doubtful cases cannot be discerned at a glance. The delicate shades of disorder can only be recognized by one who has closely studied the operations of the healthy mind, and is familiar with that

broad debateable ground that lies between unquestionable sanity and unquestionable insanity. How little dependence could be placed on the testimony of a physician concerning the results of a cadaveric autopsy, who has not by frequent inspection, made himself acquainted with the healthy appearance of the organs. How this knowledge is to be obtained is a question not easily answered. In books on mental philosophy, the various faculties and operations of the mind are unfolded and described with a show of scientific precision. But the expert will derive from them little aid in preparing himself for his duties, for the reason, that their investigations are partial, being confined chiefly to the individual's own mind, overlooking the manifestations of mind as affected by disease. If any books are to be studied, it should be those immortal works which *represent men in the concrete, living, acting, speaking men, displaying the affections and passions, the manners and motives of actual men*. Locke and Stewart will here be found of less service than Shakspeare and Moliere. But better than all books, though their aid is not to be despised, are personal observation, and study of mental phenomena, as strikingly exhibited in real life. Every mental peculiarity, *especially in the normal condition*, and, above all, those traits of character that mark the transition between health and disease, should be closely observed. The expert should learn to distinguish the thoughts and manners of the one condition from those of the other, and endeavor to gain a ready perception of the general air and tone characteristic of each. No kind of preparation will better fit him for performing the peculiar duty of an expert, which consists in forming opinions respecting mental conditions, from a few and perhaps disconnected facts. Without it, he will be constantly liable to the mistake of regarding a trait or act as indicative of disease, for no other reason, perhaps, than because it occurs in a case supposed to be doubtful,

and of confounding natural eccentricities and impulses with the manifestations of active insanity. The expert who is deficient in this kind of knowledge can never be a reliable witness in questions of insanity."

Surely, if the *expertness* of the medical witness must, or well may, include a familiarity with "those immortal works which represent men in the concrete," which show a Lear or a Hamlet, or a Macbeth as "living, acting men, displaying the affections and passions, the manners and motives of *actual men*," the conception of a standard of mental soundness, though it be as much a "fancied" one as Dr. Ray supposes, cannot, even in his own estimation, be useless or unreliable. Surely, if "the expert who is deficient in" a "kind of knowledge," in which what we know of normal man as observed in life holds a prominent place, "can never be a reliable witness in cases of insanity," Dr. Ray may well qualify the language cited in a former paragraph of this volume.

When I first attempted to "show cause" against the dictum of Dr. Ray, on which I have here ventured to animadvert, I was unacquainted with the following from a recent work on Physiology.

"I do not contemplate the human race as consisting of varieties, much less of distinct species, but rather as offering numberless representations of the different forms which an ideal type can be made to assume under exposure to different conditions. I believe that that ideal type may still be recognized, even in cases that offer, when compared together, complete discordances, and that, if such an illustration be permissible, it is like a general expression in algebra, which gives rise to different results according as we assign different values to its quantities, yet in every one of these results the original expression exists." ^k In an-

(k) Draper's Physiology, 565.

other place,¹ the same writer says: "As from the physical point of view, there is a standard man, who, in weight, height, strength, and other such like particulars, represents the entire human family, so, in an intellectual point of view, there is a standard man, who, in mental progress, manner of thinking and of acting, represents the whole race. There are also subordinate standards, the representatives of particular groups or nations. It is to these standards that we are continually appealing in arriving at a judgment of the acts of individuals. The special history of these phases constitutes, in a philosophical sense, national history. The record of the development of the fundamental type constitutes universal history."

This learned recognition of our habit of appealing to what the writer distinguishes as "subordinate standards, the representatives of particular groups or nations," when we would arrive at "a judgment of the acts of individuals," would have aided me not a little in showing that Dr. Ray has either overstated his meaning, or fallen into an error in the particular with which we are concerned. It is evident enough, that, although the standards of which Dr. Draper writes can only be present to our minds as "fancied standards," the learned physiologist considers that they may be usefully conceived and safely resorted to, when objects of great practical value engage our attention or endeavor.

Unaided, however, by such an illustration, I felt myself warranted in the endeavor to show, that the theory of responsibility for crime, and the legal modes of distinguishing guilt from infirmity, assume the possibility, and presuppose the safety, with reference to the certainty of evidence and the justice of judgment, of forming a conception of standard mental soundness.

Now, however, it may be objected that the want of

(1) Draper's Phys. 611.

value in such a conception of bodily and mental health, as we have supposed conceivable, will be apparent, when any one is called upon to make a circumscription of the characters of health which ought to be embodied in that conception. I admit, that such a circumscription is not easy. I have not pretended to accomplish it in my attempted portrait of a standard man. I have confined myself, in general, to mere suggestion. But what then? We have already had occasion to remark, that even when an artist has approximated a correct conception, he is not always ready to express in marble or on canvas just what he conceives as there expressible, or as conceivable apart from all material embodiment.

And now we may refer once more to Shakspeare's portraits. These we have considered matchless. But could Shakspeare have expressed them otherwise than as he has expressed them—i. e., by suggestion? I think not. Yet who will doubt that Shakspeare clearly conceived the type of manhood—nay, the types of manhood?

We have seen how Shakspeare could conceive the beautiful ideal of a woman. Let us now regard another illustration of his power, here selecting his ideal of a standard man.

In giving his well-known counsel to Laertes, Polonius had the Ideal of the Laertes who stood before him, and the conception (or imagination) of another Laertes—Laertes corrected by the precepts of a father and improved by the intercourse of Society. Shakspeare created Laertes by the mere power of imagination, and nevertheless had a conception (or imagination) of his own Ideal, improved by travel and corrected by counsel.

But let us turn to the words of Polonius:

"Give thy thoughts no tongue
Nor any unproportioned thought his act:
Be thou familiar, but by no means vulgar:

The friends thou hast, and their adoption tried,
 Grapple them to thy soul with hooks of steel ;
 But do not dull thy palm with entertainment
 Of each new-hatch'd, unfledged comrade : Beware
 Of entrance to a quarrel ; but being in,
 Bear it, that the opposed may beware of thee :
 Give every man thine ear, but few thy voice :
 Take each man's censure, but reserve thy judgment :
 Costly thy habit as thy purse can buy,
 But not express'd in fancy ; rich, not gaudy ;
 For the apparel oft proclaims the man ;
 And they in France, of the best rank and station,
 Are most select and generous, chief in that :
 Neither a borrower nor a lender be ;
 For loan oft loses both itself and friend ;
 And borrowing dulls the edge of husbandry.
 This above all : to thine own self be true ;
 And it must follow, as the night the day,
 Thou canst not then be false to any man."

When Polonius adds—

"Farewell ; my blessing season this *in thee* !"

we see that the father had the corrected and polished Laertes "in his mind's eye," and we cannot doubt that he compared it with the Laertes whom he beheld with a coarser vision. But let any one only attempt to convert this specimen of word-painting into a strict scientific description of Laertes, in the form of a sentence, or set of sentences, *defining* the man as apparent in Shakspeare's portraiture. Without a perfect conception of the ideal Laertes, he could not even begin the work ; on the formation of such a conception, he would tremble at the task he had undertaken. I might add to this example one taken from Shakspeare's description of Man in the Seven Ages of his career. Even *that* conception would defy all attempt at scientific definition.

I have thus, I think, established : First, that an ideal standard of soundness, bodily and mental, is desirable. Second, that it is conceivable. Third, that, though it can-

not be presented to the mind by definition, it may be *suggested* to the mind.

My great anxiety to make these points may seem quite unaccountable. But it must be remembered that the legal methods of investigation have assumed the possibility of forming the conception in question, and the usefulness of such a conception when formed. I have an interest, therefore, to look into the question, whether legal methods of investigation are correct in this particular. And when we find, that such a writer as the learned Dr. Ray erroneously assails those methods of investigation in such a particular, we ought to make a full defence of the assailed.

I may be told, however, that I am in error in assuming, that the legal methods of investigation have assumed as I suppose. I would not be surprised to hear this, even from a lawyer in full practice. For, it may be said, that no *consciousness* of such conceptions as, according to my theory, attend comparisons of minds and characters, and mental states, when there is question of insanity, has ever yet attended any practical investigation of such questions. This may be conceded, if we only carefully determine what we mean by consciousness.^m But we must remember what we have already seen of "cerebration" working out important actions and results, without what we in general regard as consciousness. And we ought to bear in mind such truths as these: Very few men are ever endowed with the "reflective power." So observes Balmes, while treating of reflective power in children. As to men, this true philosopher has remarked, that in many individuals—he says, "in the greater part of them"—ⁿ the reflective power "is very nearly null. They, who labor to attain it," he continues, "acquire it only by assiduous labor, and not without great violence to himself, can any one pass from direct to reflex cognition. No matter what you teach a

(m) Ante, p. 310.

(n) Fundam. Philos. 16.

child, he perceives it, indeed, but call his attention to the perception itself, and his understanding is at once obscured and confused. Let us make the experiment. Suppose we would teach a child the elements of geometry. 'Do you see this figure bounded by three lines? It is called a triangle; the lines are called sides, and the points where they unite the vertices of the angles.' 'I understand that.' 'Do you see this other figure bounded by four lines? It is called quadrilateral, and, like the triangle, has its sides and vertices of angles.' 'Very well.' 'Can a quadrilateral figure be a triangle, or *vice versa*?' 'It cannot.' 'Never?' 'Never.' 'Why not?' 'One has three, and the other four sides: how then can they be the same thing?' 'Who knows? It may seem so to you, but—' 'See here! This has three, and this four sides; and three and four are not the same thing.' Torture his understanding as much as you please, but you cannot drive him from his position: and thus we see that his perception and his reason operate directly, that is, by direct application to the object. Of himself he does not direct his attention to his own internal acts, does not think upon his own thoughts, does not combine reflex ideas." Again: "What has been said of the child, may be proved true also of adults, however clear and perfect their intellect. If not initiated into questions of philosophy, they will give very nearly the same answers to difficulties proposed on the same matters, and even upon many others more exposed to doubt."

That the reflective power is not always great in lawyers, I will merely state. It needs no argument.

I therefore hold, as I have laid it down, that in legal investigations of insanity, the forensic expert regards a "fancied standard" of soundness, even when he may be quite unconscious of such regard.

We may accordingly maintain as I insist, in the three

propositions which I have submitted to the reader as to the conception of health in body and in mind.

But when we come to what we call disease, can we conceive varieties of deviation from the healthy standard? I would answer, yes. And I would point to science, sculpture, painting, poetry, for illustration of disease, precisely as I point to science, sculpture, painting, poetry, for illustrations of the sound mind in the healthy body.

Shakspeare here shall teach us, just as he has taught us in the illustrations we have contemplated. Lear and Ophelia shall be illustrations of undoubted, real, mental alienation. Hamlet's doubtful madness, and the feigned insanity of Edgar, may be well compared with scientific methods for detecting simulated madness. And the nicer shades of the disorder, which is less than what we call insanity, are well displayed in Shakspeare's gallery of portraits.

Coming now to nearer views of scientific treatises of Insanity, I beg the reader to observe, that I have chosen to consider the Insanity of Mind in close connection with my view of the Insanity of Body. And, not contemplating the attempt to make a definition of so-called "insanity," and finding no suggested definitions very happy, I am almost ready to regret that any one has ever made a definition. For, although the definitions which we may encounter in the books may have their uses, nearly all of them appear to me defective. And if I were suffered to be heard upon the question, I would almost venture to suggest, that a commission be appointed with instructions to consider every shade of difference, from a healthy mind in a sound body, as a shade of what would be distinguished as insanity. Already the "insanity of the retina" is a term of growing use. To treat insanity of vision as a species of insanity in general, so called, seems proper. Why not treat each instance of corporeal unsoundness as

insanity? Why keep in use the fearful name of madness or insanity, in such a manner as to indicate, that insanity when it extends to mind is farther from us than disease or pain of any other kind?

If Dr. Beck has correct views of what we call insanity, it, like disease in general, is only or essentially a bodily disorder. I am not prepared to take this doctrine for correct.

Though idiocy is not disease, and though old age is not disease; we see in idiocy and in advanced age, phenomena which indicate that differential characters of mind are due to differential characters of body. And we have already seen, with reference to other illustrations, how exceedingly intimate is the connexion of the mind with its containing body. But we ought to guard ourselves against a very perilous confusion of ideas, if we venture to declare with Dr. Beck, that all insanity, essentially, is of the body.

For it is to be observed, that, although all insanity may be but bodily disease, its origin may be purely spiritual. The so-called "mind diseased" may be in truth a body out of health; but in some "rooted sorrow" may be often found the source of all the sickness making up insanity. Indeed, the doctrine that insanity is nothing but a bodily disease is not accepted universally. For my part, I could only regard insanity as essentially a bodily disease, in the same sense in which I might regard the delirium of fever as essentially a bodily disease. But even in the delirium of fever, mind is disordered, and I know not how to draw the line between disorder and disease, when mental action is in question, save as comparative permanence and relative degrees of painfulness may indicate that line. However this may be, some fell solicitude that slowly poisons all the thinking, or some "grief too deep for tears," or some quick shock that makes a chaos of the soul, may be the cause of

mental alienation. And with reference to facts like these, it seems quite proper to agree with Dr. Prichard, that the "*immediate* causes of madness are in part physical agents, and in part moral. Perhaps," adds the learned writer, "it may be remarked, that the former are the most prevalent causes of madness in the lower ranks of society, and the latter in the higher class, whose intellects are more developed, and whose minds are subjected to more extensive influences." °

Having thus distinctly brought before the reader, learning which relates to causes of Insanity, I purpose to compare the causes of Insanity in Body with the causes of Insanity in Mind.

I have not forgotten, that we have not yet distinguished the several species of Insanity. But we have seen enough of the disorder of the body and of that disorder which we call unsoundness of the mind, to be prepared for such etiological examinations as I have in view. And we have seen already, that a systematic writer has advanced to the examination of disease through an examination of its causes. We may surely imitate such an example.

But we should avoid as far as possible the niceties of metaphysical discussion when we treat of causes. I can only say, as far as possible. That we cannot keep so "well away" from metaphysical discussions as we might prefer, will be apparent in the simplest statement we can make concerning causes of disease. But we may well avoid all over-nice inquiry into the relation of causes and effects in this connexion.

(o) Art. on Insanity in Cycl. of Prac. Med.

CHAPTER XXIII.

PHYSICAL AND PSYCHICAL ETIOLOGY.

CAUSES of disease have been considered as of two kinds, dynamical and material. Without examining this notion, we may say with Dr. Williams, that the "causes of disease are such circumstances as essentially precede it, and to whose operation its occurrence is due. . . . The causes, or circumstances, inducing disease, may be *intrinsic*, or existing within the body, independently of any obvious external influence; or they may be *extrinsic*, having their origin without the body." And, discarding the term proximate cause, which was formerly employed, we may distinguish causes as either *predisposing* or *exciting*.^a Both of these generally coöperate in the production of disease. But what ordinarily exists as predisposition may appear as the exciting cause, and strong exciting causes may produce disease without predisposition.

The body, in its healthy action—life, in other words, when not invaded by disease—is said to have within itself an appreciable force of conservation. What this force may be is still a puzzle to pathologists. The *archæus* of Van

(a) Williams, Prin. Med. Chap. I. Dr. Watson, agreeing with Dr. Williams and with others, observes, that "the proximate cause is nothing else than the actual disease itself—the actual condition of that part of the body from which the whole train of morbid phenomena essentially flows. When we know that part, and that condition, we name the disease accordingly." Prac. of Phys. 57.

Helmont, the *anima* of Stahl, the *vis medicatrix naturæ* of Cullen, and the *vis conservatrix* of Dr. Williams, are suggested to the minds of medical readers by the mere mention of the force in question.

I do not propose to discuss *Van Helmontism* or *Stahlianism* in this connexion. We have seen how difficult it is to frame a definition of the thing called life or vital activity. What the vital principle may be—what may be said with certainty of the force by which life resists the various disturbers of its healthy action—we will not examine. Let it be enough to know, that certain actions of the body, quite discriminable from the actions which express volition, seem to stand on guard against disease.

A limitation of the force expressed in these actions is detected in *predisposition to disease*.

Predisposition to disease is carefully distinguished by pathologists from the causes of predisposition.^b

Causes of predisposition are assigned by Dr. Williams as follows:

- I. Debilitating Influence.
- II. Excitement.
- III. Previous Disease.
- IV. Present Disease.
- V. Hereditary Constitution.
- VI. Temperament.
- VII. Age.
- VIII. Sex.
- IX. Occupation.

Of the relation to disease of hereditary constitution,^c temperament,^d age,^e sex,^f and occupation,^g we have seen a little in preceding observations. Whether age or sex can be distinguished either as the cause of predisposition,

(b) Williams, Prin. Med. ch. II, § 20. Watson, Prac. Phys. 58.

(c) Ante, p. 408.

(d) Ante, p. 435.

(e) Ante, p. 452.

(f) Ante, p. 390.

(g) Ante, p. 446.

or as itself amounting to predisposition, may, perhaps, be questioned. But that the supposed *conservative force* varies with age and sex, with reference to given forms of morbid action, and with reference to the invasion of giving exciting causes of disease, is not to be disputed.

With reference to age and temperament, much might be added to our former observations. But I do not purpose to add any thing, with that reference, in this connexion.

That hereditary tendency to disease may be involved in what is called hereditary constitution, is well known. Thus, "scrofula, gout, rheumatism, epilepsy, mania, asthma, blindness, and deafness, run in families."^h

As to sex, we have already seen, in part, to what diseases the male, as male, and the female, as female, are respectively exposed. But the liability of the female to particular forms of disorder, only glanced at in an earlier chapter, here demands a somewhat closer observation.

Menstruation is, we are informed, a species of excretion. If the catamenial discharge be in excess, or if it be deficient, the excess or deficiency in question may *excite* disease,ⁱ and, it would appear, it may produce predisposition to disease, distinguishable from the immediately resulting disorder. Like remarks apply, perhaps, to the secretion of milk.^j

The chief interest of an inquiry into the effects of disordered menstruation, will appear when we attempt a nearer view of disordered mental action. For the present, what we see of it may serve as introduction to a view of debilitating influence, excitement, previous disease, and present disease, as causes of predisposition to disease.

That among the causes of predisposition, those distinguished as debilitating should be the most numerous, cannot surprise us. For, constitutional strength implying power to resist disease, imperfect nourishment, subjection

(h) Williams, Prin. Med. § 36.

(i) Ib. § 67.

(j) Ib. § 68

to impure air, excessive exertion of body or mind, and the like, might be expected to impair the resisting power, and to predispose the body to disease. Dr. Williams adds to this enumeration of debilitating causes the following: Want of exercise and sedentary habits, long-continued heat and long-continued cold, habitual intemperance in the use of intoxicating liquors, depressing passions of the mind, such as fear, grief, and despondency; excessive and repeated evacuations, either of blood or of some secretion; and previous debilitating diseases. The debilitating being that which weakens, and debility being the state in which the power of voluntary motion is deficient,^k we distinguish, in the mere enumeration of these causes, their relation to debility. For none of us require to be informed, for instance, that a weakening must follow the imperfect nourishment, resulting from defective quality or quantity in food, or from the ill-performance of digestion. None of us, again, require to be informed, that we must breathe pure air, if we would feel the strength of health. We may not be sufficiently learned to hold discourse with Dr. Williams of the injurious effects of impure air as "manifested in the pallid, cachetic complexions of the inhabitants of crowded cities."^l We may be so ignorant as not to know that the cachetic is the simple "badness" or "depravity" of certain constitutions and conditions, such as that we see in scrofula. But we are all enabled to attest how strikingly the "cachetic" in the city face, "contrasts with the ruddy countenance of the hardy and coarsely fed mountaineer."^m Nor do we need the information, that a long-continued heat, as well as a long-continued cold, debilitates. Nor are we to learn as something quite unknown before, that excessive evacuations, such as we have found enumerated with debilitating causes of predisposition, or that previous suffering under debilitating diseases, may be placed with

(k) Watson, *Prac. Phys.* 88.(l) *Prin. Med.* § 22.(m) *Ib.*

confidence among debilitating causes. True, we ought to know much more of all these things than we even imagine that we know about them. But that they are properly enumerated as among debilitating causes, all of us have learned in some mode.

Similar remarks apply to habitual intemperance in intoxicating liquors. Yet society behaves as though there were some doubt in this particular. And so it is with the behavior of society, as we have seen already,ⁿ with respect to the excessive exertion of the body or the mind, on the one hand, and want of exercise and sedentary habits, on the other. We have all a reasonable certainty, that intemperance in any of these particulars is quite inimical to health. Yet we need repeated admonitions, that the drunkard is predisposed to "attacks of fever, erysipelas, dysentery, cholera, dropsy, and rheumatic and urinary diseases;"^o that "the fatigued mind or body is peculiarly prone to succumb before causes of disease,"^p and that "the healthy vigor of the various functions of body and mind is best maintained by equal and moderate exercise."^q

And thus it is with reference to the depressing passions of the mind. We know, but we act as though we did not even suspect, that these passions waste the tissues of the body, weakening the frame, and otherwise preparing easy entrance for disease. We grieve, we dwell in anxious doubt, we fear, without regard to reason. We forget how little we have reason to be fearful, and how seldom we have just occasion for anxiety, and how unavailing is the grief which we permit to be precursor of disease.

Dr. Williams has distinguished excitement from debilitating influence, regarding both as predisposing causes of disease. Full living, without proper exercise, may, indeed, bring "the circulation and other functions up to a high pressure degree of activity without producing disease."

(n) Ante, p. 446.

(o) Williams, § 27.

(p) Ib. § 23.

(q) Ib. § 24.

According to Dr. Williams, "there is then redundancy of health." And though the expression "redundancy of health" can hardly be accepted, it may be that in the state supposed, there is "a more than usual capability of resisting those causes of disease which operate by depression, such as cold, malaria, and infection. But," according to the same authority, "there is a predisposition to suffer from causes of additional excitement; thus irritants then more readily induce inflammation; violent exertion causes hemorrhages; and the stimulation of almost any organ may heighten the vital actions to a morbid pitch."^r

Independently of the weakening influence of previous diseases, these may appear as causes of proclivity to disease. And a "disease, already existing in the body, even when itself latent, often predisposes to other disorders, independently of its weakening effect. Thus tubercles and other tumors, structural lesions of the heart and other organs, often induce irritations or obstructions of blood vessels, which, if not the cause of immediate and manifest disease, nevertheless lead the way to the production of disorder by other causes."^s

The exciting causes of disease attracting next our observation, we discover that if we should scrutinize their various descriptions, we should make ourselves not less than students of the healing art at large, with its connected sciences. It must suffice to note a few of the most interesting facts and classifications. Dr. Williams makes this table:

(r) Prin. Med. § 31.

(s) Prin. Med. § 33-34.

"EXCITING CAUSES OF DISEASE."	I. Cognizable Agents.	1. Mechanical influences.	
		2. Chemical influences.	
		3. Ingesta. ^t	
		4. Bodily exertion.	
		5. Mental emotion.	
		6. Excessive evacuation.	
		7. Suppressed or defective evacuation.	
		8. Defective cleanliness, ventilation, and drainage.	
		9. Excesses and changes of temperature.	
	II. Non-Cogniz- able Agents.	1. Endemic, ^u	} Poisons."
		2. Epidemic,	
		3. Infections.	

It is observed by Dr. Watson, that "in strictness of language, one event is held to be the cause of another event which follows it, when, the first being absent, the second never occurs; and, the first being present, the second never fails to occur, unless some other event intervene to prevent it. But the causes of disease will not bear to be spoken of after so strict a fashion. . . . Certain circumstances being present, such and such diseases do *often*, not *always*, follow. Some persons are more liable to be affected by the operation of many of these ascertained causes than others are; and the same persons are more liable to be influenced by the same cause at one time than another. And special circumstances, existing in particular cases, will be found to account for this variable operation of known exciting causes upon the bodily health. These special circumstances may properly be called predisposing causes. Thus, of twenty persons exposed to the same noxious influence—to the combined agency of wet and cold during a shipwreck for example—one shall have catarrh, another rheumatism, a third pleurisy, a fourth ophthalmia,^v a fifth inflammation of the bowels, and fif-

(t) "Substances introduced into the body by the digestive passages." Dungalison.

(u) "A disease is said to be endemic, or to arise from endemicity, . . . when it is owing to some peculiarity in a situation or locality. Thus, ague is endemic in marshy countries; goitre at the base of lofty mountains, etc." Dungalison. Med. Dic.

(v) Inflammation of the eye.

teen shall escape without any illness at all. A man does that with impunity to-day, which shall put his life in jeopardy, when he repeats it next week. It is not, therefore, the exciting cause alone that in all cases determines the disease. Something—nay much, or all—will frequently depend upon the condition of the body at the time when the exciting cause is applied, and this condition of the body, which we call predisposition, will depend upon circumstances then or previously in operation; and these circumstances are, in our language, *predisposing* causes.”^w

A careful comparison of the table of exciting causes, prepared by Dr. Williams, with the same learned writer's assignment of the causes of predisposition, will show that what sometimes only causes a predisposition to disease, may, at other times, excite disease itself. Indeed, we might entirely lay aside the distinction between predisposition to disease and disease itself. For, if predisposition be, essentially, the diminution or perversion of the supposed conservative force,^x such diminution or perversion might itself be well distinguished as disease. However this may be, it is apparent that what sometimes merely causes what is called predisposition, may at other times excite what we distinguish as disease.

I do not purpose to examine the assigned exciting causes of disease. The mere assignment of them, in connexion with the view that we have taken of the causes known as predisposing, may be quite enough for all our present purposes. These chiefly point to the ascertainment of the relation which subsists between Insanity of Body and Insanity of Mind. In other words, we are approaching the examination of unsoundness in the mind through an examination of unsoundness in the body. The insanity of mind is chiefly what concerns us in this forensic observation of human nature, as it is exposed to what

(w) Watson, *Prac. Phys.* 58.

(x) *Ante*, p. 471.

we call disorder or disease. For, though we must not overlook the fact, that incapacity of body may assume forensic interest—especially where there is question of the criminal in conduct—we must bear in mind, that it is chiefly psychical capacity which should attract attention in a course of studies like the present.

I propose, therefore, to proceed at once to the examination of the causes—also known as predisposing and exciting—of unsoundness in the mind. I ask my fellow-students to compare these causes of psychical disorder with the causes of physical disease.

A “certain peculiarity of natural constitution” is, according to Dr. Prichard, in all instances, a necessary condition to the development of madness. It is not invariably an inheritance; but it is always congenital. The facts to which he points to justify his doctrine, do not entirely justify it. But, however this may be, there is in certain persons such a constitution as the learned writer mentions. Dr. Prichard has described this constitution as probably consisting, chiefly, “in a particular organization of the brain and nervous system, rendering those individuals so constituted liable to become insane when exposed to the influence of certain agencies, which in other persons either give rise to a different train of morbid phenomena, or are, perhaps, devoid of any injurious effects.”^y

I have given reasons for objecting to the ranking of age with the causes of predisposition to disease of body. Can it properly be ranked with causes of predisposition to disease of mind? I think, it cannot. There appears in mind a force analogous to that *vis conservatrix* which we have seen as guarding the body against the attacks of disease. That at certain ages, this force may be less than at others, may be granted. But, except as the variable degrees of this force may more or less *expose* the mind to the exciting

(y) Art. on Insanity, Cycl. Prac. Med.

causes of unsoundness in the mind, I cannot look on age as predisposing to disease.

I shall have occasion, in another place, to speak of childhood in connexion with a view of feminality, as it relates to certain forms of madness. I will only note at present, that imbecility has been recognized as the predominant mental disorder of childhood, and remind my readers of the comparison already instituted between infancy and idiocy.

As to the other ages, we are told by Esquirol that mania is the predominant mental disorder of youth, melancholia of more advanced manhood, and dementia of old age.

Dr. Draper tells us, that between the 45th and 50th year, "when the powers of imagination and reason have reached their highest degree, the liability to mental alienation and insanity is also at its maximum." ^z

Dr. Prichard, on the other hand, informs us, that "the years during which madness most frequently makes its first appearance, are those between thirty and forty in the age of the individual; next to these are the years between twenty and thirty; thirdly, are those between forty and fifty. Insanity is comparatively rare in the earlier as well as in the later periods." ^a

Without attempting to vindicate my preference of the statement made by Dr. Prichard, I take leave once more to warn my fellow-students against what we find in physiological and other scientific works, relating to old age as predisposing to insanity, or as, in some sense, being in itself insanity.

We cannot well commit ourselves, here, to any guidance, not quite evidently cautious. Either we shall lean too much in one direction, or incline too much in another, if we be not well upon our guard.

A proper reverence for age, a due regard for scientific

(z) Phys. 542.

(a) Art. on Insanity, Cyc. Prac. Med.

teachings, may enable us to keep away from errors, either way.

But it is far from easy to approach the aged, with the proper scientific calmness. Even as to infancy, we find it difficult to make the needful, just discriminations. But it is yet harder to discriminate, when treating of the aged. Yet we must endeavor to apply the light of science to a view of age.

Decline comes on so slowly, that declining bodies often seem to be possessed by minds unconscious of decline. Indeed, in age, we find, sometimes, the plainest contradictions of the theories and systems which attempt to make the body master of the mind, instead of recognizing mind as superior to its material tenement. True, dotage and dementia, as well as reverence and troops of friends, do often visit age. But when we look upon the picture of old age, painted by the prince of painters in the school where words are all the colors, one defect cannot escape us. Age,

“Sans teeth, sans eyes, sans taste,”

is yet not quite

“sans everything.”

The stooped, inactive body, and the wrinkled face, are honorable as a ruin, and still holy as a shrine. They tell us of the vigor now departed, of the faculties now grown incapable, of the glory now extinguished. But they tell us also of the vigor yet to show new powers, of the faculties yet to exercise far nobler capabilities, and of the glory never to die out. Thus we await the true

“Last scene of all,
That ends this strange eventful history,”

expectant of the moment, when the tongue that seemed to babble through its

“second childishness and mere oblivion,”

shall wake up long forgotten thoughts, and charm us into faith, and hope, and love, beside a Christian death-bed. For so,

“They say, the tongues of dying men
Enforce attention, like deep harmony.”

Although, therefore, we quite reject certain views of Chancellor Kent,^b respecting the protection due to age, we cannot quarrel violently with the Courts, which have respected dying testaments. We must, indeed, distinguish well between due reverence for age, and foolish suppositions of capacity, where no capacity remains. But we must “hasten slowly” in depriving aged men of rights accorded to the young.

That Swinburne does not literally err when he declares, that “a man may freely make his testament, how old soever he may be,” all science will attest.

That he is literally right when he assigns the reason for his rule, is also quite unquestionable. It is *not* the integrity of the *body*—that is requisite in testaments.

But though it is integrity of mind, and not of body, which we must regard as constituting testable capacity, we are not authorized to look at changes in the body worked by age as not at all affecting the capacity in question. Age is sometimes

“wondrous strong.”

And it is often

“lovely in its strength, as is the light
Of a dark eye in woman.”

(b) Post.

But it is not always lovely, and it is not always strong. It is to be observed, that in the course of life, as physiologists have marked it out, the *hardening* of mind keeps pace to some extent with that of body.

But though it may appear that in a series of changes such as this, the mind must be extinguished, all the history of man cries out against the silly supposition. Age, the wise in council, also, is not seldom the determined, prompt, and brave in action. Age, again, that sometimes shivers in forgetfulness at the fire-side, or goes babbling to the board of which it has forgotten all the higher pleasures, often crowns the feast with graceful dignity, and often makes the hearthstone more attractive than the groves of olden-time philosophers. What are we then to think? Is age disease, or is it health?

The answer is not easy. But, considered in itself alone, age cannot be disease. And when we come to look at age, as Shakspeare has described it, we must not forget how dissipation, or immoderate or sordid toil and trouble, enter into the composite causes of dementia in age.

Says Dr. Ray: "In the later periods of life—and particularly if the constitution be weakened by sickness or dissipation—any exertion of the mind far beyond its power to sustain, is liable to be rapidly followed by a state of dementia. The same effect is produced when, after many years of unremitting attention to certain pursuits, the mind is suddenly deprived of the objects on which it rested, and thrown upon itself to furnish the means of excitement in the declining years of life, when novelty presents no allurements, and the circle of earthly prospects is being constantly narrowed. Take an individual from the stir and bustle of a city residence; from the unceasing strife of competition in the pursuit of wealth or honor; throw down the goal on which for years his eye has rested, though ever receding from his grasp; place him in the

country, at a distance from familiar faces and scenes; and *unless* his mind be informed with various knowledge, or warmed by an interest in the moral concerns of his fellow men around him, it will sink into that state of inactivity so favorable for the operation of the predisposing causes of this disease."*

I emphasise the word *unless*, because that little word lets in no little light on this inquiry. We may shrink from laying down with ostentation, any rule respecting the decline of mind as answering the decline of body. We may hesitate about accepting or rejecting theories, respecting senile memory, and senile will, and senile understanding. But that *unless* there shall have been abuse, there shall not be dementia, seems almost ready to be said with scientific certainty. However this may be, it is instructive to regard such sentences as that in which the emphasised *unless* of Dr. Ray occurs. Such sentences are better than fine gold and precious stones. They show us how the mind may be superior to its corporeal tenement, and how this human life is often

"Lovely to the last,
Extinguished, not decayed!"

Sex, as well as age, is treated by certain writers as predisposing to insanity. Having objected to the ranking of sex with causes of predisposition to bodily disease, I must object to the classification of sex with causes of predisposition to mental disease. But, as with reference to age, so also with respect to sex, I must acknowledge that the *vis conservatrix* of mind is different in the male and the female. In some respects, and with reference to certain forms of mental disease, the male would appear to be more exposed to the attacks of insanity than the female. On the other hand, the female would appear to be pecu-

liarily exposed to the exciting causes of other forms of madness. Whether feminality—feminineness—is more or less guarded than masculineness against insanity in general—in other words, whether among the insane there are more or fewer females than males, has been disputed, and statistics leave open to question. But, I think, it cannot be denied, that, in addition to the very obvious difference between them as to their organic structure and consequent liability to certain forms of bodily disease, there is a difference between the sexes as to their exposure to certain forms of mental disease. The form of madness known as Impulsive or Emotional, though it may manifest itself in males, has chiefly and most strikingly appeared in females.

How this peculiarly feminine predisposition to Impulsive Insanity is produced is still, to some extent, left open to dispute. The cases show, that it may be, in some way, the result of disordered menstruation, and of other disorders of a kindred nature.

We are told, that “females suffering from grief, or anxiety, from habitual discharges, at the menstrual period, at the change of life, and soon after delivery, are thrown into a peculiar nervous state, which is well characterized by the name of *mimosis inquieta*. This excited condition of the nervous system,” adds Dr. Guy,^d “is sometimes accompanied by a strong impulse to crime, mixed with an overwhelming fear of giving way to the propensity.”

A full examination of the facts and questions relating to the interesting phenomena here referred to, will not be attempted by the writer. In another place, however, we shall more attentively consider some of these facts and questions.

Celibacy has been ranked among the predisposing causes of insanity. That, under given circumstances, one may

(d) Forensic Medicine, 315.

well adopt a single life, without the slightest apprehension of insanity, is easily demonstrable. Religious duties, regularly done, and a devotion of the body and the mind to some high purpose, evidently guard the mind against insanity far more than they attract it. But, with reference to other circumstances, celibacy may be ranked with the preceding cause of predisposition to insanity.

Temperament, as constituting a predisposition to insanity, is next presented to our observation. It may be enough, remembering what we have seen of it in reference to bodily disease, to mark it as noteworthy in relation to disease of mind, and so pass on.

States of the *moon* were once considered as connected with insanity in certain of its forms.^e

Seasons are still supposed to have some influence on mental alienation.^f As to body and as to mind alike, I think it probable that such an influence exists.

Previous insanity, and what some writers distinguish from insanity as "other diseases of the brain," take rank among the predisposing causes of mental alienation, even as they do among the causes of predisposition to disease of body. Apoplexy and paralysis "sometimes predispose to madness, or are followed by it. Epilepsy of a severe and inveterate kind is sometimes complicated with insanity. These cases are," adds Dr. Prichard, in the article alluded to, "distinct from the fatuity which is often the result of long-continued epilepsy. The form of maniacal disease connected with epilepsy is peculiar, and this may be considered as constituting a distinct disease."

Perhaps, the predisposing cause most interesting to the lawyer and the statesman, is described by Dr. Prichard, when he treats of education. Here we find an ample confirmation of the views I ventured to present while treating of the influence of occupation. Here, also, we find consid-

(e) Ante, p. 418.

(f) Art. on Insanity, by Prichard, before referred to.

erations only hinted at in the preceding studies. Here we find that a predisposition to insanity is laid by "too great indulgence, and a want of moral discipline." Thus we find a character formed, "subject to caprice and violent emotions." Here we also find, that "an overstrained and premature exercise of the intellectual powers is likewise a fault of education, which predisposes to insanity, as it does to other diseases of the brain." And so we have renewed occasion to remark, that toil, forgetting the design as well as the capacity of labor, may destroy the intellect. But inactivity of mind may even equal or exceed excessive care and labor, in destroying reason. Nothing moderately done seems to result in mental alienation; all things done extravagantly seem to be the enemies of mental peace. And what is moderately done as well as what is done extravagantly, is, at last, the product of affections, well or ill controlled. It is through the affections, that we suffer even intellectual pursuits to occupy us too exclusively—it is through the affections that all actions and all thoughts employ our bodies and our minds. Indeed, disturbance of the affective powers manifests itself with greater or less distinctness in all the types of insanity. We must, therefore, when there is question of insanity, look carefully into the history of the supposed insane, to learn what he affected, and how far he made his will the master of his affections.

Of the exciting causes of insanity, we have already had some glimpses. We have glanced at the exciting causes of hallucinations and illusions. But it may be necessary to subjoin a list of the exciting causes recognized by writers such as Dr. Prichard.

Dr. Prichard notes, among exciting causes, the immoderate use of intoxicating liquors, the use of opium and other stimulants, blows on the head, exposure to ardent solar heat, the use of mercury in syphilis, intestinal irritation,

the feminine disorders which we have encountered as producing a predisposition to mental disease, and others of a kindred nature. He mentions "the pathological fact, that diseases of the brain, and among others that from which madness results, supervene on the cessation of various discharges, on the healing of old ulcers, on the disappearance of cutaneous eruptions, on the cessation of inflammatory disease in membranous and other structures, on the removal of tumors."

Moral causes are assigned, by the same writer, as among excitors of insanity. It is enough to say, that all that I have ventured to advance with reference to moderation or with reference to strong emotion, is supported by Dr. Prichard's assignment of the moral exciting causes of insanity.

CHAPTER XXIV.

VARIETIES OF MADNESS.

THE comparative view which we have taken of the causes of predisposition, and of the causes known as exciting, as they relate, respectively, to bodily disease, and as they relate to what we call insanity, has, perhaps, prepared us to dispose of the following from Dr. Beck :

“Insanity is essentially a bodily disease, and the moral causes operate in producing it, as they do in producing other complaints.” ^a

I know not how many “authorities” may be cited to sustain this proposition. No authority appears to me sufficient to sustain it. It is false, I think.

One of the leading purposes of the present work is to display the mutual, reciprocal dependence of the physical and psychical in Man. Rejecting the extravagant in Physiognomy, refusing to embrace the doctrines of Sarcognomy, accepting little of the Gallian philosophy, I have yet attempted to place in a strong light the supposed sympathy and dependence of physical and psychical conditions. What I purposed in comparing the causes of disease in body with the causes of disease in mind, is obvious. I wished to confirm what I had already ventured to sub-

(a) 1 Med. Jur. 725.

mit, concerning the dependence of man's psychical conditions on his physical conditions. I wished to show, that as insanity of body may produce insanity of mind, so may the latter be productive of the former. Dr. Beek, describing insanity as essentially a bodily disease, admits that it may be produced by moral causes. With pathologists in general, he recognizes mental states as capable of causing bodily disease. On what authority does he deny, on what reasoning does he venture to dispute, that bodily states are capable of causing psychical disease? Nay, what philosophy of human nature warrants him to question, that, whether caused by mental states or bodily conditions, mental alienation is essentially a mental malady?

The learned writer has not enabled me to answer these questions so as to support his theory.

I venture to maintain my own opinion, that howsoever caused, unsoundness of the mind, or mental alienation is precisely what its name imports, a psychical disease.

The vast varieties of this disease alarm us, when we near them with the view of classification for any purpose.

Before referring to any proposed classification, I may add a word or two with reference to the notion of insanity in general.

Dr. Prichard, whose account of what I have distinguished as the unquestionable order of insanity I have already partly quoted, gives some reasons for rejecting a suggested definition of insanity, which we may properly consider.

The rejected definition would describe insanity as consisting in "a disordered state of the functions of the brain, which gives rise to disturbances in the operations of the mind."

It is considered by the learned writer, that this definition may correctly be applied to madness, but he finds it applicable also to diseases other than madness. Hence, to such a definition must be added, for instance, "that the

disturbance in the mental operations ensuing from the morbid cause in the brain is not allied to coma or to loss of consciousness and sensibility, in order to exclude from the definition apoplexy and disorders of the same class. For a similar reason," adds Dr. Prichard, "it has been common to observe, that madness is a species of delirium distinct from that which is symptomatic of typhus and other febrile diseases. There are some other morbid states of the brain and of the faculties dependent for their exercise on the functions of that organ, which must in like manner be excluded by express limitations. Such are congenital idiotism, and the imbecility of old age. Now it is obvious, that a definition loses all its utility when it is found necessary to encumber it with so many particular restrictions, and it is therefore better to give up the attempt to define insanity in general terms."

To these objections, we may find ourselves inclined to add, that the suggested definition makes a disordered state of the functions of the brain, the only source of the disturbances observed in operations of the mind. Considering that mental causes may produce a purely mental morbid action, I cannot agree that disturbances of mere cerebration are the only causes of insanity.

Dr. Prichard properly rejects the theory of Locke, that madmen are distinguishable as not having lost the faculty of reasoning, but as mistaking for truths certain ideas very wrongly joined together, and as erring by arguing rightly from wrong principles.

The "faculty of reasoning," which could mistake for truths certain ideas very wrongly put together, could not be a perfect faculty. And when the joining together of the ideas is of the description known as an insane delusion, reason is at fault in not perceiving it to be so. We have learned already, that there are hallucinations corrected by the understanding, and hallucinations not cor-

rected by the understanding. And although there may be cases in which a hallucination is regarded as reality by one who certainly is not insane, the nature of the false perception differs in such cases from the false perception of insanity.

But Dr. Prichard does not merely follow Pinel in rejecting Locke's peculiar theory. He follows and transcends Pinel in maintaining that there may be "moral insanity, or madness consisting in a morbid perversion of the natural feelings, affections, inclinations, temper, habits, and moral dispositions without any notable lesion of the intellect or knowing and reasoning faculties, and particularly without any maniacal hallucination."^b

We have seen how such insanity is classed with other forms of madness,^c in the Prichard scheme. In moral mania, we have the first division of the system.

Dr. Ray has been alluded to already as maintaining, after Prichard, a peculiar theory of madness. And whatever may be said against the spirit in which this distinguished writer sometimes writes, his system is attractive.

He distinguishes between the intellectual and the affective, or the moral. And in view of this distinction, he contends, that a more serious error can hardly be committed with reference to mania, than that of limiting its influence to the intellectual faculties. "It will not be denied," he adds, "that the propensities and sentiments are also integral portions of our mental constitution; and no enlightened physiologist can doubt that their manifestations are dependent on the cerebral organism. Here, then, we have the only essential conditions of insanity, a material structure connected with mental manifestations; and until it is satisfactorily proved that this structure enjoys a perfect immunity from morbid action, we are bound to believe that it is liable to disease, and consequently that the *affec-*

(b) Art. on Insanity in III Cyc. Prac. Med.

(c) Ante, p. 425.

tive, as well as the *intellectual*, faculties are subject to derangement. In fact, it has always been observed, that insanity as often affects the moral, as it does the intellectual perceptions. In many cases, there is evinced some moral obliquity quite unnatural to the individual, a loss of his ordinary interests in the relations of father, son, husband, or brother, long before a single word escapes from his lips, 'sounding to folly.' Through the course of the disease, the moral and intellectual impairments proceed *pari passu*, while the return of the affections to their natural channels, is one of the strongest indications of approaching recovery. Such being the fact, it ought not to be a matter of surprise, that in some cases the aberration should be confined to the moral impairment, the intellectual, if there be any, being too slight to be easily discerned."

In confidence, that he is right in this conclusion, Dr. Ray has ventured thus to classify insanity:

INSANITY.	Defective development of the faculties.	Idiocy.	<ul style="list-style-type: none"> 1. Resulting from congenital defect. 2. Resulting from an obstacle to the development of the faculties, supervening in infancy.
		Imbecility.	<ul style="list-style-type: none"> 1. Resulting from congenital defect. 2. Resulting from an obstacle to the development of the faculties, supervening in infancy.
	Lesion of the faculties subsequent to their development.	Mania.	<ul style="list-style-type: none"> Intellectual. <ul style="list-style-type: none"> 1. General. 2. Partial. Affective. <ul style="list-style-type: none"> 1. General. 2. Partial.
		Dementia.	<ul style="list-style-type: none"> 1. Consecutive to mania, or injuries to the brain. 2. Senile, peculiar to old age.^d

Dr. Beck has chosen the term "Mental Alienation" rather than "Unsoundness of Mind," because the words unsoundness of mind are employed in a technical sense too narrow for his purposes. And he agrees with Esquirol in adopting the following classification: 1. Mania, in which

(d) Ray, § 49.

the hallucination extends to all kinds of objects, and is accompanied with some excitement. 2. Monomania, in which the hallucination is confined to a single object, or to a small number of objects. 3. Dementia, wherein the person is rendered incapable of reasoning, in consequence of functional disorder of the brain, not congenital. 4. Idiotism, congenital, from original malformation in the organ of thought."e

It is only after describing these, that Dr. Beck proceeds to notice "a form of disease which is now frequently characterized by the name of moral insanity."

The caution thus displayed by Dr. Beck is evidently due, in part, to the unwillingness of judges to receive a definition of the so-called "moral mania" as proper to be ranked among defences in proceedings known as "criminal."

With reference to all the interests involved in such a course of studies as the present, I cannot fail to see the value of such caution in a writer such as Dr. Beck. And yet I cannot follow his example. For, I find so much in the suggestions quoted from the work of Ray, that I have felt emboldened to attempt at once a defence of Carpenter's peculiar theory with reference to what he calls "Impulsive" in Insanity.

It seems to me, that all the forms of what we call insanity so complicate affections, that we may, with great propriety, set out with recognition of Impulsive or Emotional Insanity.

What we find distinguished as Impulsive or Emotional Insanity is seen in women and in infants, not as notable insanity, but rather as emotional impressment, or a concentration or "possession," such as we find described in Carpenter. It seems to be inordinate affection for a thought, not purposely subjected to reflection, but presented in a course of thinking produced by accident, or in

a waking or sleeping dream, or by a conversational suggestion. And in nearly all the forms of intellectual insanity, a like inordinate affection for a thought, whether purposely contemplated, or presented to the mind as we have seen already, is to be detected. In the form of madness known as "incoherent" or "confused," it may be quite impossible to point to a particular affection for a single thought or series of thoughts. But in the form of madness numbered "2" in Dr. Prichard's scheme,^f we might in almost every instance, find inordinate affection for a given thought or set of thoughts, as the immediate cause of the insanity. How an inordinate affection may connect itself with the production of hallucinations and illusions of the senses, we have seen already.^g And it is important, as suggested in the work of Ray, that "through the course of the disease the moral and intellectual impairments proceed *pari passu*."

In view of such considerations, it is easy, as it seems to me, to recognize Impulsive or Emotional Insanity as ranking properly with forms of mental alienation, cognizable in the Courts of Justice.

We have only to recur to Carpenter's expression of his theory, in order to perceive, that, like his views in general, it is conceived with care, entirely free from fanciful conjectures, and harmonious with systematic, scientific views of human nature. But, what may much more commend it to the courts of justice, it is quite harmonious with what we call the "common sense" of common people. One need not be learned to discover its defects, and one need not be learned to discover its great merit. Its reception, when it comes to an unbiased mind, is easy, and, as we are wont to term it, natural, not strained or artificial. I cannot think, that the judge who rejects the doctrine feels quite satisfied, even by his reverence of what the wisdom

(f) Ante. p. 425.

(g) Ante, p. 297.

of ages has denominated as law, in substituting for it the old right and wrong test—the test of consciousness and the disregard of impulse and volition. Yet it is quite plain, that many, if not most of the courts, have rejected the doctrine of moral insanity. They will allow that there is such a mania as that called intellectual, “characterized by certain hallucinations or delusions, in which the patient is impressed with the reality of facts or events that have never occurred, and acts more or less in accordance with such belief; or having adopted some notion not altogether unfounded, carries it to an extravagant or absurd extent.”^h If such *mania* include a belief that that is right which is plainly wrong, the courts will discharge the maniac from responsibility; but if the delusion only exist as to things which if true would not excuse the act, then according to this judge-law, the maniac must suffer as any one else would.

On this difference between medical and legal authority, an obvious observation is, that the doctrine of moral insanity is of recent date; and that its interests will hardly be advanced by the spirit in which some of the opposition to it has been encountered by some of its advocates. Not the least distinguished of these advocates is Dr. Ray. And none of them, perhaps, has done more service to the demonstration of the doctrine than he. But the disposition of Ray has in some instances manifested itself as one of so much ardor in the advocacy of what he believes to be right and true, as is somewhat unfavorable to a fair weighing of what is held elsewhere against the doctrines to which he is devoted. It may be, that there is no positive injustice in his treatment of those, who, as he thinks, should show more of a “modest teachableness” on this subject than they have evinced; it may be, that the flings which legal authorities have made, deserve the sharp thrusts

(h) Ray, § 127.

they have received in return. But it ought not to be forgotten, that medicine as well as law must plead guilty to the charge of having, for centuries of error and ignorance, treated insanity as a curse and its victims as demons; having loaded the maniac with chains, and brutalized him yet further with blows; having confounded the worst of misfortunes with the most horrible of crimes. And if "the prevalent habit of studying the moral and intellectual phenomena in sound and healthy minds only," has disposed lawyers to wrong views of the subject, it may remain to be demonstrated, that the habit of studying the same phenomena only in minds whose condition is pathological, may not have lead the medical man into opposite extremes.

However this may be, and whatever may be the result of a fair, careful, and exhaustive examination of the matters in dispute, it will hardly do to deny, that the great weight of judicial opinion, so far as the rank of courts gives weight to the rulings of judges, is opposed to the great weight of medical opinion, similarly estimated.

I know that hopes of a speedy agreement between medical and legal authority on this subject, appear to be entertained, and seem to be warranted. I do not despair of a right determination of the controversy, even if left to the slow progress of adjustment by the courts alone.

Indeed, it has been thought, that judges now decidedly incline to recognize the doctrine of insanity, substantially as advocated by the often-quoted Dr. Ray.

But it is not to be forgotten, that the learned author of a work on Medical Jurisprudence, has, as we have seen already, very cautiously approached the doctrine advocated in the work of Dr. Ray. Indeed, in Dr. Beck's discussion of that doctrine, he has used significant expressions, intimating not a little doubt of all that has been

founded on the doctrine of Pinel: "As a corollary to all" that he presents, as urged by others, against the recognition of moral insanity, he asks: "*Why should it not be enacted that the MURDER (for all the difference of opinion is about this) shall not be the first and earliest proof of the insanity?*"

And on examining the reports of recent judgments, we shall see that Mr. Wharton may have erred in stating, that "the great weight of American judicial authority — inclines to the recognition of homicidal insanity as a distinct basis of defence."^h

I have attempted to inform myself in this respect—and I must, at least, hesitate to yield assent to what is said by Mr. Wharton of American judicial tendencies.

In Ohio, at least, nothing much inclining one to such assent has yet appeared in the Supreme tribunal.

My attention was first strongly attracted to the subject by a case already mentioned—that of Nancy Farrer.ⁱ When Nancy was arraigned upon indictment, the writer happened to be presiding at the last session of the Court of Common Pleas, in Hamilton county, under the first Constitution of Ohio. Nancy's case was not then tried; but my attention was directed to her case, and, having assigned counsel for her, I observed the subsequent trial before a brother judge with not a little interest.

I am not able, even now, to form a clear opinion as to the capacity *in fact* of Nancy Farrer. I direct attention to her case, only in order to direct attention to the state of judicial opinion in Ohio and elsewhere.

For that purpose, it may be enough to say, that evidence was suffered to be given touching a series of poisonings, by Nancy, in which no feature clearly indicating special malice is apparent, and which, it was contended for the

(h) Med. Jur. 45.

(i) 2 Ohio State R. 54.

prisoner, only showed "imbecility educated to do the act."

Dr. Bell said, that killing by Nancy must have been from monomania or imbecility, and that her indications tended to the imbecile. He said also, that if she planned a series of murders, he would not regard it as imbecility. And it was likewise his testimony, that, while he would not consider her steady denial as evidence, that she regarded the offence as one deserving punishment; such a denial depending on the caprice of the hour—yet, that it would be characteristic of imbecility to confess, and maintain it was right. Dr. Edwards, agreeing in the main with Dr. Bell, added: "To deny knowledge of [the] instrument argues consciousness. I do not think an imbecile could plan a crime, execute it, and then endeavor to avert suspicion. It would look more like moral imbecility than mental imbecility; accounting for one thing by what preceded it is a degree of reason not generally found in an imbecile. Comparison is a high order of intellect, and rare in imbeciles."

It was the opinion of Dr. Bell, that some imbeciles may be taught their moral duties, "but without any security of such tuition being effective." "They can be taught," he says, "that it is wrong to steal or commit murder, as a matter of fear, but as to referring it to the laws of God, I am not prepared to say." To the same effect was the other medical testimony. And all agreed in the opinion, that homicidal mania generally shows itself in violence; while all recognized the possibility of a different manifestation of the disease, as in poisoning.

Against the theory of her imbecility, it is to be observed, that Nancy had, in one view of the case, apparently planned a series of murders (see Bell's testimony); that she had steadily denied the poisoning, when, according to

the same testimony, it would have been more characteristic of imbecility to confess and attempt to justify; that she had denied knowledge of the nature of arsenic (see Edwards' testimony); and, perhaps, had, in some degree, attempted to avert suspicion from herself (see last mentioned testimony). In favor of the theory of moral insanity, was the fact, that she had poisoned many persons without the usual incentives to crime, and in spite of an evident affection for some of her victims; that her education might have fostered the tendency of her nature towards such a development of her disease; and that she took from her parents the sad inheritance of congenital subjection to the mysterious causes of such disease.

In the face of all this testimony, the right and wrong test, as it is called, was the only one applied by the court. A technical difficulty, which I need not explain, seemed to forbid the Supreme Court to treat the narrowness of that test as a reason for granting a new trial; whether it would, or would not, have been approved, had there been no such technical difficulty as that alluded to, is, as to some members of the Supreme Court, only matter of uncertain inference. But the following passages show how the matter was regarded by three of the Judges: "I have no doubt," says Corwin, J., "that every correct definition of sanity, either expressly or by necessary construction, must suppose freedom of will to avoid a wrong, no less than the power to distinguish between the wrong and the right. . . . The definition given below is such as we frequently find in the books, and, giving it such a construction as it would probably receive from a sensible jury, I think it not so inaccurate as to prejudice the prisoner's rights. True, there arises upon the facts in this record a not irrational theory, that some strange, irresistible wish to see the effects of poison — to produce death — may have

had such power over the prisoner, as other insane fancies which so often make a man or a woman little more than a piece of mechanism — neither more capable of self-control, nor of asserting the true laws of its being against the foreign influence. But the language of the court does not forbid the jury to consider such a state of fact if it were proven; and the jury would do so unless prohibited." Judge Thurman, however, remarks: "There is no authority for holding, that mere moral insanity, as it is sometimes called, exonerates from responsibility. Chief Justice Shaw's charge in *Abner Rogers' case*, and Judge Birchard's charge in *Clark's case*, 12 Ohio, 494, are quite as favorable to the defence of insanity as the authorities warrant. I will not say they are more so; for, rightly understood, they do not convey the idea, that mere moral insanity constitutes a defence." And Ch. J. Bartley contents himself with observing, that "the test of insanity adopted by the common pleas, in the charge to the jury, does not so conflict with the established law on this subject, as to furnish any ground for the reversal of the judgment."

But in Loeffner's case, Chief Justice Bartley, speaking, as I understand, for all the court, has, perhaps, more decidedly rejected the defence for which I argue here. I say, perhaps. For, though I have examined the reported syllabus of his decision, I have not been able to examine his opinion at length. It has not yet taken its place in the volume of reports, although the appropriate volume has been published.

If we now examine a paragraph in Walker's Introduction to American Law, we shall be convinced that in Ohio, the insanity called moral is not yet considered as a good defence to an indictment. For, we find that in this work, produced by an Ohio writer, earnest hopes are expressed, that courts will never adopt the peculiar theory of Pinel.^j

(j) Walker's Introd. to Am. Law, 2d Ed.

Nor is it in Ohio only, that such opposition to the doctrine of Pinel appears. And even where the judges seem to warrant Mr. Wharton's view of the tendency of American judicial opinion, some confusion of ideas manifests itself.

On the whole, I am inclined to think, that American tribunals still continue to regard it as unsafe to venture far from Mr. Russell's rule. This writer, after reviewing many cases, lays it down, as settled by authority, that "idle and frantic humors, actions occasionally unaccountable and extraordinary, mere dejection of spirits, or even such insanity as will sustain a commission of lunacy, will not be sufficient to exempt a person from punishment who has committed a criminal act." "And it seems," he says, "that though if there be a total permanent want of reason, or if there be a total temporary want of it, when the offence was committed, the prisoner will be entitled to an acquittal; yet if there be a partial degree of reason, a competent use of it, sufficient to discern the difference between moral good and evil; then upon the fact of the offence proved, the judgment of the law must take place." He refers^k in this connexion to Lord Ferrers' case, decided in 1760,^l and to Allen's case, decided by Lawrence, J.,—a M. S. case—Lent Assizes, 1807.

If any one will take the trouble to compare this language with the text of Blackstone,^m he will have occasion to regret that judges of a later date, have chosen to employ quite other language in defining irresponsibility for crime.

Construed with fairness, Blackstone's language, and the language of the learned Mr. Russell, would admit defences now excluded by some learned judges.

The answers of the judges to the House of Lords in England, with reference to McNaughton's case, attempt, ac-

(k) 1 Russ. Cr. 14.

(l) 19 Hen. St. Tr. 947, 948.

(m) 4 Bl. 18, et seq.

according to Dr. Ray, to make "a general expression of the law capable of embracing every possible case, and working injustice to none. We shall see," adds Dr. Ray,ⁿ "whether the attempt of the judges fulfils this high object." Of course, it does not. If it was, indeed, any such attempt as Dr. Ray supposes—and I think he does not quite unfairly state its character—it almost evidenced insanity in the judges who made the attempt. It is true, they had whatever excuse is to be found in the language of writers such as Swinburne and Blackstone, who say, that the persons incapable of making a will or of committing a crime are expressly defined by the law. In view of such expressions, judges of the time of Swinburne or the date of Blackstone's Commentaries, considering themselves the oracles of the law, might have proceeded unchecked to the task of expressing the definitions in question. But, surely, judges, sixteen years ago, might have discovered many reasons for declining the attempt to indicate, with certainty, the nature and distinctions of the cases in which irresponsibility for crime could be described by legal science.

In their answers, the judges say, that "notwithstanding the party accused did the act complained of with a view, under the influence of insane delusion, of redressing or avenging some supposed grievance or injury, or of producing some public benefit, he is nevertheless punishable, according to the nature of the crime committed, if he knew, at the time of committing such crime, that he was acting contrary to law." Another of their answers is, that "to establish a defence on the ground of insanity, it must be clearly proved, that, at the time of committing the act, the party accused was laboring under such a defect of reason from the disease of the mind, as not to know the nature and quality of the act he was doing, or, if he did know it, that he did not know he was doing what was wrong."

(n) Med. Jur. Insan. § 27.

It is to be regretted, that American judges have not felt at liberty, if not to take from medical sources new light for their discussions of insanity, at least to follow Blackstone and Russell, rather than the answers of the judges in *McNaughton's* case. But it seems still evident, that, in high quarters, the answers of the judges are regarded as American as well as English law.

CHAPTER XXV.

PATHOLOGY v. JURISPRUDENCE.

ASSUMING that there is, on the part of judges, the supposed opposition to the doctrine of moral insanity in general, I purpose to establish, that the Carpenterian doctrine of Impulsive or Emotional Insanity, deserves to be acknowledged and respected by the courts.

I do not think a legislative recognition of this doctrine necessary to its recognition by the judges. I have shown, I think, that if such a theory as that of Carpenter deserves a scientific rank, the true rule of reverence for precedent is not opposed to its forensic recognition.^a But it may be proper to present, in this connexion, such a view of precedent as I had purposed to hold in reserve. I would not be considered as forgetting what is due to precedent.

To honor precedent with such regard as Blackstone claims for it, is but to honor, fitly, laws of life, to value justly laws developed and improved, to consider properly the convenience and the interest of all possessing legal rights and subject to legal duties. Precedents of such a character as that which Blackstone reverences, are expressions of the popular will, establishing, through custom, rules of conduct and of property.

It is, according to Blackstone, "an established rule to

(a) Ante, p. 122-124.

abide by former precedents, where the same points came again in litigation: as well to keep the scale of justice even and steady, and not liable to waver with every new judge's opinion; as also because the law in that case being solemnly declared and determined, what before was uncertain, and perhaps indifferent, is now become a permanent rule, which it is not in the breast of any subsequent judge to alter or vary from according to his private sentiments: he being sworn to determine, not according to his own private judgment, but according to the known laws and customs of the land; not delegated to pronounce a new law, but to maintain and expound the old one. Yet this rule admits of exception, where the former determination is most evidently contrary to reason; much more, if it be clearly contrary to the divine law. But even in such cases the subsequent judges do not pretend to make a new law, but to vindicate the old one from misrepresentation." Blackstone adds, however, "that it hath been an ancient observation in the laws of England, that whenever a standing rule of law, of which the reason perhaps could not be remembered or discerned, hath been wantonly broken in upon by statutes or new resolutions, the wisdom of the rule hath in the end appeared from the inconveniences that have followed the innovation."^b

Blackstone well expresses the forensic value and esteem of precedent, of custom, of established rules and maxims. Forensic thinkers contemplate with admiration the stupendous work of the regard for precedent, distinguished as the common or unwritten law. They see in it the freedom of the people limiting itself, allowing social life to be developed as it ought to be, restraining as it ought to be restrained, the conduct of each individual protected by the public peace. They see in it the popular supremacy, the plain relation of all legal rules to popular convenience and

(b) 1 Bl. Comm. 69-70.

the traits of character by which the people are distinguished. Whenever the regard for precedent is violated, they are apt to apprehend ill consequences. Some of them, indeed, as, for instance, certain annotators, are not satisfied with such a reverence for precedent as Blackstone entertained. *He* would not honor precedent without regard to reason and to justice. Some forensic thinkers croak whenever and however precedent is set aside. Such thinkers are alarmed whenever any one presumes to ask the reason of a rule, with reference to the inquiry, warranted by legal maxims, whether that reason still continues to exist. "It cannot be dissembled," says the diligent but not profoundly philosophic Chitty, "that both in our law, and in all others laws, there are decisions drawn from established principles and maxims, which are good law, though such decisions may be both manifestly absurd and unjust. But, notwithstanding this, they must be religiously adhered to by the judges in all courts, who are not to assume the characters of legislators. It is their province, *jus dicere*, and not *jus dare*."^c

Similar to Mr. Chitty's views of the authority with which precedents, however absurd or unjust, should be invested, are the views of certain other legal writers. And it is not quite uncommon to encounter like opinions even here in America, where we have been required so often to apply the rule, that when the reason of a rule shall cease, the rule itself shall cease.^d But the American student of Blackstone and of Coke,—for Coke paid reverence to precedent as Blackstone paid it—will make himself content with what these worthies taught of precedent. For, rightly understood, the language of the Commentator furnishes the safe and in all respects appropriate rule for estimating precedent. His doctrine is, that precedents and rules must be followed, unless flatly absurd or unjust; not that the

(c) 1 Bl. 70, note 6.

(d) *Cessante ratione, cessat ipsa lex.*

reason of every rule must be apparent to every judge of whom its application is demanded. "For," he observes, "though their reason be not obvious at first view, yet we owe such a deference to former times, as not to suppose that they acted wholly without consideration."

This view of precedent, and its due estimation, is as favorable to the sway of long respected maxims, ancient customs, and time-honored rules, as any view can be without entirely overlooking all that makes the long-established venerable or respectable. The long-established is, presumptively, the well-established. What was well established, what was rightly done in the beginning, promises to stand as long as the conditions which required it or supported it, and it may possibly survive the original conditions of its establishment. For, like conditions may succeed to those at first existing, when the latter shall have passed away. But cases may arise, not only for amendment by the legislature of established rules, but for correction by the courts of rules long honored in judicature.

In general, undoubtedly, the work of legal reformation is the proper work of legislation. For, a rule, at first absurd, and even one opposed to justice, may become at length, in some sense, a reasonable rule. This happens when observance of a senseless rule becomes so interwoven with popular ways of life and modes of thought, that to disturb the rule is to produce disturbance and perplexity in the popular mind. It may also otherwise happen, that rules, at first absurd, become at last respectable, at least until the legislature, by laws not to operate until some time after enactment, shall provide for their correction. Judges will not often rashly take the work of legal reformation into their own hands; and in such instances as those just alluded to, most judges will respect the rule until the legislature chooses to reform it. But there is sometimes occasion for judicial reformation of the law, or of

the doctrines which have governed the administration of the law.

If I have seemed forgetful of the object, with regard of which I entered into this view of precedent, I have not really lost sight of it.

If there are instances in which a lawyer, honoring as it ought to be honored, all established legal doctrine, may protest against a blind devotion to decided cases, it may be, that what we find in law books as to mental alienation may be fairly challenged by a lawyer duly honoring the rule of precedent.

In another chapter of the present book, I have, I think, suggested reasons, which the present view of precedent may serve to place in stronger light, for holding, that it never was intended to set bounds to anthropology by mere judicial doctrine.* But if I have not so shown, I venture here, in view of what we have just seen of precedent, to insist, that judges never had the right to limit and define the cases in which a defect of will may be detected. I insist, that if the judges have established rules assuming that they have the right of definition and limitation here in question, we may well apply to the precedents which they have thus attempted to establish Blackstone's rule, respecting precedents "most evidently contrary to reason." Nothing could be more opposed to reason than to claim a power such as that which I here refuse to honor as belonging to the office of a judge, be he a Coke, or be he something more or less than Coke, in wisdom and authority.

I am persuaded, as I have, perhaps, already intimated, that a fair construction of the language of Blackstone, and of those who follow him, would decide this question as Carpenter would decide it.

We have already seen the ground on which the Commentator, followed by the learned Mr. Russell, places crim-

(e) Ante, p. 122-124.

inal responsibility. The want or the defect of will, we have observed, alone makes innocent apparent violations of the law. Without the consent of the will, on the other hand, no human action can be truly criminal, according to the legal sense of crime. And though the Commentator evidently holds, that where the mind is able to discern the criminality of actions, it will only be induced to commit them by an inward criminal desire, or by an outward, alien force, he does not say a word which necessarily forbids the Court to follow Carpenter, in his peculiar theory. For, after all, ability to make discernment of the wrong in conduct must include ability to see that it is evitable, — if it be not, indeed, *inevitable*, considered as a mere expression of emotion.

Thus, perhaps, the very text of Blackstone may be reconciled with the peculiar theory of Carpenter, — and even with a milder form of Ray's peculiar doctrines.

But if not, I must contend, that in the presence of the facts and arguments presented, and to be presented, in this volume, courts of justice ought to take from medical science, and not from law books, guiding light for their adjudications, touching mental alienation.

I have proven, in an earlier portion of the present work, that I am not disposed to fall down before the medical, and worship it. And I have only to regret that I shall not have opportunity to show, in this contracted volume, how I honor legal science. But I cannot reverence the whole of legal "learning." Some of it, I cannot treat with more than patient toleration. And, without forgetting what I have objected as to Dr. Ray's contempt of that learning, I am moved to the assignment of some reasons for rejecting almost all contained in English law books on the subject of insanity.

I know, that I encounter no slight peril in attempting such assignment. But I must endeavor to maintain, that

two principal causes have conspired to make the English "law" respecting "idiots and lunatics," unworthy of the reverence sometimes accorded to it by American tribunals.

I. In the first place, the "law" in question has shared the imperfection of the English law at large whenever it approaches crime. It may be difficult to overpraise the English system when we speak of property. And, having an unequalled system of procedure, and especially of trial, as to property, the English judges could not entirely deprive the criminal of written pleadings, and of trial in the mode familiar to the law respecting property. But what they could do to make solemn mockery of justice under forms intended to secure great liberality towards the prisoner, the English judges did accomplish, and the English people did permit, until a thorough reformation had become almost impossible. The rules, therefore, relating to the subject of insanity, so far as supposed criminals raised questions of insanity, were not entirely unlike such as Smollett had in view, when he was not ashamed to write as follows of the well known Ferrers' case: "Without all doubt, this unhappy nobleman's disposition was so dangerously mischievous, that it became necessary, for the good of society, either to confine him for life, as an *incorrigible lunatic*, or give him up at once as a *sacrifice to justice*. Perhaps, it might be no absurd or unreasonable regulation in the legislature, to divest all lunatics of the privilege of insanity, and, in case of enormity, subject them to the common penalties of the law; for though, in the eye of casuistry, consciousness must enter into the constitution of guilt, the consequences of murder committed by a maniac may be as pernicious to society as those of the most criminal and deliberate assassination, and the punishment of death can be hardly deemed unjust or rigorous, when in-

flicted upon a mischievous being, divested of all the perceptions of reason and humanity.”^f

II. On the other hand, the law respecting wills was chiefly moulded by another set of judges, whom a precisely opposite set of prejudices turned towards a precisely opposite extreme. The courts ecclesiastical, or “christian,” were, in general, inclined in favor of testation by the nature of their jurisdiction, and with reference to rigors in the English law of property, which they, administering the civil law, regarded as oppressive. And, in general, the question of insanity was started as to the testable capacity of one advanced in years. Unchecked by juries, who with younger blood and not inferior wisdom might have done some service to the cause of justice when the question was of testable capacity, the generally aged judges of the courts in question leaned most strongly to the will propounded. Well may Mr. Justice Lumpkin innocently tell us, as he has with charming candor given us to understand, that, before investigating a case before him, he “had supposed, that more capacity was required to make a will, than, after full investigation, he found “warranted by the authorities.” When one must rank among authorities, an opinion such as that of Chancellor Kent in *Van Alst v. Hunter*,^g as to the protection due to age, it may be difficult indeed to underestimate capacity to make a will.

The opinion here alluded to may be what the learned Mr. Wharton calls it, “very beautiful.” But is it not as dangerous as it is beautiful? The language of the Chancellor, so complimented, is: “It is one of the painful consequences of old age, that it ceases to excite interest, and is apt to be left solitary and neglected. The control, which the law gives to a man over the disposal of his property

(f) Smollett's Hist. Eng. vol. 5, p. 244, Baldwin's London ed. of 1812. See also 1 Hawk. P. C. ch. I.

(g) 5 Johns. ch. 148.

is one of the most efficient means which he has in protracted life to command the attention due his infirmities. The will of such an aged man ought to be regarded with great tenderness, when it appears not to have been procured by fraudulent acts, but contains those very dispositions, which the circumstances of his situation and the cause of the natural affections dictated."

The praise of Mr. Wharton^h could not have been associated with a name more worthily associated with praises than the name of Kent. But Kent did not display a real reverence and a true regard for age, when he proclaimed its privileges, in the sentences which I have here submitted to the reader. And we ought to look on such an opinion as unworthy of a jurist such as Kent. It makes a particular law, with reference to particular consequences, when it only should announce the general law with reference to general consequences.

For the reasons indicated, I would not incline to search the English law-books for the proper rules, respecting mental alienation. But the English law-books have been followed, as to criminal and as to testable capability. It has resulted that all modifications of the English common law, American as well as English, quite imperfectly inform the minds of judges as to mental alienation.

This inferiority of legal doctrines touching mental alienation is apparent, in a simple statement of the "settled" rules of law respecting wills.

And yet I freely own, that in the law, American and English, as to testable capacity, I find the least objectionable legal doctrines touching mental alienation.

Neither, however, as to causes of insanity, nor as to its varieties, do legal rules respecting testable capacity, afford much real information.

We are told, indeed, in Swinburne, that "a man may

(h) Whart. & Stil. Jur. 16.

freely make his testament, how old soever he may be, for it is not the integrity of the *body*, but of the *mind*, that is requisite in testaments.”ⁱ And other authorities lay it down, with great particularity and emphasis, that neither age, nor sickness, nor extreme distress, nor debility of body, will affect the capacity to make a will, if sufficient intelligence remains.^j But we do not find in law-books, either as to the capacity to testate or as to the culpable capacity, any such view of the relation between body and mind as this glimpse of the legal etiology^k of insanity might induce us to expect. On the question, how far the bodily condition may reflect itself in mental disturbance, as well as in relation to the perfect or imperfect development of body as affecting the capacity of mind, legal authorities are quite inferior in value to medical authorities. The law only lays down general rules, 1. as to idiots—and, in connexion with these, the deaf, dumb, and blind; 2. as to lunatics of unmistakable lunacy; 3. as to infants. It allows proof of the want of the requisite capacity in many descriptions of persons, not known to be idiots or lunatics in the ancient legal sense, and the continuing popular sense, of these words. But it does not even pretend to any peculiar familiarity with the science to which these descriptions of persons are best known. The ecclesiastical reports, therefore, in which the English legal doctrines of capacity to make a will are most fully presented, are not legal *authority* on such questions, being merely analogous to verdicts.^l

The sum of all that we find in Commentaries and Reports, relating to capacity to make a will, deserving to be treated as a part of legal science, is, after all, apparent

(i) Swinb. part 2, § 5.

(j) *Van Alst v. Hunter*, 5 Johns. Ch. 148.

(k) Some of my readers may require the information that etiology is the doctrine of causes.

(l) To appreciate this observation, see *Stultz v. Shæffle*, 18 Eng. Law & Eq. 578. 1 Jarm. Wills, 215.

in such propositions as the following: I. In order to sustain a will, it must appear that the testator had, 1. a legally competent understanding;^m 2. a legally cognizable integrity of mind;ⁿ or, 3. in other words, a legally cognizable soundness of mind. II. This legally competent understanding—this legally cognizable integrity and soundness of mind—must be equal to the particular act of testation attempted.^o III. When the capacity is equal to the act attempted is difficult to determine by reference to any general rule.^p IV. But it is certainly not equal to the requisites of testation, unless it enables the testator to know his estate, the object of his affections, and to whom he desires to leave his property.^q V. Knowledge, in this sense, is characteristic appreciation—that is to say, such an appreciation as a man of the *character* of the testator would, while “in his senses,” manifest.

In examining with fairness this result of the authorities respecting testable capacity, we are led towards less discontent with legal anthropology than we can feel in scrutinizing legal rules relating to responsibility for crime.

But while we may ourselves determine that great age is quite compatible with testable capacity, we cannot be content with legal views of age as they appear in the reported cases as to wills. Too little stress is laid on the reduction of the powers, which in active life comes on with age. But this is not the worst that may be said in this connexion. Having treated lightly all that might be said of

(m) *Van Alst v. Hunter*, 5 Johns. Ch. R. 148.

(n) Swinburne, *supra*.

(o) *Stultz v. Shæffle*, 18 Eng. Law & Eq. 578. *Newhouse v. Goodwin*, 17 Barb. 236; *Kirkwood v. Gordon*, 7 Rich. (S. C.) 474. In Maryland, the statute law provides that the capacity to make a will shall equal the capacity to make a deed. (*Davis v. Culvert*, 5 Johns. 269.) Perhaps, if this rule of the written law of Maryland be carefully compared with the rule recognized in *Stultz v. Shæffle*, the former will be found substantially harmonious with the latter. For, to make some deeds a low degree of capacity only would be requisite.

(p) *Stultz v. Shæffle*, 18 Eng. Law & Eq. 578.

(q) *Kirkwood v. Gordon*, 7 Rich. (S. C.) 474. *Newhouse v. Goodwin*, 17 Barb. 236.

mental incapacity produced by age, in circumstances such as those to which I have alluded, judges have been led to treat too lightly all that common observation joins with science in proclaiming, as to the relation of the body and the mind.

It is difficult to make a simple statement of these legal rules, in such a manner as to show fully the imperfection of the legal doctrines which relate to causes and varieties of insanity. Nor will that imperfection wholly manifest itself on looking into law-books for the rules relating to responsibility for crime.

In view, however, of the many instances in which we have already seen of body bending mind to its conditions, and of mind compelled to act in body as its element, I may proceed to quote a little further from the law-books.

In the form of "madness" known as "*dementia accidentalis vel adventitia*," something of the character of legal etiology appears. Sickness is here recognized as making the individual *non compos mentis*. "Several causes," we are told, "have been assigned for this disorder; such as the distemper of the humors of the body; the violence of a disease, as fever or palsy; or the concussion or hurt of the brain: and as it is more or less violent, it is distinguishable in kind or degree, from a particular dementia, in respect of some particular matters, to a *total alienation* of the mind or complete madness."

A lunatic is defined, in the same connexion, as "one laboring also under a species of the *dementia accidentalis vel adventitia*, but distinguishable in this, that he is afflicted by his disorder only at certain periods and vicissitudes; having intervals of reason. Such a person during his frenzy is," continues Mr. Russell,^r "entitled to the same indulgence as to his acts, and stands in the same degree with one whose disorder is fixed and permanent. The name of lunacy was taken from the influence which the moon

(r) Russell on Cr. 7.

was supposed to have in all disorders of the brain; a notion which has been exploded by the sounder philosophy of modern times."

"With respect to a person *non compos mentis* from drunkenness, a species of madness which has been termed *dementia affectata*, it is," observes the same writer, "a settled rule, that if the drunkenness be voluntary, it cannot excuse a man from the commission of any crime, but, on the contrary, must be considered as an aggravation of whatever he does amiss. Yet if a person, by the unskillfulness of his physician, or by the contrivance of his enemies, eat or drink such a thing as causes frenzy, this puts him in the same condition with any other frenzy, and equally excuses him; also, if by one or more such practices an habitual or fixed frenzy be caused, though his madness was contracted by the vice and will of the party, yet the habitual and fixed frenzy caused thereby puts the man in the same condition as if it were contracted at first involuntarily. And, though voluntary drunkenness cannot excuse from the commission of crime, yet where, as upon a charge of murder, the material question is, whether an act was premeditated or done only with sudden heat and impulse, the fact of the party being intoxicated has been holden to be a circumstance proper to be taken into consideration."

Mr. Russell elsewhere observes, that "though this subject of *non compos mentis* may be spun out to a greater length, and branched into several kinds or degrees, yet it appears that the prevailing distinction herein in law is between idiocy and lunacy; the first, a fatuity *a nativitate*, or *dementia naturalis*, which excuses the party as to his acts; the other, accidental or adventitious madness, which, whether permanent and fixed, or with lucid intervals, goes under the name of lunacy, and excuses equally with idiocy as to acts done during the frenzy." ^s

Such a view of legal learning, as it has relation to insanity, may not be quite sufficient to enable readers to compare legal and medical systems. But it is not my design to give a full account of what the books of *medicine* contain in this respect. And I do not intend to recognize the science of medicine as even nearly perfect when it treats of what we call insanity.

But I regard it as a simple recognition of the truth to own, as I do here, that we must chiefly look to *medical* "authorities," when we investigate the doctrine of causes, or the classification of varieties, either as to mental alienation or as to disorders of the body not considered as attended with insanity of mind.

The considerations just presented to the reader may induce him to make a further examination of the doctrine, recognized as that of Carpenter.

It is only to the form of "Moral" Insanity which that learned writer has distinguished as Impulsive, that I wish to call particular attention. Moral Mania in general, as Dr. Ray describes it, may, in some of its varieties, resemble simple crime so closely as to render impossible its forensic discrimination from mere wickedness. That Insanity may consist in an unnatural exaltation and predominance of the affective powers in general, and that the Will in such a state may be entirely overpowered by the passions, it is easy to concede, in view of what we have already seen of the affections and the will.^t But the forensic recognition of the cases in which the supposed unnatural predominance of the affections may be certainly detected, may prove slow and cautious. So, at least, I think it may well be.

With reference to what we have already more than once encountered as Impulsive or Emotional Insanity, I do not think the same degree of caution necessary.

(t) Ante, 302.

We have seen a portion of the presentation of the theory in question by its learned and distinguished author.^u We have glanced at infancy and feminality as similarly illustrating Dr. Carpenter's description of a morbidly exaggerated idea taking full "possession" of the mind.

The "possession" here alluded to often seems to mock the will, making the affections master of volition, and compelling body to respond to mere emotional excitement, while the will in vain attempts to restrain the action so produced.

In the infant, we occasionally mark the evidence of such "possession." I have thought that this might be attributed to want of harmony in certain powers of the mind. But when we consider the many analogies between infancy and adult feminality, and when we bear in mind the indications of disease which, in the female, may account for the supposed abnormal relation of volition to a certain species of corporeal activity, perhaps we ought to conclude, that the "possession" alluded to is always the product of disease.

However this may be, it is observed by Dr. Carpenter, that no prolonged study of the infant mind when "possessed" as we have seen, "is required to justify the statement, that its operations are for sometime entirely automatic, and that the acquirement of volitional control over them, on the part of the individual, is a very gradual process."^v

Here I must produce the illustration which I chose to hold in reserve when treating of the will as sometimes overmastered by emotions.

"The insane impulse," says Dr. Carpenter, "appears to be not unfrequently the expression of a dominant *idea*, with which there is no such association of pleasurable feeling as makes the action prompted by it an object of desire, but which operates by taking full possession of the mind,

(u) Ante, 302-303.

(v) Carpenter, 855.

and by forcing (so to speak) the body into the movements which express it. . . . This state bears a close resemblance to that of the 'biologized' subject, who is peremptorily told, 'You *must* do this,' and does it accordingly.'"^w

When Dr. Carpenter adds a suggestion as to the persons in whom this state is particularly liable to be induced, we find that infants and "nervous" women (as I have already suggested) are peculiarly liable to manifest the state in question.^x

Dr. Carpenter informs us, that the state described "is particularly liable to be induced in persons who habitually exercise but little volitional control over the direction of their thoughts, by the influence of suggestions from without, and especially by occurrences which fix themselves strongly upon their attention."

And now for the citation of the cases. Almira Brixey was a "quiet, inoffensive girl, a maid servant in a respectable family. She had labored under disordered menstruation, and, a short time before the occurrence, had shown some violence of temper about trivial domestic matters. This was all the evidence of her alleged insanity—the rest was furnished by the *act* of murder, a species of evidence which is not," says Dr. Taylor,^y "generally considered to be admissible. She procured a knife from the kitchen on some trivial pretence, and while the nurse was out of the room, cut the throat of her master's infant child. She then went down stairs, and told her master what she had done. She was perfectly *conscious* of the crime she had committed, and showed much anxiety to know whether she should be hanged or trans-

(w) Carpenter, 631.

(x) Long before I had even seen the work of Dr. Carpenter, I had maintained in substance what I am enabled now to warrant by the great authority of his opinion.

(y) Med. Jur. 585.

ported. There was not the slightest evidence that she was laboring under delusion, or any intellectual aberration whatever. The prisoner was acquitted on the ground of insanity, probably caused by obstructed menstruation."

But the "leading case," on this subject, is that of Henriette Cornier. True, it presents no direct evidence of disordered menstruation. But there is great reason to suppose that Henriette was suffering from some disorder of this nature. And her case is so connected with others, in which there was evidently a deranged condition of the system quite analogous to that produced by catamenial derangement, that we may, with great propriety, consider it in this connexion.

Henriette Cornier, at twenty-seven, was very gay, and remarkably fond of children. But a great change—not well accounted for by the evidence—quite probably connected with disordered menstruation—made itself apparent in this poor unfortunate. Her liveliness was exchanged for silence, melancholy, reverie. Her friends could not learn from her the causes of this change. She attempted suicide, but was prevented. Some months afterwards, she killed a beautiful child, of which she had been passionately fond, and which she treated with her usual fondness just before she took its life. The child had not offended her. She took it out to walk—going for it to its mother's house in the neighborhood of her own place of service—for she was a servant. Having thus obtained possession of the child, Henriette hastened to her mistress's house, and laying the child across her own bed, severed its head from its body with a large kitchen knife.

The mother coming to inquire for her darling, "your child is dead," said Henriette. "The mother, who at first thought she was only in jest, soon became alarmed, and pushed forward into the chamber, where she witnessed the bloody sight of the mutilated fragments of her child. At that moment, Cornier snatched up the head of the mur-

dered child, and threw it into the street, from the open window. The mother rushed out of the house, struck with horror. An alarm was raised; the father of the child and the officers of justice with a crowd of persons entered the room. Henriette was found sitting on a chair near the body of the child, gazing at it, with the bloody knife by her, her hand and clothes covered with blood. She made no attempt to escape, nor to deny the crime; she confessed all the circumstances, even her premeditated design, and the perfidy of her caresses, which had persuaded the unhappy mother to intrust her with the child. It was found impossible to excite in her the slightest emotion of remorse or grief; to all that was said she replied with indifference, "I intended to kill the child."

"When closely and earnestly interrogated, as to her motives for committing this dreadful act, she replied that she had no particular reason for it; that the idea had taken possession of her mind, and that she was destined to do it. When asked why she threw the head into the street, she answered that it was for the purpose of attracting public attention, so that people might come up to her chamber, and see that she alone was guilty. The nature of her extraordinary replies, the want of motives for such an atrocious deed, the absence of every kind of emotion, and the state of stupor in which she remained, fixed the attention of the medical men who were called in, and impressed them with the belief that she was mad."^z

But was she mad? And, if so, what was the description of her insanity? Was it that which Carpenter distinguishes as Impulsive?

Being put to trial, she was found not guilty of premeditation, but was not acquitted of all crime. The jury having found that she had acted voluntarily, but not with premeditation, she was sentenced to hard labor for life.

(z) Ray, Med. Jur. Insan. § 205.

The jury had before them all the facts presented to the reader in the preceding statement. Further, it was proven, that after the horrible deed had been accomplished, Henriette declared, that while killing the child of which she was so fond, she felt no particular emotion—neither of pleasure, nor of pain. “Shortly after she said, the sight of the horrible spectacle before her eyes brought her to herself, and she expressed some emotions of fear, but they were of short duration.” It appeared that she had remained alone with the body of the child two hours before its mother came. It further appeared, that on her examination before the magistrate, she had stated, that she had been unhappily married seven years before; that she attempted to drown herself, “because she was ennuied at changing her place of service so often;” that “she knew her crime deserved death, and she desired it.”

In addition, there was offered to the jury the report of a medical commission—Adelon, Esquirol, and Lèveillé. This commission finally reported: “First, that during the whole time Cornier was under examination, from the 25th of February to the 3d of June, they had observed in regard to her moral state great mental dejection, extreme dullness of mind, and profound chagrin; secondly, that the present situation of Cornier sufficiently explains her moral state, and thus does not of itself indicate mental alienation, either general or partial.” But the committee “added that it was due to the cause of justice and to their own conscience to declare, that their judgment of her actual moral condition could not be considered final, if it were proved, as stated in the acte d’ accusation, that long before the 4th of November, the character and habits had changed; that she had become sad, gloomy, silent, and restless; for then that which might be attributed to her present situation, could be only the continuation of a melancholy that had existed for a year.”

Madame N. was a mild, affable, industrious woman. After an accouchement (not her first), she had several hysterical fits, and was much troubled with pains in the head, stomach and bowels; with vertigo, and ringing in the ears. These mostly disappeared, but she then became exceedingly capricious in her temper and affections, being alternately gay and sad, confiding and jealous, resolute and weak. In this condition (fourteen months after her accouchement), she heard of the Cornier tragedy. She was instantly "possessed." The desire to kill her own infant was excited. Once, when her child entered the room, she felt the most violent desire to assassinate it. "I repelled the idea," said she to Esquirol, "and coolly inquired of myself, why I should conceive such cruel designs—what could put them into my imagination? I could find no answer. The same desire returned; I feebly resisted it, was overcome, and proceeded to consummate the crime. A new effort arrested my steps, I raised the knife to my own throat, saying to myself, better perish yourself, bad woman." When asked the cause of these evil thoughts, she replied, "that something behind her back urged her on."^a

"Marguerite Molliens, twenty-four years old, had suffered for three years past pains in the epigastrium and right side of the abdomen; headache, vertigo, noise in the ears, disturbance of vision, palpitation of the heart, constrictions of the throat, and trembling of the limbs. Her first child, which lived but three months, she loved and deeply regretted. Nine months ago she had another child. On the fifth day of her confinement, she heard of Cornier's case, and was so deeply impressed with the story, that her thoughts dwelt upon it; and from that moment she feared lest she also might be similarly tempted. In spite of all her efforts, she gradually familiarized her-

(a) Ray, § 194.

self with the idea of killing her child. One day, while dressing it, the thought of murdering it seized upon her mind and became a violent desire. She turned around, and, perceiving a kitchen-knife on a table near by, her arm was involuntarily carried towards it. She saw that she could no longer control herself, and cried out for assistance. The neighbors came in, and she soon became calm. Shortly after she was separated from her child and sent to a hospital, where she finally recovered. It is worthy of note, that when the pains in the head and epigastrium, from which she suffered greatly in the hospital, were worst, then the bad thoughts appeared to be most imperious."^b

Surely, here is illustration of the Carpenter doctrine, touching dominant ideas.

Contemplate if you can these three women.—The first declaring that, in beheading a young child which had been an object of affection to her, she had no particular reason; *that the idea had taken possession of her mind*, and that she was destined to do it—the second, seized upon the mere relation of the story of the first with the idea of killing her own infant, and feeling that something behind her back urged her on—and the last, moved by the same mysterious attraction, crying out for assistance to protect her from the murder of her child!

Contemplate these pictures, and ask yourself whether Hofbauer might not well say: "In order to resist the impulses of the passions, it is not sufficient that the reason should impart its counsels; we must have the necessary power to obey them."

To these cases, might be added others hardly less instructive.^c

(b) Ray, quoting Esquirol, *Des Mal. Ment.* ii, 825.

(c) Ray, § 198, § 183. Wharton & Stille, note 2 to § 184. There is an air of exaggeration in the recital of the last mentioned case. It may be doubted whether the case in § 194 of Ray is not a simple case of intellectual mania.

In the cases cited and alluded to, it is quite observable, that though the lesion of the powers known as intellectual, may not be "notable," there is apparently some lesion of those powers. And when we consider, that the body and the mind sustain relations of such intimacy as we have already seen—when we remember how the intellections blend with the affections, or may be affected by them—when we bear in mind, that, in the insanity denominated intellectual, affections are invariably more or less involved—we cannot be inclined towards such terms as Prichard has employed to define "moral insanity." But even by Dr. Prichard, we are only told, that moral insanity consists in a disorder of the moral affections and propensities, without any *symptom* of illusion or error impressed on the understanding. And in Carpenter's expression of his theory, we find that in Impulsive Insanity, the patient regards himself as the victim of mysterious but actual necessity.^d

Here is, when we can find the evidence of its existence, a notable lesion of the intellectual powers. Here is a "hallucination" or "delusion." But the line of difference between the views of Carpenter and those of judges does not disappear on making such a statement. Still the question is, can such a patient, knowing still that what he does is *wrong*, or, rather, falsely reasoning, that what is evidently wrong is just as evidently quite inevitable in his case, be deemed insane within the meaning of the law, when it allows insanity as a defence against the accusation of a crime?

In view of such a question, I would call attention to a case, reported in Ohio.

I do not refer to Nancy Farrer's case. I have not quite determined, for myself, the measure of the capability to

(d) See also Holland's Mental Phys. 71, 72.

commit the crime of murder, manifested by that strange unfortunate.

Nor do I here refer to Loeffner's case. Something yet delays the permanent report of that most interesting case. But even if it were reported fully, it would not subserve my present purposes. It was, perhaps, a common, undistinguishable case of common "craziness."

The case alluded to is once more that of a woman. It is one reported to the Legislature of Ohio, in the Second Annual Report of the Directors and Superintendent of the Ohio Lunatic Asylum, (Doc. 13, p. 38.)

It is the case of a wife, who killed her husband, and it is full of painful interest. It may not be a case of moral insanity according to the definition of Prichard; for I am not sure that it can be well said of it that it does not show that "notable lesion of the intellectual faculties" which, according to his definition, is wanting in mere moral mania. On one occasion, this woman thought somebody was coming to kill her. She wished she had never been born, and often said to her husband, "there's my poor children, and I've got to go to hell for having them." Frequently, it appeared to her mind as if it would rain hail and fire upon her head, and she should be beaten to pieces with thunder and lightning. The thought that her husband was going to kill her came into her head; and she ran away into the prairie to escape death from his hand. Something appeared to tell her that there was dreadful work to be done. She had a confused idea that she was born to be lost; and that he was to be saved. She was very much agitated when the thought came into her head that she must kill him. She felt she must kill him to save herself. And years afterwards, clearly remembering all this, and narrating it with such a likeness to truth that we feel it cannot be false, she acknowledges that what she did was wrong, but denies all sorrow for the deed. "No,"

she says; "No, doctor, no! I'm not sorry for it! It was God's will—why should I be sorry? He made me do it, to show me His power—and I was willing to do something to go to hell for." Now, had the husband lived, some portion of all this truth could have been made manifest. Enough would have appeared from his description of her behavior, explained by his familiarity with her character of mind, to make certain the lesion of her intellectual powers, which made her fancy that she heard unreal voices, or shrink from the threatened rain of hail and fire, and the rending of thunder and lightning,—to say nothing of the belief that *she* was lost, and he was saved. In this sense, the lesion of the intellectual faculties may be said to have been, in this instance, notable. And from the conduct of her neighbors and the public authorities, it would seem that it so appeared in her exterior, as to be beyond the necessity of trial. She was never even tried for the murder, but was sent at once to the Lunatic Asylum. But where could we find a more perfect illustration of Carpenter's fine expression of what he considers and denominates impulsive insanity? There was in the mind of this poor woman a dominant idea—that she must kill her husband. The action prompted by that idea was not an object of desire; but the idea operated by taking full possession of her mind, and forcing (so to speak) her body into the movements which expressed it. She regarded herself as the victim of a necessity which she could not resist, and was perfectly conscious that what she was doing would be so injurious to herself as to damn her to the pains of endless damnation.

I do not think it necessary to add to this citation of the cases. It is evident enough, that such a theory as that of Carpenter deserves acceptance.

This it merits, even when we are compelled to own, that we are not enabled to explain precisely how certain femi-

nine disorders connect themselves with Impulsive or Emotional Insanity.

I have particularly mentioned one disorder. This has relation to the catamenial discharge.

We have already seen, that menstruation is a species of excretion. We are told, moreover, that the discharged fluid is, or at least contains, highly carbonized blood. We are also told, that the suppression of certain excretions changes the character of the arterial blood intended to supply the brain with nourishment—that, in other words, the blood is poisoned by the suppression mentioned—and that certain mental irregularities and disorders may be thus produced. But whether these suggestions furnish all the light here needed, I will not attempt to determine. That they shed important light on such investigations as the present, none will doubt.

Without pronouncing, however, on the question here entertained, I venture to conclude that, in virtue of the facts and theories to which I have referred, medical experts have the right to move the law for reformation of its jurisprudence of insanity. They have the right to move the judges to acknowledge, that disorder of the body or the like may bring about disorder of the impulses, which may express itself in acts, of which the actor more or less distinctly knows the wrongful character. They may with confidence insist, that there are cases in which acts of otherwise criminal character are shown to be really innocent, as having resulted from delusion as to the capacity of will to curb the impulses. And they have the right to argue, that in many cases, the belief of incapacity to make resistance is in accordance with the facts. For, under such a view as Carpenter has taken of the emotional as distinguished from the voluntary, we may understand, that as disease may paralyze to the volitional what still re-

sponds to the emotional,* so disease may so exaggerate emotional control of the corporeal machine, that Will, generally master, may be overmastered, mocked, and brought to nothingness.

I argue, therefore, for a reformation of the law, through mere judicial recognition of what now amounts to scientific demonstration. I do not, indeed, agree with Mr. Wharton, that the law embraces scientific definitions as a part of its own peculiar substance. We have seen, already, why opinions of experts cannot be honored as that learned and most estimable writer thinks they may be honored.^f But we have already also seen, that nothing in the anthropology of law-books was, when first received with favor, or has, since its earliest adoption, been regarded as concluding *all* inquiry. Nay, we have seen reason for determining, that let the language of a Swinburne and a Blackstone be unguarded as it may, it were injustice to such writers to imagine, that they laid such stress upon their language as the judges lately have disposed themselves to put upon it. We might find it possible to make defences under Blackstone's language which the recent answers of the English judges might exclude. For, Blackstone, first of all, and last of all, and in and through all definitions and descriptions of the criminal in conduct, finds in the *concurrence of the will* the test of real guilt in action. He had not considered, or he did not think of recognizing, or he had not learned, such facts as those produced by Carpenter, and such as we have here derived from other sources. Blackstone may have fancied, while endeavoring to put on paper a description of the mind, that what he found in books might be regarded as complete, reliable, authoritative. But he carefully announced a rule, which, simply taken, would admit defences now excluded. Thus the purposed reformation would not be so much a reformation as a restoration.

(e) Ante, p. 303.

(f) Ante, p. 134.

CHAPTER XXVI.

FINAL OBSERVATIONS.

HAVING devoted to the course of life all the attention which I find it necessary to bestow upon it, I approach the end of this imperfect Physiology.

I have, it is true, only glanced at Death. But I will not attempt its closer observation. Full examination of its varieties is entirely out of the question; and for all our present purpose, we have, perhaps, sufficiently brought those varieties before our minds.

The varieties of health and disease, as well as the less alterable varieties of differential character, have been imperfectly observed. We have, indeed, glanced at some of the most striking varieties. But, without attempting a full discrimination of them here, we may with great propriety attempt a further view of the varieties of state and character in physical and psychical Man, which may be looked upon as deviations from the state and characters of a standard Man in a standard state.

We have already seen how, even in a state called healthy, there may be such fluctuations as might be described as various states or conditions of the individual. And we have seen a little of the deviations from the stand-

ard state, produced by what we call disease in body or in mind.

The less alterable characters of body and of mind in which varieties of power or capacity may be discernible, have also been to some extent examined.

These less alterable *characters* might, perhaps, be well considered as more fixed or permanent *states* of mind and body. But I have thought proper to distinguish states from characters.

By characters of body or of mind, then, we understand something less alterable, more approaching fixedness, than that which we discover in a simple state of mind or body.

But we must remember, that the characters of mind and body seen in infancy, are generally alterable, and that they develop into other characters as growth advances. And we ought to bear in mind that even after manhood, changes may be variously brought about, which may involve great alterations of the leading characters of mind and body.

I have ventured to maintain, that, while creative power, for instance, may be limited, to some extent, by physical conditions, these may undergo great changes in the course of life, so that an individual not previously marked by that degree of creative power which we call *genius*, may display it, after certain changes in his constitution shall have been produced by illness or the like.^a And now in presence of the education which a philanthropic science has provided for the idiotic, I prefer such modes of speech as fully recognize the supposed alterability of physical and psychical capacity.

Among the varieties of differential character which appear to be more than others unalterable, are the deviations from the type that we have contemplated, which depend on height, weight, proportion, and shape. In

(a) Ante, p. 441.

presence of these deviations, we return to what we have already seen of *race* and *national peculiarities*.

That these peculiarities may be appreciated fully by intelligent believers in the brotherhood of man as taught by Christianity, I trust I have established by fair argument.^b At present it may be a matter of indifference, whether the peculiarities in question are or are not reconcilable with the received doctrine of consanguine brotherhood. But even here, it may be worth a thought, whether the consanguinity in human brotherhood may not affect whatever uniformities may be discovered as pervading all intelligent humanity. At all events, we are to bear in mind, that the peculiarities of race do not exclude such uniformities. Wherever human nature and the artful life of man may be observed, in sage or savage, in the highest or the lowest types of race, some uniformities present themselves to observation.

One of these I have distinguished as a natural affection for the Good, the True, and the Beautiful. That this affection is indebted for its highest exaltation to the Christian system, I have sought to state in terms, too plain for misapprehension. That it may be strangely lowered or perverted by the savageism which is due to crime or immorality, I need not here concede. Nor need I add, that in the idiot it may be always undeveloped. It appears in infancy, when natural development displays the presence of the harmony which we call reason. As already granted, education may deform, debase, pervert it. But it is an attribute of human nature, which appears, more or less modified by habit or education, in each human being, saving only infants, idiots, and the insane.

Having conceded, that it may be modified, we need not wonder when we find it various in races and in nationalities.

(b) Ante, Book I.

We find it manifested savagely in savages, and otherwise displayed where artful life is civilized, refined, exalted, by whatever means.

Analogies to the modifications of this natural affection which disclose themselves in the varieties of race and nationality, appear within each nationality. Close observation will detect them in a view of Man and Law, like this. The forum, I have said, is life in little. Individuals, displaying the varieties of differential character which we have recognized as more unalterable than others—those, that is to say, which physiognomists would note with special interest—are constantly presented to forensic observation. Here, where we have thus far studied Man and Law, the wonderful varieties of physical and psychical peculiarities are daily offered to inspection. They strikingly appear in judges, advocates, and witnesses.

Nor is it alone the less alterable in the varieties of differential character, which we here encounter. Few of the marks of individuality are wanting in this microcosmic scene. Varieties of state, as well as the varieties already mentioned, challenge estimation in the court of justice. Sometimes, they appear directly as the states of those participating in the ministry of justice or directly interested in it. Often they appear in testimony which relates to past transactions. Thus, the condition of testators when testating, that of persons brought before the bar of justice to defend against indictments, and that of others whose behavior at a given time might be notably affected by their states of mind; may be brought by evidence before the court.

The forensic recognition of Man's variously modified affection for the Good, the True, and the Beautiful, assumes, that, although it may be modified in various ways, it has existence in each fully constituted human being, saving infants and the insane. The rule of law goes fur-

ther. It presumes, in the first instance, that this affection governs the conduct of the individual. True, it may be overcome by evil affections. Natural although it be, it is exposed to conflict with quite opposite affections. But the law, allowing and respecting proof, whenever legally produced, that individuals have yielded to the fatal charm of evil passions, still presumes, in general, in favor of the sway of that affection, which we have distinguished as Man's motive for respecting and upholding legal order.

In the recognition of this natural affection for the Good, the True, and the Beautiful, the law-books do not treat of it by such a designation as I have applied to it. They treat of it in its distinct varieties. Thus, honesty, veracity, and other virtues, are presumed until presumption yields, reluctantly, to hostile evidence.

The virtues which the law presumes in favor of such a standard man as I have tried to outline, are presumed in favor of each adult individual until the want of them appears in proof. And so with physical and psychical capacity in general.^c The capacity as well as the disposition to obey the law, is legally presumed, until the contrary is proven.

Nor will mere inspection of the physical peculiarities of any individual, above a certain age (and not an idiot), be suffered to excuse him, when accused of crime, or otherwise presented as a violator of the law.

It does not follow, however, that the varieties of physical human nature are of no forensic notability. Although the law has not adopted what Lavater, Gall, or our Buchanan, has advanced, respecting the relation of the physical and the psychical, all deviations from the physical standard of humanity may be of a decidedly forensic interest.

(c) The exceptions in favor of infancy and of sex will be remembered by the reader.

"In *Law*," says Chitty,^d "although any deviation in temperament, as a Choleric disposition, is not directly recognised or admitted as affording any legal defence for violent injury, yet practically, with a jury, the proof of such a predisposition on the part of an offender may have considerable effect; and if a person, aware of such a predisposition, should purposely irritate the subject, and thereby excite him in sudden wrath to give a fatal blow, a jury might make allowance, and either acquit, or find the prisoner guilty only of manslaughter: whilst, if the offender had notoriously been of a different temperament, perhaps the conviction would have been capital. It is true that we ought to struggle with and endeavor to counteract and control such a disposition, but sometimes the greatest anxiety to prevent its effects will not succeed, and as the predisposition may be inherent, allowance should be made in certain circumstances. The party influenced by choleric temperament is not guilty of such *voluntary* deviation from strict propriety of conduct; he is not like a drunkard, '*voluntarius dæmon*:' hence, therefore, a knowledge of this subject is important for the study of all who may be concerned in the administration of justice."

Without referring to authorities, it must be evident, that all the physical peculiarities of individuals may become notable in courts of justice. These peculiarities affect exposure or predisposition to disease of mind and body.^e They may thus be brought into forensic notability wherever the capacity of individuals to testate, to make a deed, or to contract in any form, or, in a word, to do any jural act, is called in question. And they may, in other modes, acquire forensic notability. The testimony of witnesses may be affected by them. So may the capacity of a judge, a juror, or an advocate.

These considerations prove, that if, in Physiognomy, or

(d) Med. Jur. 51.

(e) Ante, p. 434.

Craniology, or Sarcognomy, we could discern a real science, this would be of great forensic value. As it is, we are to guard ourselves against extravagance whenever we approach the so-called sciences of physical development and manifestation.

If, running through the vast varieties of individual peculiarity, we find the modified uniformity of an affection for the Good, the True, and the Beautiful, let us remember how another uniformity pervades all human nature. This is that affection for the evil, which I have recognized as waging war with the good affections of our nature.^f

If this explanation of my system do not show it unexceptionable, I can only say, I have expressed what seems to me the truth, without intending to invade, unnecessarily, the province of sectarian varieties of faith.

It seems to me quite vital in a physiology like this, to recognize the natural affections which I have attempted to describe. Forensic physiology must note what naturally motives Man to subject his life to law and order. I have noted what appears to me as that natural motive.

This I take to be a doctrine which religion will not frown upon. The view of life, which seems to warrant it, is a religious view. Let me explain it.

Natural affection for the Good, the True, and the Beautiful, may be exalted by God's grace into a supernatural affection. When exalted, it embraces the Good become the Perfect, the True become the all-comprehensive, and the Beautiful without defect. But, unexalted, as a simply natural affection, it embraces in the order of society the earthly Good, the earthly True, the earthly Beautiful. I am inclined to think that, could we find it unperverted, as a simply natural affection, we should find it looking quite beyond the sphere of present and imperfect things. In other words, I am inclined to think that, leaving out of

(f) Ante, p. 368.

view the influence of religion such as Christians hold in an especial veneration, we may find in simple natural affections and the simple reason of mankind, a looking to perfection in a life to come.

I do not overlook how false religions, or how savage modes of life, debase or pervert this natural affection. I do not forget how nations have so sinned as to convince the world, that few among them knew affection save for evil. I do not forget the fearful lessons of the present hour, the savageism of our cities, the countless fearful illustrations of the truth, that the minds of men are filled with mad conceits, until they seem to flame with a ferocious folly. Times like these may seem but inauspicious for the promulgation of the theory which I maintain. Yet love of truth compels me to maintain it.

I do not forget the doctrines of religion, or the theories of theologians, touching the elect, the number of the saved, and man's propensity to evil. I desire no quarrel with the theologians. Such a quarrel would involve the plain necessity on my part, of acknowledging how little knowledge of theology I have acquired from systematic treatises, how far from competent I am to question or discuss with theologians worthy of the name. I only venture to defend the rules of law, the theories of legal science, and the real living faith of Christendom, when I hold, that, at least here, among the Christian nations, guilt is not the rule but the exception. Innocence of crime is a presumption of the law, with which it shields all men from conviction, until proof, removing reasonable doubt, appears against them. The basis of the rule, presuming innocence until the proof of guilt is clear,—is but the theory which I respect, in holding, that, at least in Christendom, the affection of men for the Good—so relative as we have seen—is the motive of men to make and to maintain a legal system. Jurists tell us: "Thus, as men do not gen-

erally violate the penal code, the law presumes every man *innocent*; but some men do transgress it, and therefore evidence is received to repel this presumption."^g This legal theory of virtue in the individual is doubtless theological in origin. It beautifully harmonises with the spirit of the Christian system. Theologians, writing in the spirit of pure dogmatism, may forget what they believe with reference to practice. But, while practicing in courts of law as ministers of justice, they perceived the value and the truthfulness of that presumption which the law preserves, in favor of the right in conduct and the innocent in motive. And the voice of common life accords with jurisprudence, in declaring, that we may safely presume in favor of virtue. The vast majority of men in Christendom are virtuous.

Without unpardonable indiscretion, I may go yet further, writing always without obstinate determination to resist correction, where I need it. As to all the race of men, I may, perhaps, assert what I assert of Christendom. It is, indeed, as a theologian has well said: "It is sweet to think of the web of love, which God is hourly weaving round every soul He has created on the earth. If we bring the world before us, with all its picturesque geography, the many indentations of its coasts, the long courses of its fertile rivers, its outspread plains, its wide forests, its blue mountain chains, its aromatic islands, and its verdant archipelagos, it enlarges the heart to think how, round every soul of man, God is weaving that web of love. The busy European, the silent Oriental, the venturous American, the gross Hottentot, the bewildered Australian, the dark-souled Malay—He comes to all. He has his own way with each; but with all it is a way of tenderness, forbearance, and lavish generosity."^h And it is not sweet, but

(g) 1 Greenl. Ev. § 34.

(h) The Creator and the Creature, Book III, Ch. II.

bitter and repugnant to think, that only a few of the hearts thus caught, as it were, in the meshes of love, are willing prisoners to Goodness. I do not think so. Legal science, and the genial spirit of the Christian system, seem alike opposed to such a doctrine as that to which I here object.

I may be told, however, that when jurisprudence bases a presumption of the innocence of men upon the known and indisputable truth, discovered by mere observation, that men do not generally violate the penal code, it does not venture to declare, as I declare, that men refrain from violating penal codes, because they love the Good. But if we only scrutinize the forces which the law is able to employ, we shall surely find their source in that affection for the Good, on which I lay such stress. The physical, enforcing law, is but expressive of the moral. Hands and hearts are equally employed in the enforcement of the law ; but hands are acting in obedience to hearts, when they perform the offices of justice. What attracts the heart towards enforcement of the law? What can it be, save the affection I have pointed out, as the efficient sanction of all human law? Is it the fear of evil? Call it so. But what, permit me to inquire, inspires the heart with hatred, fear, or dread of evil, save affection for its opposite? I am not so disposed to sentimental views of man's exalted character, as to deny the influence of want and fear on conduct in society, with reference to Law and its observance. Far from it. I perceive how want and fear are motives to avoid the evil. What I say is, after all, but this: The affection for the Good, the True, and the Beautiful, involves a knowledge of man's want of the first, his need of the second, his imperfect happiness without the third. It involves also a knowledge of the hurt and hindrance contained in the Evil, a knowledge of the confusion, error, and privation, of which the False is the prolific parent, and a knowledge of the moral pain and physical disgust

with which the opposite to Beauty visits or encounters us. To know the opposites of the Evil, of the False, and of the Deformed, the Hideous, the Monstrous, or the Meretricious, is to fear, to hate, or to abhor alike the opposites to Beauty, Truth and Goodness. But it needs the active affection for the Good and the True, united to a like affection for the Beautiful, and a corresponding repugnance to the opposites of Beauty, in order to induce man to make and observe Law. And it is the attraction of the Good, the True, and the Beautiful, rather than the repulsion of their opposites, in which we find the motive of the human being for restraining, guiding, and assisting artful life, by Law and through the ministry of legal agencies.¹

It is quite impossible to overstate the value of the principle on which I thus insist.

Some illustrations of its practical importance may be here presented.

If government be formed with proper reference to its true end, it will encourage Art to make its scene of operations yield all possible delights to that law-sanctioning affection, which we have already contemplated. The Good, the True, the Beautiful, it will enable Art to furnish with material and spiritual objects of affection. Be the people Christian, government will not attempt to treat their faith with cold indifference, or to pronounce entire divorce between the principles of faith and those of polity. Since man is a religious being, government must be religious in its tone. Since man can cultivate religious sentiment without oppressing conscience, government will reverence religious sentiment without oppressing conscience.

Nor will Christian legislators listen to the tempting but deceitful doctrine, that perfect freedom of the Christian conscience will be best attained by making polity indifferent to faith. They will not so forget the lessons of the warning

(i) Ante, p. 371.

past as to believe, that government, reflecting popular opinions as it must reflect them, can become indifferent to faith. For, Power always arrogates all it can draw towards itself. At present, polity is forced to recognize in Christianity a limit to its interference with the conscience. Nothing can be more intolerant than polity when not restrained by the presence of such a limitation. Make it absolutely independent of the faith of Christians, and it will compose a state religion, deifying the popular will, and deifying itself as the expression of the popular will. Polity now recognizes in the Christian theology a system of revealed religion. Take away this recognition, and the faith in revelation will be so far weakened. The religion of humanity, as it is called, will then begin to demand political recognition, and aspire to a political supremacy. In its aspirations to that supremacy, it may be liberal in promises. But if it ever shall become supreme, there will be danger to the rights of conscience. Christianity, reserving rights of conscience, must then be attacked—and no intolerance has ever equalled, yet, the fierce intolerance of anti-christian minds.

Another illustration of my principle may more commend it to the friends of liberal government.

Supposing man to have the liberty of choice and action, which I have rather alluded to, or merely intimated, than attempted to define, and remembering that, as we have discovered, the artful, and therefore the political or legal, life of man, relates to a life to come; we have at once a glimpse of most important principles akin to those already contemplated. In other words, assuming that the motive of man in erecting an ordered legal system, and in obeying human laws, is such as I have insisted, man's affection for the Good, the True, and the Beautiful, must also move him to improve from time to time the legal systems, which

confine and regulate the operations of his Art. For, Art, if it aspire to liken its productions, acquisitions and enjoyments to the Good, the True, and the Beautiful of a higher sphere, must constantly approach towards perfection, or endeavor to progress in that direction. Law, which is related to Art as its safeguard and regulator, must be improved as Art improves.

Hence, when a nation discovers, that its legal system is outgrown by its artful Life; that what was once apparently a well-fitted system, is now apparently an ill-fitted one; it has a right to choose another. No King, no family in the possession of hereditary power, no potentate, of any name or description, can assert a right, divine or human, to resist the exercise of *this* right. The right of reformation — which, when fools or tyrants stand against it — when any one, under any false pretence, attempts to resist it—is instantly converted into the right of revolution — is as perfect as the right of government itself. It rests on the same basis. It relates to human duty, and, therefore, to God. It relates to human happiness, therefore to life eternal. It is a right, and not a caprice. It is real, and not, like the French Revolution, theatrical. It is only bloody, when necessity arms the hand of common honesty and warms the soul of patriotic virtue in its cause.

That the views here expressed are not precisely concordant with those of men who have figured in history, and of other men who have written history, I am well aware. But I know that the constitutions of the American Union, that that Union itself and all its interests, repose upon the verity of what I here attempt to inculcate. And I can assure the reader, that if higher authorities than American constitutions be demanded, he will find them alike in the doctrines of saints and in the doctrines of statesmen—in the judgments of courts, in the teachings of philoso-

phy, in the hearts of nations.^j But I will not quote authorities to fortify the position I have assumed. It fortifies itself.

This quite imperfect book of Physiology is finished. I prefer to leave it with the recognition of the truth, that governmental forms must be developed in a certain harmony with the development of national need, capacity, and affection. For, the recognition of this principle completes the circle of these studies. We began with the assertion of the principle that Law must govern human conduct with due reference to the true end of human life. We found that human life, imperfectly informed but ever seeking greater knowledge, differs from the life of lower animals in its progressiveness. We end with simple recognition of the truth that the progressiveness of human nature, looking for perfection only in a life to come, may nevertheless approach still more and more towards perfection in the present life. We merely give due application to this truth, in laying down the proposition final in our system.

I say, our system; for, apart from certain speculations which I have not treated as important, I regard my system as probably accepted by my fellow-students. If my views in some respects appear not only novel but peculiar, fair examination of them may result in obviating this objection. Very little novelty, and not too much peculiarity, I trust, may be discernible in what I somewhat egotistically call my system. After all, it is not mine. I think, it will be found far worthier of acceptance, than it could be, if I could with justice call it mine.

I have consulted worthies of all orders while assembling

(j) The reader anxious to compare the doctrines of Saints with the doctrines of Statesmen, may read with profit several chapters in Balmes, "Catholicity and Protestantism compared," etc., and the treatise of Calhoun on Government. He may be startled to find how Calhoun agrees with St. Thomas Aquinas.

the materials of this work. I have, indeed, been little aided save by books. But I have treated books as speaking to me, as my friends, as my opponents, as advisers and as adversaries. I have quarreled somewhat with opinions thus encountered. But in taking leave of my late adversaries, I have few unpleasant reminiscences of our late warfare.

Having found myself unable to condense into a single volume all that I desire to offer to the public as a part of this Forensic View of Man and Law, I must not promise that the yet remaining book shall immediately follow the present. It may prove, that what I here offer to the public shall be so received as to forbid the publication of the yet unpublished book. In any event, I cannot promise to complete this work within any given time. What is presented in this volume, is, in a certain sense, complete in itself.

In view of these considerations, I may venture to address a few more parting words to my fellow-students.

Hoping that my work may add a little to the knowledge of some readers, and may strengthen love of knowledge in all, I yet sincerely claim but little for this Physiology or for its author. Love of truth is all that makes me bold to offer my production to the public.

Love of truth has forced me to assume positions here, which may, to those who know me intimately, seem not quite consistent with my previous opinions. Be it so. We live and learn—else, wherefore do we think life worth preserving? Let my work be fairly estimated. For myself or my “consistency,” I am not much concerned. Yet I am minded to demand the reader’s verdict, that I have constantly shown the desire to find the truth, and to embrace it when discovered, at whatever cost.

No little “inconsistency,” no little “fickleness,” no little “want of constancy,” may be involved in such a quest of

truth, and such a disposition to embrace it. But the truth, when found, and even the sincere desire to find it, may sustain us, when such inconsistency, and fickleness, and want of constancy, shall be alleged against us. Be this as it may, I am quite confident, that nothing false can be discovered in any part of this production, save as ignorance may be akin to falsehood. I have sometimes chosen to avoid discussions, but I never have deliberately violated conscience in the least of my poor utterances. Nor have I at any time deliberately sacrificed to any fanciful conceit, or to any turn of language, what I knew to be the truth of science. Nor have I willingly permitted the attraction of a pompous style to warm enthusiasm into mere absurdity. The *truth* has been the object of my search,—not sometimes, not occasionally, only, but from the beginning until now. If I have sought it in the knowledge of the Beautiful as well as of the Good, I have attempted to establish the propriety of such a search, by fair and unexcited argument. I could not, if I would, pronounce the dissolution of the elements which constitute the Good, considered in its comprehensive sense.^k

I might, indeed, have sobered down and simplified some passages, which, on reviewing them, I fear may be fairly considered as inflated, or extravagant. But after all, the habits of forensic life may be alleged as some extenuation of the fault of style thus recognized. The reader must remember the selected stand-point of our view. He must remember, that the writer here presents himself as a forensic thinker,—as a lawyer looking into the philosophy of Law and Man. If something fitter for forensic oratory than for literary composition be apparent in the writer's language, and his modes of thought, it must not be forgotten, that he did not promise to forget his avocation, while conducting these forensic studies.

(k) Ante, p. 369.

Yet another observation on this subject may be proper.

I have elsewhere ventured to remark, that "to see how science lays aside her severity, and how she exalts her language, when she touches . . . mysteries of our nature, one need only consult" a few enumerated works.¹ Among the works alluded to when that remark was made, were several, which have been consulted by the writer in these studies. I will not here enumerate them. I will only say, that one cannot discourse, with philosophic purposes, of Man and Law, without some exaltation of the language. Even in an observation of man distinctively forensic, we have found that mysteries of human nature move our wonder. We cannot discourse of them in measured, scientific terms. They *will* be spoken of as high and holy things. They *will* entone for us the *Sursum Corda!* of the churches. Happy if our hearts can answer: We are lifted to the Lord!

Yes, coming here to the conclusion of this Physiology, I may repeat, in this forensic scene, the *sursum corda* of religion. Lips unsanctified, a voice accustomed to the wrangles of a sordid litigation, may not boldly sound that lofty admonition; but, for sinners even as for saints, there is a liberty to utter it. *Sursum corda*, therefore, is my parting admonition to my fellow-students. Never think that an ideal anthropology can take the place of true theology. Be not deceived with foolish or poetic fancies, touching the perfectibility of human nature. And do not forget how near is God to all things. Nowhere has religion shown her elevated front with bolder beauty than in scenes where something like a new creation was to be accomplished in the order of the State. The thunders of Sinai did only once, indeed, inform the human race that Law is precious in the sight of Heaven. But the chaos of disorder never disappeared except upon the fiat of re-

(1) "Ardvoirlich," Note D.

ligion, instituting legal order, or where polity, in harmony with faith, set up the system of the State. In this forensic observation, therefore, we may well exalt our thoughts to God. And we may well remember here the history of all the revelations made by God to Man. Remembering the revelations of the present dispensation, we are led to adoration, mixed with the delightful feeling of our nearness to the Author and Disposer of our lives. We are enabled then to feel, that God is not some distant height, from which no light is radiated and no heat diffused. Nay, rather we are taught to elevate our thoughts to the aspiring, nearing, loving contemplation of the Highest in the system, wherein the least is not despised, wherein the most exalted nears all hearts which yearn for its embraces. Even we, therefore, who have least right to speak of highest things, and holiest, have perfect right to offer our petition, that the only objects which, with true adornment, beautify Man's life, shall not be taken from it by a false philosophy. Even we may earnestly desire, that contemplation may be suffered still, in all the scenery of earth and all the acts of human life, to be uplifted to the only Thought, which may not mock the thinker. We may well prefer the things of Heaven to the things of Earth. All men may well refuse to worship Man, while adoration still discerns his God, Creator and Preserver, First Beginning and Last End.

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