

Revelations of Egyptian mysteries : history of the Creation, the causes and the progress of the degeneration of nature, the conflagration and manner of the resurrection of the world, as allegorically represented by the Egyptian philosophy: showing the justice of the inculcations of the ancient Egyptian priests and wise men, teaching that salt was fatally hurtful to human nature : with a discourse on the maintenance and acquisition of health, on principles in accordance with the wisdom of the ancients / by Robert Howard.

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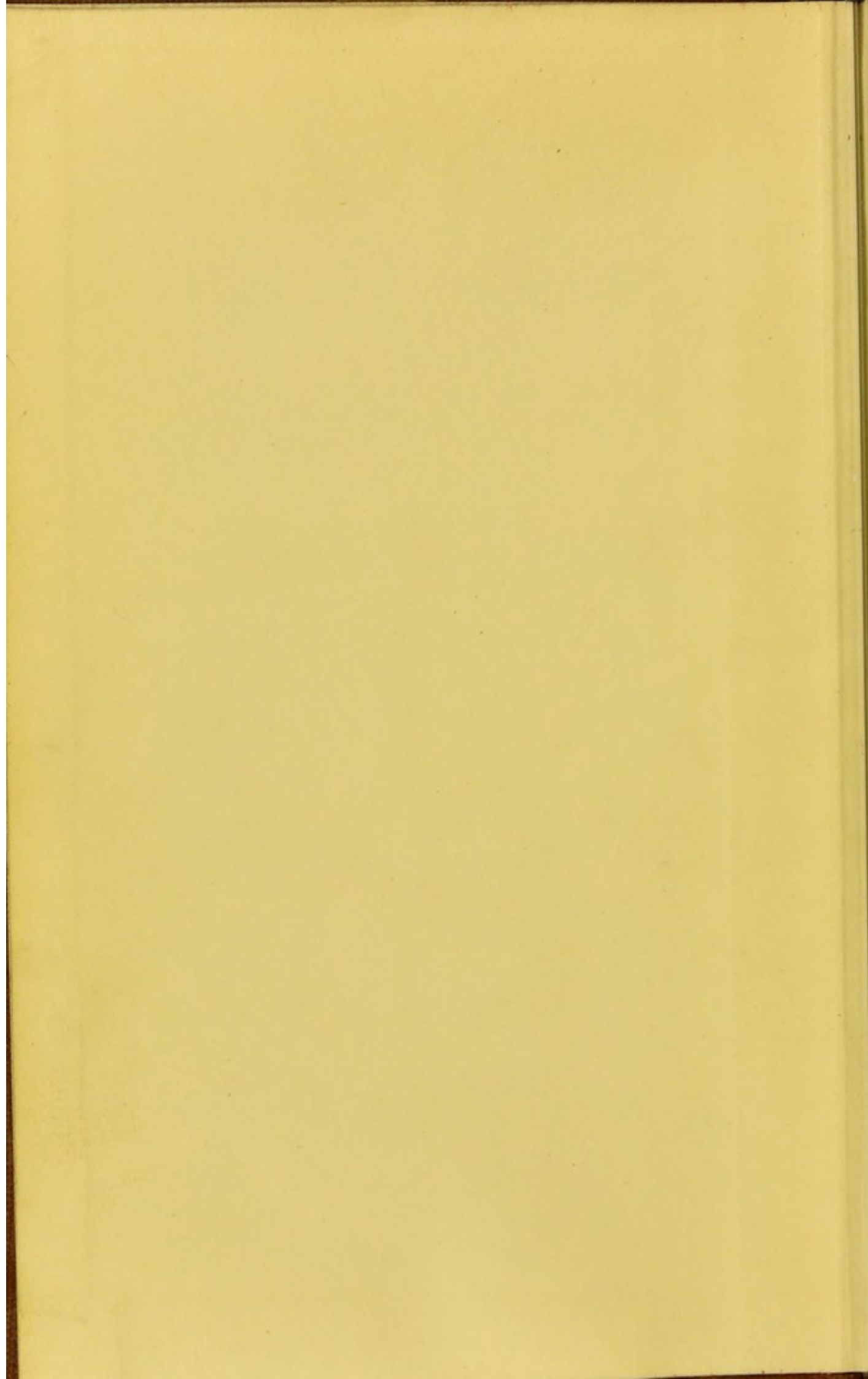
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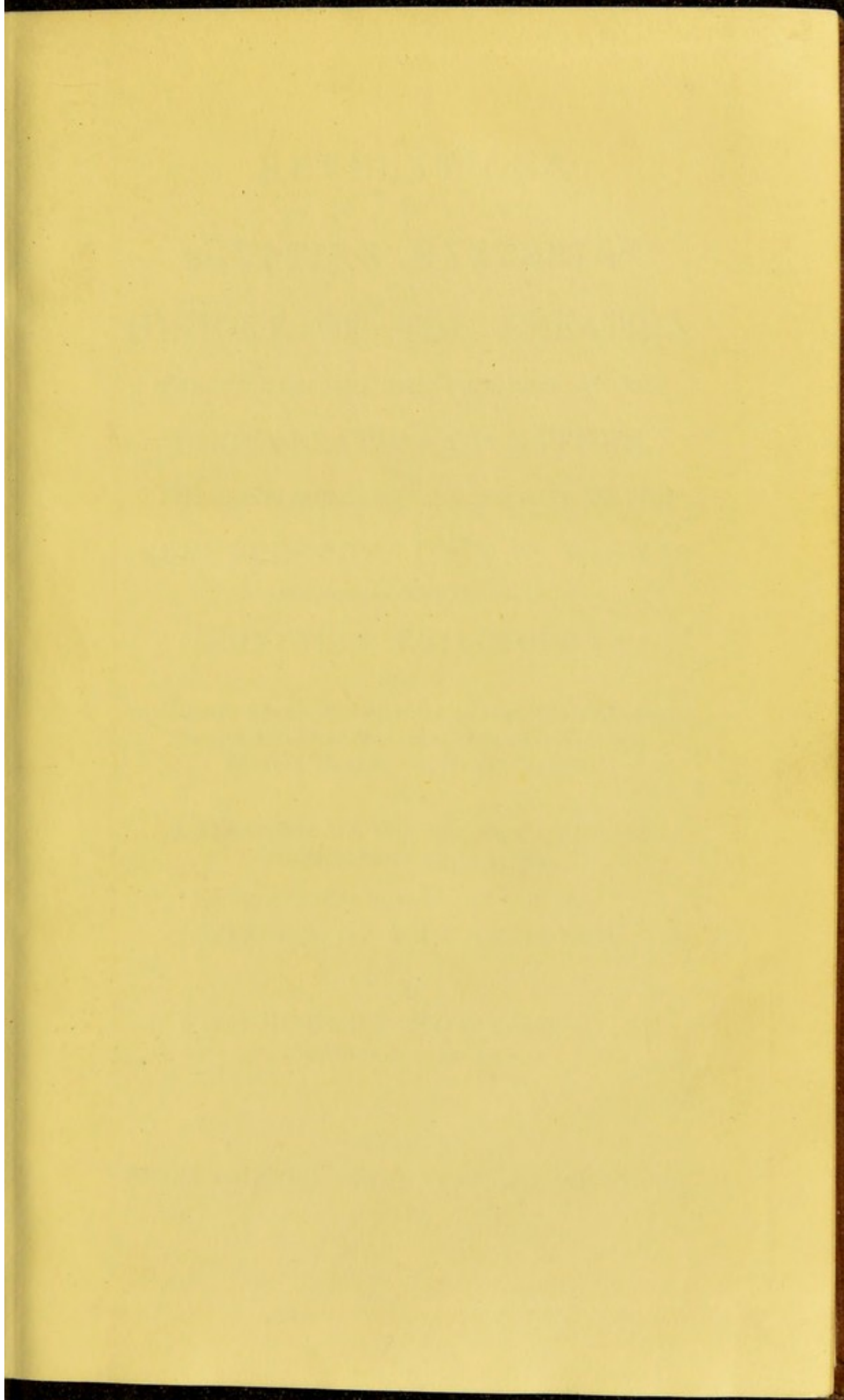
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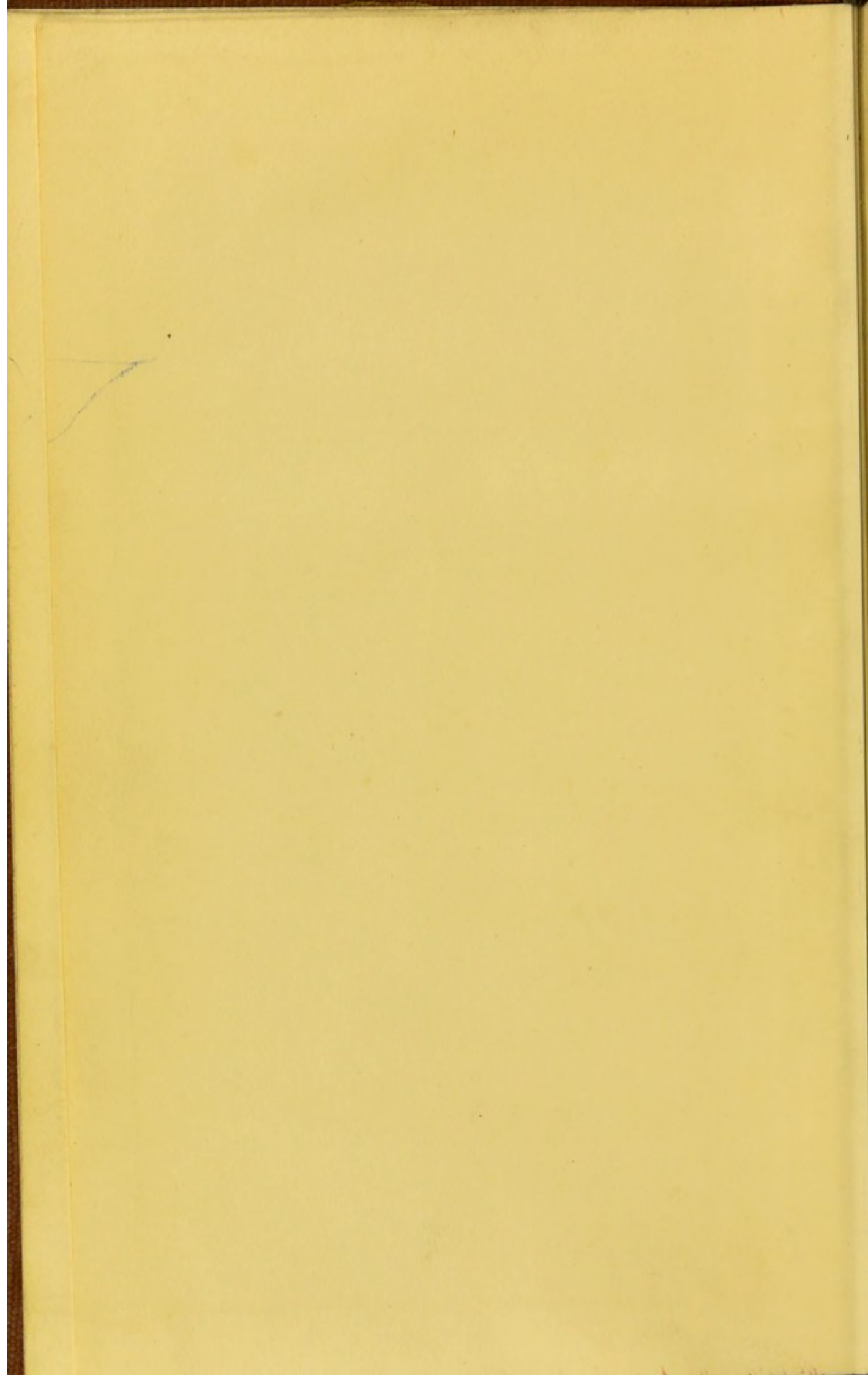
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REVELATIONS
OF
EGYPTIAN MYSTERIES.
HISTORY OF THE CREATION,
THE CAUSES AND THE PROGRESS OF THE
DEGENERATION OF NATURE,
THE CONFLAGRATION AND MANNER OF THE
RESURRECTION OF THE WORLD,
AS ALLEGORICALLY REPRESENTED BY THE
EGYPTIAN PHILOSOPHY:
SHOWING
THE JUSTICE OF THE INCULCATIONS OF THE ANCIENT EGYPTIAN
PRIESTS AND WISE MEN, TEACHING THAT SALT WAS
FATALLY HURTFUL TO HUMAN NATURE.
WITH
A DISCOURSE ON THE MAINTENANCE AND
ACQUISITION OF HEALTH,
ON PRINCIPLES IN ACCORDANCE WITH THE
WISDOM OF THE ANCIENTS.

BY
ROBERT HOWARD,
PRACTITIONER OF MEDICINE.

LONDON:
HENRY COLBURN, GREAT MARLBOROUGH STREET.

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73

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G. J. PALMER, SAVOY STREET, STRAND.

PREFACE.

THE mind of man cannot repose in a state of ease, tranquillity, and confidence, whilst the former, and the future conditions of his world, and his own origin and destiny, are concealed from his view. In Scripture it is declared that wisdom shall be destroyed: "I will destroy the wisdom of the wise, and will bring to nothing the understanding of the prudent." This prophecy, respecting the knowledge of nature, has been wonderfully fulfilled in the latter times of the world. 1 COR.
I. 19.

The chief object of this work, is to pour a new light upon our knowledge of nature, by which, it has appeared to the author, the greatest possible benefit might be conferred upon society, and health and happiness beyond measure promoted.

Although, according to the prophecy of Scripture, the wisdom of the wise, or knowledge of nature, has latterly been lost to the mind of man, it has still continued to remain before his eyes; but concealed under the dazzling and splendid masks of allegory, in the sacred writings, and those of the ancient poets. The author has proceeded by unravelling, as by a clue, many of those great mysteries: he has thus interpreted and explained many

of the masked representations belonging to the wisdom of Egypt, as set forth by the ancient poets Hesiod and Homer. In this way he believes he has arrived at conclusions of indubitable accuracy, and of unspeakable importance to the world. This opinion has not, however, been espoused, until after a profound investigation of the various subjects herein treated of: not until after an attentive consultation of nature, and very laborious comparison with parallel representations extant in the sacred writings. The perfect and unvarying concord in the great mass of evidence furnished from all these sources, appears sufficient to constitute an immovable support for the positions which he has assumed. The correctness of the views thus arrived at, by deduction from the dark representations of the wisdom of the ancients, in correspondence with the voice of nature, and the tenor of Scripture, appears to be so strongly established as must be satisfactory to every discerning and intelligent mind. These are the sentiments under which this work is humbly presented to the world.

The author has hereto attached a distinct discourse on health, founded on principles in accordance with the wisdom of the ancients. The subject of the health of man, is inseparable from this department of philosophy: in Scripture, and in the writings of the ancient poets, it is particularly held in view.

6, *Upper Gloucester Street, Dorset Square.*

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ERRORS OF THE PRESS.

Page 108, line 19, *for condion, read condition.*

145, — 20, *for love and glory, read love of glory.*

155, — 28, *for destruction, read destructive.*

202, — 28, *for as wood, read a wood.*

PART I.

OF THE EARTH AND ITS CREATURES.

CHAPTER I.

A VIEW OF THE CHIEF FUNCTIONS OF THE TERRESTRIAL, THE VEGETABLE, AND THE ANIMAL SYSTEMS.

THE world consists of fire, its lightest part; of air, which comes next in density and weight; then water, and lastly, of earth, its solid, and heaviest matter. The atmosphere is constituted of earth and water, existing in the æriform state. The air or atmosphere is a ponderous transparent fluid of unknown extent, enveloping the earth, and exerting enormous pressure upon its surface; it is continually arising from, and returning to, the earth, in the performance of functions little understood by man. The watery portion has its regular circulation within, and upon the aerial and firmer parts. The whole is constantly in motion and always at work. That which is ever active, and whose activity is directed to the performance of orderly functions, is a living system. The entire functions of the earth, aided by the other parts of nature, consist in the elaboration of its own substance into a form suitable for the nourishment or formation of the vegetable,

and the perpetual maintenance of its own perfection.

The vegetable is another, ever active, working, living system, having its various functions which it performs with order and regularity. As the earth elaborates its substance into a state fitted for the nourishment of the vegetable, so the vegetable takes the matter which the earth presents to it, and elaborates it into a state fitted for the nourishment of the animal. Thus, the apple-tree, for example, sends out ramifications in every direction into the earth; these are the collectives, sent forth in search of matter for the formation of the vegetable system or machine; they are furnished with mouths, or receptacles, which take in the various substances presented by the earth; these subterranean branches all converge towards a point to deposit or unite what they have collected; from this terminating point of the collective branches, arises the stem, or the distributive branches, which are to build up the visible part of the tree, the end of whose function is to produce its fruit, and thus it holds forth to man, the apple.

In this way, the earth, in its passage into the corporeal substance of the vegetable, undergoes a process of refinement, and in passing from the corporeal substance of the vegetable into its fruit, it goes through a second process of refinement. This last product of the vegetable only, was by nature destined for the nourishment of man.

The animal having no bond of union with the firmer portion of the earth, possesses the power of locomotion; but in its internal formative structure

it very much resembles that of the vegetable, for whilst the vegetable is implanted and fixed in the earth, out of which it is to build up its system, the animal is provided with a cavity in its own interior, for the reception of that which the vegetable has prepared and presented to it, and out of which it is to construct and maintain its material machine, in the same way as the vegetable has built itself up out of the earth, and from it derives its support; thus the veins, performing the same functions as the roots of the tree, ramify over and around the stomach to collect the matters which are necessary for the construction and maintenance of the body, and which, having received, as by the roots of the tree, are ultimately deposited at the point from which the distributive or formative branches, which are the arteries, are sent forth in every direction to build up the animal system, in anatomical depictions it may be seen that these are exactly of the tree form.

There is also another tree belonging to the animal system, which I have not described in the vegetable, but which it also possesses in some state of development. I allude to the nervous system, the substance of this tree, which commences by roots passing from every part of the body, is very different from any of the other materials; its roots converge to a point from which divergence or developement proceeds, producing first a series of flat leaves, closely approximated together, and not very dissimilar to the thick roundish leaves of some tropical plants, common in our hot-houses; this is called the little brain, situated in the back part of the skull. And it is very remarkable, that, on making

a section from before to behind, of this part of the brain, cutting through the leaves, and longitudinally dividing the stem from which they proceed, an exact and perfect picture of a tree presents itself to the eye; it is formed by a most curious ramification of the white matter of the brain within a darker greyish substance called the bark of the brain. This posterior, or little brain, is contained in a distinct chamber at the back part of the skull, and it is the seat of that department of the mind, commonly called instinctive, which presides over the involuntary powers. Anteriorly to, and above the little brain, proceeds the larger and ultimate development, filling the great anterior chamber of the skull, consisting of convoluted lobes, more resembling a fruit, or something between a fruit and a flower, than anything else; and which, as being the final product of the tree, I suppose it ought to be considered. This nervous tree, terminating in the brain, is formed and maintained by the branches of the first tree; but its own proper function consists in collecting sensation, by means of its roots, from every part of the body, and transmitting it to the brain, by which the mind is furnished with knowledge of what is going on within the body, with respect to the progression of the various vital functions, and also, by means of impressions coming from without, it enables the mind to derive knowledge of the external world.

We do not observe that the earth produces any organized creature, out of, or beyond itself, since the vegetable and the animal are merely inhabitants of the aerial portion of the earth, and so there is no

absolute separation, for the aerial matter continuously pervades the substance of the earth, the vegetable and the animal; thus all the three are, in reality, united by the transparent, fluid, aerial, portion of the earth. The vegetable and the animal cannot exist out of this portion of the earth, when removed out of it into what is called a vacuum; they are killed by such separation, swelling out enormously by the expansion of air contained in their own composition, from the removal of the external pressure of the atmosphere, which is immense. Neither will the atmospheric connection of the earth with its creatures suffer the permanent intervention of any dense substance without occasioning their destruction.

Here we observe a trinity in unity; and it must be supposed that the three systems were originally perfect. But on taking a present view of nature we find that all is imperfect.

We have described three material systems; the second arising from the first, and the third proceeding from the second, and through it, from the first, and all the three united. And it is clear that the integrity of the whole must be dependent on the uninterrupted performance of the functions of each; the first working for the supply of the second, the second must receive that alone which it offers, and that which the second produces must alone be accepted by the third, otherwise, confusion of substance and impediment must occur; for notwithstanding the intimate union of the three creatures, the material nature of each is widely different and totally distinct.

The functions of the earth, and the bodily func-

Resem-
blance of
the earth
to the
body of an
animal.

tions of the animal are closely correspondent. The earth moves and breathes. Breathing, it must be observed, has for its end that life-inspiring change which is occasioned in matter by the contact of air. Thus, for the purpose of bringing air more extensively in contact with the corporeal substance, animals breathe by the lungs, and also by means of the contact of air over the whole surface of their bodies. Changes are constantly taking place all over the earth, in consequence of the contact of the atmosphere; this is breathing. The earth has its fluid circulation, the water of the earth is to it, what the blood is to an animal. The earth is constantly giving off watery vapour, which ascending into, and diffusing itself through the air, again comes down in the form of rain or dew for the refreshment of its own body; this same water having performed its functions, collects in little streams, forming by their union, great rivers, by which it is conveyed to the sea, which is as the heart of the earth; here the returned water leaves its impurities, and is again sent forth in a pure state, in the form of vapour as before, and independently of this, the earth has also its internal circulation. In the animal body, the blood is by the heart diffused in a pure state, and having performed its functions, collects in little streams or vessels, which, uniting together, form large ones, by which it is returned to the heart for purification, whence it is again sent forth. If we take a geographical map, and look at the depiction of a river, and compare that with the course of a vein, as marked on an anatomical plate, we find that there is no difference. The functions

of the vegetable also resemble those of the earth, for as both proceed from the earth, they ought naturally to be like it. For further example, when the earth presents its substance to the vegetable, it receives that into itself, and by its elaborations, causes it to constitute a part of its own proper body. And when the vegetable presents its fruit to the animal, it also receives that into itself, and adds its substance to its own body. Again, when the vegetable and the animal after death, are presented to the earth, it receives them into or upon itself, and precisely as the vegetable and the animal, with regard to the matters naturally presented to them, so the earth receives the vegetable and the animal, deprived of their own kinds of life, and adds their substance to its own body. Thus the earth is continually passing into the vegetable form, and from it into the animal state of existence, and the animal body, being by death, given back to the earth, it, after having been reduced to the earthly state, is again sent forth in the vegetable form. So all matter is perpetually revolving in the circle formed by these three states of existence.

Philosophers have at all times been struck with the great resemblance between the earth and the animal body, and accordingly Hippocrates and others speak of the earth as the great world, and man's body as the lesser world. Man is the child of the earth, and naturally resembles his parent.

Thus the great purpose of the earth's existence seems to be that of affording support to the vegetable kingdom, and by its agency of preparing and presenting food to the animal world. And it appears

that all the materials of which it is composed, are necessarily concerned in that purpose. There is reason to believe that every substance which exists in the earth, is in some state, appropriated by vegetation, and by it presented as food to the animal kingdom. It appears probable that the bodies of animals are made up of certain proportions of all the different substances of the earth, after having been rendered fit for their nourishment, by changes and combinations which take place in their passage through the vegetable state. I do not, however, imagine that all the materials of the earth, in any state of combination, enter into the formation of every animal, but it appears probable that they all contribute, or ought to contribute, to that of the human body.

The earth to common observation appears to be composed of a vast number of different kinds of matter, but that is in great part owing to the various forms under which the matters of the earth are capable of existing. We see that the substances of the earth are constantly undergoing changes of form, between which there is the utmost dissimilarity, by means of combinations and decompositions, the commencements and terminations of which are involved in an obscurity impenetrable to human understanding. We know nothing of elementary matter.

We see that vegetables derive their nourishment directly from the earth, and that nature employs vegetation in the business of the elaboration of the earth, into a state fitted for the nourishment of animals. And as certain vegetables have been

created as food for certain animals, we see clearly that those vegetables take from the earth, such substances in such proportion as is required for the nourishment of the bodies of such animals.

It has been by deviations from this law of nature that diseases have arisen. It appears that no part of the earth, which has not passed through the vegetable state, ought to be ingested, and that no fossil substance, taken from the earth in its original crude and raw state, or after any process of refinement which man is capable of operating upon it, can be used as food without engendering disease, by such flagrant departure from the intentions of nature.

Diseases
caused
by earthly
sub-
stances
taken as
food.

The vegetable kingdom thus constitutes a step between the earth and the animal world. The former clearly having been created, principally, for the purpose of the transmutation of earth into food, and as a vehicle for its conveyance and presentation, in a suitable form, to a more completely organized and higher class of beings.

CHAPTER II.

OF THE MIND, AND THE MANNER IN WHICH IT
COLLECTS KNOWLEDGE, AND GENERATES IDEAS.

MIND is that reflective intelligent power, with which man has been so highly endowed, in order to enable him to obtain knowledge of the conditions, and circumstances of the world, and to make use of that knowledge as he may be able to render it subservient to his necessities or pleasures.

Every living thing necessarily possesses such a mind, suited to its state of organization, in order to enable it to administer to the exigencies of its own existence. Mind appears to be indissolubly connected with, or an essential part of life, and wherever there is organized life, there must be intelligent power or mind, in some state of developement, which power existing in its less perfect or extensive, and less reflective state, as it does in brutes, is commonly called instinct.

The senses of vision, hearing, tasting, touching, and smelling, furnish knowledge of surrounding objects and circumstances; thus all knowledge is the result of sensation, or impressions, which, falling upon the nervous extremities, are conveyed to the brain, their common centre.

Functions
of the eye. The eye enables the body to feel everything within the field of vision, the object to which the eye is directed sends, by reflection, rays of light, which, proceeding from every part of such object, and passing through the transparent parts of the

eye, are, by convergence, made to cast a minute representation of that object on the black opake part of the eye, called the retina, so that if a bystander could peep into the eye of another who was looking at a ship, for example, he would see a minute figure of the ship resting on the retina of his eye. The retina, or part of the eye on which the ship rests, consisting of an expansion of nervous radicles covered only with the thinnest possible membrane, feels the impression which the rays of light thus make upon it; which sensation being conveyed to the brain, the mind is enabled to ascertain the form, size, and, if sufficiently near, the colour of the object regarded. Thus vision is an extension of what is commonly called the feeling power.

Hearing is the effect of vibrations which sound occasions, operating upon the ear, so as to enable the mind to collect intelligence, by an acquaintance with the different sounds which proceed from various causes. The other senses perform their functions by the actual contact of the solid, fluid, or aerial substances examined.

The ideas thus communicated to the mind do not perish when its attention is withdrawn from them, but remain impressed upon it. The mind, in the progress of life, in this way goes on storing up knowledge of external things and circumstances, which is to constitute the matter for the supply of its future operations.

The mind is enabled, at any time, to recal the impressions thus received, and to exhibit them to itself anew, and to examine and contemplate them; so that, by comparison, arrangement, and connec-

tion of the ideas, which the senses have furnished it from without, it is enabled to raise symmetrical structures within itself, and to vary them accordingly as it is pleased to select and associate the ideas which it may be inclined, or necessitated, to call forth. This constitutes the business or function of the mind, which is more or less brilliant in proportion to the extent of the fund of its ideas, and the skill and judgment with which it employs them.

The mind, more particularly in early life, like the body, requires aliment, and therefore, searches for fresh ideas from without, whereby it may be enabled to raise new structures for its internal contemplation. It cannot act independently of the body or produce any thing of itself, except by elaboration out of the materials with which the body, by means of the senses, has furnished it. In like manner, the body produces nothing whatever except by the transmutation of matter which it has received from without; although, like the mind, it is capable of moulding matter into one formation, and of destroying that, and out of its ruins constructing something different.

Genera-
tion of
ideas by
the mind.

There is a remarkable resemblance between the system of the body and that of the mind. The body is naturally furnished with different substances out of which it wonderfully elaborates and builds up its own inimitable fabric. The mind is, by the body, in like manner, by means of the senses, naturally furnished with original ideas, or materials from which it is enabled by its own operations to derive an endless succession of new ideas, and by their association and connection to form structures within

itself to an extent which cannot be conceived. The workings of the mind thus furnish a spiritual imitation of the material functions of the body.

With such a connection and such a mutual dependence, it is sufficiently evident how much the rational thinking, or perfect working of the mind, must be dependant on the integrity of the body: hence the justice of the wise old adage, "*mens sana in corpore sano.*"

CHAPTER III.

OF THE CHANGED CONDITION OF THE EARTH.

ISA. XL.
22.

It was well understood in ancient times, that the land originally formed a continuous circle, whose border was extended, at a prodigious height above its present surface, through the upper regions. We observe this terrestrial circle spoken of in sacred history, as in this instance: "*It is he that sitteth upon the circle of the earth, and the inhabitants thereof are as grasshoppers; that stretcheth out the heavens as a curtain, and spreadeth them out as a tent to dwell in.*"

The for-
mation of
stone.

The operations of man in his interference with the mineral kingdom, have had the effect of causing a formation of stone, commencing at some small depth beneath the surface of the earth, and of unknown extent downwards. And having taken place by means of the unnatural entrance of subterranean vapour into combination with the matters of the earth, in its passage upwards; so that, when the stony formation was completed, those vapours, which are continually generated in the interior of the earth, being no longer absorbed and solidified, became imprisoned, and, when existing in a state of collection and condensation, which, under the integrity of the earth's system, could never have occurred, they form explosive mixtures, giving rise to subterranean lightning, the cause of earthquakes. By the irresistible force of such subterranean ex-

plosions, the circle of the earth was rent by large chasms, letting in the water, so as to divide the land into large portions; and independantly of these great ruptures, a second series, of less extent, occurred over the surface of the earth, and by means of their force, the hard stony crust was rent, and raised up through the superincumbent soft stratum, and the fractured portions, more or less widely separated, being made to slide over the subjacent material, and to drive up the stone beyond them, were left standing in elevated positions, with their faces towards each other, perpendicular or slanting upwards, but in broken and irregular ridges: in this way the stony mountains and their valleys were formed.

Accordingly the mountains of the earth are apt to occur in irregular parallel lines, corresponding in magnitude; with their opposite faces forming the most rapid declivities; with a more gentle descent in the contrary direction; and it has constantly been observed that the convexities in the mountains on the one side, have been wont to correspond wonderfully with the concavities in the opposite range of mountains; so that if their broken faces could be brought together again, they would fit with great precision: this rule, as observed by all naturalists, is constantly found to prevail. The mutual correspondence between the faces of opposite mountains, affords one of the strongest proofs that they have been formed in this way.

During these stupendous explosions, vast masses of granite becoming detached, and lying loose in the gullet of the chasm, at the instant of its first

Scattered
granite.

opening, and so receiving the full impetus of the upward blast, would be propelled many miles through the air; accordingly such blocks of granite, of many tons in weight, are found scattered about on the surface of the earth, in some places, in great numbers; and in particular instances they have happened to alight and rest upon the sides and summits of mountains far distant.

This stupendous work of nature, is clearly adverted to in the fourteenth and fifteenth verses of the forty-second chapter of Isaiah: "I have long holden my peace; I have been still, *and* refrained myself; *now* will I cry like a travailing woman; I will destroy and devour at once. I will make waste mountains, and hills, and dry up all their herbs." "*Now* will I cry like a travailing woman," alludes to the great explosive out-bursts, by which the tearing open of the subterranean stony envelopement was accompanied; thus the earth cried to be delivered of the imprisoned vapours, which naturally would find a free and facile passage. "I will destroy and devour at once." During these vast convulsions, there was necessarily very great destruction in the vegetable and animal worlds, and swallowing up and devouring of the creatures of the earth, which may account for the great coal deposits.

Formation
of conti-
nents and
islands.

The effect of such subterranean explosions would be that of creating great caverns in the interior of the earth; these might at first become filled with water, but the entrances by which the water found access would be apt to be closed up by the falling in of earth and stone, and as there is a continual

consumption of water in the interior of the earth, they would at length become empty and ready to receive a larger volume of the explosive vapours, by which the moving powers would be wonderfully increased. In this way, it appears that the continents and islands have been formed, by the violent rending of the superficies of the circle of the earth, and hurling its fragments to great distances, throwing it into the confusion in which it at present exists.

Thus it appears that some of the land has been hurled from the tropics, into the frigid regions of the north, carrying with it, its waters and its inhabitants, who have suddenly become locked up in ice. Accordingly the melting of the northern ice has been observed to disclose the bodies of tropical animals, with all their flesh well preserved, and so it is probable that the bodies of great numbers of animals and men may still remain frozen in the ice, continuing in the same state as that in which they died, and without any decomposition of their flesh. Hence the bones of tropical animals are commonly found on the frozen shores of the north.

Ancient historians speak of a great continent which formerly extended from the strait of Gibraltar along opposite the coast of Africa, called the Atlantis; this land disappeared, as it is stated, very suddenly, during a terrific earthquake. The opposite coasts of South America and of Africa are so wonderfully correspondent in form, as to show that they were certainly once united. It is certain that South America has been torn from the great cavity on the opposite coast of Africa, the projection northward, partly occupying the space now between

Disap-
pearance
and disco-
very of
Atlantis.

South and North America; which, last, appears to have been detached from the other side of South America and caused to pass round into the north. The wonderful correspondence in the forms and positions of these great lines of coast cannot reasonably be accounted for in any other way. It is evident that America, that is, the Atlantis of the ancients, has been moved from off those coasts, to the situation it now occupies, and where it remained unknown to us until discovered by Columbus, in the fifteenth century. Passing round the Cape of Good Hope, the opposite coasts of Africa and Madagascar and New Holland, also correspond; as do, with wonderful precision, those of the Red Sea and Persian Gulf. The space between Norway and Denmark, with the Baltic Sea and Gulf of Bothnia, are also singularly illustrative of the tearing open of the land. Strabo remarks that Sicily and the other islands nearer the coast of Italy, were evidently once joined to it; and it is equally obvious that Britain was formerly continuous with the land of France.

Thus, we see that the circle of the earth has been destroyed, and that our continents and islands consist of its fragments: we are the inhabitants of the wreck of the former world. The earth having sunk down and retired within itself, so that its surface is now at a very great distance below the regions which are proper to it.

Now shall we be able to understand those very remarkable lines of the tenth and eleventh verses of the fourteenth chapter of the second book of Esdras: "For the world hath lost his youth, and the times begin to wax old. For the world is divided into

twelve parts, and ten parts of it are gone already, and half of a tenth part." Here it is declared that there is only one twelfth part and the half of a twelfth part of the world remaining; that is, as it appears, that there was, at the time alluded to, only so much of the formerly dry land then uncovered by water. Modern geographers inform us that at present, three parts of the surface of the earth are covered with water, and that one part only consists of dry land. This is indeed remarkable when we read in Scripture, that the earth was founded upon the seas, and established upon the floods: at present ^{PSAL.} _{XXIV.} we observe the reverse of this, the waters, instead of being beneath, are now above the land. Nature shows that a change has taken place, by which most of the land has become covered with water.

CHAPTER IV.

OF EARTHQUAKES.

It has always been observed that earthquakes are most wont to occur in volcanic countries, and where nature is most active, or where the earth is in the most fertile and prolific condition; but that they are almost unknown in old worn-out desert regions, where volcanic operations have most completely ceased, and where nature is in a state of prostration, as in Upper Egypt, Arabia, and Asia Minor; as is also the case with thunder and lightning.

Continuously extensive stony concretions greatly distress the earth by the imprisonment of the subterranean vapours; hence all the stone formations which present themselves to our view, without exception, are found to be rent with numerous fissures, for the most part in a vertical direction, or at a gentle inclination from it, whereby the vapours may more freely pass upwards. This indiscriminate shattering of the rocks has been caused by earthquakes arising from the explosions of subterranean lightning. Thus it has always been found that whatever occasions an extensive hardening and condensation of the surface of the earth, so as to impede the passage upwards of the subterranean vapours, has at some time caused those subterraneous explosions, or subterraneous lightning, which is the cause of earthquakes, by the expansive force of whose irresistible efforts a loosening up and destruction of that hardened and impervious condition might be effected. Earthquakes

have always been wont to occur in cities from this cause; because the earth cannot bear such accumulated weights on its surface without sustaining injury; hence it has thus made exertions to get rid of the incumbrance they presented.

There is nothing more remarkable than the havoc which history shows has been made amongst cities by earthquakes. We read that in the time of Valens, the Roman Emperor, a hundred cities in Crete were destroyed by earthquakes, and all within a short time. In 1693, fifty-four cities and towns and a great many villages were destroyed in Sicily: this catastrophe included the celebrated Catania, which is said to have been overwhelmed in the short space of two minutes. It is related by Don Antonio de Ulloa that, in 1698, all the houses in the region of Quito, in South America, were thrown down by a terrible earthquake. And so late as 1783, two hundred towns and villages were destroyed by earthquakes in Calabria.

Whenever there has been an extensive prevalence of earthquakes in cities, it has always been seen that the same force has been vigorously employed in the agitation of rocky districts; and hills have usually been rent, rocks shattered and thrown down, and cities overwhelmed, when all the rest of the countries where they have happened have remained unaltered. Thus nature has always striven with elevated stony districts and cities, showing that they occasion a condition of the surface of the earth which is intolerable to her: that is, a condensed, impervious state, by which the passage upwards of that universal subterranean gaseous generation is opposed.

The cause
of earth-
quakes.

Plin. Hist.
Nat. L. ii.
c. 82.

This view of the cause of earthquakes is accordant with an observation of Pliny, who adverts to a fact noted in former times; namely, that cities in which there were many excavations were less liable to earthquakes than those where the surface was more solid. He says he had observed this at Naples. He accordingly tells us that there is a remedy for earthquakes, in the making of deep excavations and holes in many parts of cities. Pliny also relates that

Plin. Hist.
Nat. L.
xxxvi. c.
14.

the ancients, observing the abhorrence with which the earth regards great structures or encumbrances, built the great temple of Diana at Ephesus on marshy ground, as being less liable to be thrown down by an earthquake. This immunity appears to be in consequence of the great solubility of the explosive vapours, which are rapidly absorbed by the moisture of such situations.

CHAPTER V.

OF THE VOLCANIC PHENOMENON.

THE volcanic phenomenon consists of a process to which nature has recourse for the purpose of restoring the earth's fertility. The stone ignited by volcanic fire, at great depth beneath the surface of the earth, is caused to expand enormously, and in a melted state to run out in great torrents, and to flow like water over the surrounding land, clouds of ashes and vast quantities of burning matter being, by the fiery blast, and violent explosions, at the same time, caused to pass through the air: the effused substance gradually crumbling down into new and most fertile earth.

It is related that in some of the eruptions of Etna, a deluge of lava four miles broad and fifty feet deep has issued from the mountain, taking its course over a great extent of country, overwhelming forests and every thing in its way. When large bodies of lava have passed from volcanoes directly down into the sea, the most indescribably terrific phenomenon is said to have presented itself, accompanied by explosive burning of the waters.

Mount Etna, perhaps, affords the best example ^{Mount Etna.} extant of the restoration of the earth's fertility by the volcanic process. Etna and the forty extinct craters about it, have fertilized Sicily, by the decomposed granite which they have thrown forth. Vegetation has taken possession of some of those craters, which contain forests of oak and other

timber, the largest and finest in the world. A great zone of vegetation has sprung up, extending over the sides of Etna, called *La Regione Selvosa*, or, *The Woody Region*, forming a continuous circle all round the mountain, with a breadth of eight and ten miles extending towards its summit, having, according to *Recupero*, a circumference of about eighty miles, and comprehending a surface of about forty-five square leagues, where the most profuse and luxuriant vegetation revels on the new earth which has resulted from the pulverized lava and ashes of the mountain. That great forest supplies the dock-yards, and all the surrounding country with timber and wood. The ground is covered with the richest aromatic plants, and the most beautiful flowers, and produces the most delicious fruit, and the largest trees in the world. Its atmosphere is no less remarkable for its clearness, purity, and rich fragrance. Over the sides of Etna are scattered no less than seventy-seven cities, towns, and villages.

Campania
Felice.

All the most fertile parts of the earth are marked by traces of volcanoes or of volcanic action; and the regions now most fertile, are those which have been most recently visited by the volcanic process. For example, it is evident that the former mountains of the *Campania Felice*, and *Campi Phlegræi*, near Naples, have been dispersed by volcanic fire; and on account of the luxuriant vegetation which rioted on the debris of the stone of those regions, the former has been, by the ancients, named the *Campania Felice*, or *Happy Fields*. Between Naples and Cumea, in the space of twenty miles in length

and ten in breadth, there is said to be no less than sixty extinct volcanic craters: and in Auvergne, the most fertile part of the south of France, seventy have been enumerated.

Ireland, Scotland, and England, also present very conspicuous traces of volcanoes. The basalt of the Giant's Causeway has certainly resulted from the lava of a volcano, which seems to have been burning at the time that Ireland was torn from this island; the columnar form of the stone having been occasioned by the rapidity of the cooling process consequent on the sudden tearing open of the abyss. The fire of this volcano has evidently extended itself to all the stone about Edinburgh. The hills in the north of England present volcanic hollows; such also may be observed in other parts: the valley in which Bath stands, certainly, has been the site of a volcano.

The new earth of the volcanoes produces a vege-
 tation vastly superior to that of the old soil; the
 fruits grown on it have an extreme purity of flavour.
 The figs and grapes grown on the soil of the old
 volcano of Ischia are indescribably delicious whilst
 those produced in the neighbourhood of Rome are
 apt to have a nauseous, earthy taste. Hence the
 wine made from grapes grown on the side of Vesu-
 vius has been called *lacrymæ Christi*, tears of Christ,
 from the extreme purity of the juice of the fruit:
 the wine of the mountains is always superior to the
 produce of low situations. On the old impure
 soil of the plain of the Po, the vines and other trees
 grow, apparently, with great luxuriance; but the
 fruit has a flatness and very unpleasant insipidity

Fertile
 new earth
 of volca-
 noes.

and oppressive sweetness, and the wine is apt to have a very disgusting flavour.

Volcanic
storms.

The volcanic process has latterly gone on very slowly; thus Etna has been burning upwards of three thousand years, as appears by Homer, who describes its fires; and Vesuvius since the year seventy-nine of the Christian era. This slow progress appears to be in consequence of the want of water. As the smith's fire will not burn with sufficient intensity without constant wetting, so will not the volcanic process go on with vigour without a supply of water. And the means to which nature has recourse to supply water to volcanoes in eruptions, are extremely curious. During volcanic combustion the gases which go to form water are largely evolved; and it appears that some water is produced by the coming together of these elements in the interior of volcanoes in eruption; but much escapes in the gaseous form, rushing out with great force, accompanied by a loud whistling, or sonorous noise, mounting up to a vast height, and forming a dense black cloud over the top of the mountain, accompanied by great and incessant lightnings, by which the watery elements are brought together, and the rain, descending like a cataract over the top of the mountain amongst the ashes, great torrents of muddy water impetuously roll down its sides, overwhelming every thing they meet in their course, and deluging and fertilizing the surrounding plains by the ashes subsiding from their expanded waters. This, according to Breislak and Winspeare of Naples, has often been mistaken for water poured out from the crater, which most certainly never happens,

when the fire is in vigorous and extensive combustion. The crater of the volcano is built up by the lava and ashes thrown out, which, lodging around the opening, form a truncated cone, having a superior cavity exactly in the form of that of a funnel; this catches much of the water and conducts it directly to the fire below.

It is certain that if water could get free access to the burning stone, it would increase the vigour of its combustion to an infinitely greater degree than what occurs in common eruptions. As in the instance of the eruption of Jorullo in New Spain; when, by the opening of a chasm, two rivers precipitated themselves into the fire below, which then raged with stupendously increased violence; and instead of a common eruption, thousands of small cones rose up in the vicinity, and a vast chasm was opened, from which the eruption raged with a vehemence unprecedented in the records of history; the ejected matters forming six mountains, from thirteen to sixteen hundred feet above the level of the surrounding land. Also in the case of submarine eruptions, where the water of the sea finds access to the fire, we observe that the operations are of far greater extent and violence than those common to eruptions which occur where the land is not covered by water; as, for example, in the late eruption off St. Michael, where a great mountain was suddenly thrown up in deep water, whose summit, reaching to a great height above the surface of the sea, formed an island, which, remaining for a short time, disappeared by the subsidence of its matter.

Eruption
of Jorullo.

Eruption
of Vesu-
vius.

Death of
Pliny.

History shows that the great volcanic eruptions have been preceded by terrific subterranean explosions, accompanied with violent shaking of the earth; the shocks at first being gentle, with long intervals between them; but gradually becoming more violent, with shorter intervals, until the eruption has suddenly burst forth with devastating violence. Previously to the great eruption of Vesuvius of the year 79 of the Christian era, when Herculaneum and Pompeii were destroyed, it is related that earthquakes had been frequently felt in the neighbourhood, by which much damage was done to the cities in the vicinity. At length the eruption burst out in the most unexpected manner, sending forth its flames to a prodigious height, and filling the air with its black smoke; when the greatest terror and confusion seized the inhabitants of the vicinity, to whom it appeared that the earth was on the point of destruction; and who, it is said, from the mighty raging of the elements around them, imagined that the world would then be destroyed; many of those on land hastening out to sea, and those at sea taking refuge on land. The elder Pliny being at Misenum with his fleet, surprised at the sudden appearance of so vast a cloud of smoke and ashes, sailed through a continuous shower of hot cinders, round to the foot of the mountain, and landing on the coast, which contrary winds afterwards prevented his leaving, a violent explosion rent the earth near him, and the fire bursting forth, he was overwhelmed by the sulphurous fumes. Dion relates that the whole country was subsequently involved in pitchy darkness, and that the ashes fell in Egypt, Syria, and many parts of Asia Minor.

Also previously to the eruption of Monte Nuovo, near Naples, it is recorded that earthquakes had long been felt in the vicinity, and, before the breaking out of the eruption, became extremely violent, with intervals of only a few minutes.

The eruption of Jorullo, which was completed by the opening of a vast chasm in the earth, and the precipitation of the rivers Cuitambo and San Pedro into the fiery abyss, was, in like manner, preceded, during sixty days, by earthquakes; and the subterranean noises at last became so horrible, that the inhabitants of the vicinity fled to the neighbouring mountains.

It appears that great terrestrial eruptions have always been consequent upon the opening of chasms in the earth, by the expansive force of the subterranean explosions, and the letting in of water; which accounts for the sudden and unexpected manner of their occurrence. The eruption of Monte Nuovo seems to have been occasioned by the admission of the waters of the Lake Lucrino, which is very near. The very great destruction which happened at the time of the first eruption of Vesuvius, was no doubt occasioned by the sudden admission of a large body of water into the fiery abyss.

We observe that storms and tempests constitute one of the great features of the volcanic phenomenon; by which it is seen that the artificial use of fire all over the earth must also have a great tendency to their production; as by this and other means, too great a quantity of watery and mineral vapours are occasioned to pass into the air, which, by this addition to its proper conducting powers,

Cause of
storms.

Volcanic
lightning.

attracts more electricity from the earth than should naturally be contained in the atmosphere; this excess of electricity in the air causes combustion of the noxious vapours which have thus become effused, giving rise to water, sulphurous acid, and other substances, which it causes to return again to the earth. When the lightning is very vivid and strong, the electric fire is seen to dart with a rapidity too swift for the eye to follow, through the midst of the broad flash of lightning. The volume of explosive vapours is in this way fired by electricity. Thus electricity is made to purify the air; and were it not for these occasional purifications, the air must now become so contaminated as to be destructive to all life. The volcanic phenomenon is invariably attended with the most terrific and destructive storms, as has always been observed. For example, these are the words of Brydone: "So highly electric is the vapour of volcanoes that it has been observed in some eruptions, both of Etna and Vesuvius, that the whole track of smoke, which sometimes extended upwards of a hundred miles, produced the most dreadful effects; killing shepherds and flocks on the mountains; blasting trees, and setting fire to houses wherever it met with them on an elevated situation. These effects, however, only happen when the air is dry and little agitated; but when it is full of moist vapour, the great rarefaction from the heat of the lava generally brings it down in violent torrents of rain, which soon conveys the electrical matter from the clouds to the earth and restores the equilibrium." Thus it is also found that storms and rain are of more frequent

occurrence about great cities than other parts of countries. In relation to this subject, it is very curious to observe that Esdras, solicitous of the angel Uriel to be informed of the events to come to pass in the latter ages of the world, was, by similitude, first shown a fiery furnace, after which appeared a watery cloud, which sent down much rain, with a storm. It is evident that storms do, and must increase in severity as the world advances in age: more latterly, no doubt, extreme distress will be occasioned by them, of which this similitude must certainly be taken to be significant, and also of that by which they have been caused.

CHAPTER VI.

OF THE VOLCANIC PHENOMENON AS A MORBID AFFECTION OF THE EARTH, IN RELATION TO DISEASES OF THE ANIMAL BODY.

THE volcanic process is a means instituted by nature for the re-establishment of the earth's fertility, or for the recovery of its healthy condition : precisely in like manner are the diseases which affect the animal body, processes which nature institutes for the casting out of matters which are injurious to the constitution, or for the throwing off of conditions which are inimical to a healthy state.

The attention of observers of nature has been particularly arrested by the close resemblance which exists between the volcanic process and the eruptive diseases of the human body ; as history shows by very numerous examples.

The volcanic process commences with great agitation or quaking of the earth, followed by intense heat, succeeded by a breaking out and discharge, a subsidence of heat, and lastly, the healing up of the part, where a scar remains. So in the animal body occurs excessive agitation, and precisely similar quaking and shivering, followed by burning heat and eruption ; when the heat subsides, the excoriated places heal up, and scars remain ; and these scars are exactly like the vestiges left by the craters of ancient volcanoes.

During the course of the volcanic disease there is also the same urgent demand for water or drink

to facilitate its progress, as in the animal body : this the earth generates for its own supply by bringing together the elements or parts which form water, within the cavities where the operations are going on, and over their apertures. And it is further remarkable, that the volcanic phenomenon is attended with the same putrid exhalations as during the progress of putrid diseases in man; and that human beings and animals, who may happen to be exposed to the influence of those exhalations, commonly become affected with putrid diseases, like plague and fever; as is wont to be the case with persons who have lived much in an atmosphere polluted with the exhalations arising from the bodies of those afflicted with such diseases. Thus it has always been observed that putrid fevers and plagues have been wont to follow volcanic eruptions and great earthquakes, and sometimes to precede them, of which latter, Monte Nuovo has afforded a most remarkable example. It is related that a French army, attempting the capture of Naples, in 1528, landed and encamped in the vicinity of the now Monte Nuovo, and were, within a few days, reduced from twenty-eight thousand to four thousand men, by a putrid fever, caused by the pestilential exhalations arising from the earth, near the spot where the eruption afterwards occurred. This is the common source of great pestilences; they arise in like manner from subterraneous evolutions of mephitic vapour, aided, of course, by the superficial sources of foul air. The subterranean vapours arise most profusely in low situations, as about the sea-coasts, and along the margins of great rivers and lakes. This is, ac-

French
army de-
stroyed by
fever.

cordingly, the precise course which pestilences pursue in their passage from one country to another, of which our two late visitations of cholera afford examples.

Diseases
of the
earth com-
municated
to vegeta-
bles and
animals.

The earth, of course, communicates its own diseases to its vegetable and animal creatures: for the earth itself being diseased, they, from their intimate connection with it, must necessarily become diseased also. Thus, when the earth is affected with subterranean inflammation, and there is a profuse generation of putrid vapour, as during volcanic operations and earthquakes, the neighbouring vegetation becomes unhealthy, and the inhabitants of the vicinity are grievously affected with putrid diseases; like the earth, their bodies also generating putrid vapour profusely; and again, similar to the inflammation of the earth, their bodies are tormented with intense burning, followed by eruptions, as in plagues, small-pox, and other pestilential diseases. This, as history shows, has always been observed to be consequent upon volcanic eruptions and great earthquakes; as, for example, was particularly the case after the earthquake which destroyed Port Royal in Jamaica, when great numbers of human beings perished by the plague of yellow fever immediately following it.

Plagues of
Iceland.

For further example, Iceland, the most active focus in the world of the volcanic disease of the earth, by which, and the attendant earthquakes, it has in all known ages been desolated, has frequently been visited by the most destructive plagues. Sir George Stewart Mackenzie, in his travels, relates, that in 1402, a plague broke out in the island, and the two following years swept away nearly two-

thirds of the whole population ; and another pestilence occurred towards the close of the century. And in 1707, the small-pox, which is a modification of plague, and indeed, when severe, one of its most frightful forms, carried off one-fourth part of the inhabitants of the island.

Again, in other regions of the earth, where a cold morbid condition prevails, in consequence of a want of circulation and a stagnancy of its waters, it is found that the inhabitants of the neighbourhood are also wont to be affected with a disease whose symptoms are wonderfully correspondent to the conditions of the earth ; I allude to ague : this disease is, like the unwholesome stagnant marshes around, characterized by a cold morbid stagnancy of the humours of the human body, which is followed by excessive heat ; the disease consisting of alternations between the two extremes. The earth, of course, continues for a great number of years in the same condition, so that we are not exactly acquainted with the various changes which may be attendant upon this condition of it ; but we do know that this cold condition of the earth, has, like ague, its hot stages ; the ground becoming spontaneously ignited, and spreading its inflammation far around. It appears, also, that there are many other morbid conditions of the earth, less in degree, which we do not discover, but which it communicates to its inhabitants.

Where the earth is in a morbid condition, the air, which is dependant upon the earth, and arises from it, must of course also be in an unwholesome state. It is by means of the unhealthy condition of the

vegetable and animal creatures, and the air, that the earth communicates its diseases to man.

Thus, by the volcanic process, the fertility, which is the health of the earth, is restored: where savage and howling sterility before prevailed, profuse vegetation now comes forth, followed by animate creatures, and nature again rejoices in the performance of her functions. It is precisely the same with the animal body; after the subsidence of the disease the due performance of the vital functions is re-established, with restoration of a state of comfort.

The accomplishment of changes in the earth's condition will require perhaps thousands of years, when the corresponding changes in the condition of the animal body will be effected in a few weeks.

CHAPTER VII.

AN INVESTIGATION OF THE CONSEQUENCES RESULT-
ING FROM THE ARTIFICIAL USE OF SALT.

A VAST number of experiments have been tried to ascertain the effects of salt on vegetables, when artificially applied to them as a manure; and from all the observations that have been made, it has appeared that salt, when used in small quantities, promotes their growth, but when in excess, it acts as an absolute poison to vegetation. Thus salt is found utterly to destroy any vegetable on which a small quantity of it has been laid, and it has long been used for that purpose in the destruction of rushes, thistles, and other troublesome weeds. Salt is mentioned in Scripture as a symbol of barrenness and desolation, and spoken of in a manner which is strongly indicative of the dangers of its artificial use. Virgil, in the second book of his *Georgics*, and Pliny, assert that a salt soil is injurious to vegetation, and that it occasions a degeneration of fruit trees.

In Egypt, where the soil contains an unusual and very injurious amount of salt, vegetation rushes on with a precipitation which is speedily destructive to all exotic plants. They have a species of gourd called *kara*, which, in twenty-four hours, is said to send out shoots four inches long. Exotic plants are found to grow freely and strongly the first year, but if their seeds be sown the following year, they pro-

Saltiness
of land of
Egypt.

duce degenerate plants, which are diseased by weakness and exhaustion, and so slender as to be of little value. Therefore they send every year to Malta for a new supply of garden-seeds.

In this instance we observe a disease in plants no doubt occasioned by the saltiness of the soil; but which disease appears to subside in the absence of the stimulus of salt. It has frequently been observed in England, that on lands usually overflown by the sea, the corn grown immediately after their recovery has run up to five or six feet in height.

Disease of
the potatoe.

I think it very probable that the disease which has lately affected the potatoe plant, has been occasioned by the land having been rendered extremely saline by the improper use of salt manures, which seem of late years to have been much in fashion. This opinion seems to be in some degree supported by the fact, that the potatoe disease has been particularly observed, in many instances, to have been most prevalent in places where most manure had been used. In some parts of Ireland, particularly the northward coasts, where sea-weed exists in great profusion, I have observed that it is much used for manuring the land, which, especially with respect to the potatoe, I suppose to be improper. The potatoe is a succulent and very delicate and tender plant, one which, it appears, would be about the first to show the effects of a salt soil.

The potatoe disease, in its present form, does not appear to be new; it seems to have existed generally throughout Britain, and most probably other countries, during many years, not, however, to such an extent as to have attracted particular attention.

It is a disease which seems extremely likely to be produced by such an agent as salt; to be the effect of an excessive stimulus applied to the plant. A remarkable exuberance has been observed in the growth of the potatoe plant since the disease has so extensively prevailed.

This disease is evidently related to that mentioned by Tacitus and others, as formerly existing near the Dead Sea, that salt region, by which the fruits of the earth, both corn and grapes, were caused to rot away before coming to maturity. Such disease must always prevail in the latter days of the world, as appears by this passage.

“And I will rebuke the devourer for your sakes, MAL. III. 11. and he shall not destroy the fruits of your ground; neither shall your vine cast her fruit before the time in the field.”

Fruits, more particularly apples, the most valuable of our fruits, and pears, are now much diseased; and that corrosive, dirty, or smutty disease commencing in the skin, evidently increases in severity. The oranges and lemons of Spain and Portugal are much affected with this disease, which progresses rapidly after the gathering of the fruit, which is thus destroyed by rottenness. Old trees and their fruit are apt to be most diseased.

All causes which have a tendency to render the land more salt, will certainly be most favourable to the progress of these diseases.

Salt used for the purpose of seasoning and preserving animal and vegetable foods, is evidently foremost in the production of dire disease, developed under a variety of forms, according to the influence

of habit of body, mode of life, occupation, climate, and other external circumstances.

The flavour of salt cannot be perceived in any fruit of the earth. Substances which appear to man to be deficient in taste, do not require salt; but their insipidity arises from their deficiency in the principles which naturally give flavour to man's food; which consist chiefly of the acid and saccharine principles. Sugar, and the vegetable acids, having passed through the vegetable state, we may with advantage add them to many kinds of food; but we cannot, with safety and propriety, make use of salt for the same purpose, which is a highly corrosive, fossil substance, and a part of the earth which has not been prepared by vegetation.

The use of salt as food, or as a condiment, is a departure from that law of nature which directs animals to derive their nourishment from vegetables, and not directly from the earth. The fossils of the earth are by vegetation so prepared and combined as is required for animal food; and there is no reason to believe that man can, with propriety, employ any part of the earth as food, which has not passed through the vegetable state. History may inform us of the antiquity of the practice of doing so with regard to salt, but we have no proof of its propriety.

Hurtful
vapour of
salt. Salt is highly charged with a principle which is most destructive to animal life. The addition of a few drops of oil of vitriol to as much salt as is commonly taken at one meal, occasions it to send forth so noxious a vapour as would kill many individuals if they were forced to inhale the whole of it, as it

comes off, amongst them. There is nothing before which instinctive nature recoils with greater terror and precipitation, than before this vapour, as it is given out in its concentrated form. Now we cannot, by any process, occasion a similar quantity, or ten times as much, of any substance taken from the vegetable kingdom, which is in any way fitted for man's food, to give out such a noxious corrosive vapour. By means of the decompositions and changes which occur in substances received as food, this noxious principle becomes evolved within the body, as is evident by the frequent perceptibility of its passage from the stomach, it being greatly diluted with other gaseous matter. The vapour to which I allude is technically called chlorine gas: salt being a chloride of sodium, that is, composed of a union of the gas called chlorine with sodium or soda. The addition of sulphuric acid, commonly called oil of vitriol, to salt, separates its parts; the sulphuric acid combining itself with the sodium, or alkaline part, drives out the chlorine gas, or spirit of salt, as it is commonly called, letting it loose into the air; this flies upon and attacks the vital principle with the utmost ferocity, whenever it comes in contact with vegetable or animal life. It is this malignant principle which is the great agent in the production of the symptoms I have further on described, whilst speaking of scurvy, and which, operating more slowly, causes consumption or decline. Accordingly it is observed that, where this gas exists largely in the air, consumption is rampant, as is found to be the case in and about manufactories where operations are carried on, by which chlorine

gas is employed or evolved. The gas not only exerts its malign influence on animal life, but indiscriminately diffuses desolation around, destroying every vegetable whatever in the vicinity of the places where it is generated; as may be observed at manufactories of chloride of lime, for instance, where consumption makes great havoc amongst the workers.

The effects of salt on men and animals are well seen in Egypt, where the land is strongly impregnated with salt, which unusually saline impregnation also pervades the atmosphere; so that at Alexandria and Rosetta, iron cannot be exposed to the air for twenty-four hours without becoming covered with rust: walls, stones, and hard substances are covered with an incrustation of the salt. The earth being excessively impregnated with the salt, which also, in an extremely fine powder, or in some form, is constantly floating in the air, it must naturally come down in solution, with the excessive dews, which, in Egypt, descend at night; and the water thus deposited, being evaporated on the return of the sun, would leave a film of salt on the substances on which it had settled, and, by the daily repetition of this process, they must become, as they say, glazed with salt: some of which, it appears, is again taken up by the air. In this way it seems to me that such an incrustation and crystallization of it must necessarily be occasioned.

Diseases
of Egypt.

The extremely saline impregnation of the earth and air of Egypt, is evidently the cause of many diseases amongst the human race, of which, perhaps, ophthalmia is the most conspicuous. Although it

appears that the introduction of salt in great quantity into the human body is the cause of ophthalmia in Egypt, it seems that the kind of disease arising from this cause is determined by climate; so that, in a more northerly or colder country, it would be more wont to produce, not ophthalmia, but an affection of the lungs, for example.

Rifaud having, accordingly, observed that the ophthalmia was more prevalent in summer than in winter, attributed it to the habit which the Egyptians have of sleeping in the open air, on the terraces of their houses. But he, at the same time, adverts to the fact that the disease prevails also amongst animals, from which circumstance it must be inferred that the ophthalmia owes its origin to some other cause; as, if it were occasioned by merely sleeping in the open air, the animals of other countries would be as liable to it as those of Egypt, which is not the case.

Rifaud
Tableaux
de l'E-
gypte.

The inhabitants of the Delta of Egypt commonly experience an excessive irritation and itching of the eyes, and it is said that few individuals are to be found, whose eyes are perfectly free from defluxions, arising from the excessive saltiness of the humours; which, gradually destroying the organ of vision, blindness is most singularly common. Eight thousand blind persons are said to be kept and provided for in the great mosque at Cairo.

The following remarkable facts seem strongly to support the opinion that the Egyptian ophthalmia is caused by the saltiness of the soil.

Mr. Briggs, surgeon to the Ajax, in the commencement of the present century, in a communi-

cation to Dr. Trotter, physician to the Channel Fleet, under the command of Admiral Lord Howe, whilst speaking of the ophthalmia which so severely afflicted our army in Egypt, says, "This is a disease particularly peculiar to Egypt, and the many pretended causes I have heard assigned for it are nothing more than opinions ill-founded. Some adduce that it proceeds from nitrous exhalations of the soil: if that be the case I cannot comprehend how ships cruising in those seas, having no communication with the shore, should have their crews afflicted with ophthalmia in so violent a degree, when the wind blows constantly from the northward and westward, at the very period when this complaint is most prevalent; consequently the exhalations of a southern shore cannot affect people cruising fifty or sixty leagues from it. Others have asserted that small particles of sand constantly floating in the air are the principal cause; but this for the same reasons assigned cannot exist."

The solution of this problem seems to me to be here: whilst the ophthalmia of Egypt was occasioned by an unusual quantity of salt introduced into the system by means of the saltiness of the soil, with an atmosphere also strongly impregnated with saline matter; the same disease, under the influence of the same climate, also prevailed, with equal or greater intensity, on board the ships cruising at a distance, from the same cause,—the introduction of salt in uncommonly injurious quantity into the system; but in a different way, that is, by salt provisions.

Trotter gives an account of three hundred cases of ophthalmia which occurred after a cruise during

warm weather off Brest, in October 1795, on board his Majesty's ship Saturn. Here we have another very remarkable instance of the prevalence of ophthalmia under the influence of a salt diet and warm weather.

Medicina
Nautica.

It appears that ophthalmia is occasioned in this way, by an accumulation of salt in the system, into which, under the circumstances related, it is certain that saline matter must find its way in very large quantities, and that the defluxion by which it is distinguished, is a remedial process which nature establishes in order to relieve herself of the inconvenience. Many other diseases amongst the Egyptians appear to be derived from the saltiness of their land.

At Wielitschka, in Poland, there are immense salt mines, which have been worked since 1291; the subterranean excavations extend upwards of three miles, and there are dwellings hewn out of the rock, with a population of from one to two thousand. There again we see the effects of salt in a colder climate: those unhappy people are affected with a defluxion from the lungs, and consumption terminates their existence at an early age.

Here is an excavation into the bowels of the earth of three miles in extent, whose contents have been diffused over its surface, passing, in part, from it into the sea: and how many other similarly extensive mines may there not have been whose salt has been distributed over the earth, rendering the land injuriously salt!

The following paragraph from Trotter is also eminently illustrative of the effects of much salt on the

Colds
caused by
salt.

constitution in cold weather : "The Channel Fleet having put into Torbay from contrary winds, experienced much cold weather and a dangerous gale of wind from the north-east. While the Fleet lay in Torbay no fresh beef was served to the people, but mutton for the use of the sick only ; by which means we were full five weeks on salt provisions, when the first fresh meat was allowed. During this time an epidemic catarrh had raged in every ship, and the debility which followed it had certainly some share in predisposing the body for the attack of scurvy." Salt has the effect of rendering the mucous membranes liable, from trifling causes, to inflammation, called catarrh or cold, which progressing in severity passes into consumption.

Now let us make an analysis of the phenomenon of catarrh, as it occurs in the human body, and examine the appearances presented to view during the course of that affection. The catarrhal complaint consists of a curative process, instituted by the conservative powers of the constitution, during which we observe that the excretive surface of the mucous membrane lining the passages of the respiratory apparatus, is most actively employed in the work of casting saline matter out of the body, by means of the exudation of a limpid salt fluid, and an excretion of salt viscid matter, commonly called phlegm. Hence the common expression, "saline catarrh."

The disease is seated sometimes at the commencement of the respiratory apparatus, and at others it resides in the pulmonary or terminating passages, when it is commonly called inflammation of the lungs. The cold may be of short duration, termi-

nating in two or three weeks, or less; or, as often happens with debilitated, or originally weak constitutions, it may continue the whole winter, subsiding only on the arrival of the fine genial weather of summer.

The catarrhal affection is very apt to assume the chronic form, and to establish itself permanently in the air-passages of the lungs, when it is usually denominated consumption, on account of the destruction of the vital powers, and the rapid wasting and dilapidation of the body, which mark its course.

The accumulation of salt phlegm in the air-passages occasions an intolerable itching, or irritation, which excites the involuntary powers to continual expulsive efforts called cough, in order that the offensive and hurtful matter may be entirely cast out of the body; whose health would be restored by this beneficent work of nature, were not the disease perpetuated by the continual introduction of salt with the food. The defluxion of saline matter greatly injures the tender substance of the lungs in its passage through them, and by long continuance corrodes their texture; so that their natural envelope, being extensively excoriated and destroyed, much of the substance of the body, as it were, leaks out by that passage, and the reparative powers of the constitution being overwhelmed by the debility and exhaustion occasioned by the disease, the body rapidly wastes or consumes, and at length perishes.

After contemplating the indescribably horrible effects which salt produces, it seems impossible not to believe that it is, in its nature, under its artificial application, most ferociously inimical to man's con-

stitution; and I can conceive nothing more wonderful than the fact of his having paid so little attention to this circumstance, or than that of its having been so marvellously concealed from his observation.

Effects
of salt
food.

No language can fully portray the horrors of the scurvy, as it occurs at sea and elsewhere, amongst those who have been long kept on salt provisions. It commences with extreme prostration of the vital powers; the countenance, at first pale, soon becomes bloated; the body and limbs are swollen and greatly enlarged; dire despondency now takes possession of the mind; the body is incapable of the slightest exertion; the breath is intolerably foetid; the intensely putrid state of the humours, and the consequent diminution of vitality, occasions the formation of large and deep foul ulcers; blood exudes from the gums, nose, and other parts; the teeth are loose and ready to fall out; and wounds which have been for years healed up, spontaneously fall open. This state is apt to be followed by dysentery immediately preceding death. After death the lungs are found black and putrid, and the bones of the body frequently corroded and dissolved, in a state of rottenness, exhaling an odour of the most frightful atrocity. This is the plague which arises under the full influence of a salt diet.

There is a very remarkable resemblance between the effects produced on the human constitution by salt, which is a chloride of sodium, and those caused by calomel, which is a chloride of mercury, or a combination of mercury with what is commonly called spirit of salt; accordingly that pernicious agent, like

salt, is wont to cause many of the symptoms of scurvy, and also to induce consumption; and wonderfully to exasperate the disease, and expedite its progress when it is already in existence. Both calomel and salt are very destructive to the teeth and injurious to the other bones; when the teeth are ruined, the constitution will surely suffer much from that cause.

Scurvy, however, is not wont to occur when vegetable acid is used to counteract the influence of salt; showing the wonderful power which the vegetable acids have of protecting the body from disease; but even with their use, under these circumstances, consumption is very apt more slowly to establish itself. In scurvy we observe the vital principle sinking under the oppression of putridity, which is the principle of death. Salt in quantity, as taken with the food, greatly promotes the putrefactive process, but as abundantly used for preserving food prevents it. Thus salt, agent of death, greatly increases the unsuitableness of flesh for human food; but vegetable acid, by its virtue, as proceeding from the source of life, wonderfully saves the body from disease.

When salt is more gradually introduced into the body, as in the way in which it is commonly taken with the food, it is evidently the direct cause of consumption, or decline; it is clearly shown to be so by the circumstance that the conservative powers during that disease, are constantly occupied in the expulsion of salt, acrid phlegm from the lungs, by which they are at first irritated and excoriated, and then fall into an ulcerated state. During the latter stages of exhaustion, this salt pulmonary excretion

is, of course, less obvious. When in scurvy we find the lungs, as before mentioned, in a state of putrid decomposition, we must naturally expect the more gradual introduction of salt to have the effect of instituting a slower destructive process in the same organs, which is precisely what experience demonstrates. Consumption is a milder form than scurvy, of what may justly be called the plague of salt; its activity is incessant, and it is the most destructive of our diseases; its annual victims in London, alone, as shown by the bills of mortality, amount to about seven thousand, and in the whole of Great Britain to about sixty thousand.

The diminution of the vital energy which the corrosive qualities of salt occasion, must operate most powerfully in opening the way to disease. The ancients, as may be seen in Plutarch, observed that salt, more than any thing else, caused wasting of the body. It does so partly, by destroying the nutritive qualities of substances.

Again, as in scurvy we find that the mind is overwhelmed by the deepest and the darkest despondency, it ought from that circumstance to be expected that the ordinary use of salt, as taken with the food, must have a tendency to cloud the mind with melancholy, an effect which I have particularly noted, and have accordingly found that hypochondriacs are wonderfully benefited by abstinence from salt.

The havoc of consumption is not confined to the human race: an analogous wasting disease always prevails to a very great extent amongst the animals by which man is more immediately surrounded, especially amongst cows, oxen, swine, and sheep.

Vast numbers of cows die of disease of the lungs ; and bullocks, after a certain age, are very liable to it ; as is also the case with swine ; in sheep, the disease falls more into the liver.

The giving of salt, or any mineral substance, to animals, is a most fatal and destructive error ; and the strewing of salt and saline manures on the ground, is most highly calculated to occasion diseases amongst them, by the production of an unwholesome vegetation. Disease, existing amongst animals whose flesh is used for food, will, with unerring certainty, pass on to the human race, but not necessarily to show itself under the same form.

It is a very remarkable fact, that in proportion as animals become domesticated, they also become more infirm and afflicted with many diseases which are identically the same as those which occur amongst the human race. This very important circumstance surely ought to admit of some further explanation than what has hitherto been given to it. I believe the dog affords one of the best examples of this. It has generally been observed that dogs ^{Diseases of dogs.} living much in-doors upon the refuse of human food, or being principally fed from the table, soon become obnoxious to a great many diseases which are essentially the same as those which afflict man. The dog is a purely carnivorous animal, but his association with man renders him in some degree omnivorous. The use of vegetable food is probably not beneficial to his constitution ; but it does not seem sufficient to explain why he is so frequently afflicted, neither does the circumstance of his living principally in-doors.

Most articles of human food, as generally prepared, contain salt, in some considerable quantity; and it is evident that domestic dogs must take much salt with their food; and I am of opinion that their diseases arise from this source, whose influence is rendered more powerful by omnivorous feeding.

Domestic dogs are very commonly afflicted with a disease, attended with cough and emaciation, analogous to consumption in the human race; and which gradually advancing in severity, the animal is at length also destroyed by exhaustion. They are also very liable to ophthalmia and blindness, asthma, cancer, and other diseases.

Man's skin being furnished with innumerable pores, a considerable quantity of saline matter makes its escape with the perspiration through them. The skin of the dog, on the contrary, being almost entirely destitute of such pores, he has no cutaneous exudation, and naturally drinking very little, salt must be particularly liable to accumulate in the blood; so that in hot weather, when most of the water from which dogs lick, when running about, is dried up, and they consequently drink less than usual, the saline state of the blood appears to irritate and excite the nervous system, giving rise to the disease called canine madness. The colic from which they suffer, appears to occur in the same way as in man, from an impregnation of some part of their food or drink with lead, so much used for domestic purposes.

Disease of monkeys. Monkeys, in this country, are singularly liable to consumption. I am informed that bread constitutes

their principal food. Ten ounces of salt, and sometimes more, is usually mixed with a bushel of flour, before making it into bread; so that in this way they are subjected to the influence of salt. Swine are very liable to consumption, and to some diseases of the skin resembling those by which man is afflicted. Parrots also, which are fed upon bread and substances containing salt, are subject to consumption.

With these most important facts before us, nothing can be more astonishing than the little attention which is paid to the quantity of salt which enters into our food. It is absolutely taken as if it were an inert substance, or as if no further consideration were necessary than the gratification of an acquired relish for it. We have comparatively few articles of food into which salt does not enter, or to which it is not added during their preparation, and it is used with great freedom in culinary operations generally. An acquired taste or liking for salt is thus contracted, and it is taken in large quantities by the force of habit.

Salt being one of the most soluble substances, enters with the fluids into the blood, acting as a direct injurious irritant on the nervous system, thus occasioning the sensation called thirst; which is an instinctive desire for drink to dilute the saline blood, in order that salt may be conveyed out of it, by the evacuations of urine, perspiration, and the other excretory processes. Here then we see the immediate ill-effect of salt; the more that is taken, the greater thirst it occasions. If a spirituous drink be had recourse to in order to quench that thirst,

an addition is thereby made to the evil. Thus it is that a salt diet excites a constant desire for drink ; and by the destruction of the nutritive qualities of substances which it occasions, it tends to produce a ravenous appetite for solid food. In the absence of the injurious stimulus of salt, much less fluid, and a smaller quantity of solid, aliment would satisfy the demands of the constitution.

When salt, in very unusually large quantities, is suddenly introduced into the circulation, and the constitution continues to be subjected to its influence, the most terrific and fatal excitement ensues ; as, for example, the furious and frightful delirium which follows the drinking of large quantities of sea water, by which the vital powers are soon overwhelmed, and a fatal exhaustion closes the scene.

Cause of
Insanity.

It is, of course, in man's diet that we must look for the cause of that fearful amount of mental insanity which afflicts his race. Nothing appears more likely to produce such an effect than the use of salt as an article of food or as a condiment. I believe that the exciting and irritating stimulus of salt upon the nervous system, is the chief cause of mental insanity, but that too much animal food contributes its part, which is not inconsiderable. At the same time that salt stimulates to excess and irritates, much animal food has a tendency to brutalize, stupify, and obtund the intellectual faculties. On which account I am of opinion that great benefit would arise in lunatic asylums, from the adoption of a diet consisting as much as possible of farinaceous food, with fruits and vegetables, without salt, acidulous and saccharine condiments, especially the

acid ones, with oleaginous substances, being used instead of it.

Salt has the effect of rendering all kinds of food less nutritious in proportion as it is added above a certain quantity. Thus the nutriment of flesh, when preserved with salt, as for sea provision, is chiefly destroyed soon after the salt has had time to penetrate its substance; it becomes dry and hard, its nature being entirely changed. Whatever may be the properties of flesh meat in a fresh state, it becomes so changed by the operation of salting, as then to constitute one of the most innutritious and unwholesome. Salt in very small quantity is said to be poisonous to fowls, and we find that a certain amount of it proves destructive to all animal and vegetable existence.

When large quantities of salt find their way into the human constitution, as by the common use of it at table, it operates with dire effect, by excessively stimulating and exciting the nervous system, urging and hurrying the organs to an imperfect and disordered performance of their functions, occasioning premature exhaustion and wearing out of the system, which, under the constant operation of its excessive stimulus, falls into a state of collapse, so that disease and old age advance and establish themselves at a time when health and vigour would otherwise be still present. The insidiously treacherous effect of salt, when artificially employed in the animal and vegetable worlds, is perfectly analogous; it occasions an exuberant developement, which, weak in itself, and imperfect in its organization, maintains its integrity a short time, and

then falls into a state of decay. The disease of the potatoe plant, for example, is the same as the consumption of the animate kingdom, of which salt is evidently the chief cause.

Thus it appears that salt is in its nature exceedingly inimical to life, whether vegetable or animal; and it is evident that it operates most injuriously on young people, whose constitutions being subjected to its exciting and debilitating influence, are consequently wont to be invaded by destructive disease, and to be carried off by death before arriving at mature age. Those whose constitutions are distinguished by a delicate fibre, and a high degree of sensibility, are the least capable of warding off the effects of salt, and consequently they are most commonly the victims of consumptive diseases. But they of coarser fibre of body, and more sturdy and stronger frame, do not suffer so severely from the effects of salt; and in all cases the constitution makes some provision for its own protection from its influence, or, in other words, becomes by habit to a certain degree inured to it, as is the case even with the most deleterious of all known substances when gradually introduced into the system. These, then, are the terrible effects which occur under the use of salt. Where shall we find an account of the diseases which are produced by the substances put forth by nature for man's food?

Now it must naturally be supposed that abstinence from salt will wonderfully facilitate and expedite the cure of diseases; a result which, with a properly regulated diet, I have constantly observed by experience. Indeed it is certain that many dis-

eases, under a judicious abstinence from salt, would subside without the adoption of any other measures than thus cutting off their source and origin. It is not contended that persons ever accustomed to the use of salt should indiscriminately and suddenly discontinue the practice of eating it; but that in the presence of favourable circumstances, and under certain conditions of the body, the health may be wonderfully benefited by its partial or total avoidance, and that an entire abstinence from salt is absolutely necessary in the cure of a great number of diseases.

CHAPTER VIII.

OF CERTAIN CUSTOMS AMONGST THE ANCIENT EGYPTIANS, AND OF THE INCULCATIONS OF THEIR WISE MEN RESPECTING THE NATURE OF SALT, AS MOST HURTFUL TO MAN'S CONSTITUTION.

THE ancient Egyptian priests and wise men were universally regarded as the greatest and most learned philosophers in existence. It was from them that the celebrated sages of Greece derived their wisdom: various authors mention the circumstance of their going into Egypt to instruct themselves in the philosophy of the priests. Plutarch states that, on account of the profound wisdom of the Egyptian priests, the kings of that country were always chosen from their order, or else from that of knights and warriors, and that when a knight was chosen, he was, after election, admitted into the college of the priests, who instructed him in the secrets of their philosophy.

In ancient times, as is seen both by sacred and profane history, all nations had their wise men; as the Persian magi, the Chaldean philosophers, and others, who were after the manner of the Egyptian priests. Those societies were chiefly, but not entirely, composed of priests: they were held in the greatest reverence, and ruled not only the people but the kings and princes of those times. Their philosophy was set forth by allegorical and figurative representations. We see too, by sacred history, that

symbol and allegory were in general use at those times; this has thrown extreme difficulties in the way of translation: our knowledge of antiquity, from this and other circumstances, has been confined within very narrow limits.

We now read much about what has been called the superstition of the ancient Egyptians; but some of the principal examples set forth, seem in reality to be instances of great wisdom; as the reverence shown by them towards the ibis, the crocodile, and the cat, of which they had representations in their temples, and which has been particularly pointed out as being superstitious. Let us now investigate the circumstances of the origin of this, to us, singular custom.

Egypt has been a most fertile country, covered with the most luxuriant vegetation, and teeming with animal life. Herodotus relates, that Egypt was formerly so populous that its towns amounted to twenty thousand; and that its inhabitants were, after the Libyans, the healthiest people in the world.

The swarms of fierce and noxious serpents by which Egypt was formerly infested were so great as to render certain regions of the country impassable. Josephus relates, that Moses, as general of the Egyptians against the Ethiopians, surprised the enemy, who was devastating Egypt; by traversing certain tracts of the country which were difficult to be passed, in consequence of the vast numbers of serpents, some of which were of unusual fierceness, and rising up and flying in the air, attacked men unawares, and did them much injury. This, he says,

Stratagem
of Moses,
in his mi-
litary ex-
pedition
against
the Ethi-
opians.

Herod.
B. II.,
c. 76.

was accomplished by taking with them great numbers of the ibis, in baskets like arks of sedge, which, being let out in the infested places, cleared a passage for the army, by devouring the serpents. It is evident that Egypt would have been infested by them to a degree altogether intolerable to man, had they not been kept down by the ibis. It appears to have been from this kind of serpent that the Israelites, in the wilderness, suffered, as related in the twenty-first chapter of Numbers. Herodotus describes this flying serpent, which is also mentioned as a flying animal, in the sixth verse of the thirtieth chapter of Isaiah, as having wings like those of a bat.

In the fertile times of Egypt, the progress of life rushed forward with such stupendous precipitation, that the waters of the Nile would have been overwhelmed, polluted, and rendered unfit for use, by myriads of living creatures, had not the excessive rapidity of their increase been limited, principally, by a sufficient number of crocodiles; which destroyed them in countless numbers.

Ancient historians also relate that the cities of Egypt would have been rendered absolutely uninhabitable by the wonderfully rapid increase of mice, had not provision, by means of the cat, been made to obviate such a calamity. Diodorus Siculus speaks particularly of the unaccountable myriads of mice by which Thebes was infested. Mice, when existing under unnatural circumstances, in such vast crowds, fall into a very diseased condition, and cause a most intolerable and unwholesome stench. They are very liable to a cancerous disease of the mouth,

in which there is softening and deformation of the jaw-bone, displacing the teeth and rendering them so loose, as to be entirely useless. This disease must terminate fatally: it resembles that which afflicts the human race, for the relief of which that formidable operation, the section and removal of a part of the jaw-bone is practised: it is apparently occasioned by the salt food, in which they delight.

Therefore the wise men of Egypt rightly and piously esteemed those three creatures, as gifts and blessings which they had received as remedies against the terrific calamities to which they would otherwise have been exposed; hence they taught the people to revere and love the ibis, the crocodile, and the cat, as sacred animals.

Overflowing with population as Egypt was at the time of which we are speaking, it was absolutely necessary to impress the people with the greatest respect for those three creatures, in order that a custom of using their flesh for food might not become established. It was evidently to guard against the frightful misfortunes which would thus have resulted from the destruction of those creatures, that the priests took such great care to protect them. Cicero accordingly observes that an Egyptian was never known to abuse an ibis, a crocodile, or a cat. It clearly appears that the Egyptian priests adopted that peculiar method for the protection of those creatures, because they were aware that they could not by any other means, exercise sufficient influence over the people for the ensurance of that object.

However it seems, by the history of Herodotus, that there were some few instances in which the

crocodile was not regarded as a sacred animal, and then his flesh was used for food ; as in the island of Elephantis. No further proof, therefore, can be wanting to show that it was by the above means that Egypt was saved from the terrific consequences which must have resulted from the universality of this practice. Those animals were not originally placed in the Egyptian temples for the purposes of worship, but to lead to a right appreciation of their importance, more especially under the circumstances then and there existing.

The wise men of Egypt also instituted the custom of embalming the dead, in order to protect the living from the exceedingly noxious vapours arising during the ordinary decomposition of the bodies of the deceased ; an example which history shows was followed by the other nations. The vapours arising from the putrefaction of dead bodies, though deeply buried, do in part, and at particular times, by means of the spiracles of the earth, find their way into the upper atmosphere, and so prove hurtful to the living.

Hurtful
nature of
salt.

Those few fragments, which are extant in Plutarch's writings, concerning the doctrines of the ancient Egyptian priests and wise men, with regard to salt, are very remarkable : they are said to have held it in the greatest abhorrence, and to have taught that it was destructively hurtful to man's nature. They studiously abstained from it, and also from the flesh of creatures brought from the sea.

We observe that animals, which do not eat salt, live in the enjoyment of better conditions, in comparison to the circumstances of their existence, and

are beyond measure more healthy than the human race. This is a most important fact for contemplation; and one which, even in the absence of the very conclusive evidence already adduced by an appeal to nature, would tend most powerfully to confirm the soundness of this ancient doctrine, which maintains that salt is most hurtful to animate life.

The circumstance of Moses being an Egyptian, must naturally lead to the expectation, that in his histories he would make use of the allegoric form of representation, by which the wisdom of Egypt was usually set forth; and accordingly his history of the creation and man's fall, is, as many learned moderns have regarded it, an Egyptian allegory, in which the tree of life represents the vegetable kingdom, that is, the source and origin of animate life. The tree of the knowledge of good and evil represents the mineral kingdom, with which man was forbidden in any way to interfere, as is shown by these words: "Is not this laid up in store with me, and sealed up among my treasures." Nothing can be more evident than that this is an allusion to mineral substance.

Signification of the tree of life and the tree of knowledge of good and evil.

Deut. XXXII. 34.

In this allegory the serpent, which did not come into existence until subsequently to man's fall, is represented as talking to Eve, and persuading her to eat of the forbidden fruit. If we enquire why the serpent should be desirous that man should eat of the forbidden fruit, we immediately receive for answer, that the serpent owes his being to the fall of man, and that unless man eat of the forbidden fruit, he comes not into existence. Thus, according to the fashion of ancient allegory, the serpent is the

representation of a cause by a personification of its own effect, before the coming into operation of such cause.

In like manner it is not declared that Eve was the author of transgression: here again the effect is made to precede its own cause; man, existing in unity, having transgressed, or changed the ordinance, thereby rendered it necessary that he should henceforth live in duality.

Thus, in accordance with the very clear evidence of nature, it is declared that man's fall, or disease and death, was occasioned by his departure from the vegetable kingdom, that is, the tree of life, and partaking of crude mineral substance, the source of death.

The ancients, understanding the fashion of the times in which Moses wrote, thus interpreted this representation; as may be seen by their writings, also masked, or appearing to us so to be, as differing from the present mode of description.

It must be observed that the origin and progress of knowledge is in perfect imitation of arboreal developement. Knowledge, like the tree, has its point of commencement or origin, from which, as it were, a germ arises sending out its ramifications in every direction. Thus man, by violating the first law of nature in the act of eating mineral substance, planted the tree of knowledge of good and evil in his own mind, and which tree has ramified out to the exclusion of the knowledge which was good for man, and with which his mind was originally endowed.

It is very evident that man's degeneration has

been occasioned by his departure from the vegetable kingdom, whose fruits were appointed for his food, and making use of mineral substance which had not, by the vegetable elaboration, been refined, purified, and converted into a state fitted for his nourishment; and as salt is a substance more likely than any other, belonging to the mineral kingdom, to have invited him to its use, there is the greatest reason to believe that the eating of salt did constitute the act of transgression alluded to by Moses; and from the inculcations of the wise men of Egypt respecting salt, it may justly be concluded that they were well aware of that circumstance.

It is to this transgression that Homer alludes, when, through Tyresias, he speaks of the people who did not eat salt, and who knew nothing of the sea. It is to the same deviation from nature's law that Hesiod more covertly and mysteriously alludes by these words:

'Tis hurtful in the footed Jar to eat,
Till purify'd: nor in it bathe your Feet.

Works
and Days.
B. II. v.
512.

The form in which Cooke has rendered this passage, well shows its original signification, which is this: by the footed jar is meant the earth; hence in plain language, the passage runs thus: it is hurtful to eat of mineral matter until purified by its passage through the vegetable state. The bathing of the feet is of internal signification; it must be observed that the water internally taken, bathes, or washes the whole body. The constitution demands water in order to wash away, or dissolve, and convey out, matters which it wants to get rid

of. Thus Hesiod darkly alludes to the hurtfulness either of eating any substance taken from the earth, or of drinking water until purified by vegetation.

In order to understand the allegory of the creation, it is necessary that its different features should be viewed, not narrowly, but to the full extent of their scriptural signification. We will take the fruit for an example. By fruit is commonly understood a conglomerate mass, put forth by the vegetable as food for the animal. But this is not the full scriptural signification of the word fruit, as here used. Fruit here means the natural food of the creature, whether a vegetable or an animal, in whatever state, or form, that food may exist. Accordingly we read in Scripture, that milk is the fruit of the breasts.

We suppose the earth existing individually, without vegetable or animate creatures: the vegetable is now created; it must be supplied with fruit or food for its support. The soil which the earth presents, is the fruit on which the vegetable lives: the function of the vegetable is, to elaborate and convert the fruit on which it lives, into a state fitted for the nourishment of the animal. Hence it is certain that the animate creature must not pass by the vegetable, and take any substance directly from the earth. The fruit on which the vegetable lives, is naturally forbidden to the animate creature, as unprepared and unfitted for its nourishment.

It was certainly and clearly necessary that man should abstain from all the minerals of the earth, as food, and that none of them should in any way be received into his body. The earth contained

matters poisonous to his constitution, and he could only know the nature of those substances by the effects which they produced upon his body; whilst the vegetable, whose office consisted in giving man such food as was required for his nourishment, was the intervening agent between him and the earth. It is certain that man could never have had recourse to flesh, had not his inclination first suffered perversion, by the depravation of his appetite, which would result from the use of salt.

Thus we observe that the greatest philosophers of antiquity declared that salt was fatally injurious to human nature; and experience cannot fail to establish the truth of that declaration: by it, vast numbers will be saved from the miseries of disease, and from premature death. The application of this ancient doctrine of salt, in the practice of medicine, will certainly lead to results so wonderful, as to convince the world of its incalculable importance. It has long slumbered in oblivion, but its great truth must again shine forth.

The abomination of desolation, so mysteriously spoken of in Scripture, appears to signify salt; in relation to which the statue or pillar of salt said to have stood in the plain, near the Dead Sea, is wonderfully remarkable. The site given to it, is at the southern extremity of the lake, in the wild and dangerous deserts of Arabia. There is, evidently, very great signification belonging to this, and history appears to present allusions to other similar statues or pillars anciently standing in various places. Here we may also observe the vast salt deserts of Africa, Arabia, and Asia Minor,

where are many lakes whose waters are intensely salt, like those of the Dead Sea, and in, and about which lakes, no creature lives. Egypt has been desolated, and all its land and all its waters are now salt, and its diseases proverbial. As salt, artificially used, is so destructive to all the creatures of the earth, what can be more abominable to nature ! Hence what more appropriate appellation could be given to salt than that of the abomination of desolation ! Scripture represents salt as being the cause of desolation the most dire, as by these

ZEPH. II. 9. words : “even the breeding of nettles, and salt-pits, and a perpetual desolation.” That which, by the works of man, has been rendered the most injurious and destructive to the creatures of the earth, being endowed with the utmost powers of desolation, must certainly be regarded as the greatest abomination.

I suppose that the Dead Sea, and the other salt lakes above alluded to, are the salt-pits spoken of in Scripture. Strabo speaks of a time when many fine rivers flowed into the Dead Sea : such a time, as nature shows, there must have been. Those rivers have now disappeared, and the Jordan itself has become an inconsiderable stream. Formerly the evaporation from the wide bosom of the Dead Sea, with the terrestrial absorption of its waters, was perhaps about equal to that brought in by the tributary streams. But more latterly the consumption of its waters by evaporation and otherwise, has exceeded the supply received. Thus we observe that its waters, gradually diminishing, have become salt, to absolute saturation ; and that a crystalliza-

tion of salt is now taking place at its bottom. A vast salt-mine is here in process of formation ; and unless prevented by a revolution of nature, this process will go on to completion. Many similar instances exist in the eastern deserts, of salt mines, or beds, in different stages of the process of formation, by the drying up of salt lakes. Nature shows that all existing salt-mines have been similarly formed. When we consider how many thousands of years their formation must have occupied, it becomes at once evident that the ancient Egyptian doctrine respecting the age of the world is true.

Man has been constantly bringing up salt out of the bowels of the earth, and getting it from the sea, which becoming dispersed over the earth, and this process going on for thousands of years, we may fairly suppose must greatly interfere with the operations of nature, by creating an injuriously saline state of the surface of the land, as is now the case in Egypt, and other ancient seats of population ; where diseases, from that cause, prevail amongst men and animals to a very much greater extent than in Britain. In Egypt the waters of all springs have a saltish taste, a circumstance mentioned in Plutarch, and also noticed in the works of modern authors, which, of course, is very hurtful to animal life. An unnaturally saline state of the surface of the earth must certainly be the consequence of man's using salt so largely. These words have very remarkable reference to this part of the subject, "And salt waters shall be found in the sweet, . . . II ESD. v. 9. . . . : then shall wit hide itself, and

understanding withdraw itself into his secret chamber." Salt waters shall be found in the sweet, that is, salt shall be found in the sweet waters, or waters usually sweet. How wonderfully this has been verified in Egypt, that ancient seat of wisdom ! And that which is previously said respecting the coming into existence of men of deformed body, points distinctly to it as a result brought about by the agency of salt in the generation of disease. In like manner has this prophecy been, in some degree, verified in all places ; for we find that the waters of all lakes and rivers contain salt in some quantity.

OBAD.
XVI.

The following passage is also very striking as having obscure reference to the use of salt as occasioning great thirst : " For as ye have drunk upon my holy mountain, so shall all the heathen drink continually ; yea they shall drink, and swallow down, and they shall be as though they had not been ; " or, more fully interpreted, they shall be short-lived, comparatively, as though they had not been in existence. The Latin Vulgate, instead of all the heathen, renders it, " all nations shall drink." This prophecy is being wonderfully fulfilled amongst ourselves ; and it is the large quantity of salt taken with the food, which creates the necessity for much drink ; men will not generally drink water, because it is repulsive to the feelings ; instinct informing them that it is not a proper drink for man : hence, by the quenching of thirst with the drinks now common, the body is apt to be again injured by the large quantity of spirit which thus finds entrance. Who can number the woes which tread upon the

heels of drink! that is, the woes which follow in the train of salt; since without salt there would have been an absence of the chief stimulus to excessive drinking.

Scripture most clearly shows that the prohibition respecting man's food, extended to every thing except the fruits put forth by vegetation; the system of nature also loudly proclaims that necessity, and that man should drink nothing but their fresh juice, as fruits are both meat and drink; some are very substantial, and others consist almost entirely of fluid; therefore no other meat and drink was required; in fine, no other except that which has been prepared by vegetation, and that in a fresh state, can be pure enough for the nourishment of man's body.

Water is in no way suitable for man's drink; it is apt to contain matters in solution and suspended in it, which are hurtful to him; from which cause the waters of many localities cannot be used for drink, as was most evidently intended by nature it never should be: its earthy matter is wont to be productive of calculous diseases and ossifications by which the blood-vessels of the body are converted into partially solid tubes; and it is by such earthy deposits taking place about the valves of the heart, that those sudden deaths, so constantly occurring, are apt to be occasioned; hence also the bursting of blood-vessels and other terrible diseases. Man thus gets much harm by the use of water for drink. It possesses neither the flavour necessary to make it grateful to his palate, nor the properties required for the refreshment and nutrition of his body; whilst

Mineral
sub-
stances
forbidden.

Water not
fit for
man's
drink.

nature had ordained that man should derive both refreshment and strength from the deliciousness and invigorating properties of his natural drink, as consisting of the juice of fresh fruits. And it is seen that man, in his natural state, has no convenience whatever for drinking water. But the beauteous vine, the orange, the pomegranate, and other trees of fluid fruits, diffusing their fine fragrance through the air, magnificently give to man his natural drink, in most convenient form for his reception; and when he takes their lovely fruits, he fears not poison or hurtful matter hid within.

It is very common for persons to entertain a great dislike to the drinking of crude water, which appears to proceed from an instinctive knowledge of its unfriendliness to their constitutions. Water is best after it has been boiled, by which it deposits some of its earthy matter, and loses much of its natural crudity.

NUMB.
XX. 10.
1B. XXI.
5. 6.
1B. XI.
33.

We observe that the children of Israel offended by drinking water when they were otherwise provided; for which Moses upbraids them as rebels. And also that they became terribly diseased by the use of flesh.

It is evident that an attempt was made by Moses to wean the Israelites from the improper foods to which they had been accustomed in Egypt, and to bring them back to the use of fruits. They were promised a land flowing with milk and honey; this has no reference whatever to the milk of flocks and common honey, or to abundance of the provisions now in general use, but signifies the rich fruits of the earth, they being the milk and honey with which she naturally feeds her children, as is here seen:

“And they came unto the brook of Eshcol, and cut NUMB. XIII. 23.
 down from thence a branch with one cluster of 27.
 grapes, and they bare it between two upon a staff;
 and *they brought* of the pomegranates and of the
 figs. And they told him, and said, We came unto
 the land whither thou sentest us, and surely it flow-
 eth with milk and honey, and this is the fruit of it.”
 They bring no intelligence of pastures and flocks.

The following fragments curiously allude to the
 circumstance of men living exclusively on fruits, and
 their departure therefrom: “And thou didst drink DEUT. XXXII. 14, 15.
 the pure blood of the grape. But Jeshurun waxed
 fat, and kicked: thou art waxen fat, thou art grown
 thick, thou art covered with fatness: then he forsook
 God which made him, and lightly esteemed the Rock
 of his salvation.” The word Jeshurun signifies the
 beloved people, or Israel: Jeshurun kicked, that is,
 the people rebelled by departing from the appointed
 food; and then their bodies grew thick: they fell
 into the disease commonly called corpulency.

But now, as man's natural food and drink have
 both passed away, or no longer remain in quantity
 sufficient for his use, he is obliged to drink water
 and to eat flesh; being left to the conditions which
 his own works have brought into existence. Thus
 pure water and the drinks prepared by means of it,
 have become the best for general use; there not
 now being, indeed, under present conditions, a suf-
 ficiency of any other. Nevertheless it is of the
 greatest importance to have a right understanding
 of these things, and to bear well in mind the great
 evils which arise from impregnations of drink and
 food with earthy matters. And for man to know,

that although flesh has now been provided for his food, by the coming into existence of animals for that purpose, that has been the result of necessity of his own creation, and contrary to original intention, as unfit for him.

PART II.

HISTORY OF THE CREATION,

THE

CAUSES AND THE PROGRESS

OF THE

DEGENERATION OF NATURE,

AND

THE MANNER OF THE

RESURRECTION OF THE WORLD,

AS

ALLEGORICALLY REPRESENTED

BY THE

EGYPTIAN PHILOSOPHY.

PART II

HISTORY OF THE CREATION

CAUSES AND THE PROGRESS

PROGRESSION OF NATURE

THE MANNER OF THE

DETERMINATION OF THE WORLD

ALLEGORICALLY REPRESENTED

ESAY IN PHILOSOPHY

CHAPTER I.

OF THE LIFE OF HESIOD.

THE following discourses will consist greatly of explanations of portions of the allegoric writings of the poet Hesiod; we will, therefore, first take a transient view of the history of that great and good man. We shall find it convenient to make use of Cooke's translation of Hesiod's works, and that of Elton. Cooke has taken much care not, by too great a freedom of speech, to change the original signification, and in this he has evidently been, on the whole, very successful: the original grandeur is also, to a great extent, preserved in the picture, which, by a change of language he has presented to our view; but in some instances the real signification is more clearly set forth by Elton. It is obviously impossible for any man to make an excellent translation of a work without understanding the subject of his author.

Hesiod was a priest, a native of Bœotia, he is supposed to have lived about one thousand years before the Christian era, and is one of the earliest and most celebrated authors of whom we have any knowledge. He is said to have been the author of many works which have not come down to us; one of which was on medicine, and another on the circle of the earth; his *Theogony*, and the *Works and Days*, are all that now remain. They have been much admired in all succeeding ages, and especially for the high morality of the lessons addressed to his

brother Perses; which, though directed to Perses, were evidently put forth as moral lessons to the world. Those lessons are singularly correspondent with, and contain the substance of our ten commandments. The touching pathos, and the deep sincerity of the tone in which they are delivered, show them to be the emanations of a great and pious mind, as will appear by the following example:

Works
and Days,
I. 273.

Oh! *Perses*, Justice ever be thy Guide;
May Malice never gain upon thy Will,
Malice that makes the Wretch more wretched still.
The good Man, injur'd, to Revenge is slow,
To him the Vengeance is the greater Woe.
Ever will all injurious Courses fail,
And Justice ever over Wrongs prevail;
Right will take place at last by fit Degrees;
This Truth the Fool by sad Experience sees.

It is related that the ancient Greeks inscribed the poems of Hesiod on tablets, and hung them up in the temples of the Muses; and it is said that, on account of the very high estimation in which they were held, it was usual for their children to learn the whole by heart. Plutarch relates that the Works and Days were commonly sung to the harp.

The temples which we read of as being dedicated to the Muses were buildings in which the compositions of wise men were deposited, for the use of those in pursuit of knowledge.

The works of Hesiod show that he possessed a most brilliantly enlightened mind; and that he ardently adored the Creator, in a manner eminently consistent with the truest and purest principles of divine worship. Those passages from his works

which we shall introduce in the following pages have long been regarded as the most sublime of all the poetical relics of antiquity. The more they are examined, the more beautiful they appear; the more they are studied, the more widely their infinite wisdom shows its extent.

Respecting the works of Hesiod, as with all others appertaining to ancient history, it is ever necessary to bear in mind the number of hands through which they have passed from his time to the present; and to know, since honesty is apt to falter, that works have not always come down to such distant posterity in their original form, or without mutilations, abstractions, and spurious additions.

The metaphoric and enigmatic style of ancient times, has also rendered the study of the old authors extremely difficult; and the want of better understanding of their mode of description, has caused many of their masked representations, in modern times, to be regarded in the light of frivolous fable or fiction, though in reality of the greatest and most important signification. This has happened by putting literal constructions on what was only allegorical, by which the thing represented could not be found. In the following pages enough of the character of Hesiod will appear to show that he did not write of frivolous matters, or occupy his mind otherwise than in the contemplation of wise, great, and good subjects.

It is not known at what age Hesiod died, but from what other authors have said on this subject, it appears that he enjoyed a most singularly long

life, with wonderful immunity from the infirmities of age. It is related that it was usual amongst the Greeks, to say that persons of extreme longevity were advancing into Hesiodean old age, in allusion to which we find these remarkable lines :

Hail, Hesiod ! wisest man ! who twice the bloom
Of youth hast prov'd, and twice approach'd the tomb !

The following has been handed down to us as his sepulchral inscription :

The fruitful soil of Ascrea gave him birth,
His bones are cover'd by the Minyan earth ;
Supreme in Hellas Hesiod's glories rise,
Whom men discern by wisdom's touchstone wise.

CHAPTER II.

OF THE CREATION.

Chaos, of all the Origin, gave Birth
 First to her Offspring the wide bosom'd *Earth*,
 The Seat secure of all the Gods, who *now*
 Possess *Olympus* ever cloath'd with Snow ;
 Th' Abodes of *Hell* from the same Fountain rise,
 A gloomy Land that subterranean lys ;
 And hence does *Love* his ancient Lineage trace,
 Excelling fair of all th' immortal Race,
 At his Approach all Care is chas'd away,
 Nor can the wisest Pow'r resist his Sway,
 Nor Man, nor God, his mighty Force restrains,
 Alike in ev'ry Breast the Godhead reigns :

Theog.
 190.

Earth first an Equal to herself in Fame
 Brought forth, that covers all, the starry Frame,
 The spacious *Heav'n*, of Gods the safe Domain
 Who live in endless Bliss, exempt from Pain ;
 From her the lofty *Hills*, and ev'ry *Grove*,
 Where Nymphs inhabit, Goddesses, and rove :
 Without the mutual Joys of Love she bore
 The barren *Sea* whose whit'ning Billows roar.

Chaos, of all the Origin, gave birth.

CHAOS signifies the first condition, or that immediately following upon the conflagration of the old world, in which all the different forms of matter were existing in a state of minute division and mixture, without order, constituting a vast volume of vaporous fluidity. Then, by the creation of the laws of the attraction of gravitation, and cohesion, the diffused matter was collected, accumulated, and condensed, in such a manner as was required for

the earth's perfect formation. Thus, it appears, the earth came into existence.

The seat secure of all the Gods, who now
Possess *Olympus* ever cloath'd with Snow.

By the gods is here meant the primeval creatures, and the originally created conditions of the earth, who, not now being in existence as creatures sent forth by the earth, are still represented as living in the substance of the earth out of which they were created, or as still being in life as constituting a part of the earth's living body. The Egyptian philosophy represents all things, forms, and conditions, as being perpetually in existence either in the heavens, on the surface of the earth, or in its interior, and death as merely the passage from one state of existence to that of another, as from the earth to the vegetable state, from the vegetable to that of the animal condition, and from the animal state back to the life of the mother earth, which alone is in herself immortal, the immortality of the others being maintained by their issuing from, and returning to, its one source. Hence the stony snow-topped summit of *Olympus* was represented as the abode of the gods, they having returned to their subterranean state of existence, or having again become part of the earth's substance.

Th' Abodes of *Hell* from the same Fountain rise,
A gloomy Land that subterranean lys.

By the abodes of hell is signified all the interior of the earth, all beneath the earth's surface; the inhabitants of those abodes being all the creatures, that is, all the previously existing beings, things,

and conditions, which, by abandoning the forms in which they were created from the earth, had become extinct, or returned to constitute a part of the earth's body; and which creatures were figuratively imagined to exist in the interior of the earth, or to people the tartarean regions. An example of this is seen in Homer's hymn to Vulcan:

Praise Vulcan now, my muse; whom fame gives the prize
For debth and facture, of all forge devise;
Who with the sky-ey'd Pallas first did give
Men rules of buildings, that before did live
In caves, and dens, and hills, like savage beasts.

It must be observed that Homer here alludes to the age before savage beasts came into existence, when they lived in caves, and dens, and hills, like the buildings, that is, in the substance of the earth, from which they were subsequently called forth. Thus again, for example, we observe that Tantalus and Sisyphus, who were only personifications of physical conditions, after that those conditions were banished from the earth, were still represented as existing in Tartarus.

And hence does *Love* his ancient Lineage trace.

This has allusion to that change, by which, in consequence of the introduction of death into the world, man was given the power of re-creating his own species; he having been originally sent forth by a process which could not operate under the conditions which had come into existence when that alteration was made; so that it then became necessary either to annihilate that condition, or thus to provide against its destructive operation. Love

here signifies that affection which exists between the sexes, and also the love which man entertains towards the artificial world, or the things and possessions of the fallen world.

Alike in ev'ry Breast the Godhead reigns.

The godhead signifies the substantial part of the head or first creature, that is, the earth; and the reigning of the godhead in every breast, means that the bodies of all persons are polluted and their dispositions perverted, more or less, by the reception and entrance of matter, as food or otherwise, direct from the earth, and without vegetable purification: it also has allusion to the use, or employment, of mineral matter in any way whatsoever, as tending to the production of the before-mentioned effect. It is thus by the use of mineral matter not presented to man by nature, that is, not presented by the agency of the vegetable, that love is of subterranean origin. Death, or the condition necessary for the existence of love, having thus been brought about by the use of subterranean matter.

Earth first an Equal to herself in Fame,
Brought forth, that covers all, the starry Frame.

The earth was at first equalled only by herself in fame; but subsequently, in her productions, she surpassed the fame which then properly belonged to herself. We cannot explain how the earth first brought forth the starry frame, which signifies the atmosphere, without first showing the manner in which the destruction of the earth takes place; because by the destruction of the earth its resurrec-

tion is accomplished; as is shown by this conversation between Esdras and the angel Uriel: "Then answered I, and said, what shall be the parting ^{II. ESD VI. 7.} asunder of the times? or when shall be the end of the first, and the beginning of it that followeth? And he said unto me, From Abraham unto Isaac, when Jacob and Esau were born of him, Jacob's hand held from the beginning the heel of Esau. For Esau is the end of the world, and Jacob is the beginning of it that followeth. The hand of man is betwixt the heel and the hand: other question, Esdras, ask thou me not." Here we observe a curious allegorical representation of the revolutions of the earth. Rebekah, the mother of Jacob and Esau, represents the old world; the word Rebekah signifying the accomplishment of a war; the war of the elements being accomplished by the old earth, or world, here called Rebekah. Esau means the working man, and represents the vassal world, in which art prevails. Jacob is the natural man, and is put for that condition of the world in which nature unopposed by art prevails. The old world by its conflagration is compelled to deliver up Esau, that is, by the fiery war, the condition caused by art is compelled to give place to that of nature. Thus in the twenty-first chapter of Genesis, Esau is described as having been born red all over; the redness of Esau being representative of the fiery end of the old world, which condition must be brought forth, before that of Jacob, which is the beginning of the new world, can come into existence; therefore does the hand of Jacob touch the heel of Esau: the conflagrant end of the old earth being the beginning of

II Esd.
v. 42.

the new world. Thus we see that, in accordance with the Egyptian philosophy, so Scripture also represents the revolutions of the earth as passing on in a circle : as again by these words : "I will liken my judgment unto a ring." "The hand of man is betwixt the heel and the hand." This is an example of that enigmatic form of expression so abundant in ancient history. Jacob's hand is between Esau's heel and Esau's hand ; that is, as soon as Jacob's course is finished, or as soon as the age of Jacob is come to an end, Esau will then take hold of his heel, or come up in like manner after Jacob. The age of art will again follow that of nature.

Thus in the eternal circle of nature we have no point to begin at ; we therefore commence the description of the origin of our earth by means of a representation of the destruction of that which existed before it.

Burning
of the
world.

According to the indications of nature, so the wisdom of the ancients, as set forth in Scripture and elsewhere, obscurely declares that the destruction of the world is accomplished by the descent of the celestial fire, as the sun, moon, and stars ; which consisting of pure unextinguishable fire, are, in consequence of their lightness, stationed at the greatest distance from the earth, the densest and heaviest part of the world. The descent of the celestial fire is very often adverted to in Scripture : as in the twenty-fourth chapter of Matthew : "The sun shall be darkened, and the moon shall not give her light, and the stars shall fall from heaven." The descent of the celestial fire is what is meant by the coming

down of the Lord; thus we read: "When thou didst
 terrible things *which* we looked not for, thou camest
 down, the mountains flowed down at thy presence." ISA.
LXIV. 3
 The ancient poets also represented the same by the
 appearance of Jove clothed in his effulgence. This,
 it must be observed, may have reference to the gene-
 ral descent of the celestial fire, and the complete de-
 struction of the world, or to the coming down of a
 portion of the living fire, for the restoration of a
 part of the earth.

An omnipresent being cannot exist in any par-
 ticular place, but may, by a concentration of his
 power, and the force of his works, render his pres-
 ence more evident in one part of his world than in
 another.

Fire, we observe, destroys the attraction of gravi-
 tation, causing matter to diffuse itself around. If,
 therefore, the celestial fire were to descend into the
 earth, the cohesive force would be destroyed by the
 intensity of the fire, matter would repel matter,
 which, being divided into its ultimate particles, would
 be rapidly diffused into the air, by inconceivably
 fierce and loud combustion; as represented in the
 thirty-second chapter of Deuteronomy: "For a fire
 is kindled in mine anger, and shall burn unto the
 lowest hell, and shall consume the earth with her
 increase." The coming down of the celestial fire
 would have the effect of reducing the world, which Chaos.
 now visibly consists of fire, earth, air, and water, to
 a unity of condition: it would intimately mix those
 parts so that there should be no distinction between
 them. Water would be converted into the two dry
 gases out of which it is formed, thus, with the other

parts of the world, contributing to the formation of a vast volume of vaporous fluidity.

We observe that expanding matter rapidly absorbs heat, or pure fire, which is again expelled by the contraction of matter. Thus it appears that the celestial fire descending to, and entering into combination with, the earth, and becoming non-luminous, so brings into existence a stupendous volume of dark vapour : this is the Erebus of Hesiod :

And *Erebus* black son from *Chaos* came ;

that is, the dark condition called Erebus was the result of the union and combination of all the parts of nature. When the power of cohesive attraction is given back to matter, then the Erebian condition begins to pass away ; the origin of its expiration being the commencement of the resurrection of the world. Thus as the expansion of matter absorbed the celestial fire and rendered it non-luminous, the aggregation and contraction of matter now expels the pure fire, which again becomes luminous. This is the separation of light from darkness : accordingly Hesiod says,

From *Night* (Erebus) arose the *Sunshine* and the *Day*.

Now, the attraction of cohesiveness being recreated in matter, a precipitation, aggregation, and combination of the more substantial particles, within its aerial part, in the formation of earthy substance and water takes place, and the fire being the lightest material of the world, collects and rests above the atmosphere, now beginning to be formed. Thus the subsidence of the denser matter leaves a circle of

fire resting above the intervening air. It is impossible to imagine any other means by which the re-arrangement of the matter of the earth could be so completely accomplished. Fire naturally flying from the centre and diffusing itself through, or pervading all matter, as we see during combustion, by the rapid passage of flames and heat upwards, the central point would be thus rendered cooler than any other, when the attraction of gravitation would again come into force, and the re-arrangement of the matter of the earth, or the building up of the new world, would be accomplished simultaneously with the retirement of the heat towards the surface. Thus the fire, in the form of heat, would continue to pass through the earth, and the atmosphere to collect in a luminous state, until the earth acquired its proper temperature and its natural dimensions.

This is the Chaos of the ancient Egyptians, as represented by Hesiod and Homer, and as understood by the ancient wise men of all nations, as may be observed by history. Nature shows that it is in this way that she passes from her degenerate to her perfect condition. The Mosaic history alludes to this, in the words, "In the beginning God created the heaven and the earth." The following passage: ^{GEN. I.}
 "And the earth was without form, and void," ^{1, 2.} signifies that nature had so far degenerated from her perfection as to reduce the earth to the condition so described. By the Egyptians so appropriately denominated the tomb of Jove, nature having so far perished, or more properly retired unto, and within, herself. But which condition has, by the moderns,

been mistaken for the chaos of the ancient philosophers.

Origin of
constella-
tions.

The subsequently created conditions of the primeval world being, in the old philosophy, treated as persons, we are, accordingly by the wisdom of the ancients, informed that those conditions or personages were annihilated or changed into constellations and placed in the heavens. That is, those conditions were annihilated by the gradual loss of the living fire, which passing invisibly through the air, on attaining its surface, collected in the luminous bodies which we call stars. We observe that fire always flies rapidly upwards, and that all warmth and heat, although not luminous, passes quickly through all substances in its passage from the centre of gravitation, and that this non-luminous fire will collect and cause the combustion of substances. The heat passing upwards from fire is the pure living fire itself, flying away, in an invisible state, on account of its wide diffusion through the air: fire in this state of diffusion, commonly called heat, continues to pass upwards until it has reached the top of the earth's atmosphere, where, having no superior attraction, the laws of aggregation, as in all other substances, collect it into bodies of its own kind. Fire being the lightest part of the world, thus rises, as a lighter substance does to the surface of water.

The world's body, or the earth, during the integral state of nature, has its own proper warmth, and furnishes its creatures with that temperature which their bodies require. The earth, like the animal body, is continually giving off a stream of

the vital fire; this loss is balanced by a return of warmth from above: there is a circulation of the vital fire. When the causes arose by which the functions of nature became deranged and the circulation of the vital fire interrupted, then the natural expenditure of the earth's warmth was no longer balanced as before. The earth continually lost heat, and as it became colder so it contracted, and does still continue to contract. Thus the first conditions of the earth have passed away by the loss of part of its warmth, or life: that warmth has escaped into the atmosphere and collected in luminous bodies above it: truly in such order as, by prescience, was ordained. Those conditions being personified, the wisdom of Egypt informs us that they died, and were made constellations in the heavens. Accordingly we read in Scripture, "The stars are not pure in His sight." JOB v. 5.

The present world consists of the wreck of that which formerly existed; by whose destruction the condition of our earth, a shapeless mass, was brought into existence: our continents and islands being formed of its most elevated parts, the rest being covered by water. The celestial circle of fire was maintained by the influence existing between itself and its corresponding circle of earth, the ruin of the one therefore necessarily caused the destruction of the other, and thus the fiery circle collected in a body, and formed the sun, which still revolves in a circle. The distance between the sun and the present earth greatly exceeds that which existed between the former earth and its fiery circle.

Thus it appears that, instead of the scorching

and intolerable heat of the sun, there was a delightful, gentle, and equable diffusion of light and warmth, proceeding from a vast and glorious expanse of the celestial fire; maintaining the condition most favourable for the creatures of nature, as the ancient poets relate. Here was no weariness, no lassitude and exhaustion: sleep and his brother death had nought to do: all industrious nature rejoiced in her own perfection.

Circle of
Hyperion. The celestial circle of fire was, by the ancient Egyptian philosophers, denominated Hyperion, the son of Coelus and Terra, (the air and the earth,) and father of the sun, Aurora, or the morning, and the moon. When, by the destruction of the Hyperion circle, the sun was created, the world became subject to alternations of light and darkness; Aurora and night came into existence.

The moon also resulting from the ruin of the Hyperion circle, must, it would appear, like the sun, be composed of a kind of fire: the ancients accordingly regarded it as consisting of a dull kind of fire; as related in Plutarch. It is remarkable that in total eclipses it always presents a dull fiery redness. The great illuminating power of the moon seems also to show that it must consist of fire, shining with that additional brilliancy which it derives from the sun's rays. By the moon resulting from the destruction of the circle of Hyperion, it appears that the fiery substances of the sun and moon were originally in a state of combination, when the celestial fire was gloriously delightful to behold, and not dazzling to the eyes, which, on the contrary, are now hurt by the fierceness of the sun's

rays. The moon seems to have been created by the abstraction of the colour-giving substance, and that by which the brilliancy of the celestial fire was moderated. Hence it appears that the ancients have most appropriately described the substance of the moon as being of the nature of lees or dregs.

Entertaining this view, it must be supposed that Jupiter, and the other, so-called planets, which shine with far greater intensity than our moon, are in reality suns belonging to worlds whose solid bodies are invisible to us. We observe that Saturn, although surrounded by a luminous ring, presents only a feeble degree of brightness. How, then, can Jupiter, having no ring, shine with greater brilliancy than Saturn, unless it be a sun?

It appears that Saturn, with its fiery ring, is a Saturn. world existing in the above described condition, that of immortality or integral nature, where night does not exist, and age and death rule not. Saturn's ring, consisting of fire, is accordingly found to be clearly visible when the body of the planet cannot be distinctly seen. I suppose that the seven satellites of Saturn are not moons, but of the same nature as the ring.

In the following passage of Scripture it is also declared that the sun and moon are the lights of the old world, but that they do not exist in the new world, as nature too seems distinctly to indicate: "Thou shalt know that I the LORD *am* thy Saviour ISA. LX. and thy Redeemer, the Mighty One of Jacob." (We have before seen that Jacob is the beginning of the new world.) "The sun shall be no more thy light by day; neither for brightness shall the moon give light

unto thee: but the LORD shall be unto thee an everlasting light, and thy God thy glory; thy sun shall no more go down; neither shall thy moon withdraw itself." This is the condition which would exist if the celestial fire were distributed as before shown; that is, in the manner in which nature declares that her integrity requires it to be distributed.

The original condition of the world is again figuratively exhibited in the fourth chapter of Revelation: "After this I looked, and, behold, a door *was* opened in heaven; and the first voice which I heard *was* as it were of a trumpet talking with me; which said, Come up hither, and I will shew thee things which must be hereafter. And immediately I was in the Spirit, and, behold, a throne was set in heaven, and *one* sat on the throne. . . .

And there was a rainbow round about the throne.

. . . . And there *were* seven lamps of fire burning before the throne." The throne represents the new earth; and the rainbow shows the distribution of the celestial fire in the Hyperion circle; the lamps of fire being subsidiary lights, or satellites then belonging to the earth.

It is probable that Saturn's ring has the appearance of a vast circular rainbow of great brilliancy, with infinity of colours, and of magnificence and grandeur, alike unknown, and inconceivable, to the mind of mortal man; in which the celestial fire is variously distributed as represented by the ancient poets respecting the similar celestial circle of our earth, which they denominate Hyperion. The former and the future existence of the celestial

circle called Hyperion, is as certain as the present being of the world.

Thus the Saturnian world is crowned with the celestial fire: from this seems to have originated the custom of encircling the brows of sovereigns with gold, ornamented with shining and beautiful stones.

In the twenty-first and twenty-second chapters of Revelation it is again, in allegoric language, declared that the sun and the moon shall not be the luminaries of the new earth; and that night, and sleep, and sorrow, and sickness, and death, shall be alike unknown in the new world. Nature, now degenerate, will then put on her integral condition.

It appears that the complete conflagration of the world is followed by the entire erection of the Saturnian condition, and that in the partial conflagrations of the world, presently to be described, there is also a corresponding erection of this condition, prevailing over those restored parts of the earth, produced by the descent of the necessary portion of the celestial fire. Thus, in the eighth chapter of Revelation, the descent of a third part of the sun, a third part of the moon, and a third part of the stars, is mysteriously spoken of. Again in the twelfth chapter, we read of a woman clothed with the sun, having the moon under her feet, and a crown of stars on her head. This woman is the old earth, the mother earth, thus allegorically represented in a state of conflagration, by the descent of a third part of the fire of the sun and moon, and so ready to bring forth a son, which means the restored

Woman
clothed
with the
sun.

portion of the earth, as will be fully explained in the following relations. Then the tail of the dragon drew down a third part of the stars of heaven, and cast them into the earth, that is, the fire entering into combination with the substance of the earth, and so occasioning its vaporous evolution and rising up, even to the utmost limit of the atmosphere, caused the descent of a portion of the stars.

As the earth is destroyed by fire, and restored by the same means, so its life consists of a low degree of combustion. The earth has its own proper warmth, like the animal body, which also lives by a species of combustion; hence the expression, "the vital flame." This doctrine is in accordance with the wisdom of Scripture, as is seen by these words respecting the present manner of the re-creation of the human body: "Thy creature is preserved in fire and water, and nine months doth thy workmanship endure." That is, preserved by warmth and moisture: all warmth being diffused fire.

II ESD.
VIII. 8.

If all the warmth contained in a human body could be collected in the space occupied by an orange, for example, it would then appear as a volume of brilliant fire. And it would itself collect in such a volume, if it could be caused to pass from the body, so that it came not in contact with air, or any substance through which to diffuse itself; the cohesive force existing between its own particles would then come into operation, and collect it in a body of luminous fire; but this is prevented by its tendency to diffuse itself through the air and all surrounding substances. Thus the human body, like the great world, consists of fire, air, earth, and

water. The fire constituting the life and soul of the other parts; as the fire of the world also constitutes its life and soul.

The employment of fire by man on earth, in common combustion, has the effect of expelling the living fire, or the vitality of such parts of the earth as are subjected to its action: thus during combustion great heat, that is, the pure fire, flies away from the earth, passing through the air in a non-luminous state to join the celestial fire, and to return no more, except as before described, in the descent of the celestial fire. The structure of the natural substances of the earth is destroyed by the passing away of the latent fire, by which their particles are kept at a greater distance, and their natural structure maintained; in this way great bulk is lost. The use of fire has caused the solid portion of the earth to contract, whilst at the same time it occasioned a vast increase in the bulk of the earth's atmosphere, particularly by the bringing into existence of the volcanic disease of the earth, which is now always in very extensive activity. Thus the kind of combustion employed by man on earth causes the living fire to pass out of substances, so rendering the earth barren; but active volcanic fire, or that by which the terrestrial revolutions are effected, causes the re-entrance of the fire of life, and thus restores the fruitfulness of that part of the earth which has been subjected to its influence. All nature from the above-mentioned, and other concomitant causes similarly operating, thus becoming weaker and more infirm, and the earth and its creatures diminishing in size. A doctrine whose truth is declared by nature, by Sa-

Diminution of earth and its creatures.

cred History, supported every where by Hesiod and Homer, acknowledged by Pliny, and all the most celebrated ancient historians. We may give some examples of this, but the thing is so evident as to seem scarcely to require them; whilst we see how much and how rapidly succeeding generations diminish in strength and vigour. "For look, how much the world shall be weaker through age, so much the more shall evils increase upon them that dwell therein." "Consider thou therefore also, how that ye are less of stature than those that were before you. And so are they that come after you less than ye, as creatures which now begin to be old, and have passed over the strength of youth." The same appears in these lines of Hesiod, in which the original sense is well preserved:

II. ESD.
XIV. 17.

II. ESD.
V. 54.

Works
and Days,
I. 176.

The Golden Age's Virtues are no more;
Nature grows weaker than she was before;
In Strength of Body Mortals much decay,
And human Wisdom seems to fade away.

Origin of
the sea.

When we consider that the watery part of the earth must originally have borne a proper proportion to the bulk of its more solid material, and that this last has become vastly diminished in extent, and even a great portion of it has been entirely condensed into the state of stone, and so excluded its watery part, except so much as in a state of latency, enters into the composition of stone, it must at once be obvious that the earth could not, in its so altered condition, contain all its water within itself, as first ordained by nature. It must yield up its water, giving place to it on its own surface, so losing its

support, as the substance of the animal body, when rent, does lose its support and sink down from loss of blood. Thus earth-born the ocean, "without the mutual joys of love," that is, in a manner not originally in accordance with the divine pleasure; as here again represented: "He hath shut the sea in the midst of the waters; and with his word hath he hanged the earth upon the waters." This signifies that the sea was originally placed in the midst, or far in the interior of the earth: from the central body of water proceeded ramifications in every direction into the substance of the earth; thus the sea was shut in the midst of the waters, or the watery branches, on which the earth was suspended, as the substance of the animal is on its fluid part. So it was until the origin of the condition here alluded to: "*It is* he that calleth for the waters of the sea, and poureth them out upon the face of the earth." II. ESD.
XVI. 58.

The primeval earth had its internal circulation like the animal body; and it appears that the tidal pulsations are at present communicated to the superior waters by the force which maintains the internal circulation of the earth, operating on its internal waters. That which is related in Plutarch of the moon exerting an influence on the tides, is evidently spoken in jest. Nature declares that the primeval earth could have had no open rivers on its surface. And history presents numerous instances showing that the ancients understood this. But after that the former vegetation was so extensively destroyed that the vine could no longer afford sufficient of her "pure blood" for man's drink, it was

AMOS
IX. 6.

then necessary that the earth should present him hers, by the laying open of water channels previously covered, without which he could not then have existed. And the earth being then outwardly defiled, as expressed in Scripture, by its internal substance, and the return of vegetable and animal matters, water channels were then superficially formed by the more copious descent of water in the form of rain; which was then rendered necessary for the purpose of cleansing the surface of the earth, which, previously watered only by aerial humectation, or dew, required no superficial water channels, there remaining no unabsorbed water to carry off. The following words show that the waters now let loose originally constituted part of the foundation of the dry land: "The earth is the LORD's; for he hath founded it upon the seas, and established it upon the floods." That is, in the same way as the animal body may be said to be founded upon its blood.

PSAL.
XXIV.
1. 2.

Again, it must be borne in mind that all combustion generates water; in this way the water of the earth has been unnaturally increasing ever since the introduction of the use of fire into the world. Thus whilst the employment of fire has caused a stupendous diminution of the solid substance of the earth, it has, in like manner, increased its watery part.

It must also be recollected that the vegetation and animate population, with which the primeval world was completely stocked, have returned to the earth; and that the earthy, or more solid, substance of which vegetable and animal bodies are composed,

bears but little proportion to the watery part : thus the water, so formerly employed, now exists also in the ocean, making allowance for the comparatively little vegetation and population now on the earth.

It must naturally be supposed that, as the earth is caused to restore its own integrity by an emanation of its more solid part into its own atmosphere, so also the earth must be caused to restore its vegetable creatures by an emanation passing from it into its atmosphere, by which its body may become impregnated. There is reason to believe that the rudiments of the first vegetation are in this way deposited by the air, in the earth. Thus, as we read in Scripture, it appears that, "every plant was created before it was in the earth." Accordingly we observe that the Egyptians have allegorically represented the air as impregnating the earth. But by the institution of art in the world, it is similarly set forth that the air was deprived of its natural power of fructifying the earth, thus preventing the formation of more creatures as by the means originally ordained. Now art being necessarily accompanied by death, it also became necessary that there should be a continual increase of creatures. Consequently to obviate this difficulty, fruits were produced with seeds within them.

The evidences of nature, now observable, seem to confirm the soundness and the truth of this doctrine : for example, we observe that there is in moist and cool air, a wonderful tree forming power or propensity. Thus we observe that flakes of snow and hoar-frost assume the arboreal form ; which appears figured with curious and astonishing delicacy on

glass windows; it is also seen that many earthy substances being dissolved, do, on becoming dry, assume forms belonging to vegetation. What is the meaning of this curious phenomenon? When this is seen to be done by famishing nature, does it not show that, when she arose all vigorous, it was thus, by a more complete working in the similar formation of more substantial creatures in the same way, that she planted her wide bosom?

Thus we discover in moist air, the vestige of a formative power, which, in conjunction with the earth, it must be believed did, during the world's integrity, operate effectually; otherwise it must be set down as useless and insignificant; but there is nothing useless and insignificant in nature. Furthermore it appears that the low vegetable creatures are at present so created; for we observe that they will always come forth on earth exposed to the air, and in such numbers, and under all circumstances so readily, as to show that they do not all proceed from seeds derived from parent plants. Therefore as we now observe perishing nature, in her last efforts creating the lowest creatures, we must naturally suppose that originally, when she flourished in her full vigour, she did also in the same manner produce the highest and most perfect creatures.

Creation
of
animals.

In like manner as we have explained the coming into existence of the vegetable, it is necessary, in order to account for the origin of the animate creature, to search for the natural animal formative power; this we discover in fruits, which, by their decomposition, now breed small animals: we observe that the dissolution of the farinaceous and saccha-

rine kinds, brings myriads of living creatures into existence. Here, then, we have the animal formative power, which, as we now see operating in the formation of small creatures, we must naturally suppose to be the original producer of the human being, because it must be noted that this power cannot originally operate in the production of any other creature, the lower animals belonging only to the degenerate age of the world.

Vegetables change the atmosphere, or, in other words, they breathe forth an atmosphere around themselves, and this atmosphere is very nutritious to animals; which explains the invigorating effect experienced by passing out of the sterile mineral air of a desert, into that of a fertile region amongst the trees. The body immediately becomes sensible of the reception of nourishment, which it derives from such an atmosphere, by the breathing of the lungs, and by cutaneous respiration all over the surface of the body. This is similar to what we observe in some plants, which, being detached entirely from the earth and suspended at a distance above it, notwithstanding increase in substance by the nourishment which they derive from the air. We see that man's body is partly nourished in the same way: this appears to be a vestige of the manner in which, by the primeval ordinances of nature, man's body is entirely nourished.

The vegetable is the natural supporter of animate life: the animal receives the matter offered by the vegetable into itself, and operates upon it that change which causes it to pass from the vegetable to the animal state of existence. We see that the

earth sends forth the vegetable, whose function is to give off the matter for the support of the animal; the vegetable purifies the earth, and operates that change upon it which is necessary in order to render it suitable for the nourishment of the animal body. Thus the vegetable is the natural mother of the animal; she is destined to feed it, to bring it up, and for ever to support it: hence it would be out of reason, and obviously quite contrary to the primeval ordinances of nature, if she did not first produce the creature she is destined to nourish.

Origin of
Man.

Fruits not
originally
produced

It appears that the vegetable first gives off an atmosphere in which the rudiment of the animal is formed; that being accomplished, the vegetable continues to pour forth its nutritious emanation on which the animal rudiment, acting as a point of attraction, feeds by drawing it towards, and receiving it into, itself, as fast as it is able to change it from the vegetable into the animal state, until the creature is perfected. Thus, instead of giving off matter in a solid or conglomerate form, as at present, the vegetation of the primeval world, creates an ambrosial atmosphere, in which the food of life is diffused, and by which the waste occasioned by the vital flame, or the combustion of animate life, is continually balanced. In this state of existence there is no wind or other cause to interfere with the operation of this principle. This appears to be the manner in which the primeval human creature continues to be nourished, until, by the degeneration of the world, the ordinances are changed.

Thus the earth, the vegetable, and the animal,

all arise from a chaos, or an inordinate diffusion of their composing matter. The earth, like its creatures, the vegetable, and the animate body, is produced by a seed, or nucleus, which collects the diffused matter in ordinate aggregation.

So, according to the representations of the ancients, it appears that man is primevally nourished by means of an ambrosial atmosphere; and this is nothing more than the perfect operation of that institution of which we now see the remaining vestige. It is evident that this work would proceed perfectly in a favourable climate and serene atmosphere. Superlatively noble and dignified, this state of existence must be attended with unspeakable pleasure. The fruit-eating condition, is evidently incompatible with the integrity of nature. We now experience indescribable pleasure in passing out of the atmosphere of one blooming or fragrant fruit-bearing tree into that of another, by which we see how admirably this system might work.

This is the heaven-born creature, in reference to JOB XXV.
whom Scripture says, that labouring man, earth-born, 6.
as now existing in the world, is a worm: these creatures are the deathless gods of the ancient poets; deathless, that is, living in a condition of unfading youth during the continuance of the first age of the world, seven thousand years perhaps.

Job says: "The stars are not pure in His sight: how much less man, *that is* a worm, and the son of man *which is* a worm." The expression of this sentence is very remarkable: Job first alludes to labouring man, as originally sent forth by the earth, in the manner in which it was ordained he should be

created : and secondly, he speaks of man, the offspring of the sexes. It is evident that, at a former time, man was sent forth in this twofold manner : to such time does Job allude. Thus it is declared that earth-born man, is a worm, he being created, or generated, both originally, and by intersexual offspring, in the same manner as worms, and all the rest of the lower creatures. But the first or natural man, the rudiment of whose body is formed in the air of the ambrosial world, thus descends from heaven.

Now it is evident that the coming into operation of the causes by which the natural serenity of the air was disturbed, would be destructive to the operation of this institution, by wafting the ambrosial atmosphere of the lower regions into the upper air. This, Homer beautifully represents under the allegory of the punishment of Tantalus, who is represented as famishing in the midst of trees bearing the most delicious fruits, which, by the winds, are wafted to the skies the moment he attempts to gather them. It is allegorically related that Tantalus brought this punishment upon himself by stealing the nectar and ambrosia from the tables of the gods, when he dwelt in heaven. This means that man created circumstances which were destructive to the existence of the ambrosial condition of the world.

This allegory, as is commonly the case, has a double or cross signification, which is brought about by making use of that which is subsequently to come into existence, in order to pourtray an existing condition. The blowing away of the fruit means the

blowing away of the nectarine and ambrosial atmosphere, which would place man in the precise condition of Tantalus. Man would one moment find himself in the atmosphere which afforded him nourishment, and the next a gust of wind would diffuse it aloft, and supply its place with the desert mineral air.

The fruits themselves signify, that, to obviate the newly-created inconvenience, trees were then caused to present man's food in a solid or conglomerate form. And now death being by the same means brought into the world, those fruits must contain seeds; because by the disturbance of the tranquillity of the atmosphere, the vegetables also are no longer perfectly nourished, and thus they are also rendered liable to death.

These representations are so beautifully set forth, and with so much grandeur and dignity, and they are so accordant with the voice of nature, as to be entitled to the greatest respect. They have come down to us from an age when nature was in infinitely more perfect operation than at present, and when we know that there were men in existence who were superhuman in comparison to any now known to be living.

Such then are the representations of Hesiod and Homer: nature shows that they are correct, and all ancient history, both sacred and profane, under covert words and dark sentences, again declares their truth.

Amongst the scriptural allusions to this condition of existence, one is contained in that allegory in which Elijah is represented to be fed by ravens.

DAN.
VIII. 24.

And again in the second book of Esdras, where the angel Uriel promises to hold converse with Esdras, after the latter has lived seven days in the fields, or groves; during which time, without fasting, he is to take no ordinary food or drink, but to be nourished to satisfaction by the flowers only. Elijah and Uriel seem to have been of the remnant of a race of beings superior to man as now existing, who appear to have been gradually destroyed by the conditions brought into existence by the operations of the fallen race, their descendants; which circumstance appears to be particularly alluded to in this passage: "And his power shall be mighty, but not by his own power: and he shall destroy wonderfully and shall prosper and practice, and shall destroy the mighty and the holy people. And through his policy also he shall cause craft to prosper in his hand."

Nature seems to indicate that this condition of existence must have continued longer in South America, than in any other part of the world. And Hesiod and Homer covertly allude to this circumstance, the latter under the allegory of Calypso's island, to which Ulysses is driven by shipwreck. This island we find described in Plutarch and called Saturn's island, where Saturn himself is reported to have lived, and to have been fed by nectar and ambrosia brought to him by doves. This corresponds with the feeding of Elijah by ravens. The bringing of the food by the birds allegorically sets forth that the condition in which the food of man is diffused through the air is beginning to pass away, so that it is necessary for him to be fed in a manner different

from that which was originally designed: it alludes to the advent of the fruit-eating condition. The story is facetiously related, and by means of covert words and dark sentences, according to ancient custom, and is evidently an allegorical representation of the highest state of existence and the descent or departure therefrom. The promise to Ulysses of immortal life, exempt from age and woe, is figurative of the state of existence which originally prevailed. Calypso, who, as a personification of nature, is made to represent the original inhabitants of the world, does not eat and drink substantial matter; and the whole island is represented as being replenished with a most fragrant and odoriferous perfume, which is continually breathed forth. This is a condition which must prevail during the perfect age of the world: and when it is most evident there would be no occasion for nourishment by means of solid matter, which condition has clearly been by nature substituted for one more perfect. By the residence of Ulysses seven years in the island of Calypso, Homer seems to set forth that the first condition of the world continues during seven thousand years; such a conclusion respecting Homer's meaning may be fairly arrived at by comparison with other parts of ancient history, and the idea is well in accordance with the majesty of nature.

The subject of this condition of existence is again humorously and covertly entered into in Plutarch's Banquet of the Seven Wise Men, in a discourse between Cleodemus, Chersias, and Cleobulus. A masked discourse on the same subject again occurs in the Treatise on the Moon; in which is mentioned

a people of India, called astomi, on account of their being nourished entirely by odours. By which, as before observed, it seems that the progress of degeneracy must have gradually excluded that state of existence from the earth; as nature too would seem to show. In this discourse that remarkable passage is quoted, as covertly alluding to the same subject, in which Hesiod observes that man is now denied knowledge of the manifold profits which he should naturally derive from mallows and asphodels. Here Hesiod, for the purpose of masking his meaning, makes use of the lowly plants, which do not exist during the first age of the world, to represent the original vegetation. It is remarkable that Elijah is described as a hairy man: the astomi are also related to have been hairy.

Further, it appears by Homer's prophet, Tiresias, that the original condition of the world was anciently called the age of Ceres, the diffuser of food; during the continuance of her reign, Tiresias says that man, living under a different form of body, was nourished with dry food, and then speaking of Bacchus, which is a personification of the fruit-eating condition of the world, or that immediately following upon the reign of Ceres, he proceeds as follows:

. of different form comes
This son of Semele, the grape's moist juice,
His own invention, he on man bestow'd.

When, during the reign of Ceres, man's aliment was diffused through the air, he lived, as this allegory relates, on dry food. Semele means the mother earth; she not having originally and spontaneously

sent forth the vine, and other fruit-bearing trees, as such; but having subsequently been, by man's operations in the world, caused to do so, the grape is justly said to be the invention of Bacchus.

Thus the first creation consists only of the terrestrial system, a higher vegetation, and the parent of degenerate, or labouring man, living in a superior state, and in form, and substance, differing from the present, which become altered as the conditions of nature change; as here represented: "And as we have borne the image of the earthy, we shall also bear the image of the heavenly."

I COR.
XV. 49.

The new earth is represented to be of incomparably greater dimension than the present, its face consisting of a circle of land extending through the upper regions at a stupendous height above the present earth, having no water on its surface, as also represented in the first verse of the twenty-first chapter of Revelation: "And I saw a new heaven and a new earth: for the first heaven and the first earth were passed away, and there was no more sea." The first heaven, that is, the first atmosphere with the celestial fire, and the first earth, pass away, by the resurrection of the new heaven and the new earth, out of their material. Nature shows very plainly that there can be no water on the primeval earth, and that it was completely planted with vegetation, and inhabited in proportion. As is shown by these words of Scripture: "*It is* he that sitteth upon the circle of the earth, and the inhabitants thereof *are* as grasshoppers; that stretcheth out the heavens as a curtain, and spreadeth them out as a tent to dwell in." Here we observe that grasshop-

ISA. XL.
22.

ACTS
XVII. 26.

pers, although they do not exist in the primeval world, are still made use of to express the complete population of the earth: this is in accordance with the manner of Hesiod and Homer. "And he hath made of one blood all nations of men, for to dwell on all the face of the earth; and he hath determined the times before appointed, and the bounds of their habitation."

Trinity of
the Cabiri.

EPHES.
IV. 25.

The Saturnian terrestrial system, with its vegetable and animal kingdoms, constitutes the Trinity, according to the ancient custom of personification. This is the Trinity of the Cabiri, which was worshipped at Diospolis, whence it passed from Egypt to the other ancient nations; variously denominated and set forth. The head, or first of the Cabiri, or father, is the world, regarded as an individual of itself; the second person, or son, is the vegetable kingdom; the third, or animal kingdom, being also regarded as one person, according to the scriptural representation: "We are members one of another." And so the whole, taken collectively, is one, because all live within the earth's atmosphere, which consists of the earth existing in a transparent and fluid state, and which continuously pervades the earth, the vegetable, and the animal, of whose bodies it forms an essential and inseparable part; so giving them a positive, palpable, and necessary union, though to common observation they present the appearance of individuality.

The Egyptian philosophy represents the earth as having its spiritual and material part, like man's body; hence the world pervaded by the divine spirit, was regarded as the Deity, and the vegetable and

animate kingdoms were personified as individual Gods, thus making the three persons. This is finely explanatory of the doctrine of omniscience, omnipotence, and omnipresence. This is the same Trinity, by which the author of that creed called Athanasian, and by some attributed to Athanasius, the bishop of Alexandria in Egypt, has so much puzzled his posterity. The curious complications with which he has set it forth seem designed to clothe the whole in mystery; and excepting those strange turns, we see whence he has taken the rest. The application of the Egyptian philosophy to the Athanasian depiction of the Trinity clears away all mystery whatever, as we shall see by comparison with some of its most prominent features.

“The Catholic Faith is this: That we worship one God in Trinity, and Trinity in Unity.” That is, as before explained.

“Neither confounding the Persons: nor dividing the Substance.” Confounding the Persons signifies the taking of matter direct from the earth, for the nourishment of the body, without the intervention of the Son or second Person. The division of substance alludes to the eating of flesh: as if two animate creatures slay a third and partake of its substance, or if one act likewise to a second it is the same thing.

“The Father uncreate, the Son uncreate; and the Holy Ghost uncreate.” The word, uncreate, is used instead of death: as I have before explained, it was maintained that the second and third Persons, after what is commonly called death, still existed in the person of the Father: and death, commonly so

called, is certainly well expressed by the word uncreation. The earth itself, when worn out and sterile, was, by the Egyptians, considered to be uncreate, as no longer in the condition in which it was created; hence it was said to be entombed within itself, as we shall henceforth have occasion more completely to show. The Holy Ghost signifies the primeval human creature, the ancestor of fallen man, or the holy resemblance, as first made, after the image of the Father; as is shown by the scriptural words, "he gave up the ghost," as applied to the death of man. Man, by death, giving up the ghost, or paternal resemblance, and returning to the substance of the Father.

The incomprehensibility of the Persons requires no comment; we cannot thoroughly comprehend them in detail, or particularly.

"The Father eternal, the Son eternal, and the Holy Ghost eternal. And yet they are not three eternals; but one eternal." Here it is also declared that the Son and Holy Ghost are not immortal, except in the person of the Father; as we every where observe in the Egyptian doctrines, that the immortality of man has reference only to the deathless, or, so called, immortal age of the world; that being ended, and the first creatures passed away, the gods are said to have returned to live in the person of the Father.

"So likewise the Father is almighty, the Son almighty: and the Holy Ghost almighty." By the union of the second and third Persons with the first they partake of his almightiness. It is by virtue of the almightiness of the Father that they perform

their individual functions. Man, with the co-operation of the tree of life, has the power of maintaining the perfection of the world, or by his transgressions of accomplishing its ruin; as here shown: "For since by man *came* death, by man *came* also the resurrection of the dead." That is, the restoration of the integrity of the earth, which sends forth new creatures. Man introduces degeneracy into the world: the degeneration of the world causes its conflagration; by its conflagration its resurrection is accomplished.

"The Father is made of none: neither created, nor begotten." The Father has the power of self-restoration.

"The Son is of the Father alone: not made, nor created, but begotten." The vegetable kingdom, or Son, arises directly from the Father; being produced by the conjoint operations of the earth and the air, as before described.

"The Holy Ghost is of the Father and of the Son: neither made, nor created, nor begotten, but proceeding." The human creature proceeds from the Father through the intervention of the Son, or the tree of life; in other words, the Father causes the Holy Ghost, or the image of himself, to proceed from his own person, by the intervention of the Son, or the tree of life, according to his previously created laws. That is, as I have before described, the primeval vegetable, under the influence of the first ordinances, naturally proceeds, or changes from the vegetable to the animate state.

"Furthermore, it is necessary to everlasting salvation; that he also believe rightly the incarnation

of our Lord Jesus Christ." By this is meant, that it is necessary for man to believe in the original necessity of his incarnation, or the derivation of his substance, from the offerings of the tree of life: and that he should be impressed with the impropriety of the confusion of Persons, and the division of Substance.

"One, not by conversion of the Godhead into flesh: but by taking of the Manhood into God. One altogether; not by confusion of Substance: but by unity of Person." This is a repetition of what has already been said. The Godhead, means the substance of the head, or first of the three creatures; which should not be received for conversion into flesh, or for food, except as offered by the Son. The eating of mineral matter is a confusion of substance. The taking of the Manhood into God, signifies the reception, by the third Person, of the substance, only as offered by the second Person.

ACTS
XVII.
28.

1 COR.
XV. 47.

The doctrine of the Cabiri represents primeval man as God, by an assumption of the creaturely attributes in a distinct being within Himself: this is exactly what Scripture declares, by these words of St. Paul: "For in Him we live, and move, and have our being." And again, as here set forth: "The first man (as now living on the earth) is of the earth, earthy: the second man is the Lord from heaven."

"And they that have done good shall go into life everlasting: and they that have done evil shall go into everlasting fire." It is not necessary to offer any comment on this, since we have already explained that man proceeds from, and returns to, the Father, who alone lives everlastingly. And that all

life, whether that of the earth, or the vegetable, or the animal, is a process of slow combustion, or maintained by everlasting fire. They that have done good, and the evil doers, will assuredly be rewarded according to their own works. The same indissoluble chain which unites the pleasures of the fallen world with pain, also connects vice with punishment.

This is the explanation of the Athanasian doctrine, in accordance with the Egyptian wisdom, and by which it is evident that this creed has been one of the mysteries of the wise men of Egypt, and history shows that it passed from them to the other ancient nations.

The Egyptian doctrine respecting the nature of the Deity, as handed down to us by Hesiod and Homer, is in accordance with Scripture, as shown by these words of Saint Paul: "That they should seek after the Lord, if haply they might feel after him, and find him, though he be not far from every one of us. For in him we live, and move, and have our being; as certain also of your own poets have said, For we are also his offspring." That is, according to the wisdom of Egypt, and the representations of the poets, we are the offspring of our world, in which, pervaded by the Divine Spirit, we live, and move, and have our being. The above was spoken by Saint Paul, preaching on the Hill of Mars, or the Areopagus at Athens, and he evidently alluded to Hesiod and Homer, as they were in Greece, the most celebrated poets of those times, and whose doctrines were by the wise, most highly esteemed, as all history shows.

ACTS
XVII.
27. 28.

It is related that the children of the ancient Egyptians were commonly initiated into the mysteries of the Trinity of the Cabiri; by which persons were believed to become more holy, just, and pure: a result naturally to be expected from the great principles it inculcates; which are of the utmost importance to the health and happiness of man; and in the absence of which, he is as a vessel without a compass to guide it.

CHAPTER III.

OF THE SACRIFICE OF PROMETHEUS.

Prometheus in the Division of the Sacrifice,
 Intending to deceive great *Jove* the wise,
 Stuff'd the Flesh in the large ox's Skin,
 And bound the Entrails, with the Fat, within,
 Next the white Bones, with artful Care, dispos'd,
 And in the candid Fat from Sight enclos'd :
 The Sire of Gods and Men, who saw the Cheat,
 Thus spoke expressive of the dark Deceit.

Theog.
 812.

In this Division how unjust the Parts,
 O *Japhet's* Son, of Kings the first in Arts !
 Reproachful spoke the God in Council wise,
 To whom *Prometheus* full of Guile replys.

O *Jove*, the greatest of the Powrs Divine,
 View the Division, and the Choice be thine.

Wily he spoke from a deceitful Mind ;
Jove saw his Thoughts, nor to his Heart was blind ;
 The Lots survey'd, he with his Hands embrac'd
 The Parts which were in the white Fat encas'd ;
 He saw the Bones, and Anger sat confess'd
 Upon his Brow, for Anger seiz'd his Breast.
 Hence to the Gods the od'rous Flames aspire
 From the white Bones which feed the sacred Fire.
 The cloud-compelling *Jove* by *Japhet's* Son
 Enrag'd, to him in Words like these begun.

O ! who in male Contrivance all transcend,
 Thine Arts thou wilt not yet, obdurate, end.

THIS sacrifice of Prometheus is an allegory in which the body of the ox represents the world ; the bones of the ox corresponding to the mineral or forbidden kingdom ; the flesh of the animal representing the vegetable kingdom, and the fat corre-

sponding with the fruits put forth by vegetation. The flesh of the animal is supported by, and attached to, its bones in the same way as vegetation is to the earth, and the flesh grows also by a process similar to that of the increase of vegetable substance. But the fat of the animal is as a fruit given off by the flesh, for the nourishment of the body, as we see, in the absence of food from without, the body is supported by its fat, or that store which the power presiding over the internal functions has laid up to supply the natural exigencies. Thus we observe that the bodies of very young children are excessively fat, which fatness disappears as the body grows. This however must not be confounded with that state of fatness in adult persons, called corpulency, which is a diseased condition: it refers only to those deposits of fat which exist in different parts of the bodies of healthy persons, who do not present the appearance of general fatness.

Now, as it was originally ordained that nothing should be sacrificed, or destroyed, for the support of the sacred fire, or the vital flame, except the pabulous matter sent forth by vegetation, and that man should not destroy, or in any way interfere with, the works of nature, so do we see in the allegory that offence was occasioned by the discovery of the bones amongst the fat: that being in allusion to the offensiveness of man's eating any mineral substance, or in any way making use of the matters of the earth.

This representation sets forth, that subsequently to the impious sacrifice of Prometheus, the tribes of earth continued to consume the bones by fire.

Thus man is represented as making use of mineral matter to feed the sacred fire, that is, the fire of life, or the vital flame, that fire which God, breathing into man's nostrils, kindled in his breast. This is strictly and beautifully correct; the substances which man receives into his body as nourishment, are subjected to the combustion, or consumption of the sacred fire, or the vital flame. The holy sacrifice signifies that sacrificed or destroyed for the support of the vital flame, there being originally no necessity for any other destruction; it being ordained that the sacrifice should consist only of the matter created for that purpose. But here man is represented as sacrificing or making use of the bones, which is an allegoric allusion to his eating mineral matter. Crude matter is taken directly from the earth for food, that is, to feed the sacred flame of life, which matter being unpurified by vegetation, that flame must burn with diminished splendour, and, continuing to be so fed, must ultimately expire. But which would continue to burn as long as supplied in the manner ordained by nature. That is, man continues in the immortal state, or lives continually in the condition of unfading youth, until nature's laws are violated. Hesiod relates that from the time when Prometheus introduced the practice of eating mineral matter, the power of inexhaustible fire was denied to the dwellers upon earth, that is, in plainer language, that the vital flame no longer continued to burn perpetually, but that in time it lost its strength and became extinct, by which is signified that man then became liable to death.

The body of the animal being taken for the simi-

litude of the world, the destruction of its parts by common fire, is figuratively representative of man's sacrificing all the parts of the creation for the purposes of art. This picture is allegorically descriptive of the manner in which confusion, disease, and death were introduced into the world. It is merely an allegorical illustration, and does not signify that such sacrifice was in reality ever made.

Prometheus means wicked men, or deceitfully wise and cunning men, and is here made use of to represent all the men who transgressed after the manner described.

In these discourses on nature and art, it must be borne in mind that art commenced, and was long practiced, in wantonness; but that the destruction of the things of the creation, and the alterations in the conditions of nature which art occasioned, at length brought into existence the necessity of exercising the arts in order to supply the natural wants of man. It was then impious, without occasion, to deviate from nature's laws, and to interfere with her works, although she has since ordained that man should henceforth laboriously pursue the system he instituted for himself. Thus art subsequently became, as it were, a part of nature.

Our poet has now informed us that men have transgressed by interference with the terrestrial system. Hence we pass on to the consideration of the artificial use of fire.

CHAPTER IV.

OF THE STOLEN FIRE, THE ALLEGORY OF PANDORA,
AND THE PUNISHMENT OF PROMETHEUS.

In wrath to him who daring rob'd the Skys,
Dread Ills the God prepar'd, unknown before,
And the stol'n Fire back to his Heav'n he bore ;
But from *Prometheus* 'twas conceal'd in vain,
Which for the Use of Man he stole again,
And, artful in his Fraud, brought from Above,
At which enrag'd spoke cloud-compelling *Jove*.
Son of *Japetus*, o'er subtle, go,
And glory in thy artful Theft below ;
Boast the celestial Fire by Stealth retriev'd,
And triumph in almighty *Jove* deceiv'd ;
But thou too late shalt find the Triumph vain,
And read thy Folly in succeeding Pain ;
Posterity the sad Effects shall know,
When, in Pursuit of Joy, they grasp their Woe.
He spoke, and told to *Mulciber* his Will,
And, smiling, bade him his Commands fulfil ;
To use his greatest Art, his nicest Care,
To frame a Creature exquisitely fair ;
To let her first in Virgin Lustre shine,
In Form a Goddess, with a Bloom divine.
And golden *Venus* was to teach the Fair,
The Wiles of Love, and to improve her Air ;
And then, in awful Majesty, to shed
A thousand graceful Charms around her Head.
Next *Hermes*, artful God, must form her Mind,
One Day to torture, and the next be kind,
With soothing Language, and the treach'rous Smile,
The Heart to purchase, and that Heart beguile.
Jove gave the Mandate ; and the Gods obey'd :
First *Vulcan* form'd of Earth the blushing Maid.
The Nymph, by *Pallas*, blue-ey'd Goddess, dress'd,
Bright shin'd improv'd beneath the candid Vest ;

The rich wrought Veil behind, wond'rous to see,
 Fruitful with Art, bespoke the Deity ;
 Her Brows to compass did *Minerva* bring
 A Garland breathing all the Sweets of Spring :
 And next the Goddess, glorious to behold,
 Plac'd on her Head a glitt'ring Crown of Gold,
 The Work of *Vulcan* by his master Hand,
 The labour of the God by *Jove's* Command ;
 There seem'd to scud along the finny Breed,
 And there the Beasts of Land appear'd to feed ;
 Nature and Art were there so much at Strife,
 The Miracle might well be took for Life.
 The finish'd Maid the Gods *Pandora* call,
 Because a Tribute she receiv'd from all.

ON reference to Hesiod, the reader will observe that the verses of Pandora, as here arranged, have been collected from the Works and Days and also from the Theogony.

Fire, no doubt, was first obtained from above, by the employment of some transparent substance, or a vesicle filled with limpid fluid, which man destructively obtained from the vegetable or animate kingdom, and used as a burning glass. It is likely that at the time alluded to there might have been means of obtaining fire in this way, which now do not exist.

And the stol'n Fire back to his Heav'n he bore.

Amongst the commentators on Hesiod much speculation has been excited respecting the meaning of this passage ; which, like the rest of these, has not been understood. The hidden treasures of these allegories could not be laid open to view without a good understanding of the Egyptian, or true philo-

sophy, of the nature and functions of the terrestrial system, which knowledge has long been lost.

The word Japhet is derived from japhia, meaning fire. The term Japhet is here made use of to designate the cunning or rebellious men, who, at a time antecedent to that of Prometheus, had in like manner introduced fire into the world, and by that means had brought about all the miseries, and evil conditions, which Prometheus, also, by the introduction of fire, brought upon his posterity. The taking of the fire back to heaven, is an allusion to the miserable conditions of the world brought about by Japhet, being annihilated by a destructive restoration of the earth's integrity, or of a very great part thereof, with re-establishment of the empire of nature, which the Egyptians knew had repeatedly taken place. Thus the artificial furniture of the world being cast down, and that of nature set up in its place; the fire, as truly said, was taken back to heaven, until again stolen by Prometheus, as here expressed :—

The
stolen
fire.

But from *Prometheus* 'twas conceal'd in vain,
Which for the Use of Man he stole again.

It is for this, that Prometheus is called the son of Japhet, to signify the origin of the same evil at a subsequent period. As we advance in our discourse we shall meet with a confirmation of the correctness of this position.

The discovery of the use of fire was the grand source of all the mechanical arts, and art being in its origin diametrically opposed to nature, thus constituted the commencement of the greatest evils

which have afflicted the world. Parallel with the Promethean malediction is this passage of the fiftieth chapter of Isaiah: "Behold, all ye that kindle a fire, that compass *yourselves* about with sparks; walk in the light of your fire, and in the sparks *that* ye have kindled. This shall ye have of mine hand, ye shall lie down in sorrow." At the time alluded to, the climate being favourable for man's natural existence, and there being then no necessity for the use of fire, its employment was, of course, wrong, but, now, that the conditions of the world are totally changed and altered, it has become indispensably necessary, under the state of things which man has instituted for himself; now, by him, unalterable.

Wonderful to reflect that down here, in the dark, cold, and damp pit into which the world has shrunk, we should live, shut up in boxes, warmed by burning the remains of the former vegetable and animal creatures of the earth! Coal, besides its vegetable matter, gives great evidence of animal remains, in the vast quantity of sulphur it contains, and also in the limy ash, evidently resulting from decomposed bone.

Significa-
tion of
the alle-
gory of
Pandora.

Now men, having made themselves acquainted with the nature of the contents of the bowels of the earth, and having discovered fire, were furnished with every thing necessary for the commencement of the arts; hence the allegory of Pandora, the word Pandora meaning the acquisition of every thing necessary. The idea has arisen that by Pandora, was meant a real woman; whereas in reality it is only a personification of the abstracted idea of man's assumption of the office of creator,

or of the idea of the general commencement of the arts; and the similitude is very admirably drawn. We observe how men have forgotten nature, how they have been fascinated and drawn on in the train of this goddess of the arts, how treacherous she has been, and how she has beguiled the heart of man.

Mulciber, the same with Vulcan, formed the maid; surely this alone, is enough to show that Pandora was not a real woman. Vulcan was the worker of metals, the symbol of the smith trade: when he had formed the ideal maid, Venus, Hermes, Pallas, and Minerva, come to her aid. The coming forth of Venus, of course, alludes to the attractive beauty of the arts. Hermes, called also Mercury, was the symbol of merchandize, and also of thieves and robbers; because theft and rapine commenced, when, by the destruction of the gifts of nature, man made things for himself, so creating want in the world. Pallas, the same as Minerva, was the symbol of inventive ingenuity, presiding over military tactics and complicated machinery. The animal body is full of joints, levers, and pullies; Pandora imitated its construction, regardless of the commandment of nature: "Thou shalt not make the likeness of any thing that is in earth." Thus we observe that Pandora signified all the arts, and the others, the particular departments of the arts.

Pandora affords one of the very numerous instances of that, which is only allegorical, having been mistaken for reality, and therefore treated as frivolous or fictitious. It is indeed very wonderful that the wisdom of the ancients should have perished

to such a degree. We observe that Hesiod alludes to the decay of wisdom when he says,

Works
and
Days.
I. 179.

In strength of Body Mortals much decay,
And human Wisdom seems to fade away :

I. COR.
I.
19. 20.

in addition to which, we have the following remarkable prophecy: "For it is written, I will destroy the wisdom of the wise, and will bring to nothing the understanding of the prudent. Where is the wise? where is the scribe? where is the disputer of this world? hath not God made foolish the wisdom of this world?"

The masks under which the wisdom of the ancients is represented, having been mistaken for reality, have been made use of as pretty trifles to amuse the children of the moderns; as Scripture predicts, but not without allusion to the advent of the times when those children will take off the masks, and hold forth the hidden things behind them.

We have now to consider the following of diseases and death in the train of Pandora, or as a necessary consequence of the introduction of the arts into the world.

Mortals at first a blissful Earth enjoy'd,
With Ills untainted, nor with Cares annoy'd,
To them the World was no laborious Stage,
Nor fear'd they then the Miserys of Age;
But soon the sad Reversion they behold,
Alas! they grow in their Afflictions old;
For in her Hand the Nymph a Casket bears,
Full of Diseases, and corroding Cares,
Which open'd, they to taint the World begin,
And *Hope* alone remains entire within.

Such was the fatal Present from Above,
 And such the Will of cloud-compelling *Jove*.
 And now unnumber'd Woes o'er Mortals reign,
 Alike infected is the Land, and Main.
 O'er human Race Distempers silent stray,
 And multiply their Strength by Night and Day ;
 'Twas *Jove's* Decree they should in Silence rove ;
 And who is able to contend with *Jove* !

We again observe another beautiful example of the ancient custom of the personification of inanimate things, in the casket full of diseases, as if they had been living things, which made their escape when the box was opened. The remaining of hope entire within, seems to allude to the desolating disease of consumption, in which the victim continues fondly to arrange plans for the future, until stern death asserts his right. As consumption may justly be styled the king of diseases, it would seem that for the perfection of the picture there ought to be direct allusion to it.

It must be particularly observed that the allegory of Pandora is significant of diseases and death having been the consequence of the use of mineral substances by man, in whatsoever way, and especially as food, or otherwise received into the body: this is well shown in the sacrifice, its chief branch. But this great circumstance has been concealed from the mind of man: the knowledge of this fled away with the wisdom of ancient Egypt, of which it formed the grand centre of emanation. Thus diseases have been introduced into the world; they affecting not only the animal kingdom, but also the terrestrial

system, as confined to the earth, and the vegetable kingdom ; in fine, all nature is deranged :

And now unnumber'd Woes o'er Mortals reign,
Alike infected is the Land, and Main.
O'er human Race Distempers silent stray,
And multiply their Strength by Night and Day ;
'Twas *Jove's* Decree they should in Silence rove ;
And who is able to contend with *Jove* !

Disease
reigning
in the
terrestrial,
vegetable,
and
animal,
kingdoms.

The infected or morbid condition of the land is every where observable ; first, where it is volcanically affected ; in some instances, more particularly, by its filthy condition, as in bogs ; in others by its savage barren state ; and even where it is productive, by the very confused and disordered manner in which its creatures come forth, unless by man's constant superintendence ; exercised also in the protection of the goodly plants against the noxious ones, ever striving to overwhelm them. Look we into the forest, there is found the greatest possible confusion of plants and trees indiscriminately crowded together, and each striving to attain a greater altitude than its neighbour, in order to obtain more light and air : and individually so weak as not to be able to support themselves without that assistance which by their crowded condition they mutually afford each other.

Then we observe that disease, in its various forms, also reigns amongst the vegetable creatures. The old trees are affected with internal corrosion, by which their substance is consumed, and they are reduced to the empty shadow of their former greatness : this is the consumption of the vegetable king-

dom. Others are affected with tumours and enlargements resembling those which occur in the animal body; also diseases of the bark, and many others, might be traced.

In the ocean we observe the same dire confusion of creatures; these only prolonging their unhappy existence by swallowing up each other. Disease also greatly prevails amongst the animals of the deep, and they are much tormented by smaller creatures feeding on their bodies.

And multiply their Strength by Night and Day.

It is evident that diseases have so multiplied their strength, or become more widely diffused, from the commencement to the present moment.

'Twas *Jove's* Decree they should in Silence rove.

This is an allusion to the progression of diseases unobserved by man, as to their chief causes. It was decreed that man's eyes should be diverted from their chief source.

Prometheus has now instituted a system by which the earth is to be incessantly tormented, persecuted, and oppressed, but without depriving it of the power of ultimate recovery. It was ordained that the earth, from whom all things sprung, should reward the good acts of man with good gifts, that is, as long as man continued obedient to the ordinances of nature, she should put forth nothing noxious or without order. But that when man transgressed her ordinances, by lifting his hand against her, she should then send forth creatures to do to man's body as he had done to hers, by which, and other-

wise, a similar effect to that produced on her body should be brought about in his. The similitude of this is shown in the allegory of the punishment of Prometheus :

Prometheus bound with hard inextricable Chains
To a large Column, in the midmost Part,
He bore his Suff'rings with a dauntless Heart ;
From *Jove* an Eagle flew with Wings wide spread,
And on his never-dying Liver fed ;
What with his rav'nous Beak by Day he tore
The Night supply'd, and furnish'd him with more :
Great *Hercules* to his assistance came,
Born of *Alcmena* lovely footed Dame ;
At first he made the Bird voracious bleed,
And from his Chains the Son of *Japhet* freed.

In this beautiful allegory the body of Prometheus is made to represent the earth ; the eagle being taken for the similitude of Prometheus : thus the eagle is commissioned to do to Prometheus as he does to the earth. The earth, to us, is omnipresent, and cannot run away from its persecutors, therefore Prometheus is bound to a column. The tearing and mangling by the eagle does not kill or destroy the body of Prometheus, because his operations upon the earth are not destructive to it ; and we observe that the flesh grows as it is consumed, representing the perpetual elaboration of matters by the earth, for the uses of nature, but which Promethean man takes away for the purposes of art. Ultimately the body of the man is relieved from torment, in like manner as the earth also is restored to its integrity. Hercules, Jove's son, attacking the eagle to relieve Prometheus, is figurative of the annihilation of the

evil conditions, as allegorically depicted in the labours of Hercules, and thus by the abolition of art, restoring the reign of nature, and so relieving the earth from persecution. Hercules is the personification of a condition prevailing in the new world, and does not mean a human being, any more than his father Jove does, or his mother Alcmena; which last signifies the world which supported the condition denominated Hercules. Alcmena is called lovely footed; the earth, here, being sublimely regarded as the world's foot, the atmosphere and the celestial fire constituting the superior parts.

Pandora was a great mother, but not a mother of men: nature was the mother of all good, but Pandora was the mother of all evil. Nature was the mother of life, but Pandora was the mother of death, of all the false gods, of all the low and hurtful plants and noxious animals, which, by changing the ordinances of nature, she caused to come forth. Thus it is indeed startling to reflect, that when, by the Promethean system, man ate and drank of the earth, animals came forth which, in like manner, preyed upon man's body, even to the taking up of their abode within it, as man did within the substance of the earth. Man's body has its miners; the pique nigua and the guinea worm, for example, make their way into the body, and reside and wander between the flesh and the skin, as man does between the upper covering of the earth and the mineral stratum. In all climates animals prey upon man's body, and reside within it. Having, in some instances, been produced both within and without the body by the introduction and application of earthy and other im-

Animals
living
within,
and prey-
ing upon,
the bodies
of other
animals.

proper matters. And which animals being thus generated by the body, naturally live on it. This was by a wise, and great, and merciful ordination, as appears from the wide view of such institution, as in its absence worse consequences to the body must have arisen.

Here is a great law of nature : man, heaven-born, as described in the chapter on the creation, proceeding from the vegetable, depends on it for his nourishment. The carnivorous animal, proceeding from the dissolution of animal matter, destroys and devours animals for the support of his body. Herbivorous animals, arising from the dissolution of vegetation, feed on herbs : those created from both these sources feed indifferently on herbs and flesh. Thus each animal is naturally led to the mother substance for its support ; and deviating from this rule, its body becomes diseased.

Thus we observe that the more dirtily the body exists, the more it is contaminated with earthy matter, the more it is assailed by loathsome creatures ; and even under the better conditions it is only by constant attention that they are kept at a distance. This rule, we observe, applies to the bodies of vast numbers of creatures, whether on land or in the ocean found. And the more they are slothful, in proportion are they tormented. The hideous bat, that shuns the light of day, and hides in holes till night's dark veil is spread, wonderfully swarms with vermin, and is, perhaps, the filthiest and most wretched creature in existence ; its presence pollutes the air.

The death of animal bodies causes the coming

into existence of other animals of a lower order and smaller size. This is a law whose operation is constantly observed. A similar law also appears to prevail in the vegetable kingdom, by which a smaller and inferior vegetation arises from the destruction of the nobler kinds. Decomposing animal bodies always swarm with loathsome creatures; these now arise chiefly, but not entirely, from the deposited eggs of parent creatures. It appears that decomposing animal matter does always generate some form of animal life, and that all the creatures whose coming into existence it favors, did originally derive their being in this way. We also observe that decomposed vegetable and animal matters mixed with water and earth in the formation of putrid mud, is also, under favorable circumstances, as when aided by the warmth of the sun, wonderfully productive of vile creatures. This is what we observe now to be taking place, therefore it must naturally be supposed that, formerly, when nature was more vigorous, and this law in more powerful operation, larger creatures were the result. There is the greatest reason to believe that nature has caused all the lower creatures to come forth in accordance with this, her created law, operating in a manner which has now ceased, or rather changed.

The ancient Egyptians have symbolized this circumstance of the world, in the person of Typhœus, who, when intended to be representative of this ordinance of nature, is figured with a human head, his body partaking of various natures, from above downwards, and lastly assuming that of the serpent. Thus representing the course of degeneracy from a

higher to a lower state of existence ; such as nature shows has operated, and is still, in some degree, in operation.

Here it is necessary to observe that the first animate creatures are not of flesh and blood, like labouring man ; but, as nature shows, different in substance, inasmuch as the substance of the primeval earth differs from that of the old world. From the dissolution of the bodies of these creatures, it must naturally be supposed that consequences differing from the result of the death of labouring man and animals arose. Therefore, when we observe the decomposition of animal matters giving rise to the existence of vile creatures, we need not wonder that higher and larger animals should formerly have been caused to come forth in the same way.

The engraving on the crown of Pandora is very evidently symbolic of the circumstance of art, by interfering with the works of nature, having thus caused the lower creatures to come into existence. Hesiod describes the crown of Pandora as having engraved on it, many works of curious craft, wonderful to behold ; other compartments being occupied with innumerable land animals, and an infinity of different forms of the fish tribe. Which Cooke renders after this manner :

There seem'd to scud along the finny Breed,
And there the Beasts of Land appear'd to feed ;
Nature and Art were there so much at Strife,
The Miracle might well be took for Life.

The wisdom of Egypt mysteriously relates, and the voice of nature declares, that the earth was ori-

ginally all peopled with the highest vegetable and animate creatures. Now then we see that if, when death was introduced into the world, provision had not been made by which the putridity and corruption arising from decomposing vegetable and animal bodies, were to be taken up and absorbed, and to live under a different form, earth, air, and water, must have become so polluted as to have been destructive to all vegetable and animal life as now existing in the world.

In reference to this subject it is curious to observe what the ancient historians relate respecting the coming into existence of some of the lower creatures. Diodorus Siculus speaks of the generation of mice in the vegetable and animal slime left by the overflowing of the Nile, about Thebes; in which, he says, the process of formation might be witnessed, as of innumerable other noxious creatures. It is commonly related in history that every year after the subsidence of the inundation of the Nile, mice did come forth in prodigious and otherwise unaccountable numbers, such as, had it not been for the great numbers of cats kept by the Egyptians, must have rendered the land uninhabitable. This was the reason why the priests rightly taught the people so to reverence the cat that its life was as highly valued as that of a human being; because by its means the life of the human being was preserved. Pliny describes the manner in which various creatures, in ancient times, were caused to be generated by the putrefaction of mixed vegetable and animal matters. Other ancient authors also comment on the same subject. Such relations as these have been wont, by the moderns, to be regard-

Plin.
Hist. Nat.
L. xi. c.
xx.

ed as fabulous ; which may easily be imagined when abstractedly considered. But when, in connection with collateral circumstances, a more extensive and liberal view is taken, they appear far otherwise. It does not follow that, because such things were in ancient times, nature should still be so clearly observed to be operating in the same way. Had not the putridity and corruption of the mud of the Nile, then, been employed in the creation of myriads of living creatures, its diffusion through the air would have desolated Egypt of its human population.

This is creation out of the slime of the earth. We read of man also, being created out of the slime of the earth ; that slime resulting from the dissolution of part of the original earth with its creatures. Labouring man appears to have been so created ; hence the epithet "earth born," in contradistinction to the heaven born creature ; hence also those remarkable words : "man, that is a worm."

JOB XXV.

6.

The first creation we have traced to a higher source.

Origin of
noxious
plants and
animals.

There is reason to believe that at the time alluded to, men possessed great knowledge of the manner in which different species of the lower creatures might be caused to come forth, and that they did sometimes vindictively or wantonly, so cause their coming into existence. This circumstance seems to be alluded to in the following passage from this vision of Ezekiel : "And he said unto me, Go in, and behold the wicked abominations that they do here. So I went in and saw ; and, behold, every form of creeping things, and abominable beasts." Here it is declared that all creeping, ignoble, and hurtful

EZEK.

VIII. 9.

creatures have been caused to come into existence by artificial interferences with the system of nature ; as nothing abominable could have resulted from her own ordinations. By this it must be understood that man formerly had the power of originally bringing creatures into existence ; and we do not know to what extent he may have possessed and exercised that power, with respect to the lower creatures.

We observe that, where there has been a restoration of the earth's integrity by the volcanic process, the goodly vegetation comes forth, with the absence of grass and noxious weeds : from the former of which the goodly plants fly with horror, or from that morbid condition of the earth which gives rise to it, with its loathsome root-feeding creatures. Than grass nothing is more hurtful to the fruit-bearing trees ; they never thrive over that condition of the earth which exists with it. But every where over and about filthy dung-heaps and matters artificially collected, the noxious vegetables spring forth, and serpents and vilest creatures breed. It was evidently from knowledge of this, that that ancient custom of sowing the lands of the enemy with salt arose, which is mentioned in the forty-fifth verse of the ninth chapter of Judges : where it is related that Abimelech, having destroyed the city of Shechem, sowed the lands with salt. That was to cause the land, which was then fertile and clear from noxious weeds and reptiles, or little infested with them, to bring them forth in vast crowds, so as to render it difficult of cultivation, which previously was scarcely required : and under all circumstances, the sowing with salt must for long have been hurtful

Shechem
sowed
with salt.

to the higher order of vegetation. No doubt, experiments or observations, regarding this circumstance, made in such places as the woody region of Etna, would lead to such results as to place the above position beyond dispute, were it in want of such support from the absence of the voice of nature.

Death being now brought into the world, it was necessary that the vegetable creatures of the earth should be endowed with the power of self-restoration, not previously possessed by them. For this fruits must have their own seeds within them, a condition which, unless regulated by man, must be productive of frightful confusion. Accordingly lands, now not set in order by the sweat of man's brow, are to him uninhabitable in consequence of the disordered condition of the vegetable kingdom. He must first wage war with it. The same with respect to the animal kingdom, not excepting his own species; war and slaughter have ever of necessity attended his progress through the Promethean world; according to that scriptural prophecy in which Isaac says to Esau: "by thy sword shalt thou live;" Esau being a personification of the fallen world. Independently of the havoc of war, the maintenance of military establishments holds a most powerful curb on the increase of population. Without the endowment of the power of self-restoration in the vegetable kingdom, by means of seeds, it is seen that man would not have been afforded sufficient facility for the restoration of vegetation where by him laid waste, and for the substitution of the good for the useless kinds.

GEN.
XXVII.
40.

It was now also necessary that the animate kingdom should be endowed with the power of self-restoration; not previously possessed. Because nature was instituted on the principle of immunity from death, as long as her ordinances continued to be obeyed: and the world being completely peopled, in the absence of death, there wanted no increase of creatures: nature being employed in the support of those she had created. Great vestiges remain showing that the ancients fully understood this: as when Hesiod says, "And thus 'twas *Jove's* command, the Sex began." Here he alludes to that change, which took place in the vegetable and animate kingdoms when death was introduced into the world, which Moses describes.

When the machinery of the body, or the animal machine, has become so corrupted, corroded, and aged or deranged, by earthy and improper matters, as to be no longer capable of performing its functions in such a way as is necessary for the support of the vital flame, the body dies. Thus it is of very common occurrence that from earthy matter deposited about the openings of the heart, the body dies suddenly, almost as if struck by lightning. In other numerous instances the deposition takes place in the substance forming the coats of the blood vessels, by which they lose their natural elasticity and are converted into partially solid tubes, thus becoming liable to rupture from the natural exertions of the body. The hands too of aged persons are commonly distorted almost to uselessness by accumulations of earthy matter about the joints of the fingers. Then again from the same cause occurs

Cause of
sudden
death.

corrosion and destruction of the vital organs, as of the lungs in consumption. Preternatural growths, inflammations, and morbid wastings of parts also occur, in consequence of the injurious influence of matter direct from the earth, crude and unpurified, upon the body ; introduced by means of ingestion, respiration, and absorption from without, by which it is ruined and the vital flame extinguished.

Age and Death owe their origin to corruption of the body, by which its vital functions are deranged. When the earth, by death, receives back the body, withdrawn from animate life, it, in its offspring, still leaves a part of itself living in the world. Intersexual reproduction, or procreation, consists in a wonderful process of purification : the parent, in its offspring, sends forth a creature more perfect, purer, better, than itself : therefore the young are more beautiful than the old. For the purpose of maintaining the proper purity and goodness of the race, was man blessed with the power of intersexual procreation ; as Moses relates, by a section of his body.

Woman
of
Babylon.

In the seventeenth chapter of the Revelation of Saint John we find an allegorical representation of art and her evil progeny, similar to the Pandora of Hesiod : it is thus described : " And I saw a woman sit upon a scarlet-coloured beast, full of names of blasphemy, having seven heads and ten horns. And the woman was arrayed in purple and scarlet colour, and decked with gold and precious stones and pearls, having a golden cup in her hand, full of abominations and filthiness." Here, as in Pandora, we observe that art is represented under the similitude of

a woman, that is because art is the producer, or the mother, of all the evils which afflict the fallen world. The woman is, again, like Pandora, decked with gold and precious stones. The scarlet-coloured beast on which she sits, signifies the intervention of the beast between man and the earth. It points to the circumstance of man having been caused to become a feeder on the flesh of the beast, as opposed to primeval ordinance. The condition called Esau, that of labouring man, is supported by the beast; but that of Jacob, or man living in a state of nature, before the introduction of art into the world, is supported by the tree of life. And the golden cup which she holds in her hand, full of the evils of the fallen world, is the same as the casket of Pandora. This allegory, like that of Pandora, is a personified illustration of the condition which art has imposed upon man, or brought into existence in the world.

Thus then the age Pandoric, or Promethean, over prostrate nature rudely reigns. We have said that the earth for like would render like. Having shown that art commenced with fire, it now remains to be seen how, when she has arrived at the appointed limit, where her discoveries end in what her first began, nature aroused, all armed with fire arises, and trampling down her foe, takes back the powers she stole. For this we turn to the contemplation of the Titanian and Typhœan Battles.

CHAPTER V.

OF THE WAR OF THE TITANS.

Theo-
gony.

THE Brothers *Briareus* and *Cottus* lay,
 With *Gyges*, bound in Chains, remov'd from Day,
 By their hard-hearted Sire, who with Surprise
 View'd their vast Strength, their Form, and monstrous Size :
 In the remotest Parts of Earth confin'd
 They sat, and silent Sorrows wreck'd their Mind ;
 Till by th' Advice of *Earth*, and Aid of *Jove*,
 With other Gods, the Fruits of *Saturn's* Love
 With *Rhea* beauteous dress'd, they broke the Chain,
 And from their Dungeons burst to Light again.
Earth told them all, from a prophetic Light,
 How Gods encount'ring Gods should meet in Fight,
 To them foretold, who stood devoid of Fear,
 Their Hour of Vict'ry and Renown was near ;
 The *Titans*, and *Saturnian* Race, from far
 Should wage a dreadful and a ten Years War.
 The *Titans* bold on lofty *Othrys* stand,
 And bravely glorious dare the Thund'rer's Hand ;
 The Gods from *Saturn* sprung ally their Powr ;
 (Gods *Rhea* bore him in a fatal Hour.)
 From high *Olympus* they like Gods engage,
 And dauntless face, like Gods, *Titanian* Rage.
 In the dire Conflict neither Party gains,
 In equal Ballance long the War remains ;
 At last by Truce each Soul immortal rests,
 Each God on Nectar and Ambrosia feasts ;
 Their Spirits Nectar and Ambrosia raise,
 And fire their generous Breasts to Acts of Praise ;
 To whom, the Banquet o'er, in Council join'd,
 The Sire of Gods and Men express'd his Mind.

Gods who from *Earth* and *Heav'n*, great rise, descend,
 To what my Heart commands to speak attend :
 For Vict'ry long, and Empire, have we strove,
 Long have ye battel'd in Defence of *Jove* ;

To War again, invincible your Might,
 And dare the *Titans* to the dreadful Fight ;
 Of Friendship strict observe the sacred Charms,
 Be that the Cement of the Gods in Arms ;
 Grateful remember, when in Chains ye lay,
 From Darkness *Jove* redeem'd ye to the Day.

He spoke, and *Cottus* to the God replys ;
 O venerable Sire, in Council wise,
 Who freed Immortals from a State of Woe,
 Of what you utter well the Truth we know :
 Rescu'd from Chains and Darkness here we stand,
 O Son of *Saturn*, by thy powrful Hand ;
 Nor will we, King, the Rage of War decline,
 Till Powr, indisputable Powr, is thine ;
 The right of Conquest shall confirm thy Sway,
 And teach the *Titans* whom they must obey.

He ends, the rest assent to what he says,
 And the Gods thank him with the Voice of Praise ;
 He more than ever feels himself inspir'd,
 And his Mind burns with Love and Glory fir'd.
 All rush to Battle with impetuous Might,
 And Gods and Goddesses provoke the Fight.
 The race that *Rhea* to her Lord conceiv'd,
 And the *Titanic* Gods by *Jove* reliev'd
 From *Erebus*, who there in Bondage lay,
 Ally their Arms in this immortal Day.
 Each Brother fearless the dire Conflict stands,
 Each rears his fifty Heads, and hundred Hands ;
 They mighty Rocks from their Foundations tore,
 And fiercely brave against the *Titans* bore.
 Furious and swift the *Titan* Phalanx drove,
 And both with mighty Force for Empire strove :
 The Ocean roar'd from ev'ry Part profound,
 And the Earth bellow'd from her inmost Ground :
 Heav'n groans, and to the Gods conflicting bends,
 And the loud Tumult high *Olympus* rends.
 Now *Jove* above the rest conspicuous shin'd,
 In Valour equal to his Strength of Mind ;
 Erect and dauntless see the Thund'rer stand,
 The Bolts red hissing from his vengeful Hand ;

He walks majestic round the starry Frame,
 And now the Light'nings from *Olympus* flame ;
 The Earth wide blazes with the Fires of *Jove*,
 Nor the Flash spares the Verdure of the Grove.
 Fierce glows the Air, the boiling Ocean roars,
 And the Seas wash with burning Waves their Shores ;
 The dazzling Vapours round the *Titans* glare,
 A Light too powrful for their Eyes to bear !
 One Conflagration seems to seize on all,
 And threatens *Chaos* with the gen'ral Fall.
 From what their Eyes behold, and what they hear,
 The universal wreck of Worlds is near ;
 Should the large Vault of Stars, the Heav'ns, descend,
 And with the Earth in loud Confusion blend,
 Like this would seem the great tumultuous Jar :
 The Gods engag'd, such the big Voice of War !
 And now the batt'ling Winds their Havock make,
 Thick whirls the Dust, *Earth* thy Foundations shake,
 The Arms of *Jove* thick and terrific fly,
 And blaze and bellow thro the trembling Sky ;
 Winds, Thunder, Light'ning, thro both Armys drove,
 Their Course impetuous, from the Hands of *Jove* ;
 Loud and stupendous is the raging Fight,
 And now each warrior God exerts his Might.
Cottus, and *Briareus*, who scorn to yield,
 And *Gyges* panting for the martial Field,
 Foremost the Labours of the Day encrease,
 Nor let the Horrors of the Battle cease.
 From their strong Hands three hundred Rocks they throw,
 And, oft' repeated, overwhelm the Foe ;
 They forc'd the *Titans* deep beneath the Ground,
 Cast from their Pride, and in sad Durance bound ;
 Far from the Surface of the Earth they ly,
 In Chains, as Earth is distant from the Sky.

In order to show the signification of this battle-scene, it is necessary first to explain what is meant by the personages represented as being engaged in combat: these are personifications of physical con-

ditions. Saturn is a personification of that condition in which the earth spontaneously supplies the exigencies of man, and in which nature reigns undisturbed by art. When man, by the institution of art has, by disturbing the works of nature, brought an inferior condition into existence, the world is no longer called Saturn: but the inferior condition into which Saturn has so degenerated is now denominated Jove, the son of Saturn. Hesiod also personifies the parts of nature under Saturn, and then he represents, as other persons, the same parts of nature under Jove. Thus under Saturn the earth is called Gyges, the vegetable kingdom, Briareus, and the animal kingdom, Cottus. Under Jove the inferior condition of the earth is called Rhea, and the inferior vegetable and animal kingdoms are styled the race of Rhea.

The Brothers *Briareus* and *Cottus* lay,
With *Gyges*, bound in Chains, remov'd from Day.

This signifies that the Saturnian vegetable and animate creatures have returned to the earth, and given place to others of a different nature. This is beautifully representative of the existing condition: in the inferior age the Saturnian creatures may well be said to exist in the interior of the earth, as is really the case with the substance which composed their bodies. The Saturnian earth, called Gyges, was also considered to be entombed in the inferior earth: this is also a correct representation; nature having withdrawn from the earth the conditions which formerly existed, which were thus, as expressed, removed from day.

Thus Hesiod personifies the different parts of the machine of nature as the good powers, or conditions. The Titans are representative of the evil conditions, those which, by the transgressions of man, have been imposed upon nature, and by which her operations are impeded. They are called giants, in allusion to the great, stony, and waste mountains, they being most gigantically representative of the ruin of nature.

This battle story is an allegorical picture in which nature, or the earth, is represented as striving against the evil conditions imposed on it by man's operations in the world, for the restoration of its fertility by means of fire. In this allegory the good powers personified are set forth as striving against the evil conditions also personified. The effect of art is to overthrow nature, and by its erection to cast down these her powers. Thus when, by the conditions brought into existence by art, the land is rendered waste and sterile, these powers are beautifully represented as being cast down into the earth; hence the words :

The Brothers *Briareus* and *Cottus* lay,
With *Gyges* bound in Chains, remov'd from Day,
In the remotest Parts of Earth confin'd
They sat, and silent Sorrows wreck'd their Mind.

These powers existing under Saturn's reign, in alliance with those derived from them as existing under the reign of Jove, the descendant of Saturn, are supposed to unite their forces against the evil conditions, or those resulting from art; which are called Titanian gods, and who the ancients represent

to have sprung from the earth without the aid of nature, that is, that the Titans signified in reality, those conditions which man brought into existence by making use of the matters of the earth in opposition to nature.

This great picture exhibits an exact representation of all the terrific circumstances attendant on a conflagration of the earth, which it is covertly intended to illustrate. Hence by the words,

One Conflagration seems to seize on all,

the Titans are described as burning furiously; that being indicative of the violent combustion of the stony mountains.

During such a convulsion it is evident that a vast portion of the inhabitants of the world would be destroyed by fire, and otherwise annihilated; so that there could be but few people left living on the earth. A great portion of the atmosphere would be rendered irrespirable to animals; and, by the raging of the lightnings through the air at a vast distance from the conflagrant region, devastation would sweep over the earth. To which the following words of the twenty fourth chapter of Isaiah evidently allude: "Therefore hath the curse devoured the earth, and they that dwell therein are desolate: therefore the inhabitants of the earth are burned, and few men left."

We have now to contemplate that part of the picture which represents the evil conditions as being entirely annihilated and cast down, and the vegetation of the earth and its animal population almost entirely destroyed. Here we meet with the words:

They forc'd the *Titans* deep beneath the Ground
Cast from their Pride, and in sad Durance bound.

This idea naturally arises from the circumstances attendant on terrestrial conflagration, by which vast regions of the earth are raised to a stupendous height above their former level; so that the site where the Titanian condition existed was in reality left at a great distance beneath the new surface.

Thus the Titanian condition of the earth, or that occasioned by the opposition which art presented to the works of nature, was cast down, and nature's reign restored. This is the reward of the battle as shown in the truce, by the banquet at which the gods feast on nectar and ambrosia; that having allusion to the new regions of the earth, in due time, spontaneously sending forth the goodly vegetation only, by which her inhabitants are deliciously nourished and provided for, and where, in their natural state, they live in rich luxuriance until the future institution of the degenerate conditions.

The close correspondence of the representation set forth in the following passages from the eighteenth Psalm, is such as to justify the conclusion that they both allude to the same, or a similar event. "Then the earth shook and trembled; the foundations also of the hills were moved and were shaken, because he was wroth. There went up a smoke out of his nostrils, and fire out of his mouth devoured: coals were kindled by it. He bowed the heavens also, and came down: and darkness *was* under his feet. And he rode upon a cherub, and did fly; yea, he did fly upon the wings of the wind. He made darkness his secret place: his pavillion

round about him *were* dark waters *and* thick clouds of the skies. At the brightness *that was* before him his thick clouds passed ; hail-stones and coals of fire. The LORD also thundered in the heavens, and the Highest gave his voice ; hail-stones and coals of fire. Yea, he sent out his arrows, and scattered them ; and he shot out his lightnings, and discomfited them. Then the channels of waters were seen, and the foundations of the world were discovered at thy rebuke, O LORD, at the blast of the breath of thy nostrils."

Here, the commencement and progress of the burning of the world is also set forth with stupendous magnificence. It is represented beginning, as nature shows it must, with great earthquakes and fierce volcanic eruption : "the earth shook and trembled, and fire out of his mouth devoured." The words, "He bowed the heavens also, and came down," express the descent of the celestial fire ; the Power of the Supreme Being, which exists in the empyreal fire, came down ; according to this expression of Scripture : "The mountains quake at him, and the hills melt, and the earth is burnt at his presence, yea, the world, and all that dwell therein." The last passage, speaking of the discovery of the foundations of the world, is illustrative of the mighty severing of the land by the internally operating force.

Hesiod mysteriously relates that the earth, or that great portion of it, subjected to the conflagration represented by the Titanian Battle, had so increased in bulk, that a brazen anvil cast from its new surface would occupy nine days in falling, and reach

NAH.
I. 5.

Increase
of earth's
magni-
tude.

the point where the Titanian conflagration commenced, or where the surface of the earth previously was, on the tenth. We must recollect that the anvil would first descend more slowly, and that the rapidity of its fall would increase as it approached the earth. We may form some idea of the probability of the truth of this stupendous representation, when we consider what takes place in volcanic eruptions, especially that, to which I have before adverted, which in 1759 occurred in New Spain, as recorded by Humboldt: when, in consequence of two rivers pouring their waters into the fiery abys through a newly opened chasm, a tract of land ten English miles in extent was raised up, in some places more than five hundred feet above its former level, with thousands of small hills, and six mountains were at the same time thrown up, from thirteen to sixteen hundred feet above the level of the plain. This wonderful effect was caused by the great supply of water afforded by the rivers. Hence on those stupendous occasions represented by Hesiod and Homer, when the sea finds access to the wide spread fire, we may conceive some notion of the mighty consequences which must result. On these occasions the elements of water combining in the formation solid terrestrial matter, greatly increase the bulk of the earth. It is on account of the mighty force which the water of sea lends to terrestrial combustion, that Homer calls Neptune, "strong god of ocean." Another remarkable instance of the raising of the land by subterranean fire, is that of Monte Nuovo, near Naples, which was thrown up in about thirty-six hours, apparently in consequence of

the admission of the waters of the lake Lucrino to the fire. And again in the eruption off the island of St. Michael, a huge mountain was suddenly raised in deep water, whose summit reaching to a vast height above the surface of the sea, formed an island.

Thus, on the consultation of nature do we find that Hesiod has truly represented the conflagrant rising up of the earth. And turning to Scripture we meet with another confirmation of that truth: "And the Lord God of hosts is he that toucheth ^{AMOS} the land, and it shall melt, and all that dwelleth _{IX. 5.} therein shall mourn; and it shall rise up wholly like a flood."

CHAPTER VI.

OF THE WAR OF JOVE AND TYPHÆUS, OF ITS RE-
NEWAL, AND OF THE WAR OF MICHAEL
AND THE DRAGON.Theo-
gony.

WHEN the great Victor God, almighty *Jove*,
 The *Titans* from celestial Regions drove,
 Wide *Earth Typhæus* bore, with *Tart'rus* join'd,
 Her youngest born, and blust'ring as the Wind ;
 Fit for most arduous Works his brawny Hands,
 On Feet as durable as Gods he stands ;
 From Heads of Serpents hiss an hundred Tongues,
 And lick his horrid Jaws, untir'd his Lungs ;
 From his dire hundred Heads his Eye-balls stare,
 And Fire-like, dreadful to Beholders, glare ;
 Terrific from his hundred Mouths to hear,
 Voices of ev'ry Kind torment the Ear ;
 His Ut'rance sounds like Gods in Council full ;
 And now he bellows like the lordly Bull ;
 And now he roars like the stern Beast that reigns
 King of the Woods, and Terror of the Plains ;
 And now, surprising to be hear'd, he yelps,
 Like, from his ev'ry Voice, the Lyon's Whelps ;
 And now, so loud a Noise the Monster makes,
 The loftyest Mountain from its Basis shakes :
 And now *Typhæus* had perplex'd the Day,
 And over Men and Gods usurp'd the Sway,
 Had not the pow'ful Monarch of the Skys,
 Of Men and Gods the Sire, great *Jove* the wise,
 Against the Foe his hottest Vengeance hurl'd,
 Which blaz'd and thunder'd thro' th' æthereal World.
 Th' Almighty rising made *Olympus* nod,
 And the Earth groan'd beneath the vengeful God.
 Hoarse thro' the cœrule Main the Thunder rowl'd,
 Thro' which the Light'ning flew, both uncontroll'd ;
 Fire caught the Winds which on their Wings they bore,
 Fierce flame the Earth and Heav'n, the Seas loud roar,
 And beat with burning Waves the burning Shore ;

The Tumult of the Gods was hear'd afar :
 How hard to lay this Hurricane of War !
 But, *Jove* at last collected all his Might,
 With Light'ning arm'd, and Thunder, for the Fight,
 With Strides majestic from *Olympus* strode ;
 What Powr is able now to face the God !
 The Flash obedient executes his Ire ;
 The Giant blazes with vindictive Fire ;
 From ev'ry Head a diff'rent Flame ascends ;
 The Monster bellows, and *Olympus* bends :
 The God repeats his Blows, beneath each Wound
 All maim'd the Giant falls, and groans the Ground.
 Fierce flash the light'nings from the Hands of *Jove*,
 The Mountains burn, and crackles ev'ry Grove.
 The melted Earth floats from her inmost Caves,
 As from the Furnace run metallic Waves :
 So the Earth melted : and the Giant fell,
 Plung'd by the Arms of mighty *Jove* to Hell.

Typhæus bore the rapid Winds which fly
 With Tempests wing'd, and darken all the Sky ;
 But from the bounteous Gods derive their Birth
 The Gales which breathe frugiferous to Earth,
 The *South*, the *North*, and the swift *Western* Wind,
 Which ever blow to profit human Kind :
 Those from *Typhæus* sprung, an useless Train,
 To Men pernicious, bluster o'er the Main ;
 With thick and sable Clouds they veil the Deep,
 And now destruction cross the Ocean sweep.
 The Mariner with Dread beholds from far
 The gath'ring Storms, and elemental War ;
 His Bark the furious Blast and Billows rend ;
 The Surges rise, and Cataracts descend ;
 Above, beneath, he hears the Tempest roar ;
 Now sinks the Vessel, and he fears no more :
 And Remedy to this they none can find,
 Who are resolv'd to trade by Sea and Wind.
 On Land in Whirlwinds, or unkindly Showrs,
 They blast the lovely Fruits and blooming Flowrs ;
 O'er Sea and Land the blust'ring Tyrants reign,
 And make of earth-born Men the Labours vain.

And now the Gods, who fought for endless Fame,
 The God of Gods almighty *Jove* proclaim,
 As *Earth* advis'd : nor reigns olympian *Jove*
 Ingrate to them who with the *Titans* strove ;
 On those who war'd beneath his wide Command
 He Honours heaps with an impartial Hand.

This battle between *Jove* and *Typhœus* is another allegorical picture in which nature is represented as striving against the condition which has been imposed upon her by man's operations in the world, and of which condition *Typhon* or *Typhœus* is a personification ; as is well seen by *Homer's* description of his origin, as set forth in his Hymn to *Apollo* : in which *Typhon* is represented to have been caused to come forth by wounding the earth. This is an allegorical description signifying that the condition figured by the personage of *Typhon* was gradually brought into existence by the artificial use of the terrestrial substances, and the train of consequences following thereon. And the truth of which, nature most plainly declares. Thus whilst *Pandora* is a personification of the conditions which art brings into existence, as touching all the affairs of life, and the circumstances under which the creatures of the earth exist ; so the *Titans* and *Typhœus*, or *Typhon*, are personifications of the conditions which art imposes upon the earth itself.

This, then, is another Egyptian allegory illustrative of a similar conflagrant terrestrial restoration to that depicted by the conflict between the gods and *Titans*, happening subsequently and of less extent. In the former picture there is an array of many powers in conflict, expressive of more extensive operation ;

in the latter the Omnipotent is represented as striving with an individual power. This picture signifies that after the destruction of art and the restoration of the reign of nature, by means of the Titanian conflagration, fire is again discovered, art arises, and the world returns into that state of degeneracy which existed before the Titanian restoration. This Typhœan battle is again attended by all the circumstances concomitant on conflagrant burning of the earth.

In this allegory, again, the blazing of the giant plainly shows that the monster is merely a personification of the Typhœan or unnatural condition of the earth, against which nature strives, by means of fire, for the recovery of her own proper powers. We observe that, before the engagement, his eyes are described as staring fire-like from his hundred heads; he makes all kinds of horrid noises, which are sometimes so loud that the loftiest mountain shakes. This alludes to the volcanic eruptions and earthquakes, by which it appears that the earth becomes more and more agitated as the time of the conflagration advances. The concussions of Tom-^{Eruption} boro, for example, as related by Raffles, in 1815, ex-^{of} tended themselves to a circumference of a thousand miles; and within the space of three hundred miles around, the most astonishing and alarming effects were experienced. At Java, three hundred miles distant, the sun at noonday was enveloped in impenetrable clouds, and amidst this darkness explosions were heard at intervals which were mistaken for peals of artillery in a naval combat, and vessels despatched to afford relief. This was as the bellowing of the Egyptian Typhœus. ^{Tomboro.}

The signification of this feature of the picture is still more clearly exposed by the translation of Elton, in these lines :

In each amazing head from eyes that roll'd
Within their sockets, fire shone sparkling ; fire
Blaz'd from each head, the whilst he roll'd his glance
Glaring around him.

Than this, allegory could not more clearly or directly represent the burning of the volcanoes.

The burning of the heads of the monster, signifies the bursting forth of the stony mountains in terrific fiery eruption. The earth is kindled from above by means of the stony heads which the mountains present. We meet with the same in the Titanian Battle, in the words,

One Conflagration seems to seize on all :

that is, on all the stony mountains, and all the Titanian condition of the earth.

The nodding of Olympus alludes to the terrible shaking of the earth ; and the rolling of the thunder, and the flying of the lightning through the deep, indicates the submarine eruption. The beating of the shores with burning waves, is not an exaggeration : the intensity of the fire by separating the component parts of water causes its combustion, where in contact with it, and also as expressed, melting of the earth.

At the end of the description of the battle we find a more detailed account of some of the principal evils which have sprung up under the reign of the monster, as storms and tempests, and the lovely fruits and flowers blasted by his pernicious blights.

Lastly, the reign of Olympian Jove is proclaimed with an announcement of the honours he subsequently heaps upon those who warred beneath his wide command. By which is signified, that, the natural condition of the earth being restored, the new land gradually became clothed with the goodly trees, and noble and beautiful plants; the ignoble and noxious ones being absent, as well as the lower creatures. Thus the good powers are honourably restored to the positions from which they had been driven by the evil ones. The ancients named the newly raised and restored earth, Olympus; hence Olympian Jove.

Thus we observe that after the restoration of the earth from the Titanian condition, Japhet, by the discovery of fire, caused the institution of the Typhœan condition, or, as we read, caused the earth to bring forth Typhœus. Again, after the destruction of the Typhœan condition, Prometheus, by the re-introduction of fire, brings into existence the same conditions as were before Typhœus was destroyed, or causes the resurrection of Typhœus, afterwards called Typhon. Accordingly the ancient Egyptians represented Typhon as still reigning. But he was to suffer repeated overthrow.

It is evident that great conflagrant restorations, or resurrections, of vast portions of the earth, such as those above described, have occurred at very distant periods of time. The ancients seem to have believed that such an event happened once in about seven thousand years. It will be seen that we regard only the ancient doctrine respecting the age of the world; which alone is in accordance with

PSA.
XC. 4.

these words: "For a thousand years in thy sight *are but* as yesterday when it is past, and as a watch in the night." The evidences now presented by the face of nature show that, as here declared, a thousand years is as nothing in comparison to the age of the world.

The approaching
fiery restoration
of the
earth.

The subterranean powers are now most actively preparing for another conflagration, which must occur principally in the regions of the Andes and the mountains of Mexico, which are full of volcanoes. This circumstance must have been equally obvious to the ancients; and it seems to be to this that Hesiod mysteriously alludes, when he says that a life, or a second life, has been accorded to the men of the iron age, on

Some happy Soil far in the distant Main :

that is, after those regions have again been made happy by a conflagrant restoration of the integrity of that part of the earth. Volcanic agency is also known to be in very wide operation both beneath the bed of the Pacific, and that of the Atlantic oceans.

The chimnies of Zion, spoken of in the sixth chapter of the second book of Esdras, seem to signify the volcanoes of America: the chimnies of the old Zion, whose fire is to cause the erection of the future Zion, by the ancient poets denominated Olympus, which, no doubt, is near at hand; but nature and history seem to declare that some generations of the Promethean lineage still first await their day. The prophecies of Scripture respecting the degeneration of the world, have not all yet been accomplished.

The effects which have been observed to result from volcanic eruptions, and what has already been said, show very plainly what circumstances must arise on the occasion here alluded to. This passage is also illustrative of the consequences which must be attendant on that great terrestrial convulsion: "And they shall go into the holes of the rocks, and into the caves of the earth, for fear of the LORD, and for the glory of his majesty, when he ariseth to shake terribly the earth." ISA. II.
19.

The same, by Hesiod, is represented with the utmost sublimity and force of language, in this feature of the Typhœan Battle, so correctly and beautifully translated by Elton :

. Vehement and strong
He thunder'd : instantaneous all around
Earth reel'd with horrible crash ; the firmament
Roar'd of high heaven ; the ocean-streams and seas
And uttermost caverns. While the King in wrath
Uprose, beneath his everlasting feet
Trembled Olympus ; groan'd the steadfast earth.
From either side a burning radiance caught
The darkly rolling ocean, from the flash
Of lightnings, and the monster's darted flame,
Hot thunderbolts, and blasts of fiery winds.
Glow'd earth, air, sea ; the billows heav'd on high
Foam'd round the shores, and dash'd on ev'ry side
Beneath the rush of gods.

Here, then, will be prepared a vast country of greater extent than all the present inhabited portion of the land. The earth, after the conflagration, will continue occupied with its own elaborations, by which, in the gradual retirement of the fire, a soil will be formed suitable for the support of vegetation ;

when in due time the great and goodly plants of the earth will be put forth, followed by animate creatures. What the ancients denominate the reign of Saturnian Jove, or the Olympian condition of the earth, must be established. Then, on the restoration of the reign of nature, the creatures of the new earth will exist in that condition which was abandoned in consequence of the establishment of art, or the introduction of death into the world. But, after a very long duration of this condition, art will revive as before, disease and death will be introduced, and this new land, being also severed into continents and islands, will sink into its old degeneracy and wretchedness, which having arrived at the end of its term, another new country will, in like manner, be prepared. Thus will Typhœus, or Typhon, now called the Devil, be cast down and held in bondage, and after a season be loosed again, as represented in the twentieth chapter of Revelation. The division of the land into continents and islands, is the smiting of the house with breaches: "For, behold, the LORD commandeth, and he will smite the great house with breaches, and the little house with clefts." By these houses is meant the earth, in the language of Scripture, with the heavens spread out over it, as a tent to dwell in: the great house, alludes to a restored region of greater extent; the little house, to a restored region of lesser extent.

AMOS
VI. 11.

A similar terrestrial restoration to the battle of Jove and Typhœus, or the same, is clearly represented under a different allegorical veil, in the twelfth chapter of Revelation, in the war between Michael and the dragon.

The woman clothed with the sun, with the moon under her feet, and a crown of stars upon her head, is the old earth, the mother earth, who, as Scripture allegorically relates, being impregnated by the descent of a third part of the sun's fire, and that of the moon, and so in a state of conflagration, is thus ready to bring forth a child, which is accomplished by the descent of a third part of the stars.

The child brought forth is the newly-restored earth; and its being caught up to God, is significant of the great elevation of the face of the new earth, as represented by Hesiod. What is meant by the war in heaven must be explained according to these words: "*It is he that sitteth upon the circle of the earth, and the inhabitants thereof are as grasshoppers; that stretcheth out the heavens as a curtain, and spreadeth them out as a tent to dwell in.*" That is, spreadeth them out over the surface of the earth, for its inhabitants to dwell in; by which we see that heaven here signifies the atmosphere in which we dwell. The elemental war is represented to take place in heaven, or within this tent, that is, in, and on, the earth and in the air. Lastly, the great dragon, or Satan, which Hesiod and Homer represent by Typhœus, is described as being, in like manner, cast down into the earth. Then a loud voice proclaims the advent of salvation, and strength, and the kingdom of God, and the power of his Christ: that is, the resurrection of the earth; what Hesiod and Homer denominate the reign of Saturnian Jove, the advent of which, as described by them, in the Typhœan Battle, is identical with the above allegorical representation. The power of His

ISA.
XL. 22.

Christ, signifies the power of that condition of the world in which nature, or good, prevails with uninterrupted sway.

Thus we see that the blessed heavenly state, is that condition of existence on the face of the new earth above, before transgression finds its way into the world, or life on earth, whilst in the state in which it was when the heavens were first spread out over it as a tent for man to dwell in.

PSAL.
XLVI. 6.

Scripture very remarkably abounds with allusions to these great events, as the following: "The heathen raged, the kingdoms were moved: he uttered his voice, the earth melted." The commencement of this quoted passage is particularly remarkable: there is reason to believe that the great terrestrial conflagrations would always be preluded by tumultuous convulsions amongst the inhabitants of the earth; the conditions which must then exist, greatly favouring the occurrence of such events. Again, Esdras, when desirous of being shown the time at which the wonders of the last days were to come to pass, is told that that shall be the time wherein the Highest will begin to visit the world which he made, when there shall be seen earthquakes and uproars of the people in the world.

II ESD.
IX. 2. 3.

PSAL.
CXLIV. 5.
6. 7.

"Bow thy heavens, O LORD, and come down: touch the mountains, and they shall smoke. Cast forth lightning, and scatter them: shoot out thine arrows, and destroy them. Send thine hand from above; rid me, and deliver me out of the great waters, from the hand of the strange children." Here we observe that the bowing of the heavens,

indicates the descent of the celestial fire. It is the earth, overwhelmed by the deep, as now, which is to be rid and delivered out of the great waters; that is, to be restored to its original condition, in which the waters have no place on its surface. And to be delivered from the strange children, or the fallen race.

"The earth also is defiled under the inhabitants thereof, because they have transgressed the laws, changed the ordinance, broken the everlasting covenant. Therefore hath the curse devoured the earth, and they that dwell therein are desolate: therefore the inhabitants of the earth are burned, and few men left."

ISA.
XXIV.
5. 6.

"Behold, I will send my messenger, and he shall prepare the way before me: and the LORD, whom ye seek, shall suddenly come to his temple, even the messenger of the covenant, whom ye delight in: behold, he shall come, saith the LORD of hosts. But who may abide the day of his coming? and who shall stand when he appeareth; for he is like a refiner's fire, and like fuller's soap."

"And I will rebuke the devourer for your sakes, and he shall not destroy the fruits of your ground; neither shall your vine cast her fruit before the time in the field, saith the LORD of hosts. And all nations shall call you blessed: for ye shall be a delightful land, saith the LORD of hosts." The devourer, destroying the fruits of the ground, is what Hesiod describes under the appellation of Typhœus. Here, the casting down of the evil cause, and the erection of a new country, is most plainly declared.

MAL. III.
1. 2. 11.
12.

"For, behold, the day cometh that shall burn as

MAL. IV. an oven; and all the proud, yea, and all that do
 1. wickedly, shall be stubble: and the day that cometh shall burn them up, saith the LORD of hosts, that it shall leave them neither root nor branch."

MIC. IV. "But in the last days it shall come to pass, *that*
 1. the mountain of the house of the LORD shall be established in the top of the mountains, and it shall be exalted above the hills; and people shall flow unto it." Where it is subsequently declared that, "every man shall sit under his vine, and under his fig-tree; and none shall make them afraid." Extensive regions, by the terrestrial conflagration being raised stupendously above the old land, the earth sends forth her great vegetation for the support of the animate population. Nature shows very plainly that it is in this way that her house will be established, in the last days, in the top of the mountains, that is, on those newly-raised regions of the earth.

In the second chapter of Daniel we find the degeneration and resurrection of the world represented, with little variation, under the same allegory as that made use of by Hesiod and Homer. I allude to this dream of Nebuchadnezzar: "Thou, O king, sawest, and, behold, a great image. This great image, whose brightness *was* excellent, stood before thee, and the form thereof *was* terrible. This image's head *was* of fine gold, his breast and his arms of silver, his belly and his thighs of brass, his legs of iron, his feet part of iron and part of clay. Thou sawest till that a stone was cut out without hands, which smote the image upon his feet *that were* of iron and clay, and brake them to pieces. Then

Nebu-
chadnezzar's
dreams.

was the iron, the clay, the brass, the silver, and the gold, broken to pieces together, and became like the chaff of the summer threshing-floors; and the wind carried them away, that no place was found for them: and the stone that smote the image became a great mountain, and filled the whole earth." Here are the golden, silver, brazen, and iron ages of Hesiod, and the stone which destroyed the image, is representative of the conflagrant destruction of the petrified old earth, annihilating the conditions represented by the gold, silver, brass, and iron, or that into which the higher conditions had degenerated; the stone becoming a great mountain, and filling the whole earth; that is, the earth so assuming its proper dimension in the place previously occupied by it sunk down, degenerate; as before described, according to Hesiod and Homer in the chaotic resurrection of the world. The feet of the image being formed partly of iron and partly of clay, is in allusion to the very extensive employment of iron and clay in the latter age of the world; when clay is used in the formation of houses and all kinds of utensils.

It is very remarkable that Josephus, whilst describing these dreams, makes this observation: "Daniel did also declare the meaning of the stone to the king. But I do not think it proper to relate it: since I have only undertaken to describe things past or things present. Yet if any one be so very desirous of knowing truth, as not to waive such points of curiosity, let him be diligent in reading the book of Daniel; which he will find among the sacred writings." It is evident that Josephus had the

wisest reason for not explaining the meaning of the stone.

The great and general signification of this dream is further shown in the following vision, related in the fourth chapter of Daniel; in which is seen a fruit tree extending itself over the whole earth, and affording nourishment to all creatures. This tree is at length destroyed, the stump only remaining, bound with bands of brass and iron, the earth having become covered with grass. This is most clearly a representation of the former condition of the earth, completely covered with vegetation, when all the trees contributed to man's nourishment. The dead stump of the tree being bound with brass and iron, is to show that man, by interference with the mineral kingdom, has overthrown and annihilated this glorious condition of nature; and the surrounding grass signifies that nature, no longer able to put forth her great vegetation, has provided an inferior kind, in grass and herbs; which may still afford an existence to man. This is what is foretold in the third chapter of Genesis: "Thou shalt eat the herb of the field." The eating of grass, means that the tribes of earth shall eat grass, as they do at the present day, eat grass, by eating wheat, which is the fruit of a grass.

CHAPTER VII.

OF THE WAR OF TROY.

WE observe that the earth is represented as perpetually undergoing changes of condition; first, a complete resurrection or restoration of its integrity is accomplished by a conflagrant destruction of the old world. The new world subsequently becomes degenerate, and undergoes a succession of partial restorations, by means of conflagrations of portions of the earth: but at length another conflagration and complete resurrection takes place as at first; as here declared: "He rebuketh the sea, and maketh it dry, and drieth up all the rivers. . . . The mountains quake at him, and the hills melt, and the earth is burnt at his presence, yea, the world, and all that dwell therein."

NAH. I.
4, 5.

When we see a great range of mountains many of which are burning, as is the case with the Andes and the mountains of Mexico, which abound with volcanoes, it must naturally be supposed that another great terrestrial conflagration is there to take place, by which a new fertile country is to be prepared.

We observe that the conditions and circumstances attendant on these stupendous revolutions of nature was the constant theme of the great poets of antiquity, and which by them was always represented behind the veil of allegory, the ultimate contests between the different existing forces being described as battles, in which nature is always at last triumph-

ant. These are indeed the noblest subjects on which the mind can dwell.

The significations of the allegories of Hesiod and Homer have escaped detection greatly in consequence of their making use of the things, and circumstances, and conditions, of the degenerate world to express those of the new, or the Saturnian world.

Homer's Trojan War is an allegorical, or masked representation of a restorative terrestrial conflagration: apparently the Typhœan War, more circumstantially, and differently set forth. A large volume might be written to show that the War of Troy is an allegorical representation of such a terrestrial revolution; but we shall endeavour to do so by a shorter course.

It must be observed, as before described respecting Hesiod's battles, that Homer's gods are also personifications of the elements, or parts of the universe, and of physical conditions; and that the actions of the deities are the effects of the forces and powers of these, either in the original constitution of things, or in bringing about certain events.

Homer, like Hesiod, personifies the primeval conditions and circumstances of the world, and the forces of nature, as the good powers; these he denominates Trojans. He then personifies the conditions and circumstances of the fallen world, as the evil powers and influences; these constitute the Achaian or Grecian host. Thus, by a conflict between these opposite powers does Homer again represent a war of the elements. Accordingly Homer informs us that the Greeks, sometimes called Argives and Achaians, are the children of Juno.

Juno is a personification of that condition which prevails after that the operations of man in the world have changed the ordinances of nature. Juno is that condition in which the earth is caused to bring forth, or to furnish the means and the material for the bringing forth of creatures, or things, in a manner opposed to, and without the conjoint operation of, the primeval ordinances of nature. When this condition is instituted, then death is brought into the world. Nature shows, as Scripture declares, that by man came death: hence it is seen that Prometheus, already described, but by Homer set forth under the denomination of Ulysses, "the man of many woes, for various arts renowned," is the first born of Juno, and that the conditions and circumstances which he and his posterity bring into existence in the world constitute her family. Juno means the degenerate earth.

Juno
suspended
by a
golden
chain.

Now let us go back two or three thousand years into antiquity and examine the allegoric history of Juno, as represented by the wisdom of the ancients. But, as time and space will not allow a profound investigation of this part of our subject, we shall say no more of it than is necessary for our present purpose.

It is allegorically related that the conduct of Argive Juno, and the continued injurious offence offered by her to Jove, at length becoming insupportable, he had a great quarrel with her; which terminated by his suspending her from the heavens by a golden chain, with a heavy anvil attached to her feet; which was more particularly in consequence of her cruelties to Jove's son Hercules.

This is a very ancient, magnificent, and valuable allegory, which is representative of a terrestrial restitution. The irregularities of Juno are significant of the course of the degeneracy of the world, in the destruction of the primeval ordinances of nature, of which Hercules, Orion, and the rest of Jove's children are representative. The quarrel which Jove had with Juno, is the war of the elements, that is, the conflagration of the earth. The suspending of Juno from the heavens, is the rising up, or the resurrection of the earth in its integrity. The golden chain by which she is suspended is the circle of Hyperion, or the celestial fire distributed in the form of a circle about the earth, as before described. The anvil, attached to Juno's feet, is that part of the old earth which escaped the conflagration; and on which, as it were, the restored earth stands.

ACTS
XVII. 27.

This is an allegory set forth in that facetious or gay style, which pervades all ancient history, Scripture not excepted: from amongst the examples of which may be cited that wherein Saint Paul, speaking of the Deity, says, "If haply they might feel after him and find him." Hence we observe that a long and gloomy face is repugnant to true piety; gaiety and cheerfulness, as distinct from foolishness and levity, constituting a part of human nature. Nature, in her integrity, is the zenith of magnificence and gaiety; therefore subjects appertaining to divine nature should not be set forth in gloomy colours, nor can they so be truly represented.

We will now introduce so much of Homer's description of the battle between the Trojans and

Grecians as, it would seem, after an attentive perusal of what has been said, with the accompanying explanations, must be sufficient clearly to represent to the mind, the signification of the War of Troy : which, as history relates, has now been concealed from the mind of man during a period of more than two thousand years. We shall make use of Cowper's translation of Homer's works, which is the best in the English language. Pope's, which is the commonest, abounds with error, and is interspersed with incongruities of his own invention. The translations of Ogilby and Hobbes are also better than that of Pope.

Soon as the sun new risen from the calm
 And silent Deep, now clim'd the skies, and smote
 With slanting beam, the fields, the gatherers met
 The dead so foul with gore as to be scarce
 Distinguishable, with pure water cleans'd,
 Profusely weeping, on the wains they plac'd,
 But noiseless was their grief, so Priam bade ;
 They, therefore, sad but silent, on the pyre
 Dispos'd, consum'd them and return'd to Troy.
 The Grecians also with afflicted hearts,
 Their slain associates heaping on the pyre,
 Consum'd them, and return'd into the fleet.
 Gray dawn appearing, chosen from the rest
 A band of Greeks arose, and on the plain
 Heap'd round the pile one common tomb, and rais'd,
 For safety of themselves and fleet, the wall
 Around it with high tow'rs, and in the tow'rs
 Strong gates for chariot-pass ; then scoop'd without
 The deep and spacious foss, with pointed stakes
 Thick-planted numberless. So toil'd the Greeks.
 Enthron'd beside the Thunderer, the Gods
 That mighty work survey'd, and, most incens'd,
 Thus Neptune, shaker of the shores, began :

Iliad
 B. vii.

O Jove, exists there on the boundless earth
 Who will henceforth consult us? Turn thine eyes
 To yonder wall, which, no religious rite
 Preliminary first perform'd, the Greeks
 Have raised and compass'd with a foss, to guard
 Their fleet from inroad. Far as orient day
 Shall be diffus'd the glory of this deed.
 While Phœbus' arduous work and mine, the wall
 Built for Laomedon, shall be forgot.

To whom, much mov'd, the Thunderer replied :
 Ah ! what hath Neptune spoken, great in pow'r ?
 That fear, a God, defective in the force
 Possess'd by thee, might feel with juster cause.
 No. Far orient day shall spread thy fame.
 Soon as the Grecians shall have reach'd again
 Their native shores, arising thou, the wall
 Strike flat, and overwhelm it in the deep ;
 Then spread the beach with sand, that neither place
 Nor remnant of the work henceforth appear.

Here the superior powers are represented as surveying the works of the Greeks ; when Neptune expresses a fear, that if *they* be permitted to achieve such great things on earth, the wall built by the sun and himself for Laomedon will be forgotten. Such is the allegorical representation, which we will now translate into plain modern language.

The Greeks are the children of Juno, that is, the children of art, or the conditions by art, or the works of man, brought into existence, as opposed to the children of nature, or the original and natural conditions. The structure built by the sun and Neptune was sacred Troy, that is, the newly-restored earth, of which Laomedon, or nature, was the ruler. Neptune says, O Jove ! if art is allowed to achieve such great works on earth, and to effect such altera-

tions in its state, then will men forget the primeval conditions of nature.

The overwhelming of the Grecian wall by Neptune, has commonly been understood as having allusion to devastation by a flood of water; far indeed from that; here we have to treat of a flood of fire. As soon as the Greeks have arrived at their native shores, that is, as soon as art has arrived at the point beyond which she is not allowed to go, or when the degenerate condition of the earth is to be destroyed, Jove tells Neptune that he must strike the wall flat with his waves: which means that he and the sun must raise another structure, similar to that which they erected for Laomedon, spreading the beach with sand, that neither place nor remnant of the former work appear, which signifies the spreading out of the earth in its new and natural condition.

The commencement of this kind of destruction by Neptune's waves has been allegorically represented by the ancients, by the figure of Jove, as a man, having in his left hand a fasciculus of fire, and in his right a two-pronged fork, with which he opens the earth for the implantation of the celestial fire. Neptune being at the same time in attendance with his trident, beneath whose stroke the earth, now inflamed by the fire of Jove, is rent open, in order that Neptune may pour his waves into the fiery abyss; without which the conflagration cannot be accomplished.

Kindling
of the
earth.

The trident which Neptune is represented holding in his hand, with which he strikes and rends the earth, signifies the subterraneous lightning, by whose blasts the earth is rent and shaken to its centre. The

terrestrial eruptions are always preceded by subterranean explosions, taking place in the vast stony chasms where the fire resides, as I have particularly described in the chapter on volcanoes; which are always near the sea. By the force of such explosions the earth is at length rent, and the sea rushes in, when, by inconceivably destructive combustion, constantly attended with the fiercest lightning and the loudest thunder, the stony and hardened earth is caused to gape in every direction, letting in the liquid fire from the cauldron in which it was before confined; in this way the fire is widely extended, and, by the force of the constantly repeated explosions caused by subterranean lightnings in the fiery abyss, new chasms continue to be opened, and the fire being constantly fed by the sea, the elemental battle rages in the bowels of the earth. The blackest and most impenetrable vapours burst forth into the air, by which all nature is obscured save from the incessant lightning's crooked flash, and flaming earth. Homer has also beautifully illustrated the work of Neptune, in his hymn to that deity :

Neptune, the mighty marine god, I sing ;
 Earth's mover and the fruitless ocean's king,
 That Helicon and th' Ægean deeps doth hold.
 O thou earth-shaker ; thy command, two fold
 The gods have sorted ; making thee of horses
 The awful tamer, and of naval forces
 The sure preserver. Hail, O Saturn's birth !
 Whose graceful green hair circles all the earth.
 Bear a benign mind ; and thy helpful hand,
 Lend all committed to thy dread command.

It must be recollected that water consists of the

union of two dry gases, and that these gases, in combination with other matters, form a great part of the solid substance of the earth. As truly represented by the ancients, the use of fire on the earth causes the liberation of these gases from the substances with which nature combined them, they then coming together in the formation of water. Thus the water of the earth being continually added to by that which is ever generated by all common combustion, is unnaturally increased. Now the terrestrial combustion being of a different nature to that used by man, by separating the dry gases of water, causes them again to enter into the formation of dry terrestrial substances; and in this state of separation they occupy incomparably greater space than when united to form water. More plainly speaking we might say, that the use of fire by man undoes the work of nature, burning the water out of substances; whilst the subterranean fire burns it in, itself combining with it; consequently this kind of combustion cannot go on without a great supply of water. This is why Homer invokes the aid of Neptune in the resurrection of Saturn's kingdom, or the birth of Saturn, when the ocean exists in the interior of the earth; but then it must be borne in mind, as above described; by a separation of the component parts of water, much of the ocean is then caused to exist in a dry state by combining with earthy matter, leaving only a sufficient quantity of water for the maintenance of the earth's moisture. Neptune is called, "of horses the awful tamer, and of naval forces the sure preserver," because in Saturn's kingdom there are no horses or naval forces; they being

annihilated, Neptune preserves them until the degenerate age of the world, when they again come forth. By the graceful green hair of Saturn, Homer alludes to the circumstance of the earth, during his reign, being completely encircled with magnificent vegetation.

Thus we observe that the ancients have represented Pandora wearing a crown whereon are engraved the lower animals : signifying their existence on earth during her reign. But Saturnian Jove is depicted with the animals round the lower border of his garment ; to show that they are beneath his feet, or that they do not come forth until the passing away of the age which he represents. The same is alluded to in the sixth verse of the seventy-sixth Psalm : " At thy rebuke, O God of Jacob, both the chariot and the horse are cast into a dead sleep." The condition of the world, by Hesiod and Homer denominated Saturn, is here called Jacob. Here also the terrestrial conflagration is allegorized by means of a battle, as fought between men ; as is seen in the third verse : " There brake he the arrows of the bow, the shield, and the sword, and the battle." This appears to allude to the Trojan War.

In the twenty-fifth chapter of Isaiah we meet with the exact parallel of Homer's destruction of the Grecian wall ; and this and the preceding chapter treat in plain language of a conflagrant restoration of the integrity of nature. Showing that if this Scriptural representation be not the destruction of the Grecian wall differently set forth, it is a description of the same thing happening, or to happen, on another occasion.

"And it shall be said in that day, Lo, this *is* our God; we have waited for him and he will save us.

.
 "For in this mountain shall the hand of the LORD rest, and Moab shall be trodden down under him even as the straw is trodden down for the dunghill. And he shall spread forth his hands in the midst of them, as he that swimmeth spreadeth forth *his hands* to swim; and he shall bring down their pride together with the spoils of their hands. And the fortress of the high fort of thy walls shall he bring down, lay low, *and* bring to the ground, *even* to the dust."

The saffron-mantled morning now was spread
 O'er all the nations, when the Thund'rer Jove,
 On the deep fork'd Olympian's topmost height
 Convened the Gods in council, amid whom
 He spake himself; and they attentive heard.

Iliad, B.
 VIII.

Gods! Goddesses! Inhabitants of heav'n!
 Attend; I make my secret purpose known.
 Let neither God nor Goddess interpose
 My council to rescind, but with one heart
 Approve it, that it reach, at once, its end.
 Whom I shall mark soever from the rest
 Withdrawn, that he may Greeks or Trojans aid,
 Disgrace shall find him; shamefully chastis'd
 He shall return to the Olympian heights,
 Or I will hurl him deep into the gulphs
 Of gloomy Tartarus, where Hell shuts fast
 Her iron gates, and spreads her brazen floor,
 As far below the shades, as Earth from Heav'n.
 There shall he learn how far I pass in might
 All others; which if ye incline to doubt,
 Now prove me. Let down the golden chain
 From heav'n, and at its nether links pull all
 Both Goddesses and Gods. But me your King

Supreme in wisdom, ye shall never draw
 To earth from heav'n, toil adverse as ye may.
 Yet I, when once I shall be pleas'd to pull,
 The earth itself the sea, and you
 Will lift with ease together, and will wind
 The chain around the spiry summit sharp
 Of the Olympian, that all things upheaved
 Shall hang in the mid heav'n. So far do I,
 Compared with all who live, transcend them all.

He ceas'd but with so terrible a tone
 Had cloth'd his menace, that astonish'd all
 And silent sat, till Pallas thus replied :

Supreme of kings ! our Sire ! we know thy force,
 Saturnian Jove ! resistless ; yet behold,
 With pity mov'd, the Grecians, doom'd at last
 To perish, after all their num'rous woes.
 If thou command, we doubtless, will abstain
 From battle, yet such counsel to the Greeks
 Suggesting still, as may in part effect
 Their safety, lest thy wrath consume them all.

To whom, with smiles, the everlasting Sire :
 Fear not, my child ! stern as mine accent was,
 Mine anger was but feign'd. For in mine heart
 Nought feel I but benevolence to thee.

He said ; and to his chariot join'd his steeds
 Swift, brazen-hoof'd, and man'd with wavy gold ;
 He put on golden raiment, his bright scourge
 Of gold receiving, rose into his seat,
 And lash'd his steeds ; they not unwilling flew
 Midway the earth between and starry heav'n.
 To spring-fed Ida, mother of wild beasts,
 He came, where stands in Gargarus his shrine
 Breathing fresh incense ; there the Sire of all
 Arriving, loos'd his coursers, and around
 Involving them in gather'd clouds opaque,
 Sat on the mountain's head in his own might
 Exulting, with the tow'rs of Ilium all
 Beneath his eye, and the whole fleet of Greece.

Mean-time in ev'ry tent Achaia's sons
 Took short refreshment, and for fight prepar'd.

On th' other side, though fewer, yet constrain'd
 By strong necessity throughout all Troy,
 In the defence of children and f wives
 Ardent, the Trojans panted for the field.
 Wide flew the gates on either side, forth rush'd
 Horsemen and foot, and tumult wild arose.
 They met, they clash'd ; loud was the din of spears
 And bucklers on their bosoms brazen-mail'd
 Encount'ring, shields in opposition firm
 Met bossy shields, and tumult wild arose.

There many a shout and many a dying groan
 Were hear'd, the slayer and the wounded loud
 Exclaiming, and the earth was drench'd with blood.
 Till the sacred morn had brighten'd into noon,
 The volley'd weapons on both sides their task
 Perform'd effectual, and the people fell.
 But when the sun had climb'd the middle skies,
 The Sire of all then took his golden scales ;
 Doom against doom he weigh'd th' eternal fates
 In counterpoise of Trojans and of Greeks.
 He rais'd the beam ; low sank the heavier lot
 Of the Achaians ; the Achaian doom
 Subsided, and the Trojan struck the skies.

Then roar'd his thunder from the summit hurl'd
 Of Ida, and his vivid lightnings flew
 Into Achaia's host.

The superior powers are forbidden to interfere until the conflict between the Trojans and Greeks has proceeded to a certain extent. That is, the war of the elements commences by the subterranean inflammation of the earth, giving rise to great earthquakes and volcanic eruptions. This conflict continues for a great length of time ; when by the descent of the celestial fire, and the general rushing in of the sea, the great work of devastation proceeds with the utmost fury. The letting down of the golden chain is figurative of the descent of the

celestial fire. The drawing up of the earth, the sea, and all, to heaven, alludes to the vast increase of bulk, and rising up of the earth, which is occasioned by the entrance of the fire and water, in a state of warmth and latency, into its composition. The winding of the chain round Olympus, is significant of the distribution of the celestial fire in the circle of Hyperion.

The intervention of Pallas, who is the goddess of art, in favour of the Grecians, alludes to that assistance which nature, though opposed to art, does lend her, and by which the conditions of the age of art in the world are rendered perhaps as tolerable as possible. Thus, although Pallas, other times called Minerva, is the enemy of Jove, as one of the chiefs of the opponent army, Homer still represents him as saying: "Fear not, my child! For in mine heart nought feel I but benevolence to thee."

Weighing
of the
dooms.

The coming down of Jove in golden raiment on to the top of Ida, is representative of the actual descent of the celestial fire; which alights upon the tops of mountains, and inflaming them is conducted down into the bowels of the earth. Accordingly the allegory relates that when the battle recommenced, Jove took his golden scales and weighed the dooms; when the lot of the Grecians went down, and the Trojan was raised to the skies; this signifies that the result of the conflagration was that of the casting down of art, that is, of all the conditions and circumstances which she brings into existence in the world, and the erection of the conditions of nature in her place.

A short digression will be necessary in order fully

to set forth the wonderful signification of the weighing of the dooms. It must be observed that the celestial fire, as the sun, moon, and stars, is maintained in the place it now occupies by the greater weight and density of the earth and its atmosphere, or by the repulsive force maintained by their powers of cohesion. Amongst the Andes and the mountains of Mexico exists a great and unknown number of fiery abysses, called passive volcanoes. When it may be the pleasure of Providence to bring into existence such conditions as suddenly to cause all these volcanoes to burn furiously, and to extend their fire widely around, so that the earth and air be rarefied, and heated to such a degree as to be no longer capable of supporting the celestial fire, by their repulsive force, it must descend, and, wandering through the lower regions, it would meet with the highest points of the earth; or being attracted as fire attracts fire, mingle with the fire below.

Hence Homer says, "when the sun had climbed the middle skies, the Sire of all then took his golden scales." By this he means that when the sun had risen up towards the conflagrant region, where finding a vacuity in its supporting medium, it, or a detached portion of its fire, descended and joined the conflagration below. Nature shows that such would happen. The heat of the sun above, and the burning earth beneath, would open a passage, besides the institution of a line of attraction. The power by which the earth and air expel and repel fire being thus taken away, they would then attract and absorb it. Accordingly Neptune speaks to Jove, of the work accomplished by him and the sun on the oc-

casion of that conflagration of the earth which happened before the War of Troy, or the building of sacred Troy, that is, the former restoration of the earth. The descent of the sun under similar circumstances is indicated in these passages of Scripture: "And it came to pass, that, when the sun went down, and it was dark, behold, a smoking furnace and a burning lamp that passed between those pieces."

GEN.
XV. 17.

"And it shall come to pass in that day, saith the Lord God, that I will cause the sun to go down at noon, and I will darken the earth in the clear day."

AMOS
VIII. 9.

In the early part of the history we observe that the superior powers are forbidden to interfere in the combat, but at last they obtain full permission to join in their forces on either side, so as to bring the battle to a conclusion; when we read as follows:

Iliad,
B. XX.

Thus the Immortals, ever blest, impell'd
Both hosts to battle, and dire inroad caus'd
Of strife among them. Sudden from on high
The Sire of Gods and men thunder'd; mean time,
Neptune the earth and the high mountains shook;
Through all her base, and to her topmost peak,
Ida, spring-fed, the agitation felt
Reeling, all Ilium and the fleet of Greece.
Upstart'd from his throne, appall'd, the King
Of Erebus, and with a cry his fears
Through hell proclaim'd, lest Neptune o'er his head
Shatt'ring the vaulted earth, should wide disclose
To mortal and immortal eyes his realm,
Terrible squalid, to the Gods themselves
A dreaded spectacle; with such a sound
The Pow'rs eternal into battle rush'd.

During the roarings of the thunders in the upper regions, the indescribable explosions caused by fire and water in the bowels of the earth, shake the universe. The upstarting of the king of Erebus is the rising up of darkness out of the fire, whose wide diffusion through the decomposed substance of the earth, now floating in the air, has rendered it non-luminous. When the erebian condition begins to pass away by the future subsidence of the diffused matter, then in its turn the fire arises out of darkness. The light separates from the darkness.

Now we have said enough to show that the Trojan War signifies a resurrection of the earth's system. But further proof might be advanced; for example, we may ask: who did Ulysses find in Tartarus? There, amongst others, he met Hercules and Orion. During the degenerate age of the world, that is, before the War of Troy, Hercules and Orion were constellations in the heavens. Hercules was the destroyer of wild beasts; Orion, with his club of brass, was also a slayer of animals. In other words, Hercules and Orion were allegorically represented to maintain that condition on earth which prevails during Saturn's reign, when there are no lower animals in existence. This condition at length expires in consequence of diminution of the earth's vitality, or natural warmth, which collecting luminously in the upper regions, Hercules and Orion are then said to be deified, and to be made constellations after their death. Then the lower animals come into existence.

Ulysses finding Hercules and Orion in Tartarus, shows that they again reign on earth; that is, that

the fire which formed those constellations, in common with so much of the rest of the celestial fire as is required in the resurrection of the condition called Saturn's kingdom, has again entered into combination with the earth's substance.

The wanderings of Ulysses, led, as he is, by Minerva, the goddess of art, are finely representative of the labyrinth into which man enters when he deviates from the path of glorious nature. Thus Ulysses, after long absence from home, during which he experienced much hardship and innumerable disappointments, being supposed dead, finds his estate in the hands of others.

Another very clear proof that Homer's subject is a restoration of the integrity of nature, is the circumstance that when Ulysses returns to his own country, he finds it so altered that he does not recognise it, and still has no idea where he is. And the prophet Tiresias has told him that after having taken possession of his estate, he will find the country occupied by a people amongst whom he will not be admitted; a people who know nothing of the sea, and have never tasted salt.

The people knew nothing of the sea when there was no water on the surface of the earth, as in its integral condition. They also did not eat salt during the age of perfection. Salt is evidently here mentioned as the first transgression by eating.

Sisyphus. The punishment of Sisyphus is also very interesting; he continually rolls a large stone to the top of a hill, whence it as often rebounds to the bottom. Sisyphus is a personification of the stony condition of the earth, and has allusion to the heaving up of

stone by the earth, in the formation of stony mountains, which, as fast as the earth does, more stone forms below, as long as nature has sufficient power, and it is also raised; but when the earth, from exhaustion, ceases to raise stony mountains, then the stone of Sisyphus stands still. The ancients are represented first to have erected monuments of stone over the dead, in imitation of that savage condition of the earth presenting stony-topped mountains; which regions they denominated the tomb of Jove.

All of this kind are personifications of physical conditions, but some of those conditions having now ceased to exist, or only left vestiges of their existence, the mind does not readily perceive the meaning of many of those figures; in order to learn which, the conditions they allude to must first be understood. By Tartarus it is not meant that there is any such particular place, farther than that all beneath the surface of the earth constitutes it: but locality is figuratively given to Tartarus for the convenience of descriptive depiction.

The shield of Achilles and that of Hercules are also illustrative of the perfection of the world, and the progressive stages of its degeneration, allegorically set forth by means of personifications of the conditions of the earth, and elaborate representations of the changes which, with the lapse of time, those conditions undergo. This, accompanied with similar mystic description illustrative of the changes which follow each other in the circumstances and conditions under which the inhabitants of the earth exist, and by which the affairs of men are regulated.

Shields
of
Achilles
and
Hercules.

Thus contrasting the gloomy and ghastly expiration of the Promethean world with the splendour and magnificence of the integrity of nature.

Homer's
enigma to
Hesiod.

We will now examine the famous enigma, as represented in Plutarch's Banquet of the Seven Wise Men; where it is related on the authority of Lesches, that Homer, in the assembly of the judges, proposed this question to Hesiod:

Say, Muse! the things that never yet have been,
Nor e'er shall be?

To which Hesiod, without hesitation, gave the following answer:

When the hoof-clattering coursers, for the palm
Of victory striving, by the tomb of Jove,
In shivers dash the cars.

It is related that this reply astonished the judges, and gained for Hesiod, the reward of a golden tripod.

This question with its answer, in modern times, have been regarded as impenetrably mysterious; nevertheless we will proceed to show their real signification. These mysterious lines must naturally be supposed to have reference to some great feature of the theme of the compositions of Hesiod and Homer, which are devoted to the depiction of the revolutions of the Promethean and Saturnian worlds, as appears particularly in that remarkable passage of Hesiod, speaking of the muses, the signification of which is so well set forth by Cooke in the words:

Japetus and Saturn went to change they chant.

It is, then, in the response of Hesiod that we must look both for the purport of the question and the signification of the answer.

We observe that the general tendency of art is to overwhelm nature : and that although in the downward course of the world, they do greatly assist each other, and we do derive many advantages from their combined operations and productions, yet all history and experience shows that the progress of art is ever maintained at the expense of nature, and that as the former thrives and flourishes, so the latter must decline and perish. Thus, were it permitted to be so, this race between nature and art would terminate in the extinction of the former, and the triumph of the latter ; but it is destined that such shall never be. Nature forbearingly continues to strive under her oppression, until exasperated even beyond her own controul ; by the annihilation of her opponent powers, she assumes her full and uninterrupted sway : but this victory, it must be observed, is never gained by art. Although, as represented by the ancients, in some regions of the earth, nature is so cast down as to leave nothing but the tomb of Jove to mark the spot where she sat smiling, she does not fail elsewhere to show herself benignant. It never happens that the whole earth is reduced to that sterile condition called the tomb of Jove. But when in the last days of her power, art is furiously rushing on to that end, and shakes the earth beneath her loud and frantic trappings, then nature, scarlet clothed, arrests her course. These are the hoof-clattering coursers, for victory straining, by the tomb of Jove. Excepting art, there is nothing straining for the palm of victory, by the tomb of Jove.

Here is the solution of this mysterious enigma which, it appears, was proposed by Hesiod to Homer, not by Homer to Hesiod, as commonly believed. Thus it appears; because Hesiod was the most renowned for wisdom: he has left a complete history of the world, without detail: Homer commences where Hesiod ends, entering curiously and minutely into detail, particularly as touching the affairs of life. For this reason the *Iliad* and *Odyssey* of Homer are much more voluminous than the *Theogony* and the *Works and Days* of Hesiod.

JUDGES
V. 20. 22.

Parallel in signification with the solution of the above enigma, and with much expressive resemblance, is this scriptural representation: "They fought from heaven; the stars in their courses fought against Sisera. . . . Then were the horse-hoofs broken by means of the pransings, the pransings of their mighty ones."

It is curious to observe what history relates respecting the Romans under Cæsar, visiting the country of Troas and exploring the whole region, without being able to find any ruins of the old Troy. And also of Alexander the Great, who, entertaining the highest veneration for Homer, had resolved to rebuild Troy; but, when he came to the country, could not find out where it originally stood. In earlier times the Greeks are said to have understood Homer's representation as an allegory; but more latterly, with the Romans, they regarded it as reality. It is astonishing that his meaning should have become so lost to them.

Nothing certain is known as to the birth-place of Homer, or the time when he lived: some have sup-

posed that he was born on the borders of the river Meles near Cuma, a town of *Æolia* in Asia Minor. On the other hand, he is represented as an Egyptian, a native of Thebes, and it is related that he took with him into Greece, many traditions and histories, from which he derived the ideas set forth in the *Iliad* and *Odyssey*. Whether or not Homer were a native of Egypt, it is related, on the best authority, that, in company with other great philosophers, he travelled from Greece into that country; where he spent much time, devoting himself to the study of the wisdom of Egypt. All the representations of Hesiod and Homer appear to be of Egyptian origin. It is evident that Hesiod and Homer have been instrumental in modifying representations which existed before their time, in such a manner as to render them intelligible to their posterity.

It is commonly reported by history that in ancient times the highest honours were paid to the memory of Homer, and that his poetry, like that of Hesiod, was so universally admired and studied that every man of learning could fluently repeat the whole of the *Iliad* and *Odyssey*. This, whose truth there seems no reason to doubt, shows that the human intellect must then have been vastly more powerful than at present. Homer's *Iliad* and *Odyssey*, regarded as one work, independently of being a complete history of nature, is so enriched with wise examples, applicable to all times, circumstances, and conditions, and which may be turned to account both in health, and sickness, in prosperity, and in adversity, as to constitute a complete and delightful world of learning. It is, or rather must have been,

when fully understood, in learning, what the Saturnian world is in nature. Hence it is not surprising that his works have been so universally admired and esteemed: we read that Alexander, the Great, was so passionately fond of them that they were never out of his reach: and we find that they have been similarly appreciated by very many eminent men.

Hesiod and Homer were worshippers of the Supreme Being, acknowledging only the one Omnipotent Ruler; as is eminently shown by these lines at the commencement of Hesiod's Works and Days, as rendered by Elton:

COME from Pieria, Muses! that inspire
 The song of praise; the theme your heavenly Sire;
 By his dread hest alike are mortals found
 Obscure, illustrious, fameless, and renown'd:
 With equal ease the Ruler of the sky
 The humble lifts, and casts the proud from high:
 With ease eclipses glory's dazzling ray,
 With ease on abject darkness pours the day:
 And bows the strong in might of their renown
 Wither'd to dust, and rears the bowed down:
 E'en he, the God whose mansions are above,
 High-thundering from the clouds, imperial Jove:
 Now bend thine eyes from heaven, incline thy ear;
 The ways of judgement guide; behold and hear!
 While fain to Perses would my voice essay
 The lore of truth, and breathe th' instructive lay.

This is indeed a pious invocation. Here is a man imploring the divine assistance in order to enable him to place true pictures of virtue and vice before the eyes of his fellow creatures. It is to this end that all the compositions of Hesiod and Homer are

directed. If well understood, they would be found to be in every respect identical with Sacred History : indeed they are sacred writings, treating most reverently of sacred subjects.

This sublime theology of the ancients, which, being thoroughly understood, must have constituted a paradise to the mind, seems to have been overthrown by that pernicious cloud of ignorance which arose, and came over the Greeks and Romans particularly, some time previously to the Christian era ; when sprung up the temple building and image worshipping mania, and the institution of a great variety of foolish and impious festivals, by which the representations of the ancients, properly so called, were perverted, burlesqued, mocked and ridiculed, in such a manner as was calculated to bring the whole into contempt.

Temples appear to have had their origin in this way. As the latter end of the degenerate earth was called the tomb of Jove, so the restored or Saturnian earth was called the temple of Saturn, very properly, as the original meaning of that word is, a sacred structure, not made by hands, not heathen, but such as the new earth. The other works of the Creator were also called temples : in Scripture too we have instances of this as in the third chapter of Malachi : "The LORD, whom ye seek, shall suddenly come to his temple."

Jove was allegorically represented to have temples in the vast deserts of Libya ; which was in reality an allusion to the oases : they were called temples, that is, structures which nature had set up for the habitation of her creatures. This has allusion to a

very remote period of time, and it is not intended that there was then there, any temples made with hands. The larger oases were called temples of Jupiter Ammon, that is, sandy Jupiter's temples; because situated in a vast sandy desert, which itself in common with other similar regions was denominated sandy or Ammonian Jupiter. In like manner as the larger oases were called temples of Jupiter Ammon, so the lesser oases were styled the cities of Ammon.

These oases at the time alluded to by ancient history, appear to have been restored spots in the desert, still retaining their complete fertility, and were called islands of the blessed; as if the original conditions were then there in isolated existence. Nature and history show that the earth in newly restored regions will not support artificial buildings; as is seen also by these words of Scripture:

II ESD.
X. 54. "For in the place wherein the Highest beginneth to shew his city, there can no man's building be able to stand."

In later times, when the meaning of these things became generally concealed by the veil of ignorance, then an infinity of artificial temples arose. It is evident, by history, that at the time alluded to their meaning was only understood by the wise in the wisdom of Egypt, and that generally, and particularly in Greece and Rome, the greatest ignorance prevailed respecting them. Thus, in like manner as tombs were first built in imitation of the stony mountains, so temples were originally built, and named in allusion to the newly-restored regions of the earth, which are the true temples, or cities of God; so called in Scripture.

The more ancient system of the ideal personification of the different parts of nature being misunderstood, and it being desired to get rid of it, and cast it into oblivion, heathen temples were built, and the before only ideal personages, were now manufactured out of wood, stone, and metal, and set forth as deities proper to be worshipped: all which is directly opposed to the ancient wisdom as set forth by Hesiod, Homer, and other wise men. Saint Paul thus reproves and corrects them for this, at the same time reminding them that it is opposed to the doctrines of their own wise men: "Forasmuch then as we are the offspring of God, we ought not to think that the Godhead is like unto gold, or silver, or stone, graven by art and man's device."

ACTS
XVII. 29.

The stories of Homer's poverty are related in the ironical humour of ancient history. It is evident that Homer fully enjoyed all the earthly blessings then bestowed on man: had he suffered mental or bodily affliction, he could not have written so voluminously, and in that style of gay sublimity which distinguishes his works. His society was, by the wise, universally courted to adoration: what was his neighbour's was, as it were, his own; thus he needed not earthly possessions, and probably therefore had none. His greatest trouble, if he had any, must have been that of declining the offerings presented to him, or their disposal to those in need.

In the works of the most worthy learned men of later times, the compositions of Hesiod and Homer are commonly spoken of as affording the most delightful channels through which the best precepts of

morality are conveyed to the mind; and whose noble and dignified discourse naturally inspiring the sentiments of honour and virtue, tends so to elevate the mind of the reader as to cause him to think with abhorrence of all that is base and trivial. That elegance and sweetness of expression; that nobility and elevation of sentiment which pervades their writings, fled from the world with them. Never, as appears by history, was the memory of men more highly, and indeed more deservedly honoured by posterity than that of Hesiod and Homer: Divine Messengers of Truth.

The following epigrammatic prophecy, the fulfilment of which has evidently been ordained by Providence, is beautifully remarkable.

Stars first shall cease to shine; bright *Phæbus* mask
In gloomy night; salt waves grow fresh; his task
The plowman plying, sow the boisterous main,
The dead with those alive converse again
E'er Homer's muse forgotten be, or name
Effac'd from records of eternal fame.

In these prophetic lines respecting Homer's celebrity, the master subject of his poems is glanced at: here, under the mask of allegory, we discover the representation of a terrestrial conflagration, and a resurrection. Which appears to prove, if further proof be necessary, that the war of Troy was anciently understood as we have interpreted it.

First the descent of the heavenly fire is alluded to; then the circumstance of the water of the new earth being fresh, instead of salt as now, so it evidently must be. The ploughman, sowing the

boisterous main, is significant of the Creator causing the earth to send forth new creatures, after that the ocean, or great part of it, has been caused to enter into the formation of dry terrestrial substance, as Scripture says: "And, behold, the Lord God called to contend by fire, and it devoured the great deep, and did eat up a part. Then said I, O Lord God, cease, I beseech thee; by whom shall Jacob arise? for he is small." We have before explained that Jacob is a personification of the new world. Thus we observe that this allegorical representation, which sets forth the grand centre from which all Homer's discourses emanate, is identical with the depictions of Scripture. Where also we find the breaking up and destruction of the old earth, in the resurrection of the new world, allegorized under the similitude of the operation of ploughing in the old world: "Judah shall plow, *and* Jacob shall break his clods." The mother of Jacob and Esau, that is, the old mother, or many nurturing, earth, is destroyed in their resurrection, or, as Scripture relates, "The mother was dashed in pieces upon *her* children." The offering of savoury meat to the father of Jacob and Esau before his death, is evidently allegorical of the resurrection of the ambrosial world, that is, the coming forth of Jacob, or the God of Jacob. As is particularly well shown in that remarkable passage in which Isaac smells the smell of Jacob's raiment, saying: "See, the smell of my son, is as the smell of a field which the LORD hath blessed." Jacob, being representative of the new world, his raiment, signifies the vegetable garment of the new earth: the field is figurative of a raised and restored

AMOS
VII. 4. 5.

HOSEA
X. 11.

HOSEA
X. 14.

GEN.
XXVII.
27.

GEN.
XXVII.
36.

region of the earth, blessed by the bringing forth of the ambrosial condition; that is, the institution of the first state of nature. Those words of Esau are also very remarkable, when he is represented as saying, "Is he not rightly named Jacob? (the word, Jacob, signifies a supplanter,) for he hath supplanted me these two times." This alludes to Hesiod's two great resurrections: the first, the war of the Titans, or that Scriptural war which we have placed by the side of it: the second the war of Typhœus, in Scripture called the war of Michael and the dragon. Again, the thrice ploughed field of Homer's shield of Achilles is figuratively representative of the old earth, three times destroyed in the resurrection of the new worlds. First by the great Creation, as more particularly described by Hesiod: secondly by the Titanian war: and thirdly by the Typhœan war. The dance in the last compartment of the shield of Achilles, in which, the maids crowned with flowers, are dressed in fine linen, and the youths in rich shining stuffs, with golden swords, is significant of the joys of the immortal, or golden age, represented by means of the circumstance of the old world. They dance in a circle, in allusion to the diffusion of those joys throughout the all inhabited circle of the earth, and apparently to the heavenly circle of Hyperion.

How true, the prophecy of Homer, when he said, "Man will forget the original conditions of the world in which he lives." Alas! will he now believe them? Yes, his mind, as of old, by Hesiod's grandeur fired, and Homer's, with the love of sacred wisdom, or knowledge of himself and of his world,

he will with ineffable delight, believe them. Thus, as the poets say, to the mind of man, are things continually revealed, and again lost in immeasurable time.

CHAPTER VIII.

OF THE PYRAMIDS OF EGYPT, THE PURPOSE OF
THEIR ERECTION.

THE ancient Egyptians have left many stony mountains built by art, commonly called pyramids. They are found scattered, in very great numbers over the countries of Egypt, Nubia, and Ethiopia: it is not known how many there are in all. They are not built in any uniform manner, except that they all rise up like mountains and hills, from a wide base, becoming gradually smaller towards the top. So far as is known however they are square at the base; and in most instances that form is preserved throughout; but many are rounded towards the summit. Their materials consist of stone, bricks, parts of buildings, broken statues, and the like.

The pyramids of Memphis or Djizeh, are those with which we are best acquainted. The first or largest of these is called Cheops, the second Cephrenes, and the third Mycerinus. They stand on the margin of the sandy desert of Libya.

The pyramid called Cheops is built on a stony elevation, which rises to a hundred and fifty feet above the level of the plain. The base of the pyramid measures two hundred and fifty yards each way, covering more than eleven English acres of ground. Outwardly it is composed of square blocks of stone, forming steps four feet deep, which gradually diminish to two and a half at the summit.

This artificial mountain, with its stony foundation, rises to the stupendous height of six hundred and fifty English feet above the surrounding plain. Diodorus Siculus and Herodotus relate that, in its erection, three hundred and sixty thousand men were employed during a period of twenty years. The second and third are inferior in height. About twenty of the largest size have been observed.

The construction of these pyramids is the most stupendous, and the most wonderful achievement that has ever been known to be accomplished by art. Since the time of Herodotus, now upwards of two thousand years, and I know not how long before he lived, men have been no less astonished at the vast magnitude of these structures than puzzled to conceive for what purpose they were intended. It has been supposed that they were sepulchral monuments; but it has generally been declared that they were certainly intended to serve some other great and unknown purpose; to the solution of which mystery we now proceed: we will show the great and wonderful purpose which they evidently will serve.

Whilst speaking of the eruptions of Etna and Vesuvius, I have adverted to the great lightnings and torrents of rain always attendant on volcanic eruptions; in which the whole line of black smoke extending a hundred miles, has been observed continually blazing with most vivid lightning; and burning every thing except in the low situations. Upon those great occasions described as battles of the gods; when, as nature shows, volcanic eruptions occur about the margins of the conflagrant regions,

it must be supposed that the whole, or greater part of the earth's atmosphere, is filled with such black vapours, when, no doubt, as expressed by the words of Hesiod,

He walks majestic round the starry Frame.

the lightnings and blasts of fiery winds, or circulation of the celestial fire descended, do make a great part of the tour of the earth.

Moun-
tains
melted
by fire.

Thus it appears that the continuous blazing of the lightning, and whirling of the fire over and around stony mountains, distant from the confluent region, having their summits uncovered by earth, must ignite the stone; and by the simultaneous dashing down of water, the fury of the fire being prodigiously increased, there would be a melting of the stone, which would run like water over the surrounding plains. It is evident that this kind of volcanic combustion from above downwards has occurred very generally over the earth; and the following passages are also illustrative of that circumstance: "A fire goeth before him, and burneth up his enemies round about. His lightnings enlightened the world: the earth saw, and trembled. The hills melted like wax at the presence of the LORD."

PSAL.
XCVII.
3. 4. 5.

ISA.
LXIV.
3.

"When thou didst terrible things *which* we looked not for, thou camest down, the mountains flowed down at thy presence."

PSAL.
LXXXIII.
14.

"As the fire burneth as wood, and as the flame setteth the mountains on fire."

Hills presenting appearances which show that they have been subjected to this melting process, do accordingly to this day present themselves, espe-

cially in Auvergne, Turkey, and Hungary ; and it is related that many other parts of the world do afford examples of the same ; and in some instances the cooling of the lava on the tops of mountains has there formed basaltic columns ; which circumstance has given rise to much speculation as to how they could have occurred in such situations.

The oases of the Saara of Africa have evidently been formed in this way : they abound with volcanic scorix and burnt matter, in the entire absence of craters, and are extremely fertile. It may be difficult to imagine how the stone can be reduced to so limpid a fluid ; but what mind can figure to itself an adequate idea of the intensity of the lightning's flash ! Bottis has related that he has repeatedly seen the inflamed matter rush forth, in a fiery fountain, in the Atrio del Cavallo, at the foot of the cone of Vesuvius, exactly like water, inundating the adjacent country.

Thus we read in Scripture : " He toucheth the hills and they smoke." That is, the high stony points, meeting the fire from above, are kindled by it. We observe that the fire of common lightning always has a tendency to alight on high structures ; but on the occasions alluded to, the fire would descend in a continued stream, causing combustion of the stone. From this it may be observed that the old mountains with their sharp stony spires, like those, for example, called the Needles, beyond Chamouny, and, in fine weather, seen from Geneva, are the matches which nature erects to receive the celestial fire, in order that the earth may become kindled. Mountains being so inflamed at their sum-

PSAL.
CIV. 32.

Origin
of
Volca-
noes.

mits, the fire has penetrated down into the bowels of the earth, causing eruption and heaving out of burnt matter; but the progress of the combustion being arrested in consequence of not finding sufficient water to feed it, it has remained stationary, or with occasional eruptions from that time to the present. It appears that volcanoes have originally been established in this way: but the fire of a volcano, in its subterraneous wanderings may, meeting with favorable conditions, create new eruptive focuses, several miles distant from, and independent of, the parent volcano: thus is the volcanic inflammation indefinitely extended, as it were by a process of generation.

The ancient Egyptians raised the pyramids in order that they, like the stony mountains, might, on the occasion of the next terrestrial conflagration, become ignited and cause the fire to devour the stone of those regions of their country, where the earth did not naturally present sufficiently elevated summits for that purpose, and for the fulfilment of which other circumstances were not favourable; so that their country might by that means become covered with fertile spots; which would not otherwise have happened. It is possible, and even likely, that the Egyptians might have observed that some of the fruitful oases in the Libyan deserts had been so produced, by artificially built mountains. I think it extremely probable that such evidence may still continue, in the neighbourhoods of the existing oases, where there are probably pyramids not entirely consumed; as in various parts of the world are found stony mountains which have been partially melted

by fire. The Egyptians did not want that instruction; but it is likely they knew that such had been.

I have repeatedly described that the combustion of stone cannot go on to any very great extent, without an abundant supply of water. Accordingly the Egyptians have, with wonderful ingenuity, made provision whereby the fire should be supplied with plenty of water. Those pyramids which have been entered are found to contain vast cisterns and reservoirs for water: which being by travellers recognised as having been constructed for that purpose, it has been supposed that they were intended to contain water for sacerdotal uses. But such a view cannot reasonably be entertained; as has often been observed. The chambers are dark, without ventilation, and difficult to explore in consequence of the steepness of the passages. Showing that they have not been constructed for man's use. They swarm with those horrid bats, called vampyres; and their atmosphere is pervaded with the insufferable exhalation which arises from the bodies of those filthy creatures; and they being disturbed by the light, and flying towards the torches, flap their prickly wings in the faces of the explorers.

The cells for water commence high up in the interior of the pyramids; from each proceeds a narrow passage, descending at an angle of about twenty-six degrees, and leading into another chamber lower down, where are other receptacles for water. The descending passages sometimes lead into a sort of deep well, having an opening in the bottom of it, still leading downwards, through other

chambers, also having reservoirs for water, and so on to the base of the pyramid; and no doubt, the stone on which they stand is similarly hewn out to a very great depth and extent, as is known to be the case with Cheops; into whose base, by means of passages, the waters of the Nile have been conducted.

From what we see happening during common volcanic eruptions, it is evident that those parts of the world which are distant from the conflagrant region of the earth, will be deluged by the water of profuse rains. Accordingly the Egyptian pyramids are built with their stones slanting inwards so as to collect water; and no doubt, examination would bring to view ample provision for the conveyance of water, from without, into the before described reservoirs; for which purpose, I suppose, may be the grooves in the walls, of which travellers make particular mention; so the water flowing downwards from one chamber into another, they would all be speedily filled. Thus when the pyramids become ignited at the summits, the fire will meet with a collection of water for its refreshment. And the liquid fire, flowing downwards by the rapidly descending passages, will find its way by a tortuous course, and at intervals fed by water, through the pyramid down to its base; where meeting with a very large collection of water, a great conflagration will be occasioned, and the stone completely consumed, so as to cause the land to be fertilized.

It has also been observed that there are extensive excavations in the stone round about the pyramids, with passages leading from the pyramids into these

surrounding excavations, so as to facilitate the extension of the fire. And there is reason to believe that many stony mountains have been hewn out after the manner of the pyramids; so as to collect water to facilitate the progress of the fire when they become ignited. Many stony eminences have been found to be so hewn out into chambers.

It is said that the lake Mœris, which is supposed to have been artificially excavated and filled by the Nile, has a subterranean passage leading to the mountain above Memphis, which, no doubt, contains chambers like the pyramids, with surrounding excavations.

I suppose that in the place of the pyramids there formerly existed low stony hills, whose summits, or some of them, had been melted down on the occasion of the last conflagration. And the Egyptians, knowing that on the succeeding occasion combustion could not take place to any considerable extent, cut the stone and re-constructed the mountains with elevated points, making also provision whereby the fire should be supplied with water, so as to bring about a very great conflagration.

The ancients have accomplished in Egypt, the like of what nature has done in Switzerland, for example; there we observe mountains bristling with stony spires, which will become ignited as before described. Amongst the multitude of mountain heads, nature has, by the intervening cavities, formed her reservoirs for water, now filled with ice. As the stone burns downwards, this water will be poured in upon the fire, which then raging with greater vio-

lence, and deeply piercing the earth, great chasms will be opened and the waters of the larger reservoirs, or lakes, so abundant in that country, will then be received.

PART III.

A DISCOURSE

ON THE

MAINTENANCE AND ACQUISITION

OF

HEALTH,

ON

PRINCIPLES IN ACCORDANCE

WITH THE

WISDOM OF THE ANCIENTS.

PART III

A DISCOURSE

ON THE NATURE AND EXTENT OF

HEALTH

IN ACCORDANCE

WITH THE ANTIQUITY

CHAPTER I.

OF THE POWER WHICH MAN HAS AT HIS COMMAND
FOR THE AMELIORATION OF HIS PRESENT
CONDITION.

IN the contemplation of the present condition of man, it must be observed that he has the power of greatly alleviating the evils of his state. The source from which those evils have sprung being sufficiently intelligible to enable him to do so with great effect. That source existing originally in the deviation of man from the kind of aliment naturally required for the integrity of his constitution; and which has operated on him by occasioning physical and mental infirmity, followed by an endless train of misfortunes, limiting the period of his existence to a few years. The influence of the disorder greatly involving, though less severely, the rest of the animal world.

One of the chief causes of man's being more liable to disease than the lower animals, arises from the circumstance of nature no longer presenting his food in a state fitted for his immediate reception. Man cannot, like the sparrow, eat wheat fresh and ripe from the ear: it must first undergo an artificial process, during which it becomes contaminated with earthy matter, from the machinery used in its trituration, from the atmosphere, from vessels in which it is kept, from water and other matters mixed with it in the process of making it into bread; and it is liable to contamination from other accidental and intentional causes: whereas the integrity of the health

of man's body requires that he should receive his nutriment in a state of absolute purity, as originally presented by the vegetable. Hence the greatest circumspection is necessary in these matters. Man has not now a greater innate tendency to disease than any other animal, but he is more afflicted with infirmity from these causes, and others brought into existence by his own operations, to the ill effects of which he himself is the most exposed.

Animals with whose habits man has not directly interfered, and which have not been so much affected by changes resulting from his operations, enjoy a singular immunity from disease; and there is an admirable uniformity, consistency, and propriety in their conduct, according to the conditions of their existence. But when man interferes with the natural habits of animals, and occasions them to deviate from their usual and proper food, they then become vicious, and their bodies diseased. For example, if horses be fed on flesh they soon fall into a diseased condition of body, and an alteration takes place in their dispositions; they become vicious and dangerously savage: it is the same with swine; indeed it is an unerring rule with respect to animals. And it is very remarkable, that when animals are deprived of their natural food, and kept much on that used by man, and also constrained to habits resembling his, with regard to confinement and in other respects, they commonly become affected with the same kinds of diseases as those which afflict man. Thus dogs kept much in-doors are very liable to pulmonary affections, especially asthma, and many others of man's diseases. Hogs kept principally in sties, and fed on

culinary refuse, are very frequently affected with consumption, diseases of the skin, and various others like those which afflict man. Monkeys, parrots, and other animals, under similar circumstances, always present illustrations of the same rule.

Nothing can be more conspicuously evident than that man's physical and mental conditions have invariably sunk to a lower degree, in proportion as circumstances have occasioned him to deviate more widely from his natural food, or that which the integrity of his constitution requires. Hence it is seen that certain kinds of food have an invariable tendency to elevate and improve man's physical and mental state, by rendering him less liable to disease, and consequently extending the duration of his existence; while certain other kinds as constantly tend to depress and deteriorate, in every respect, the condition of man, and to shorten his life.

These facts with respect to certain kinds of food have been known and acknowledged in all ages, though little attended to; they, however, show how much man has it in his power to improve his condition, and to maintain a higher and more perfect bodily and intellectual state than that which is, and always must be, the result of what has been, and is still, the general routine with respect to the affairs of this department of the business of life. Man should be more careful to fill his stomach with the kinds of food most proper for the nourishment of his body, as it is upon its suitableness that the correct workings of his physical and mental machines depend. Now that art has taken so much of this business from the hands of nature, it ought to exercise more circumspection.

Since man has become omnivorous, it appears that his constitution has been so changed as to render him more than naturally capable of omnivorous feeding; and this circumstance has evidently led to the opinion that he was designed to be an omnivorous feeder, but such is totally and entirely incompatible with the system of nature, and therefore the idea is utterly untenable. The earth having ceased to produce man's natural food in sufficient abundance for his support, he has, by the conditions brought into existence by his own works, been reduced to the necessity of becoming an omnivorous feeder, or a feeder on many substances not suitable for his nourishment: he has consequently become the victim of a vast number of diseases; but the catalogue of his complaints, and the amount of his infirmity, might be wonderfully diminished, if he would direct his attention more vigorously to the propriety of his diet; which, hitherto, has been one of the things of which he has thought least. All Scripture shows, and common sense declares, that attention to the maintenance of health constitutes one of the chief and greatest duties of man, as may be seen by the following passage, and many others:

ECCLESIASTICUS
XXX. 25. "A cheerful and a good heart will have a care of his meat and diet."

CHAPTER II.

OF FRUIT, AND FARINACEOUS FOOD.

THE fresh fruits of hot countries are more strengthening to man, render the body more healthy, vigorous, and active, and the intellect more powerful and brilliant, with more alacrity and cheerfulness, than a diet consisting in great part of animal food.

This rule applies principally to the most nutritious fruits, as grapes, figs, dates, pomegranates, and many others, taken fresh from the trees, and still possessing that life-inspiring principle, which it is the property of these fruits, when the produce of their own climate, to impart to the human body. The ancients particularly noticed the invigorating properties which the fig possesses; it consequently constituted a considerable part of the food of the *athletæ*. When these fruits have been long gathered, and have lost the major part of their natural vitality, which resides principally in their exquisite acidity, they become too saccharine: they are then heating to the body, burdensome to the digestion, and unfit as a common article of food for man; though still very useful when judiciously combined with other substances, and taken in small quantities.

History presents numerous examples of families having been brought up, and continuing to live for many years on fruits, farinaceous substances, and vegetables: and it stated that they have been endowed, both physically and mentally, with singular health and vigour, with unusually perfect development of body, and with an improved, or more than

commonly beautiful physiognomical cast : this last is an effect which is singularly remarkable in countries where fruits and farinaceous substances enter most extensively into the diet of the people. All which advantages or effects must naturally be expected to result from a diet which is radically proper, beyond what must be the consequences of one which is radically improper.

The health of the public must always be greatly dependant on the goodness and purity of bread, it being the chief article of our common food, and that which, when properly combined with other substances, is the most wholesome and nourishing. Bread made with flour and water, with sufficient yeast to render it light, beyond which it should contain nothing, has a sweetness which is extremely agreeable and gratifying to the palate ; but this property is entirely destroyed by the common practice of mixing mineral and other substances with it, by which its nutritious virtue is greatly deteriorated. I am informed, and it appears upon good authority, that the common bread of London now generally contains a considerable portion of potatoes. This is most improper, as many persons of weak digestion cannot make use of such bread without experiencing great inconvenience ; and there are many other very serious objections to such a deteriorating mixture.

One of the most efficient steps which could possibly be taken towards the improvement of the health of the community, would be that of the adoption and maintenance of the most certain measures which could be called into operation for the purpose of supplying a pure and wholesome bread.

The integrity of the dietetic system, though strange to say, so lightly and so little thought of, is of more real importance than any thing else with which man is concerned. The health of the body depends upon it, and in the absence of health, what is man !

CHAPTER III.

OF VEGETABLES, AND VEGETABLE CONDIMENTS.

ALTHOUGH vegetables, by the artificial application of heat in cookery, are rendered much more suitable for human food, they are still deficient in the qualities essential for that purpose ; for the correction of which deficiency, great care is necessary in order to avoid falling into the error of rendering them more unsuitable, by the addition of substances of an unwholesome nature.

The natural effect of vegetables on the human constitution must be the production of a tendency to grossness, and a less pure state of the body. It must be observed that the earth, in its passage into the corporeal substance of the vegetable, undergoes a process of refinement ; and the corporeal substance of the vegetable, in passing into its fruit, undergoes a further process of refinement. Therefore it is desirable that man's food should consist of the last product of the vegetable, as being the purest.

There are some vegetables in common use, which,

The
poisonous
nature
of the
potatoe.

by their nature and properties, would appear to be entirely unfitted for human food. As to whether or not it may be necessary to continue the use of them we have nothing, here, to say, our discourse being confined to their suitability for that purpose. The potatoe is the most important of these: it belongs to the poisonous nightshade class of plants. The members of that exceedingly malignant family of plants have been, by botanists, arranged in the following order, under the common title of solanum; and which title has been bestowed on them from the circumstance of their giving ease to the human body by the loan of their stupifying qualities.

Solanum dulcamara, commonly called woody-nightshade. Thirty of the berries of this plant having been, by way of experiment, given to a dog, it, in a short time, became mad, and died in the course of three hours.

Solanum fœtidum, or thorn-apple; is endowed with a powerful narcotic poison.

Solanum lethale, or deadly nightshade; like the above, is strongly imbued with a powerful narcotic poison.

Solanum lycopersicum, or love-apple; its fruit is said to be one of the ingredients of almost all the soups and sauces of the Spaniards and Portuguese; it is also less extensively used in this and other countries. Its ripe fruit, when tasted, is intolerably disgusting to the palate, which is not apt to recoil before substances good as food for the body.

Solanum melongena, or mala insana, or mad apple; like the preceding, is used in its native countries for soups and sauces. Its appropriate

name, however, is not significant of the propriety of making such use of it.

Solanum nigrum, or garden nightshade; is a plant whose properties are highly deleterious.

Solanum sanctum, Palestine nightshade; is much eaten by the Egyptians.

Solanum tuberosum, the potatoe plant.

Solanum vesicarium, or winter cherry; is sometimes medicinally employed in dropsical diseases.

These plants closely resemble each other in their appearance, and also in their nature and properties; and are therefore known under the common name of *solanum*; but their deleterious properties are not equally developed in all their parts.

It cannot reasonably be supposed that any part of a plant of a species naturally poisonous to man, can be by him, used as food without detriment to his constitution. And although to superficial observation, persons may seem to thrive on potatoes, the existing amount of infirmity gives reason to suspect that they do, by long use, occasion disease, by the slow accumulation of their poison in the system; which is generally attributed to other causes, on account of the universal practice of making use of that kind of food.

It is certain that very many persons cannot take them, even in small quantities with other food, without experiencing flatulency, indigestion, and other distressing symptoms. I make it an invariable rule to recommend delicate patients who suffer from dyspeptic diseases, to abstain entirely from eating potatoes, and indeed vegetables generally, and as

constantly find that, by observing that rule, they experience a marked alleviation of their sufferings.

The berries, leaves, and stalks of potatoes are so strongly imbued with their deleterious qualities, as to render their ill effects on the human constitution speedily apparent; and so is the water in which potatoes have been boiled.

It is well known to the feeders of cattle, that animals kept much on potatoes lose flesh and soon become unhealthy.

All the onion tribe of plants, more particularly when raw, constitute a very unwholesome food; on account of their great putrefactive properties: and their hot and extremely acrid juice contaminates the humours of the body with its fiery qualities, producing a variety of ill effects, and often, highly dangerous symptoms. Were it desirable, a list of some length might be shown, of vegetables in common use, which are not beneficial to man.

The system of nature would have been imperfect had she not offered food to her creatures under the most acceptable and suitable form, without the necessity of other and far-fetched substances, in order to render it more palatable and wholesome: that of course she did to man as well as other beings, his food required no condiments to give it flavour, nor does it now when he partakes of those substances which she destined to be his aliment, and which are still most suitable for that purpose. It has evidently been from an instinctive conviction of the absence of some essential principles, that man has so dili-

gently sought out substances, as condiments, to give more flavour to vegetables, and to render them more congenial and wholesome to the constitution.

It is here that we find arising one of the greatest evils consequent upon the changes which have occurred. The substances which man has added in order to ameliorate and render an unsuitable diet more fitted for his constitution, have, in many instances, made it less so; and have given origin to diseases, to which the use of the same diet, unsuitable as it was, would not have subjected him.

Vegetables are certainly, by the culinary art, rendered much more suitable as food for man than they are in their natural state; but still, when prepared in the best way, they remain deficient in the essential principles, and that deficiency has been improperly supplied by many of the seasonings and condiments which have come into use. The natural indication must be to render those articles of food, more, or as nearly as possible, like those which constitute man's natural food, and which are found most conducive to human health; and by which it is seen that the acid and saccharine substances, especially the acid, ought to be principally used for such purposes, instead of the hot, acrid, fiery, and saline substances so much had recourse to.

The hot condiments made use of for seasoning food, constitute a prolific source of inflammations, under their various and fatal forms; and which, on account of their great prevalence and frequent occurrence, their real source being unsuspected, have been regarded as constitutional peculiarities, beyond the control of medicine for their removal, and only

Inflam-
mations
caused
by hot
seasoned
foods.

yielding to its influence to return again at no great interval of time. Whilst the cause exists, assuredly medicine cannot generally prevent their periodical recurrence; but those occasional attacks do cease when the hot substances by which they have been caused are no longer taken with the food.

I have frequently known abstemious individuals drinking no wine and very little malt liquor, have periodical attacks of erysipelas of the face or legs, which I have distinctly traced to the too free, but not unusual use, of hot seasonings and peppers; the occurrence of which, on the discontinuance of those condiments, has ceased, although there had been periodical attacks for many years previously. Those hot substances, by an accumulation of their acridity in the system, also appear to be chiefly concerned in the production of most dangerous inflammations of the internal organs, often terminating fatally. The ill effects of a liberal use of such condiments render themselves manifest in a variety of ways, of which perhaps, one of the most common and disagreeable, is that of occasioning a pimply, blotchy state of the skin. In constitutions of some temperaments it commonly occasions those conspicuously red inflammatory noses and faces, by which some persons are so much disfigured.

The essential oil in which the pungency of peppers resides is of a very powerful nature, and when those powders are recently mixed with substantial food, persons commonly take more than they are at all aware of; for it is not until after maceration in the stomach that the fieriness of those solid, though small particles, is brought out.

CHAPTER IV.

OF ANIMAL FOOD, AND THE MEANS BY WHICH
IT AND VEGETABLES ARE RENDERED
MOST WHOLESOME.

ONE of the strongest proofs of the radical impropriety of man's feeding on flesh, must be that which is armed with the fact that the human body invariably withers and perishes most miserably when confined constantly to it. It cannot be denied that a diet consisting exclusively of fruit and farinaceous matters is favourable to the human constitution. But a diet composed entirely of animal matters has always been productive of the most terrible effects. By the force of long habit it becomes more tolerable to the constitution, but its pernicious influence never fails to render itself conspicuously apparent.

When flesh has been long and exclusively used for food, it has always been found to overheat and stimulate, and at length to exhaust and debilitate the system, although at first it might have appeared to derive nourishment and vigour from it. Under the influence of such a diet, the action of the nervous system speedily becomes deranged; an indescribable heaviness pervades the body; the functions of respiration, of digestion, and of the circulation of the blood, are no longer efficiently performed; the breath becomes fœtid, and the breathing hurried on the slightest occasion; the stomach is greatly oppressed and nauseated; the gums, and lining membrane

Disease
caused by
eating
flesh.

of the nose, are affected with a spongy enlargement and bleeding; the limbs become swollen, stiff, and discoloured; in fine, a loathsome disease arises from the general prostration of the vital functions. The mind is enveloped in the deepest melancholy and dejection, and there is the greatest indisposition to any sort of exertion; which complication of maladies, increasing with unerring certainty, gradually extinguish life under circumstances the most miserable and revolting. This is evidently the disease alluded to in the twentieth verse of the eleventh chapter of Numbers, when the Israelites are told they will eat flesh until it come out at their nostrils. That is, until the flesh produce such a superfluity of blood, as to occasion its exudation from the nostrils.

The unsuitableness of flesh for human food has been insisted on by philosophers of all ages. Celsus affirms that much animal food induces premature old age, and disease. The learned Theophrastus has also spoken particularly of the tendency which flesh has to obtund the intellectual faculties, and darken the mind of man. It is related that the ancient *athletæ*, who were fed much on flesh, were universally observed to be the most stupid of men; and Diogenes, when asked the cause of it, is said to have answered: "Because they are wholly formed of the flesh of swine and oxen."

Animal food, as usually made use of, evidently has a tendency to occasion a too succulent and full habit of body, as is particularly obvious in some constitutions, by a remarkable redness, or what is sometimes aptly termed a rawness, of the face, totally different from the bloomy blush of genuine

health, for which it is wont to be mistaken; but of which it is in reality, merely a morbid semblance. The redness to which I allude, may, by attentive observation, be seen to arise from an unnatural turgescence of the system; a too vascular, spongy, loose state of the parts. This is a habit of body which is particularly liable to consumption and other fatal diseases.

The use of flesh must also have a tendency to render man's disposition unnaturally savage and ferocious, or like that of a carnivorous animal, as has been particularly observed. Boerhaave relates that a man who had been for some time fed on raw flesh, became extremely voracious, and fierce almost like a beast; his voracious appetite inclining him to fall on the first ox or other creature coming in his way. The Tartars, who live almost entirely on animal food, are remarkable for their atrocious ferocity and savageness.

Effects of
raw flesh.

Boer-
haave's
Lectures,
sect. 1035.

The alimentary and digestive apparatus of carnivorous animals has been endowed with a remarkable power of resisting and preventing putrefaction, or of so elaborating and metamorphosing animal matter, that it passes little into that state during the nutritive operations. Man has not been furnished with a similar power of resisting putrefaction, and that circumstance again very strongly proclaims the impropriety of his eating flesh: he being naturally a feeder on fruits, which are not liable like flesh to become intensely putrescent, his alimentary system had not occasion for the possession of a power like that of a carnivorous animal, of resisting the putrefaction of food in the body; and consequently he has

not been furnished with it. Therefore when flesh enters into the composition of man's food, it becomes injuriously putrescent, thus corrupting the humours. In this way, it appears, that, by a morbid accumulation of the putrefactive principle in the system, the body is rendered obnoxious to a host of putrid diseases, like plague, small-pox, typhus, and other fevers. I do not assert that it alone, as commonly employed, is capable of giving rise to those maladies under all circumstances, but that it greatly predisposes the body to take on those forms of disease, when there is a concomitancy without, of those conditions which are favourable for their production. The body being thus too strongly imbued with the principle of putrescency, is less able to resist the influence of putrid exhalations, for example.

Animal food is now generally observed to impart more strength and vigour to the human body than the other common articles of diet; this is in consequence of the nutritive powers of the system having by habit become accustomed to the assimilation of that kind of diet. Animal food is more stimulating than that of fruits and farinaceous substances, therefore its sudden abstraction from the diet occasions the same inconvenience as that of the withholding of any other great stimulant. And the nutritive powers having been usually employed in the assimilation of a diet consisting in great part of flesh, are not prepared for the sudden change, and cannot at first, under those circumstances, support the body quite so well on a fruit and farinaceous diet alone, although naturally the most nourishing and the most suitable for that purpose.

But this is an inconvenience which has only been experienced for a very short time ; and history shows that when this change has been made under favourable circumstances, the constitution has been benefited by it. This however is a change which cannot now be recommended for general adoption, more particularly in climates unproductive of great variety of the most nutritious fruits ; but when flesh cannot be procured in a fresh and most wholesome state, it ought at all times to be avoided, provided the other most suitable aliments are at hand ; for it is certain that they will maintain the health, under all circumstances, more efficiently alone, than with the addition of salted meat, or that which has otherwise become more unwholesome.

The early habituation of children to the use of flesh is extremely improper. Instances are frequently met with, by medical men, in which young children, from particular circumstances, are early led to a partiality for flesh, and consequently, having the power of indulging that inclination, take large quantities of it. Others are observed to be most fond of farinaceous and fruity diet, and therefore eat very little or no flesh meat. I have constantly found that the latter have been incomparably more healthy than the former, with more firmness and solidity of body, better and more lively complexions, and greater activity and energy. I sometimes meet with such instances occurring in the same family, in which the difference in the condition of the children is most striking.

Much animal food is certainly very unfavorable to man's physical and intellectual developement. Its

effect is insidiously deceptive; the excitement which it produces causes the body to assume the appearance of health, and to seem to flourish for a moment, but greatly deprives it of the power of defending itself against the invasion of disease; to which it is apt more easily to fall a victim.

It is evidently in fruits alone that the acid and saccharine principles are naturally contained, and properly combined for the food of man: and it is found that a diet in which those principles are to a certain degree deficient will not, for any considerable length of time, preserve the body in ordinary health. In vegetables and flesh the acid and saccharine principles are not contained in sufficient quantity and refinement, and in due proportion with regard to each other: it is on that account that when we partake of those kinds of food, we perceive that there is an absence in them of something which is necessary in order to render them grateful to the palate.

The grand difficulty, therefore, in rendering those substances more suitable for human food, consists in the artificial addition of those principles in due amount, and in which there is great difficulty, as may easily be imagined, it being a duty which nature undertook to perform for man, that is, to supply him with food in every respect suitable for his nourishment; but which, from circumstances, has now devolved so far upon man, who is not sufficiently expert to imitate nature in those matters with the required precision; but still, as I have before observed, that has not constituted the chief evil resulting from the changes which have occurred. The greatest disadvantage has arisen from the circum-

stance of improper substances being had recourse to in order to make up for those deficiencies; for which purpose hot and acrid seasonings and salt have been used. Those hot and acrid substances are inimical to the human constitution, and the palate by long custom acquires a liking for those condiments, although originally repulsive to it. When, as is commonly the case, human beings derive their nourishment almost entirely from animal food with bread and vegetables, the constitution does not get a sufficient supply of the acid and saccharine principles, particularly the former, with which it cannot dispense for any considerable time without sustaining great damage. We see, for example, the terrible effects which arise from feeding much on salt flesh, in the production of scurvy, which subsides on the administration of vegetable acid; showing that it was the absence of the acid principle in the food, in conjunction with much salt, which caused that dreadful disease.

Taking the above view for our guide, the method to be adopted in order to render vegetables and flesh as suitable as possible for human food, is clearly apparent. It is evident that it must be accomplished, not by the use of hot, acrid substances and salt for condiments and seasonings, but by the admixture of acidulous fruits and saccharine substances, or of the vegetable acids, of which the acetous, or pure vinegar, is amongst the best. Such an application of the acid and saccharine principles is not entirely new; but they have not been made use of, for that purpose, to any thing like the extent which is necessary in order to be most conducive to health.

Such a method of preparing animal food renders it much more grateful to the palate, more refreshing and more easily digested; and the acid tends greatly to prevent its passing into an injuriously putrescent state; on which account it ought to be eaten with some acid admixture.

I recommend, particularly to persons of weak digestion, that the place of common vegetables should be supplied by the acidulous fruits, either in a fresh state, or after exposure to a slow heat, by which they become soft and more thoroughly matured; flesh is thereby rendered more grateful to the palate and to the stomach, and requires no other seasoning. In Italy, and elsewhere on the Continent, it is common to serve up the flesh of the wild boar, for example, in a kind of stew prepared in this way, by mixture with acid fruits. It is a dish to which I have observed the English to show great partiality. I believe that if the method of supplying the place of vegetables by the acidulous fruits were better understood, it would be much adopted; as it is wonderfully beneficial to the health; and persons of weak constitution and feeble digestive powers derive incalculable benefit from it. Care is necessary with respect to metallic and other utensils liable to be corroded by the acid.

Flesh is most wholesome when it has been thoroughly cooked, by exposure, for a sufficient length of time, to a very moderate heat; not dried, so as to deprive it of its nourishment; but it is not good to be eaten when there is any appearance of bloodiness, or its natural redness about it: that of healthy and young animals is the best and most

nutricious. When the putrefactive process has commenced, and flesh has passed into that state commonly called high, it is unwholesome, and entirely unfit for human food.

CHAPTER V.

OF THE COMPOSITION, AND CONSTANT RENOVATION OF THE ATMOSPHERE.

THE air, or the earth's atmosphere, consists of a metamorphosis of the various substances of the earth, which, having abandoned their previously solid and visible forms, exist as elastic and invisible fluids.

The most fixed of the fossils are capable, either alone, or in combination, of mounting up and forming a part of the atmosphere; such is known to be the case even with gold. Thus the atmosphere appears to have been produced by the earth; and it is constantly undergoing consumption from changes in matter, always progressing. This waste seems to be balanced by a perpetual generation of new air in the interior of the earth. Air, or the gases which form it, appears to be continually passing up from great depths in the earth, and is probably given off at all depths as well as at its surface. The substances of the earth are perpetually changing from one state into that of another, and during that process a part evidently goes to the formation of the atmosphere.

Air is constantly and perceptibly escaping with

the waters of many springs; this is particularly remarkable in the Western States of Ohio, where it sometimes rushes up with such force as to throw the water entirely out of the springs. The same phenomenon may be observed, in less vigorous activity, in many wells in this country, as at Bath and Buxton. It also makes its escape from the waters of many lakes, coming up apparently with springs, through their beds. I have seen the water of the lake Agnano, near Naples, in a state of vigorous ebullition from this cause, nearly opposite the Grotto del Cano; where also air constantly escapes through the earth, mixed with much carbonic acid gas. The same occurs at the lake Ansanto, also in the kingdom of Naples.

Air volcanoes.

Air is perpetually evolved, very profusely, at the air or mud volcanoes; which are apt to occur about the bases of the fire volcanoes. Air volcanoes exist in Italy and Sicily; in Crimea, and the island of Taman and Java. Humboldt also mentions others in New Andalusia and Trinidad.

In these volcanoes, as they are called, the air makes its escape through mud, evidently produced by the perpetual stirring of the wet clay soil, by the constant passage of air, which, by volcanic agency, is being largely generated beneath it; and sometimes so profusely, as to occasion eruptions, during which mud and stones are projected upwards, to the height of two or three hundred feet, with loud explosions. There are also caverns from which, during the warmer seasons of the year, air rushes with great force: as at Mount Eoto, near Turin.

The air evolved in these various ways, coming

newly from the earth, is not at once favourable for animal respiration, or the same as the rest of the atmosphere, but becomes like it by the natural changes and combinations, or mixtures which subsequently take place. That of the air volcanoes contains much sulphuretted hydrogen, or mephitic gas.

The passage of solid substances into the aerial form is greatly favoured by a high temperature; so that the constitution of the air must much depend on the prevailing degree of heat, the nature of the soil, and other circumstances of any particular locality. Udiometry has nevertheless failed in the detection of any remarkable difference between the atmospheres of the most elevated and salubrious situations, and that which circulates in those which are unhealthy and in crowded cities. There is nothing in the least surprising in this circumstance; for it cannot reasonably be expected that a small portion of the atmosphere, an invisible and impalpable fluid, can be taken in a glass tube or jar, and shown, by any process we are capable of exercising, to contain anything deleterious, unless it be so far vitiated as to be unfit for respiration and incapable of supporting life; which assuredly must be the case if the general atmosphere of cities were so deteriorated as to afford any appreciable result by such means. However, the feelings and the opposite effects of the air of different regions afford indubitable proof of great variety in its qualities.

When we reflect on the immense quantity of air which is constantly employed by cutaneous and pulmonary respiration, in which it is brought into

sufficiently close contact with the blood to enable it to absorb some of its constituent parts, and that such absorption, during life, is constantly going on; and that if the atmosphere contain any one of its ingredients in injurious amount, an excess of it, if soluble, like putrid mephitic gas, will be absorbed by the blood, and entering into the circulation, its poison applied to, and deposited in, every part of the body, it must be sufficiently evident that the health is greatly dependant on the respiration of what is commonly called pure air; that is, an atmosphere containing all its materials in such proportion as to be most favourable to animal life. If living beings be surrounded by, and continue in, an atmosphere thus vitiated by the vapour of matters in deleterious excess, their poison is in this way collected and accumulated within the body, so as to occasion disease and death. Such a condition of the atmosphere constitutes one of the chief sources of disease.

Purification of
air by
vegetables.

It appears that as vegetation prepares the earth for animal alimentation, so it also prepares the air for animal respiration, and consequently that neither can be fitted for the use of man, and the higher classes of animals, which has not undergone that change which vegetation effects. It is, when the vegetable world is clothed in its vernal foliage, that the delicious purity and fragrance of the air, invigorates and renovates the vitality of the animal kingdom. But even at other times, and when most of the trees have no leaves, vegetation evidently operates a great effect upon the air. These circumstances are of vast importance, and have not been sufficiently well understood.

All history shows that whenever vegetation has been suddenly and extensively destroyed, plagues and pestilences have ever been wont to occur. This shows the necessity of the encouragement of vegetation in and about populous places.

The sea and all waters, unless putrid, have also a purifying effect on the air; not by absorption at the surface, but by carrying aloft, with the vapours arising from them, the excess of mephitic gas in the atmosphere. Stagnant or putrid waters, which are so from holding mephitic vapour in solution, accordingly pollute the surrounding air by their vapours, which arise surcharged with mephitic gas.

The extreme purity and clearness of the air of Paris, and some other cities on the Continent, appears, in a considerable degree, to be owing to the great number of trees in and around them. The greater purity and clearness of the air is also remarkably conspicuous in all woody places about London.

CHAPTER VI.

OF THE INFLUENCE OF LIGHT ON THE HEALTH,
AND ON THE DEVELOPEMENT OF THE
HUMAN BODY.

VEGETABLES from which light has been excluded, although they may have had plenty of air, are found to be deficient in their natural colour, firmness,

fragrance and flavour; they are soft, watery, cold, and insipid, and unsuitable as food for animals: indeed they are, to a very remarkable extent, destitute of that vital energy which both vegetables and animals derive from light. The fine aroma of fruits, and vegetable substances, appears to be in great part derived from solar light; heat, of course, is not unconcerned in its production, but light is indispensably necessary. Those parts of plants which are naturally excluded from light during their development and are generally on that account colourless or nearly so, derive both colour and other foreign properties if they happen to grow in contact with it.

The effects of light on animals are not less wonderfully conspicuous than they are on vegetables. They, excepting certain subterraneous and secluded creatures, invariably droop, languish, and become unhealthy when deprived of light. Birds soon lose their vivacity, and the brilliancy of their plumage; the intensity of the colour of the coats of animals diminishes, the fire of the eye is soon extinguished, and a declination of vitality ensues from their deprivation of the influence of light.

In countries where the heat of the climate renders it necessary to adopt the lightest possible clothing, so that no effectual barrier is offered to the rays of light, and where even much of the body is left uncovered, it has always been found that the corporeal developement is earlier completed and wont to be more symmetrical, than in northern nations where the body is more thickly enveloped in clothing.

Human beings who have been long confined in dungeons and other gloomy places, although not absolutely dark and with sufficient air, present an unnatural sallowness of complexion; the eyes are glassy, the expression of the features greatly diminished, and their more delicate traits almost annihilated; this effect is not only observable in the face; the body and limbs lose the fine outline of their forms, from emaciation, which takes the place of the tone of health; the skin becomes loose, and pustules are wont to make their appearance; the whole system is unbraced, the appetite and digestion fail, and the other functions are only languidly performed; a state which is apt to be followed by swelling of the limbs, dropsy, and a host of other diseases.

Which circumstances show how necessary it is that houses should be well lighted, and the impropriety of darkening apartments by too many blinds and curtains, as is so much the custom. The health is very often injured, and disease occasioned, by inhabiting rooms from their construction dark and gloomy, or made so as I have pointed out. The above-mentioned effects, of less intensity, are sure to make their appearance, though more slowly and imperceptibly. One of the more immediately troublesome effects experienced by persons who pass the greater part of their time in apartments from which the light is too much excluded, is an intolerance of light on going out of doors. The eye which has appropriated itself to the gloom in which it lives principally, is unable without irritation to bear the glare of the external world, especially in sunny

weather. The open light thus becomes a source of great uneasiness; and the sight of the eye is in this way liable to be greatly enfeebled.

Light should not be excluded from the chambers of the sick, unless it be distressing to the patients. Its invigorating effect on the vital functions, and the consequent exhilaration of the mind, powerfully promotes recovery. Patients make much more satisfactory progress when confined in light and cheerful apartments than they do in those which are not so: it is therefore of great importance in the management of the sick, that light should be freely admitted.

CHAPTER VII.

OF CLOTHING, AND THE DISEASES OCCASIONED BY IT.

WHEN man is existing in an absolutely rude condition, we observe that artificial clothing is no more necessary to him, for the maintenance of the warmth of his body, than it is to other creatures. Under such circumstances, nature supplies the place of clothing by a more perfect developement of the skin, which is then much thicker, and in a very different condition to that of clothed persons; it is also covered with a rough hair, and affords a more efficient protection from the cold than any artificial clothing.

Julius Cæsar found the ancient Britons of the coast and its vicinity clothed merely with a skin thrown loosely over the body, leaving the arms and legs naked, and the people of the interior of the country wore no clothing; their houses consisting of huts or cabins. Of their hardy, robust, vigorous, and indefatigable bodies there is sufficient on record. They also appear to have been nimble and active to a degree which is now unknown, unless as exceptions to the general rule; indeed their simple, health-promoting mode of life would tend much to the production of those qualifications to a degree vastly superior to that which now generally prevails. The Grecians, Romans, and other nations of those times, appear also to have worn much less clothing than at present.

The progress of civilization, with long-established habit and custom, has however rendered a more complete system of clothing indispensably necessary to us. But it is of very great importance to avoid falling into the error of encumbering the body with too much clothing. Adult persons, who from their infancy have been accustomed to wear a great deal of covering, had best, probably, in most cases continue to do so, on account of the great difficulty of making alterations in such long-continued habits; but the principle is bad.

All animals require to be sheltered, to a certain degree, from the inclemency of the weather. When in health and living under favourable circumstances, their bodies have the power of generating such a degree of warmth as is necessary for their well being. It is the same with man under similar cir-

cumstances. The degree of heat which is internally generated by the body during health, is, of course, such as is required by it; and it regulates itself according to the circumstances of climate, season, and other external conditions, in proportion as they tend more slowly or rapidly to convey away the natural heat of the body or to prevent its escape. Were it not for this admirable provision, it is clear that the warmth of the body would be liable by many circumstances to be raised to a degree which would be more injurious to it.

The body, therefore, is not kept warm, and protected from the cold, in proportion to the quantity of clothes worn; it is, on the contrary, rendered more susceptible to the injurious effects of sudden changes of temperature, by the debility which too much clothing has a tendency to occasion. The temperature of the bodies of those who wear little or no clothing is found to be about the same as that of others who have been accustomed to an excess of covering. Because the wearing of so much clothing supersedes the necessity of the internal generation of so much heat as would otherwise be required; it indeed has the effect of debilitating that internal generative power; and accordingly it is soon rendered incapable of producing sufficient heat for the body, without the assistance of the accustomed amount of clothing, whatever it may be.

The bodies of persons who have always worn much clothing, present a pallidity which is analogous to that of plants which have grown in the dark, and it is incompatible with health and vigour. We

know that the body is greatly nourished by cutaneous respiration: any thing, therefore, which offers too great an impediment to that very important function must be highly injurious. Thus too much clothing has a tendency to prevent the perfect developement of the body, and to induce an unnatural thinness and flaccidity of the skin, maintaining a certain degree of emaciation, by the too great exclusion of light and air. Clothing is most favorable to the perfect and symmetrical developement of the body and to the maintenance of its health, in proportion as it is light and porous.

With regard to children therefore, in order best to preserve the health and vigour of their bodies, it is necessary to institute an appropriate system of clothing, whereby they may not be habituated to the wearing of more than is required.

The lighter shades appear to be the most appropriate for clothing on account of the great absorption of heat which the dark colours occasion; and the clothes, unless made of highly elastic material, capable, like the skin, of expanding so as to accommodate itself to the flexions of the body and limbs, should be made so as to fit loosely, otherwise, by its unequal pressure, much injury must be occasioned to the soft parts.

The European costume has the fault of not sufficiently covering the upper and anterior part of the chest: which part of the body should be well protected from the inclemency of the weather, on account of the important organs, the lungs, there situated. And it is at that part that the parietes of the chest are thinnest; the lungs therefore are

Consumption
caused by
improper
clothing.

particularly liable to be chilled at that point; nevertheless that is generally the least protected part of the body; and it is especially there that we find the lungs most prone to become diseased. There is great reason to believe that where there is a predisposition to consumption, it is very often early developed in consequence of the insufficient covering on the upper part of the chest; and that it is so induced and established, in very many instances, where it would never otherwise have occurred. The clothing of females, like that of men, has the fault of not affording sufficient protection to the upper part of the chest; which cannot with safety, even within doors, be so much exposed as is the custom.

The habit of tightly lacing the waist, is one which is fraught with dangers to an extent which is absolutely incalculable. The contraction of the waist, occasioned by tight stays, has a tendency to cause the displacement of the abdominal viscera; and which often become diseased, apparently from the inconvenience to which they are in this way subjected.

The practice of wearing cotton and linen for external female attire, and the use of the same for curtains and such purposes is extremely dangerous, and therefore not less improper. Nature has not clothed any animal in so combustible a material. There are few elderly persons who cannot relate woeful tales of relatives or friends who have suffered from the burning of their own clothes; and our journals are constantly furnishing us with the most deplorable accounts of such accidents, which are, of course, of very frequent occurrence; and it seems as if by a providential protection, that they are not

more so. They are the frequent occasion of the most calamitous misfortunes, bereavements, and alienations of affection. By them the most graceful and amiable are speedily converted into the most ignoble and repulsive, a misery to themselves, and a grievous burden to those around them.

Every medical man of experience has shuddered before the indescribably horrible distortions arising from cutaneous indurations and contractions, consequent on such accidents. And yet the practice is universally and thoughtlessly continued, entirely without occasion; as wool and silk constitute a much more suitable and becoming clothing. They are capable of being manufactured into the most elegant and beautiful articles of dress, whilst their incombustibility is such as to preclude the danger of accidents by fire; and one would really think they might afford sufficient variety without having recourse to linen and cotton as an external covering.

Here is a striking and conspicuous illustration of the remarkable manner in which man manufactures scourges for his own flagellation; of the power which he has of averting many of the evils which surround him; and of the wonderful apathy which prevents his directing his abilities to that object.

CHAPTER VIII.

OF THE POISONOUS NATURE OF LEAD, AND THE IMPROPRIETY OF ITS USE FOR DOMESTIC PURPOSES.

THE poison arising from lead as used for domestic purposes is one of the most insidious and dangerous, although it is generally slow in producing its effect.

The metal, when warm, and probably in some degree even in its cold state, gives off a vapour which is very injurious to the human constitution; this becomes much more evidently poisonous when the lead is melted.

A letter from Mr. Beaumont, in the Philosophical Collections, states, that those who live near where lead ore is washed, can keep neither dogs, cats, or fowls, but that they all die in a short time. And when animals have been put into houses in which lead ore has been kept, although thoroughly cleansed and well bedded with litter, the vapour of the metal has proved fatal to them. He also states that the steam which arises during the process of smelting, renders the surrounding grass so poisonous as to be fatal to animals which eat it. Mines of copper also send forth most noxious and corrosive fumes, which attack even gold and silver, in the pockets of those in their immediate vicinity.

Vitruvius, the Roman architect, strongly protested against the use of leaden pipes for the conveyance of water. Palladius, Galen, and Aëtius also condemn the use of water which has flown over lead.

Hesiod very wisely warns us against the use of iron knives for the purpose of eating acid fruits; because the metal, by their acidity, is rapidly dissolved, and thus injuriously finds entrance into the body.

It appears that water which has been a considerable time in contact with lead, becomes impregnated with its subtle poison, which, although inappreciable by any means we can adopt, still operates injuriously on the constitutions of those who constantly drink it. All utensils into whose composition lead enters are improper for domestic use, as they render the matters they contain unwholesome, more particularly if warm.

Leaden pipes, cisterns, and pumps, are liable to become corroded with white lead, or carbonate of lead, which sometimes adheres firmly to the metal, and at others, forms a soft pulverulent mass. This carbonate of lead, if not apparently soluble in water, floats in it in the form of white particles, more especially when the water has been agitated. It is therefore necessary that leaden cisterns should be carefully kept clean; but even with all the precaution that can be used, there evidently must arise great evil from the employment of lead for those purposes. The pipes of pumps and those conveying water into cisterns, cannot be cleansed. I am informed that in some places near London, the leaden pipes of pumps will not last more than three years, before they become corroded through, so as to be rendered useless.

Our medical records abound with instances illustrative of the danger of the employment of lead for pipes, pumps, and cisterns. It is much to be re-

gretted that its place has not been supplied by some other, and more suitable substance; and until that change be made, we shall certainly, as at present, have a large number of paralytic patients, and of those suffering in various ways from the enervating effects of the poison of lead.

Lead may justly be numbered amongst the great causes of disease, as is shown by the extensive prevalence of infirmity amongst those who work at trades in which it is concerned. Lead is very extensively employed in the arts, and there is always a great demand for the preparations which are made from it. So the workers in lead and those with whose work some form of it is concerned, constitute a very numerous class who are, in this way, exposed to its influence.

When we reflect on the nature and properties of lead, the idea of living in houses painted with a substance of which it forms the basis, does not convey any agreeable sentiment to the mind. In this case the lead is strongly cemented to the substance which it covers, by means of the oil of the paint; were it not so, the most terrible consequences must arise from its use in this way. It is certainly a very undesirable thing to be so completely and constantly surrounded by such a poisonous substance. Some portion of paint, however dry and hard, is always removed by friction; the hands are constantly coming in contact with some part of the wood-work of houses, and their atmosphere cannot always be free from minute particles of lead floating in it. Caution is evidently necessary to guard against the evils which are liable to arise from this

universal source, especially with regard to young children, whose hands are apt to be applied to whatever is within their reach.

At this stage of our discourse it will be sufficiently evident that the style of painting, commonly denominated flatting, in which the paint dries with a rough, unglazed surface, causing its particles to be copiously detached by slight friction, and which is much used for drawing-room painting, must be exceedingly dangerous to the health of persons inhabiting such apartments. This evil may be remedied by repainting with oil colour, instead of the turpentine mixture, by which the style called flatting is produced, or by causing the painted work to be covered with a fine varnish, so as to confine the poisonous matter firmly to the substance it covers.

It appears that for the white lead of paint, the French Government has lately substituted the white oxyd of zinc, which is not, like lead, injurious to the health, when so used. This is a very wise and important change, and one by which if largely adopted, a very great amount of disease and misery would be averted. As must be sufficiently evident on considering the pitiful condition to which those employed in the preparation of white lead are commonly reduced.

Lead, unfortunately, is used for the glazing of domestic earthenware, and for the tinning of the inside of culinary vessels: the tin used for this purpose is not the pure metal, but a composition of tin and lead. Acids, as vinegar and sour fruits, are capable of dissolving the lead, both in the state in which it exists as a glaze on earthenware, and from

the compound used for the lining of saucepans, and such vessels, and when allowed to be long in contact with them, to become poisonously impregnated with lead. Much mischief has arisen from these sources, and always must do as long as lead continues to be thus employed.

The practice of packing tea in lead is most improper; if a white substance be packed in lead, it is found to be much blackened by the metal whose particles are detached by the slightest friction, communicating a black hue; that is the case with tea, but it is not perceived on account of the dark colour of its leaves. The lead, however, which in this way adheres to the tea, is sufficient to communicate an unwholesome impregnation to the water. The evil might easily be averted by pasting thin paper over the inside of the leaden cases.

So well aware as man is of the nature and properties of lead, and of the terrible influence which it exerts over the animal economy, it is certainly very wonderful that it should be so much employed for domestic purposes: it is true that for those purposes, irrespectively of its nature, it is very convenient, but at the same time it is most inimical to man's health. This is one of the many instances in which the consideration of present convenience, real or imaginary, stands higher than that of health; which is of all things the most important to man.

CHAPTER IX.

OF THE PROVISIONS WHICH NATURE HAS MADE FOR
MAN'S PROTECTION FROM THE INFLUENCE OF
THE AGENTS OF DISEASE.

THE human body, like that of every animal, has been endowed with a power called the *vis medicatrix naturæ*, or an inherent and natural power of resisting the causes of disease; and of removing the impressions which they may happen to make upon the body; or of curing, by a natural process, diseases when established. Nature has also provided medicines as a means by which the functions of this institution may, in cases of emergency, be greatly increased and extended.

Thus the earth, by the agency of the vegetable kingdom, presents medicinal substances, to the use of which we observe, that animals are instinctively directed for their defense from their approaching maladies; by which they would otherwise be overtaken. Accordingly on the approach of indisposition, the dog has recourse to grass; the goat to hellebore; cows and sheep to sorrel, and such-like herbs; the rattle-snake to his root; the tortoise to origanum, and hogs, as related in Plutarch, search the brooks for crayfish; besides many other similar accounts which might be given of other creatures.

It appears that many fruits have been created expressly for man's use as medicines, and that certain parts of many of the fruits which constitute his

Remedies
used by
animals.

Medicinal
fruits.

natural food, were also intended to be used to protect him from the influence of existing causes of disease. It is evident that the sour species of the pomegranate, sour oranges, limes, tamarinds, quinces, barberries, sour apples and plums, and many other fruits, having medicinal qualities, and which could not be used as food generally, have been produced as medicines for man.

The writings of all the ancient authors, who have treated on those subjects, all the earliest records of medical matters which have come down to us, show that the same fruits which I have mentioned, and many others of similar nature, were, in the times of which they give account, greatly used as medicinal agents. Unfortunately, however, the pages of history, and present experience, too plainly reveal man's tendency to deviate from those ways which nature had opened for him. Instead of those most efficient means, he has sought for remedies in other more scarce and mysterious substances; of whose nature and qualities he has had, at most, but a very imperfect knowledge; and by which his complaints have often been rendered more grievous. Man's mind appears at all times to have been in some degree infected with the fatal idea that his diseases were to be most advantageously treated by mysterious means, or scarce and extraordinary remedies.

The writings of Hippocrates, Galen, Dioscorides, Avicenna, Pliny, and the other ancient medical authors, speak much of the efficacy of limes, lemons, tamarinds, pomegranates, quinces, barberries and other similar fruits, in a great variety of diseases, especially fevers. And it is remarkable that those

fruits have occupied places in our lists of remedial agents almost to the present time. It is only from the dispensatories which have been put forth during the last century that those fruits, or the preparations derived from them, have been excluded from the places of the first and most efficient remedial means, in the diseases to which they are applicable.

It is very remarkable that many of those fruits possess an exquisite acid, combined with a bitter or tonic principle, most admirably appropriate for the cure of the diseases, or for warding off the effects of the morbid causes which are wont to prevail, more especially at the times when the earth presents those fruits. Thus the pomegranate possesses an acidulous property, with a fine bitter tonic principle residing in the spongy substance which forms its internal cells. The sour oranges also contain the acid and the bitter principle of the most eminent medicinal virtue. Quinces have a delicious and most refreshing acid combined with an astringent tonic, as is also the case with certain apples and plums; other fruits, as limes and lemons are more simply acid and cooling.

Such have been the arrangements of nature, but we now commonly find it necessary, by the extraction and preservation of essential principles, to form in our prescriptions such combinations in imitation of the qualities of those natural remedies, as may approach sufficiently near to them, to answer our purposes, and to which we often have recourse, as being most readily at hand.

The protective power with which the constitution has been endowed, is not however generally capable

of shielding the body from diseases, even when aided by medicinal means, if it be exposed to their causes prevailing beyond a certain degree of intensity. But it is a power, which, if the vital functions be not too far disabled, always comes into operation to protect the body from, and to enable it to bear up against, the maladies to which it is liable.

An incessant conflict is thus maintained between the sanitary conservative powers of the body, and those which are inimical to its well being. And, as it is an unerring rule that man's bodily and mental conditions improve in proportion as circumstances remove him beyond the influence of those inimical causes, we have indubitable evidence of the existence of an innate principle which incessantly excites the vital machine to exertion towards the recovery of its original purity and perfection.

Hence appears the vanity of expecting that the art of medicine can well protect the body from diseases, whilst the causes of those diseases continue unchecked. It is true that by depurating the body of the matters which have incommoded it, it is commonly capable of re-establishing its ordinary health: but those morbid causes being still in operation, it will again fall into a diseased state, and require a repetition of the depurating process from time to time, in proportion to its natural powers of resisting the inimical causes to which it may be exposed. Under such circumstances medicine cannot permanently establish a healthy condition; it can only relieve the constitution when oppressed by disease.

When a sufficient quantity of deleterious matter suddenly finds entrance into the body, the vital

functions are at once overwhelmed by it, and death results: but when the hurtful matter is gradually introduced or of such amount only as to injure and incommode it, the conservative powers of the constitution institute a process by which it may be freed from the inconvenience or injury. Thus in diseases it may be observed that the involuntary powers are occupied in the work of ejecting some offensive or injurious matter from the body; either by means of the organs of excretion; by driving it to the surface; or by collecting it together, as in an abscess; or in some other way by which it may escape or be discharged. In the instance of plague, by means of the suppuration of the various glands, a new channel is opened for the expulsion of the hurtful matter, occasioning the disease; so that immediately after their breaking and discharging, great alleviation of the symptoms is experienced, and such patients commonly recover. But if the constitution be so suddenly and powerfully invaded as to prostrate the vital functions to such an extent as to render them incapable of the institution of that process, the patient then sinks under the oppression of the morbid cause.

In consumption or decline, which I maintain is occasioned by salt, introduced with the food into the constitution, there is a constant excretion or defluxion of salt phlegm from the lungs, with cough, from the irritation it produces. Consumption, as every one knows, is a disease for the cure of which, every known remedy has in vain been employed; in consequence of which, it is commonly regarded as an incurable disease: that is because its true

Con-
sumption
caused by
salt.

cause has not been detected. In consumption there is a constant pouring out or expulsion of saline matter by the natural powers of the constitution. Showing that the disease is primarily occasioned, and continues to be propagated, by the introduction of salt, or that same matter which during the disease is constantly being ejected from the body, that which occasions so much irritation in the lungs and bronchial passages, with the consequent distressing cough, exhaustion, and emaciation which characterize that disease. Hence it is sufficiently obvious that it cannot reasonably be expected that medicines are to cure such a disease, during the continuation of those symptoms, perpetuated by the continual introduction of salt; which enters into so many articles of food. It is true that medicines are, under those circumstances, usually capable of affording relief, and sometimes, perhaps, of arresting the progress of the disease for a time, but they cannot accomplish a radical cure; there must be returns and relapses into the former condition, unless the remote or primary inimical cause be excluded.

The plan which I adopt with consumptive patients, is, in the first instance, to enjoin a system of regimen by which they are to abstain in every possible way from salt; and it is certain that that disease cannot advantageously be treated without the observance of such rule.

When, by abstinence from salt and salted meats, the constitution has become sufficiently freed from its influence, the irritation and excitement, peculiar to consumption, cease in a most remarkable manner; the cough and expectoration are greatly abated, and

the condition of the patient is altogether wonderfully improved; as may be observed by any consumptive or catarrhal person, making the simple experiment. By such means, with the aid of judicious medical treatment, that disease, if it have not too far undermined the constitution, is easily and permanently cured. I have patients, who, after many years of suffering and vacillations between better and worse, have been regarded as incurable. But who having, now many years since, been subjected to the method I recommend, are in possession of good health; and persevering in the rules laid down, obedience to which very soon becomes a pleasure, suffer no return of their old complaints, there being no renewal of the original cause of their institution; in the absence of which, the conservative powers of the body are enabled to maintain a healthy condition.

It is also very remarkable that when the humours of the body are freed from their usual saltiness, the blood of persons liable to chilblains, very soon begins to lose its tendency to congelation from the effect of cold. And persons are thus enabled to bear sudden transitions of temperature, and exposure to cold, with infinitely less danger of suffering from any of the commonly ensuing affections.

In continuation of the subject I have to add that in the instance of small-pox, the offending matter is driven to the surface, where it remains until, by a process of exsiccation and cuticular exfoliation, it is cast off. From the obstinate sores and ulcers which form principally on the legs, there is a constant running or oosing out of acrid matter, by the

escape of which the constitution finds relief from its hurtful presence.

Here again we have diseases which are commonly regarded as incurable: the sore or ulcer which nature has established as a drain to relieve the constitution by its constant discharge of matter injurious to it, produced by substances which are slowly and continually being introduced into it, generally with the diet, cannot be made to heal, in consequence of the causes which occasioned its institution still exerting their malign influence upon the body; during which the conservative powers will not permit the healing or drying up of such sores; because by such an event the constitution would be more severely oppressed by the morbid cause, and sooner or later sink under its influence. So, the cause and origin of the disease not being understood, it is said to be incurable; and so it is, under the circumstances, and fortunately so as I have shown. But those diseases which have continued many years in spite of all the remedies which could be thought of, do yield, and often readily, after the system has had time to become sufficiently depurated of the original cause, by judicious treatment with a suitable system of regimen; without the aid of which experience shows that medicine is incapable of curing them.

It appears that the various degrees of health enjoyed by different individuals under similar circumstances, are commonly regulated by the superior or inferior depurating powers with which their constitutions may be endowed.

In diseases may be discovered a process, insti-

tuted by nature, for the purpose of establishing new, or more free passages, by which the protective powers of the body may more efficiently depurate it of the hurtful matters which find entrance. This appears to be the reason why persons do not generally experience more than one attack of plague, small-pox, and some other affections.

History shows that the most learned philosophers have entertained the belief, not only of the possibility but of the facility of instituting a system of living by which the body might be effectually protected from disease. The contemplation of such changes is apt to give rise to the idea of the necessity of submitting to privations; but that is a most egregious error. They may render necessary the discontinuance of some former customs; but changes which elevate the integrity of the constitution, must necessarily give a wider scope to the pleasures, and to the happiness of life.

There are on record, instances of persons of very delicate, ailing, and infirm constitutions, who, becoming, as it were, instinctively awakened to the causes by which their health was kept at so low a standard; have, after considerable advancement in life, by studiously and diligently avoiding them, attained very superior constitutional powers, with a firmly established degree of unvarying health; which has smoothly conveyed them through years of extraordinary duration. Such is related to have been the case with Galen, the celebrated Greek physician, who lived in the second century of the Christian era. He is reported to have been very infirm and sickly until the age of twenty-eight, when he

adopted a system of regimen which conducted him to a state of sound health, and vigour, which continued with little variation, as some say, to the age of a hundred and four years.

It is unnecessary to say any thing further in order to show how much, under the present circumstances of life, every one has the power of maintaining the integrity of his own health, provided he have a sufficient knowledge of the principles required for the accomplishment of that object. Hence seems to have arisen the old proverb, "Every man is his own physician."

CHAPTER X.

OF PROPHYLACTICS, AND REMEDIAL AGENTS.

PROPHYLACTICS are substances which are made use of for the purpose of shielding the body from the influence of the various causes which are inimical to its health, before it has become sensibly invaded by them.

Vestiges of that remarkable ancient custom of anointing the body, so frequently and so mysteriously alluded to in Scripture, still remain in Africa, Asia, and some neighbouring countries.

It is remarkable that the olive grows naturally in the most pestilential regions, where subterranean malaria is most abundantly evolved. That tree is now found growing wild on the shores of the Caspian Sea, one of the most pestilential regions of the

earth, and in many other places under similar circumstances. It was the oil afforded by its fruit that was employed for the purpose of anointing the body. History informs us of the universality, amongst the ancients, of the daily practice, in hot weather, of anointing the body with olive oil. Those who have never been anointed can form, perhaps, little idea of the cooling, invigorating, and refreshing effect which is experienced after having undergone that operation. It is easily performed, and is not so uncleanly as may be supposed; indeed I am not aware that it is so in any degree. The body being rubbed over with oil, and afterwards, of course, wiped with a soft cloth.

Anointing seems to have continued to be a common practice long after the commencement of the Christian era: as Pliny speaks of his undergoing the daily process of anointing. He adverts to that circumstance in the thirty-sixth letter of the ninth book of his Epistles, in which he gives Fuscus an account of the manner in which he passed his time at his summer villa at Tuscum.

The custom of anointing the body, as practised by the ancients, was one which, of all others, was the most highly calculated to protect them from malarious diseases, for which purpose it appears to have been performed. The evolution of subterranean malaria, or pestilential vapour, causing febrile diseases, prevailing in ancient times with much greater force than at present.

The following appears to be the manner in which anointing protects the body from the diseases which are liable to arise from an unwholesome condition of

the atmosphere. The vapour of water always constitutes the vehicle of the pestilential vapours; it appears that they cannot pass through the atmosphere and mount aloft, without its aid. The best proof of which, is, that a dry atmosphere is constantly found to be most inimical to the prevalence of pestilential diseases, which, by an unerring rule, are arrested by extremely dry weather, and in dry situations. Between oil and water, it must be observed, there exists a singular repulsive force, as is seen by the impossibility of regularly wetting any greasy surface; the water will not lay in a continuous sheet upon it; it is driven into large globules of considerable thickness or depth. After anointing the body with oil, that which remains on the skin appears to repel the watery vapour of the atmosphere; although, of course, it offers no resistance to the approach of the air itself. The watery vapour contained in the air is, by the repulsive force of the oil, kept at a certain distance from the surface of the body; and that aqueous vapour holding the pestilential matter in solution, or being inseparably combined with it, keeps it too at a certain distance from the body. Some pretty good proof of the correctness of which view of the subject, seems to be afforded by the following experiment. Let any person go into an apartment whose atmosphere is polluted by putrid vapours, and then retiring into pure air, anoint the orifices of his nostrils; then returning to the same chamber, he will find the stench infinitely less perceptible to the smell.

It is well known that in Lower Egypt, where plague always prevails at a certain season of the year, the manufacturers and carriers of oil, whose

skins are always in some degree moist with it, constantly escape the plague. It is also said that a custom exists amongst the coolies of Tunis, during plagues, of anointing themselves with oil, and that they seldom have the disease.

Every body understands the process of cutaneous respiration, or that breathing which is constantly going on all over the surface of the body, in effect the same as that which takes place in the lungs. It is chiefly by those processes of respiration that the hurtful matter, which causes plague and pestilential fevers, is absorbed and received into the body. It is found that the sulphuretted hydrogen gas, which is the principal vapour by which pestilential diseases are occasioned, and which is similar to the putrid exhalation of decaying flesh, if confined in contact with the surface of the body, speedily proves destructive to life, by the absorption of cutaneous respiration, without finding entrance at all by the lungs.

By anointing the surface, the body is protected from injury by a pestilential air, by means of cutaneous respiration; by which it is rendered much more capable of resisting the influence of that cause of disease, even if there were no impediment to its finding entrance by the way of pulmonary respiration; but we have already seen that anointing the nostrils does, in a very remarkable manner, prevent the entrance of the pestilential vapour by that passage. It is not by obstructing the spiracles of the skin that anointing shields the body from disease; on the contrary, it renders cutaneous respiration more free.

Plague
cured by
anointing.

Anointing the body frequently with olive oil is still esteemed as an important part of the treatment of plague, in various countries where it is wont to prevail. Assalini, a physician in the French army in Syria, in 1798 and 1799, says, that whilst in the east, he was informed, and apparently upon good authority, that frictions with oil operated with wonderful effect in the cure of plague: he states that he was informed that all the plague patients, received into the hospital at Smyrna, during five years, for whose relief oil frictions were had recourse to, recovered without exception.

Bruce, in his travels in Abyssinia, relates that, in his passage through Nubia and Sennaar, he traversed regions perhaps the most unhealthy and pestilential in the world, where he observed that it was the custom for all persons to anoint themselves at least once a day. They used camel's fat; which would operate in the same way as olive oil, though not so good for that purpose. The practice of anointing the nostrils seems to have been much had recourse to in former times during the prevalence of pestilences, and we are informed that it was commonly practised during the last plagues of London.

It is certain that much benefit might now be derived from the practice of anointing the body, in hot weather, in unhealthy situations, and during the prevalence of fevers and pestilential diseases. Oil taken with the food also greatly protects the body from the influence of noxious vapours.

The inestimable value of the oil of olives as an article of diet, is seen by the frequency and the

manner in which it is spoken of in Scripture. It is extremely wholesome, nourishing, and grateful to the stomach. In many parts of the Continent, and in the east, it is much used in the preparation of food, and at table, as a substitute for butter; than which it is much more wholesome, and more easily assimilated by the digestive powers. It might, with advantage, be turned to much greater account in this country; and it would be well to give the greatest possible facility, by rendering it as cheap as possible, to its use in the place of butter and animal fat. That change would greatly promote the health of the community. In consequence of its great price here, it is commonly kept until it becomes too old, and rancid; which seems to be the reason why it is not generally much liked by the English. In the countries where it grows, it is universally held in the highest estimation; and most deservedly so, as we have nothing which is more wholesome and beneficial to the human constitution than good olive oil.

Persons constantly in the vicinity of fresh water have been observed to escape pestilential diseases in a remarkable manner. It has always been observed that the water carriers of Egypt have escaped the plague though surrounded by it. This seems to be in consequence of such persons being constantly enveloped in the vapours which are unceasingly arising from fresh water. Persons living on the water, in floating vessels, are not similarly situated; because there is, in hot weather when plague prevails, a large generation of pestilential vapour in the lower parts of their habitations. I suppose that water

might be so employed in any wholesome house, as to protect the inmates from the influence of surrounding pestilential air.

The kindling of fires for the purpose of correcting the air during the prevalence of pestilences, is also a practice of great antiquity, and one of the most efficient that can be had recourse to. The combustion of the fuel, and particularly if it consist of coal, diffuses the vapour of sulphurous acid through the air, which destroying the pestilential vapour floating in the atmosphere, the air is, thereby, again rendered wholesome.

Air purified by lightning.

It is in the same way that lightning purifies the air: the same sulphurous acid gas is generated during lightning. When objects are struck, or the lightning enters, or more properly occurs, in any building, a strong smell of burning sulphur is observed: it is the sulphurous acid gas, that the lightning has left in the air, which makes that impression on the olfactory organs.

The pestilential vapours which consist chiefly of sulphuretted hydrogen gas, always existing in the air in great quantity, before lightning, and accumulating in the upper regions, are by electricity caused to explode, and the sulphurous acid vapours to which those explosions give rise, have the effect of purifying the surrounding air, through which they are diffused by means of the agitation occasioned at the same time, by the concussions of those violent explosions. The invigorating coolness and freshness of the air which is experienced after lightning, is the result of its purification, by the destruction of the mephitic vapours, or the sulphuretted hydrogen,

which, prevailing in excess at those times, occasions an elevation of the temperature of the air. The effect of the lightning is to convert the sulphuretted hydrogen gas into sulphurous acid gas, which is generated in large quantity in the space through which the flash has extended. This sulphurous acid gas, is, by the agitation occasioned by the thunder, diffused through the surrounding air, to which the lightning's flash did not extend, but which also contains some excess of mephitic vapour, though not enough to occasion the phenomenon of lightning. Thus lightning generates sulphurous acid gas, as is always evident by the sulphurous smell it leaves after it. The combustion of fuel also generates sulphurous acid gas, which being an antidote for the mephitic vapour, or sulphuretted hydrogen gas, neutralizes it and renders the air again wholesome. Hence it is seen that the employment of fire for the purification of the atmosphere is an imitation of the means to which nature has recourse for the same purpose. And the ancients appear to have employed it, with that knowledge.

The phenomenon of lightning is not occasioned by simple electrical exchanges: electricity is the agency by which lightning is caused, in the same way as the match is the agency by which man fires his artillery. Accordingly it has often been observed that persons have been struck dead by electricity, totally unaccompanied by lightning. Pliny adverts to the circumstance, recorded amongst the Catiline Prodigies, that Marcus Herrenius was smitten, as if by lightning, at Pompeii, on a perfectly clear day. And Bulifon relates some curious instances, in which

Plin. Hist.
Nat. L. II.
c. 51.

Bulifon,
degl'
Incendj
del Monte
Vesuvio.

Phil.
Trans.
vol. 77.

it appears, that during the great eruption of Vesuvius in 1631, many persons were struck dead by electricity, unattended by the phenomenon of lightning, as observed by him. The Philosophical Transactions also contain an account of a carter and two horses being killed in Scotland by electricity, which appears to have proceeded from the earth, with a loud report. It happened during a thunder storm which was at a great distance. Several persons observed the accident, but no flash or appearance of fire was perceived.

Hippocrates and Acron are related by Plutarch to have acquired great fame by the good which they effected by kindling fires about the houses of the sick and in many parts of the city, during the prevalence of the celebrated plague of Athens; which happened at a time when Attica was invaded by the Peloponnesians. The same practice has been had recourse to from that very remote period down to the last plagues of London, and evidently with great advantage. It is remarkable that in our steam-boats now serving in the most unhealthy regions, the stokers and engineers, when occupied in their own proper departments, escape fever, when all around them are withering under its influence. They being protected from it by the vapours arising from their fires. This circumstance was particularly observed during the late Niger expedition, as indeed it has been in our navy generally.

History relates that it was anciently the custom in eastern countries to keep fires constantly burning in open places near the cities; whither all noisome things were carried to be consumed. This was a

wise institution, as by its means their cities were continually being fumigated with the sulphurous acid gas, arising from the fires and diffusing itself through the air, as it passed over them, in its progress towards the city, thus preventing malaria and maintaining a more wholesome atmosphere. Raynal L' Abbé Raynal. Hist. E. and W. Indies, v. 4. asserts that the natives of the west coast of Africa kindle fires, every night, near their dwellings to purify the corrupt air.

London is, at this time, continually undergoing fumigation with sulphurous acid gas, and it is to this circumstance that its immunity from destructive general fevers and plagues appears, in later times, to have been in great part owing. The atmosphere of London is perpetually under the influence of the purifying effect of sulphurous acid gas, from the great quantities which are generated by the many fires employed around it for the purpose of burning bricks; by the numerous manufactories in every direction, whose tall chimnies pour forth copious volumes of that gas; and by domestic fires, which, being supplied with coal, also give off a great quantity of it. This, however, will not prevent the prevalence of fevers and putrid diseases, in places which are enclosed so as to impede the free circulation of the air, and where, from accumulation of animal filth, sulphuretted hydrogen gas is profusely generated. Of which fact we have ample demonstration in the havoc which fevers are wont to make in the close and badly-drained courts and alleys, and about the abominable burial-grounds, in the interior of London; and indeed, in all places similarly circumstanced. But with respect to London generally, Purity of the air of London.

the quantity of sulphurous acid gas which is now evolved, and diffused through its atmosphere, is such as, with due attention to the wholesomeness of the ordinary articles of food, to general cleanliness, to the perfection of drainage, and the avoidance of great accumulations of noisome matters in the town or its suburbs, must prevent the prevalence of widely spread fever or plague, unless from causes arising out of new circumstances, instituted by the subterranean operations of nature. The quantity of sulphurous acid gas, however, which is thus evolved, is apt to be much greater than is required for the purification of the atmosphere, and therefore detrimental to health; but that excess of it in the air, is much less hurtful than the condition which must prevail if its amount were insufficient for the neutralization of the putrid vapours, so copiously evolved in our great metropolis.

The burial-grounds of London, henceforth unused as such, should be completely planted with trees and shrubs, as the yew, the laurel, and others of the ever leafy tribe, in order that they may pour forth their wholesome breath, in the place of the deadly vapours, which otherwise from them will be evolved as long as London lasts.

The common practice of polluting the air, by the spreading of abominable matters, as manure, over the ground, in and about populous places, prepares the way for the march of pestilence.

Although a very minute portion of sulphurous acid gas is beneficial to respiration, an excess of it causes irritation of the air-passages. Therefore in sulphur fumigation, caution is necessary with respect

to the quantity of vapour generated, as like all other substances, an excess of it in the air becomes deleterious. Fumigation by the vapours of sulphur is the most efficient means which can be had recourse to for the removal of pestilential air, and the use of sulphur for this purpose is of the greatest anti-
Hom. Od.
B. XXII.quity, as appears by Homer, who describes this method of purification.

No substance has ever been so universally, at all times, had recourse to as a prophylactic and a restorative as vinegar. It certainly possesses the power of shielding the body from disease, in a most remarkable manner. Thus we observe that the juice of the grape and other fruits, which it was ordained should, whilst fresh, be man's only drink, when, by artificial keeping, caused to pass into a state no longer fitted for that purpose, assume properties of wonderful efficacy in the protection of his body from disease.

The powerfully beneficial influence which vinegar is capable of exerting upon the constitution, is proclaimed in an astonishing manner by the prodigious effect which its vapour produces in the restoration of vigour and energy to the body oppressed by fatigue, or the respiration of an impure atmosphere. On account of those prominently conspicuous virtues of vinegar, it appears that people have at all times been instinctively impelled to solicit its aid, when a restorative has been required. It is not to be supposed that the powers of that substance are confined to the giving of a little refreshment by the inhalation of its vapours, or moistening the mouth with it. But the effects, in this way produced, are sufficient to lead to the

irresistible conviction that by skill and judgement, it may be converted into a most powerful agent for the defence of man against the causes which are inimical to his health. History accordingly relates that in ancient times, vinegar was held in the highest estimation for its remedial and prophylactic powers, by the most celebrated physicians, and employed for the cure of a great number of diseases; against which they regarded it as the most effectual and efficient remedy. Hippocrates, Dioscorides, Galen, and I believe I may say all the ancient medical authors, held it in the highest estimation, as indeed have the most celebrated writers down to the last century.

It is seen by history that water acidulated with vinegar was much used as a drink by the Romans, and that it constituted the common beverage of the Roman soldiers; and it appears to have been found most efficient in protecting them from the influence of the malaria of unhealthy climates, and in maintaining a healthy condition of the body under great toils and fatigues.

The ancient authors very frequently advert to the extraordinary efficacy of vinegar in securing the body from pestilential diseases; and it was formerly a very general custom amongst physicians to make use of it as a prophylactic to secure themselves from infection whilst visiting their patients. Boerhaave also affirms that there is nothing which more effectually defends the body from the attack of pestilential diseases than vinegar, and whilst speaking of it as a prophylactic to protect medical men from infection, he observes that Diemerbroeck once forgot his vinegar and caught the plague.

During the plague of Marseilles of 1649, it was observed that four individuals, under the pretence of succouring the sick, were constantly plundering the dead bodies of its victims: being at length arrested, they stated, on condition of their lives being spared, that the use of aromatic vinegar had preserved them from the influence of contagion. It was in that way that it acquired, in France, the name of "*le vinaigre des quatre voleurs*," the vinegar of the four thieves.

No remedy has ever been more celebrated, or highly esteemed for its great virtues, than the famous *Acetum Theriacale*, consisting of vinegar with water, slightly sweetened with honey or sugar. That remedy has been most universally employed by physicians of the greatest eminence for the cure of many diseases, from the earliest times, to within about the last hundred years. Salmon, in his dispensatory, whilst extolling the virtues of that medicine, affirms that, "no one who took a little draught of it fasting, during the great plague of the year 1592, was infected with it, but preserved from it and all other diseases."

*Acetum
Theriacale.*

Notwithstanding the infinite and, it might well have been supposed, irresistible amount of evidence in illustration of the great virtues of vinegar, when judiciously employed, it has of late years, inexplicably fallen into disrepute, and been almost entirely rejected, as a medicinal agent, in this country; which may have happened partly in consequence of the impurities and pernicious adulterations of the English vinegar.

Galen employed vinegar diluted with water in

Vinegar
a remedy
for con-
sumption.

the treatment of consumption : and it is stated that the Moorish physicians of Africa still use it for that purpose ; and also that it is much employed both externally and internally by the native medical men of India, who hold it in the highest estimation. About the commencement of the present century particular attention was paid to this method of treating consumption by M. Oban, a surgeon in the French navy ; who, being in Africa, had learned the practice of the Moorish physicians ; and from whose favourable report, read at the College of Physicians in London, a Dr. Roberts, in this country, also made a trial of it ; and the result of the experience of both those gentlemen, in the treatment of consumption by vinegar, is recorded to have been most highly satisfactory.

My attention was first particularly directed to the extraordinary properties of vinegar, in 1838, whilst at Civita Vecchia, on my way to Rome, where I prescribed it in the form of the white wine vinegar of the country, for the relief of a distressing headache, occasioned the day before by a stormy voyage on the Mediterranean sea. I was by circumstances led to the conviction that the inconvenience in that case arose from the absence of acidity in the system, or, more properly perhaps, from the absence of a principle, for whose production and maintenance vegetable acid is necessary. In order to furnish which, I prescribed rather a large quantity of the vinegar. And, although intense suffering and considerable prostration of strength had continued rather more than twelve hours previously, those symptoms were, in less than an hour, completely

removed, with a re-establishment of vigour and energy, manifesting an effect which I had never observed to be produced by any other remedy. Which making a strong impression on my mind, I was subsequently induced to search deeply into its history, and to make experiments with it, as often as opportunities occurred. Those experiments led to results which surpassed my most sanguine expectations, and having confirmed my own estimation of the value of the remedy, by its employment on the Continent, and during many years subsequently, since my establishment in London, for the relief of different diseases, I have been induced thus strongly to represent it. Not pretending to put it forth as a new remedy, which indeed it might now justly be styled, from having fallen so much out of use and repute, as a medicinal agent; but with the hope of restoring to that most ancient remedy, the important place in the catalogue of healing substances from which it has, unfortunately, been so long excluded.

I have not made use of the common vinegar in the treatment of diseases, on account of the impurities which it is liable to contain, but of the pure wine vinegar, or the acetous acid, made by a dilution of a distillation from vinegar, or the acetic acid. I have found it invaluable in the treatment of fevers, excepting the inflammatory: putrid diseases, palsy, consumption, asthma, headache, and many other of the complaints of early life, are wonderfully benefitted by it.

It is, however, necessary to add, and I hope it will be well borne in mind by the readers of these pages, that, although acetous acid, or vinegar, is so

common a substance, and generally so safe and so wholesome, about the same caution with respect to its employment in the treatment of disease is now necessary, as in the case of any other substance entitled to the appellation of a safe remedy: and therefore, if it be medicinally employed in the treatment of diseases to which it is not applicable, or even for the cure of the diseases to which it is generally most beneficial, under circumstances now common, which may forbid its use, mischief may result from its employment; as is the case with all other remedies improperly applied. For example, if there be inflammation externally, or of any of the internal organs, it cannot with propriety be exhibited until that is subdued.

The acetous acid, or vinegar, possesses the power, in a very remarkable degree, of sharpening all the senses, especially those of sight and hearing. It is also extremely valuable as a condiment, and is one of the most wholesome which can be used for the flavouring of meat and vegetables. Its judicious use as a condiment, greatly increases the digestive powers, and thus wonderfully promotes the health and vigour of the body.

Adulterations of vinegar.

It is commonly believed that vinegar has a tendency to occasion a wasting of the body; but that effect is owing to its impurities; the moderate use of good and pure vinegar renders the body stouter and more robust. But unfortunately pure vinegar is not common in this country; it is usually adulterated with oil of vitriol, and this pernicious and hurtful adulteration is sanctioned by law. The corrosive austerity of the vitriol destroys the mild and

grateful properties of the vegetable acid, and thus the liquid commonly sold under the name of vinegar is hurtful to the constitution: common pickles contain much of this crude mineral acid; consequently it is common to hear persons complain of the ill effects which they experience from the use of such vinegar and such pickles. This kind of vinegar, if such it may be called, is most extensively mischievous: the corrosive crudity of the vitriol is very hurtful to the constitution, and causes much suffering by the indigestion and stomach complaints it occasions.

Vinegar, as in this country, commonly made from malt, is apt to spoil by long keeping; to prevent which the makers are allowed to add oil of vitriol to it: but vinegar made from fruit, as it should be, requires no addition to preserve it. Pure vinegar is one of the most valuable of the requisites of health; and it is exceedingly desirable that there should always be a good supply of it.

As we have before observed, medicine may relieve, but cannot permanently cure, complaints which are perpetuated by the constant introduction of raw and corrosive fossil substances, which have not been rendered mild and grateful by vegetable elaboration, by means of adulterated bread, pickles, sauces, or otherwise.

It is also well known that wines and spirits are most extensively adulterated with strong sulphuric acid, commonly called oil of vitriol, and with muriatic acid, commonly called spirit of salt, or acid of salt. Hence these wines and spirits, being taken for the relief of such diseases as cholera and bowel

Adulterations of wine.

complaints, are most destructively mischievous; the corrosive mineral acids which they contain, by the cruel irritation which they produce in the intestinal canal, greatly increase the ferocity of the disease, by which the sufferer is more quickly and more easily overwhelmed. But pure wine, and well kept, is most astonishingly efficacious in the promotion of recovery from certain morbid conditions of the constitution.

The habitual and moderate use of unsophisticated wine, wonderfully promotes the health and vigour of the body, but when taken too freely is much worse than none. Genuine wine of itself does not appear to exert any seductive influence over man, which prompts him to take more than is good for his constitution, but the perverting agency of many improper foods and drinks does strongly urge him on to the immoderate use of wine, to which the evil consequences are then wont to be unjustly ascribed.

Genuine beer, made only of water, malt and hops, and not too strong, is one of our best and most wholesome drinks: and it is a very ancient beverage, as appears by the history of Herodotus, who relates that, under the name of malt wine, it was anciently used in Egypt. Diodorus Siculus, Plutarch, and other authors, also speak of its use in ancient times.

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