THE LAWS OF LIFE

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Chapter II
Human Life - Its Philosophies and Laws

No one accustomed to observing the exact order and harmony that prevail in the world about him will question that his own body is constituted upon precise and fixed principles and that the vital machinery is controlled by express law. Physicians of all schools profess to believe in the existence of a law, which governs the vital organism, and most of these profess to believe that in a perfect state of the body, this law is fully adequate to the government of all the vital forces and their actions.

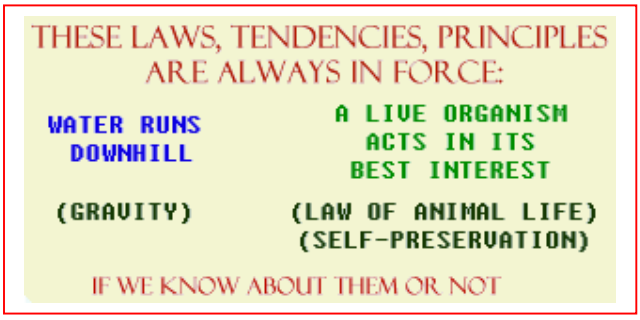
But in a disordered or impaired state of the body, physicians of all schools hold that the economy of life is incompetent alone, to exercise the entire supervision and direction of all the internal affairs of the organism. It needs and must have counsel and aid from the human mind; backed by agents and forces other than those inherent in the organism.

BEST INTEREST OF THE ORGANISM

The *law of animal life* is an inherent principle or tendency in the animal organs, by means of which they perform certain specific functions or acts, and this law, principle or tendency is immutable, always in force, and always acting in one direction with as much positiveness and unnerving certainty as that water will run down hill, or heavy bodies tend towards the center of the earth.

The general law of the vital economy is a unit. In all its operations, whether in perfect or impaired health, its tendency is one and indivisible: *the highest and best interest of the whole organism*. Nor can this unity be broken so long as life continues.

For the purpose of showing, more clearly, the nature and tendency of the law of life, and its adaptation to the purposes of life and health, it will be necessary to examine it under a number of separate divisions. These divisions reflect a grand system of order that is ultimately based on the same principles and which give rise to a grand harmony which can hut excite the wonder and admiration of every man or woman who studies them. Before entering into this, however, it is deemed advisable to say a few words about what is meant by the terms, laws of nature, laws of life, etc., which we shall have frequent occasion to use throughout this book.



NATURAL LAWS EVERYWHERE

We are in the habit of saying the Universe is governed by law and, while we shall use this convenient expression throughout this work, we desire it understood that we do not use the word law in any legislative or coercive sense. The laws of nature are not legislative enactments. Natural events do not take place in obedience to natural laws. Natural laws, as we call them, govern nothing. They are "uniformities of nature which are classified in universal formulas describing all possible happenings of nature. Thus the law of

gravitation does not govern the motion of falling bodies and the coursing planets, meteors and suns. The law, so-called, is a descriptive formula which states in the tersest way possible the mode of action which things of a definite quality will take under certain conditions." Natural laws are formulas which describe uniformities or regularities of nature. The uniformities of nature are not mere haphazard coincidences but intrinsically necessary conditions. They are based on the nature of things and constitute an intrinsic and necessary part of the world-order, or, rather, of the universal order. The uniformities of nature are eternal. They are uncreated and uncreatable.

Well does Graham say:—
"But when we speak of laws and properties of matter, what do we mean? We talk of the law of gravity; and so far as size, weight, distance velocity, etc., of attracting bodies are concerned, we can reason with mathematical accuracy and precision; but with all this extent and accuracy of knowledge in regard to the fixed order of the phenomena of gravity, what do we know of the essence of that power which we call the attraction of gravitation? Absolutely nothing. The chemist also speaks of the molecular affinities of matter, and the laws which govern the combinations of his experimental elements; yet he is totally ignorant of that power or property which he calls affinity, and the fixed order of whose phenomena he calls law.***** We use the word law then, in regard to matter, as an abstract term, to signify a fixed order of phenomena that are produced by a power of which we are entirely ignorant.**** While, therefore, we cannot, from our knowledge of things, affirm what the essence of life is, we know as certainly as we know anything concerning matter, that it could not spring from any of the properties or powers of inorganic matter, and that its relation to the organization of matter is of necessity in the nature of things, and has ever been since the first establishment of the vital economy in connection with organized matter, THAT OF A CAUSE AND NOT OF AN EFFECT."—*Science of Human Life*, p. 201.

We however, do not require to know the essential nature of life in order intelligently to obey its laws any more than the chemist must know the essential nature of matter, or the electrician must know what electricity is in order to work with these intelligently. Whatever hypothesis a chemist may hold in regard to the essential nature of matter he must still observe the same laws in his work as a chemist as his fellow chemist who perhaps holds to an essentially different hypothesis of what matter is. Just so, in giving us power, light and heat all electricians, whatever their ideas concerning the nature and essense of electricity, must observe the same laws.

Just as our ideas about the essential nature of matter and electricity do not change them one iota, just so, our ideas about the essential nature of life do not change the phenomena and laws of life. Life will not change it's “fixed order” to suit our changing conceptions of its essential nature. It continues to “saw wood” at the same old stand and in the same old way.

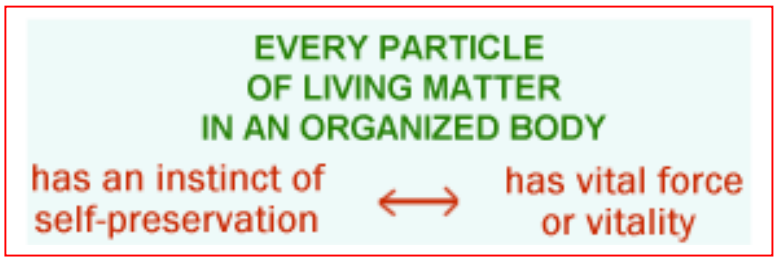
FIRST LAW OF NATURE - SELF-PRESERVATION
All the various conditions and requirements of life herein set forth, that is, air, water, food, light, warmth, exercise, rest, sleep and freedom from poison and violence, structural and functional integrity of the organism, etc., are not life nor the causes of life. These are but the necessary conditions of life without which life would cease. But these conditions cannot produce life. The responses of the living organism or of the fertile seed or egg to these conditions are the results of the operations of a force inherent in and peculiar to the living being. This force, called by various names, strives always to preserve and maintain the organism in as near perfect condition as possible. The reaction of the living thing to any adverse condition or circumstance is always calculated to defend and preserve its integrity.

In fact, so strong and universal is this effort at self-preservation that it has been called the first law of nature. The instinct of self-preservation is inherent
(1) in the smallest microscopic unit of organic existence,
(2) in cells associated as a community,
(3) in cells organized into distinct organs, and
(4) as organized into organisms.

Every particle of living matter is under the control of life or vital force and is endowed with the instinct of self-preservation.

PRIMARY - LIFE'S GREAT LAW

Self-preservation is the primary or controlling expression of life and, normally, is subordinate to no other law except, at times, to the instinct of race preservation, in which case the individual often sacrifices itself for the protection of the young or the flock. However, in such cases, there is no true sacrifice, but rather, the individual is killed while trying to defend itself and young or herd from danger.



Dr. Robert Walter formulated this law as follows, and denominated it:—

LIFE S GREAT LAW: "***Every particle of living matter in the organized body is endowed with an instinct of self-preservation, sustained by a force inherent in the organism, usually called vital force or life, the success of whose work is directly proportioned to the amount of the force, and inversely to the degree of its activity***."

A law is a "constant mode of action of a force;" that is, it describes how the force works. The life force in its operations works, as do all other forces, according to well defined *laws* or *uniformities*. Laws have no validity except as expressions of the forces back of them. Primarily, life seeks to preserve itself or rather the organization it has built for itself. All the functions of life have reference to this effort at self-preservation either of the individual or the race. This is as much true of the single cell as of the complex organism.

SECONDARY - LAWS OF VITAL RELATION

In the organic as in the inorganic realm, there exist also, secondary laws or "the observed order" of facts which grow out of the primary law which produces them. Dalton's laws of chemistry and Kepler's laws of the heavenly bodies form secondary laws to the primary laws of chemical affinity and gravitation respectively. So in life we have certain laws secondary to "*Life's Great Law*" called the *Laws of Vital Relation*. First among these we have :—

THE LAW OF ACTION: "***Whenever action occurs in the living organism, as the result of extraneous influences, the action must be ascribed to the living thing which has the power of action, and not to the dead whose leading characteristic is inertia."***

There is a vast difference between living and dead protoplasm. Chemically, they may be the same, physically they may present identical appearances, but they answer to different tests. The living protoplasm or the living organism possesses the power of action; dead protoplasm, in common with all other lifeless matter, does not.

- Lifeless matter may be moved, but it cannot move itself.
- Living matter can move itself and other matter as well.

The action of living matter under various conditions and when subjected to various stimuli does not represent the action of these conditions or stimuli upon the living organism, but, rather, the response of the living thing

to the conditions or stimuli. The response is from within, the power to respond is inherent. When the power of response is lacking as in dead protoplasm there is no response to changed conditions or to the application of various stimuli. In the relations between lifeless and living matter,

- the living matter is active,
- the lifeless matter passive.

If the power is low the response is correspondingly low. The work of vital force is "DIRECTLY PROPORTIONED TO THE AMOUNT OF THE FORCE."

We may illustrate the above law by the common practice of taking purgative or laxative drugs to force bowel action. The expression is common that certain drugs "act on the bowels" or on the liver or on the kidneys or act on some other organ. Apparently this is the case, but actually the reverse of this is true. The taking of a dose of epsom salts is soon followed by a movement of the bowels. Dr. Trail's question, "which acted and which was acted upon," is a very pertinent one. The only action of which any drug is capable is chemical action and no one will maintain that the bowel action in this case is chemical. No one will dispute that it is bowel action. From first to last the living organism is the actor, the salts are acted upon.

Why do the bowels act; why the hurry following the ingestion of the salts? The answer is: Self-preservation.

The chemical union of salts or any other drug with any of the fluids and tissues of the body is destructive to them, impairing their structure and function and even resulting in death. They act as irritants and are irritating in direct proportion to their destructiveness. The bowels act to cast them off, to eliminate them. They but perform their God-ordained function of elimination in order to self-preservation, in hurrying the dose of salts from the body.

This bowel action is vital action, as much vital action as the beating of the heart or the act of hearing, and the power of the action is inherent in the bowels, not in the salts or other drug. Vital action is accomplished by vital power and this leads us naturally to the:—

LAW OF POWER: "***The power employed, and consequently expended, in any vital or medicinal action is vital power that is, power from within and not from without***."

It is the living thing that acts, it is the life power that produces the action. A dose of salts or calomel will produce no movement in the bowels of a dead man. The body of a man who is nearly dead will not respond to medicines. Why? Because the power of response is absent. It is living power, not drug power that is back of the action. Vital force is the cause of the action, the threatened danger to the organism, due to the presence of the drug is but the occasion for the action.

Dr. Trail well illustrates this law as follows:—
"It is urged that, as escharotics or caustics applied to the skin occasion rapid decomposition of the structures, the drugs must, in these cases, act on the system; for, it is asked, would the living system destroy itself? Is that remedial action which results in death?

I answer: Remedial action is not necessarily successful in always accomplishing its purposes. It is defensive action. It aims to rid itself of the enemy; to remove the abnormal and offending material. It may wear itself out in the struggle. It may die in the attempt. It must oppose and war upon whatever is injurious, whatever is incompatible with its functions, so long as they are present, otherwise it could not be vital. And this is precisely the distinction between living and dead matter; the dead is passive and quiescent everywhere; the living will not tolerate the presence of the dead.

"That caustic does not act on the skin any more than ipecac acts on the stomach, or caster-oil on the bowels, is demonstrated in this way. Apply a blistering plaster to the skin of a healthy, vigorous, young person. It 'draws' readily and the skin is soon vesicated. Apply it then to a feeble, pale, anemic, or dropsical invalid. It 'draws' with difficulty or not at all. Before it will vesicate, the skin must be rubbed with some pungent or

irritant, as hot vinegar or red pepper. Then apply the blister to the skin of a dead person. It will produce no effect whatever. What is the explanation of these facts?

"If the blister acted on the skin, the effect would be greater instead of less in the cases of feeble persons, for the reason that there is less vital resistance. But the contrary happens to be the fact. The effect of the blister is precisely according to the vigor, integrity, and resisting power of the living and acting machinery; and this I regard as proof positive that it is the living system, and not the dead drug, which acts. And the principle herein indicated explains how it is, and why it is that healthy vigorous persons, when equally exposed to the causes of disease, have more acute and violent maladies. Disease being remedial action, and their vital machinery being in vigorous condition, the defensive action, the disturbance, the disease, will manifest proportionally more violent symptoms."—*The Hygienic System*.

Dr. Walter used *Herschel's rules* for determining the real cause of an effect, to show that this explanation is correct. These rules are:—

- First—Invarible connection between cause and effects.
- Second—Invarible absence of effect with absence of cause.
- Third—Increased or diminished intensity of effect with increased or diminished intensity of cause.

Now, let us apply these rules to our law and see how it works. Our law says that vital force is the cause of the action, while the living organism is the actor. Already, we have used a dose of salts to illustrate the *Law of Action,* and we shall use it to illustrate the present. No amount of salts can "move" the bowels of a dead man. The giving of salts to the dead produces no effect. Yet, if salts were the cause of the movement we should get a movement. Bowels do not move, whatever the occasion or condition, where life is lacking. Dead bowels cannot be made to act.

The more vigorous a person is, the more vitality he possesses, the more vigorous will be the response to the salts, on the part of the bowels, while, if the person is very low, the response may be hardly perceptible. In the relations between living and lifeless matter, the living matter is active, the dead matter is passive. The action of living matter is in proportion to the need for action and to the amount of power of action that is present.

If salts act on the bowels, to move them, they should always do so regardless of the condition of the bowels. But if the bowels act on the salts, to expel them, it is obvious that there will be no bowel action following the ingestion of a dose, if the power of movement is lacking. Where the power of movement is present, the movement must be in proportion to the power possessed and to the need for action. The salts cannot give power to the bowels for they possess no power to give. But they do occasion the expenditure of the power already possessed by the bowels. The same thing is true of other substances and agencies which apparently strengthen us. They occasion the expenditure of power already possessed but do not add power.

Power is felt only in its expenditure, never when it is passive. One, therefore, feels stronger while he is growing weaker, and feels weaker when he is actually growing stronger through recuperation of power. The man who has had a drink of alcohol is led to believe that he is strengthened by it, while, in reality, the alcohol has only occasioned the expenditure of the power he possesses.

In this way strychnine may "strengthen" the heart until it exhausts this wonderful organ. A cold plunge or a short hot bath produces a general feeling of strength and well being by occasioning the expenditure of power which they do not and cannot give.

The thing which seems to give strength is the thing which is taking it away. The thing which appears to be curing the patient is the thing that is hastening his death. The very agents which seem to be "supporting" and "sustaining" life are the very things that are undermining the foundations of life.

Following the period of apparent increase in vigor (stimulation) there comes a period during which there is a feeling of lessened vigor (depression). There are two effects following the use of every force or agent.

THE LAW OF DISTRIBUTION: ***In proportion to the importance and needs of the various organs and tissues of the body is the power of the body, whether much or little, apportioned out among them.***

The laws of life are as fixed and uniform as the law of gravitation, or any other uniformity of nature. They are immutable, always tending toward the perfection, in every particular, of the organism, whether the power which they sway is sufficient for the accomplishment of this end or is greatly inadequate therefor. The distribution of this power is under control of immutable law, which wisely and minutely appropriates it where most needed and supplies every organ with as much as it can use so long as there is sufficient power to distribute.

Art cannot, by any possibility expedite the recuperation or generation of power or increase its quantity at any given time in good health or impaired health.

Art can by no possibility secure a more efficient and advantageous distribution and use of the vital powers than would be made by the vital laws if these are left to the undisturbed administration of organic affairs

Every organ of the body has its particular and specific functions to perform, and with an adequate supply of power, will do its work promptly and well. But with an inadequate supply of power it falters in its functions and fails to accomplish its work in a thorough, workmanlike manner, yet it always does the best it can with the power at its disposal. Its calls for power will be urgent and in proportion to its needs. *The Law of Distribution* will be as vigilant and discriminating in its appropriation of power when all or a number of organs are calling loudly for it, as when all parts are adequately supplied.

THE LAW OF DUAL EFFECT: ***The secondary effect upon the living organism of any act habit indulgence or agent is the exact opposite and equal of the primary effect***.

Perhaps no better illustration of this law can be given than that of the phenomena of Anaesthesia. About eighty years ago it was a common practice in parts of this country for persons to inhale the fumes of ether for its exhilirating effects. This practice often formed the chief means of entertainment at country parties. During these ether frolics the stage of excitement was often followed by unconsciousness and loss of sensation. It was this later effect that probably first suggested its use as an anaesthetic, it being first employed as such by Dr. Crawford Long of Georgia.

Complete anaesthesia is divided into three stages:— (1) induction, (2) maintenance, (3) recovery.

The stage of induction is divided into two periods:— (1) the period of cerebral and muscular excitement, (2) the period of relaxation.

The stage of recovery is divided into two periods:— (1) the return of the reflexes, (2) the return of consciousness.

The stage of *induction* extends from the beginning of the administration of the anaesthetic to the point of general muscular relaxation. It is evidenced, during the first period, that of excitement—called “exaltation of function”— by an unusually rapid pulse, irregular sighing respirations, anxious expression, fidgety movements of hands and feet, constant clearing of the throat, licking of the lips and other movements and struggles. There is universal excitement and commotion in the organic domain. Recovery takes place in inverse order to induction. The following description of the phenomena of anaesthesia from the International Encyclopedia of Surgery, Vol, 1, p. 406, is illuminating:—

“A description of the symptoms occasioned by the inhalation of the vapor of ether or of chloroform will convey a sufficiently accurate idea of the manner in which artificial anaesthesia ordinarily supervenes. The first effect*** is a local excitement of the nervous apparatus of the respiratory passages. The senses of taste and smell*** are powerfully excited. The activity of the salivary glands is aroused, the acts of deglutition are stimulated.**** The initial effect is disturbance of function; the subsequent effect is paralysis of function. Disturbance usually assumes the form of exaltation.*** There is a humming sound in the ears and subjective impressions of light flash in varied forms across the visual field. The pulsations of the heart can be felt, and the vermicular movements of the intestines can sometimes be perceived. The arteries throb, the brain seethes, waves of heat flush the surface of the body, perspiration appears on the face, and may become general, the pulse rises, respiration is accelerated, the pupils contract, the eyes close, reflex irritability is exalted, and in its general appearance the patient resembles a person in the early stages of alcoholic intoxication. To this period of excitement succeeds the state of diminishing function; cutaneous sensibility grows less, the temperature falls, the pulse recedes, the blood-pressure diminishes, the respiratory movements become deep and full, voluntary movements cease, consciousness gradually fails, reflex movements are abolished, and the patient becomes utterly insensible.”

The above description well illustrates not only the law of dual effects but, those of action and power and shows, as well, how strongly the living organism battles in self-defense. When the vapor of ether or chloroform is inhaled its poisonous character is instantly recognized by the organic sensibilities of the parts upon which it comes in immediate contact, and the alarm is promptly spread throughout the whole organic domain. Every organ of the body is more or less powerfully and extensively effected and there is a general effort of the vital powers to resist the poisonous effects of the anaesthetic and to expel it from the system. The integrity of the vital domain is in jeopardy and it puts up a strong fight in self-defense. Under such conditions, the extent to which the physiological operations of the system deviate from their normal course, must always be proportionate to the force of the poisonous or injurious influence, and the physiological power of the disturbed economy. This violent reaction against the drug is referred to in the above quotation as "exaltation" of function, a "period of excitement."

Truly there is reason for excitement and for vigorous action. The whole organism is endangered and true to its instinct of self-preservation it puts up a fight. Every organ, every tissue, every living cell in the body enters the fight for every particle of living matter is endowed with the instinct of self-preservation. The increased action is still vital action and the power employed and consequently expended is vital power. It will be shown later that healthy sleep differs from the state of coma and apparent death induced by drugs, in that, the organism aroused from sleep feels refreshed and renovated and is ready for action, while the organism aroused from coma is languid and exhausted and utterly unfitted for action. The reason should be obvious. Sleep is a renovating, recuperating process, its first and temporary, effect being weakness and reduced function, its second and lasting effect being strength and increased function. Anaesthesia is a poisoning process, the first and temporary effect of which is increased function, its second and lasting effect diminished or abolished function. The inactivity of sleep, not the increased activity of stimulation, is the great representative process of recuperation and health. The primary effect of stimulation, increased activity and an increased feeling of well being, produces weakness and exhaustion, as its secondary and lasting effect. This is true regardless of whether the stimulant is chemical, electrical, mechanical, or mental. *The degree of weakness that follows is commensurate with the degree of stimulation that preceeded.*

Alcohol which apparently strengthens and which for a very brief moment increases function results in diminished function and weakness. Alcohol like ether and chloroform does not add power to the system. It only occasions the expenditure of power already possessed. It is properly classed as a caustic irritant and the exalted function which first follows its use is not due to any power it communicates to the body and mind but to the vital resistance and consequent expenditure of vital power its irritating effects occasion. Its secondary effect is due to the exhaustion of the vital powers and its destructive effects upon the tissues of the body.

A cold plunge or a short hot bath acts as a stimulant. There is an increased feeling of well being, an increase of physiological function. It is always and necessarily followed by an equal amount of mental and physiological depression. Prolonged cold baths act much the same as chloroform or ether. The temporary

exhiliration of function is soon followed by a decrease in function. The heart action is reduced, the circulation and respiration slowed down and nervous activity decreased. Muscular activity is decreased even to the point of stopping such activity. Prolonged application of cold to the chief trunk of a nerve will greatly diminish or entirely abolish its activity. The feeling of warmth that comes with the reaction from the first shock of the cold gives way to a feeling of chilliness and cold. The apparent increase of strength gives way to a feeling of weakness and lassitude, and if the cold is continued, numbness and abolition of function follow. Anaesthesia can be produced by prolonged cold. It is a vital depressant and the feeling of increased strength with the increase of activity which comes primarily upon its application is one of vital resistance. The organism resists the cold as truly as it does alcohol or ether. Cold does not supply functional power but it does occasion its expenditure.

Moderate heat applied to the surface of the body occasions the dilation of the arteries, capillaries, veins and lymph vessels. This temporarily increases skin activity. If this is prolonged or repeated often the result is a weakening of the skin and a lessening of its reactive power - debility and exhaustion. This is always the result of prolonged or repeated stimulation whatever the agent used to produce the stimulation. More will be said upon this point in the chapter on stimulation.

All medical authors agree that if the use of a tonic is long continued, the effect is debility. A tonic medicine first strengthens, and then debilitates. Such results are accounted for by the law of dual effect. Alcohol permanently weakens because it temporarily strengthens. Opium permanently produces sleeplessness, nervousness and pain, because it temporarily relieves these conditions. A cup of coffee will relieve a headache but in so doing it permanently fastens the headache habit upon the patient. It will relieve mental depression, but when the user is deprived of his coffee he becomes doubly depressed. Tobacco steadies the nerves only to unsteady them. Tonics strengthen only to debilitate. Purging produces constipation, diuretics produce inactivity of the kidneys, cholagogues result in torpidity of the liver.

If the habitual user of any drug will cease its use for a few days he will experience in their fullness all its secondary effects. If he then returns to his use of the drug he will be delighted to find that these secondary effects are “cured” by it. The disease is “cured” by its cause - coffee cures the headache which it produced; whiskey restores the (feeling of) strength it has wasted; tobacco, the steadiness of nerve it has destroyed.

Give opium to cure a man of pain! Who has pains equal to those of the opium addict? The nomenclature of medicine needs revision. Opium and other anodynes and antispasmotics should be classed as odynes and spasmotics. The whole class of tonics should be classed as atonics. Stimulants should be called depressants. These substances should be classed according to their secondary and lasting effects and not according to their *primary* and *temporary* effects.

There is no such thing as a strengthening medicine. The manner in which so-called tonics act in strengthening the body or any part of it resembles the methods of marching of the Corporal who used to command his squad to, “Advance five paces backwards!” They strengthen us after the principle of progress illustrated by the frog in the well - two feet out in the morning and four feet back at night. They take away the strength they appear to give. They cause the sleeplessness they appear to cure. These substances and destructive agencies enslave their victims, because of their poisonous nature, which first arouses vital activity, giving an appearance and feeling of strength, at the very time and by the same means that the patient is being exhausted. Utter destruction would promptly follow their use were it not for the *Law of Vital Accommodation*, which we shall discuss a little later.

The energy of medication by poisons, is the energy of defense. Only that which arouses the organic energies to desperation brings about prompt action. The action wastes vital power and results in weakness.

This law of dual effect admits of no exceptions. It applies to all departments and all the actions of life.

- Labor or exercise arouses vital activity thus giving an appearance of increased vigor. This is their first effect. But their secondary effects are tiredness, fatigue, decreased vigor and exhaustion.

- How often do we hear the invalid advised that he must keep up, because if he goes to bed he will lose strength. This is the first effect. The secondary effect is a gain in strength.
- Travel or excitement makes the invalid feel stronger and better as a first effect. But the secondary effect is languor, weakness, exhaustion. Rest and sleep, on the contrary, produce as their first effects, weakness and languor, but no one doubts its recuperative value.
- Rest and sleep, are the only means whereby recuperation and re-invigoration can be secured. But these are its secondary and lasting effects. The invalid must be weak that he may grow strong.

The same is true of eating. Those foods that are most stimulating, such as tea, coffee, cocoa, chocolate, spices, meat, etc., invariably weaken, as their secondary effect, in proportion to the strength they appear to give.

This law is equally applicable to the sex function, but, as this will be described in a later chapter, no attempt will be made at this place to show its application.

THE LAW OF LIMITATION :— ***Whenever and wherever the expenditure of vital power has advanced so far that a fatal exhaustion is eminent, a check is put upon the unnecessary expenditure of power and the organism rebels against the further use of even an accustomed stimulant.***

This is a very poor formulation of this law which I have attempted to make. However, it will serve, together with the following explanation to convey the meaning to the reader.

It often happens that a physician employs a certain stimulant in the treatment of a very depleted patient. This seems to "work like a charm." The patient responds readily. But it becomes necessary to give the stimulant in increasingly larger doses, and finally the body ceases to respond to it and rebels against its use. In the days when brandy was the medical man's stand-by, after this had been given for some time in low states of disease, it would pall upon the senses and be loathed by the patient.

If the patient is not too low, after one drug has ceased to produce the "desired" effects, it is usually possible to produce these by changing drugs. But when the patient is very low, near death, no drug will produce such effects. When over stimulation has wasted the energies of life almost to the fatal point the law of limitation interposes a hand and prevents their further use. The desire for tobacco, alcohol, opium or other irritant ceases. There is a loathing for the accustomed drug. It is this law also that withdraws power from the voluntary muscles and from the digestive organs in acute and frequently in chronic disease.

In future chapters other examples of this will be given and it will be shown that this *Law of Limitation* is frequently enforced against one organ or group of organs, in order that the whole may be saved. It is a conservative principle, which says to stimulants "thus far shalt thou go an no farther."

In their pure and perfect state, the least violence done to the nerves by stimulants, excitants and disturbing agents, is felt and announced by them in full. But when they have been impaired by the habitual use of these things, a moderate excitation or flagellation with an agent such as that which impaired them, just sufficient to exalt the sensibilities to a comfortable state is relished, while an excess of the accustomed excitation is insipid or unpalatable. But in the degree as the sensibility and excitability of the nerves are depressed and impaired, in that proportion will it require force of excitation to raise them temporarily from their depression and despondency.

So long as power is present to respond to the lash of stimulation these agents are "delighted" in by the impaired nerves. But when the necessary force is no longer present and none is available to be dragooned to the relief of the unfortunate victim of his habits, until the nerves have had an opportunity of replenishing their storehouses, then the true character of the act of stimulation is revealed in all its naked deformity and is abominated by the thoroughly depressed sensibilities.

Inveterate tobacco users sometimes get so low that the tobacco is rejected until the flagging energies are partially recuperated. Inordinate users of alcohol or tea or coffee are liable to the same changes. Women whose very lives seem to be bound up in coffee, and who think they cannot live without it, will some times have periods during which they loath it. At such times they are regarded as “very sick,” and they are, but they are sick because of the great depletion of their energies.

THE LAW OF SPECIAL ECONOMY:—***The vital organism, under favorable conditions, stores up all excess of vital funds, above the current expenditures, as a reserve fund, to be employed in a time of special need***.

Power in reserve is the surest guarantee against disease. The body seeks always to maintain a certain reserve of power and we can get this power out only by supplying emergencies such as this reserve is stored up to meet. Thus irritants, miscalled stimulants, produce an emergency that call out the body’s reserve power in an effort to overcome these.

If no stimulants are employed the body will always have on hand a reserve of power to meet other emergencies of life.

During rest and sleep the body stores up power. During favorable weather it stores up power. During activity power is expended in doing work. During unfavorable weather power is expending in defending the body against the excessive cold or excessive heat, etc.

The growth and development of the body takes place by “spurts.” Periods of rapid growth alternate with periods of slow growth. The body seems to take a rest and accumulate power for the period of rapid growth. In periods of rapid growth there are new developments to be made, or incomplete ones to be finished and these things cannot be accomplished without an outlay of energy above the ordinary expenditure. In preparation for such a work there always precedes a period of comparative rest, as just prior to the onset of and in preparation for puberty at which time the forces of development go forward with a rush.

Some who have been ailing through more or less of the period of childhood are “carried by the force of development, which in a cyclonic fashion sweeps everything before it into health—and that, too, often in spite of wrong life, and a medical treatment that might prove fatal if administered at any other time in life." “These health storms, typhoons, revolutions, often sweeps invalids into health, starting up with no apparent cause, and carrying many victims of ill-health into physical states approximating good health?”— *Impaired Health*, Vol. I, p. 153, by J. H. Tilden, M.D.

It is as though the Miller, in preparation for a busy season, shuts his sluce gates and lets the water accumulate above the mill-dam until he has a head of power sufficient to meet the demands of the season.

We may make use of this same principle when the actions of the body falter due to lack of power. If the action of the mill falters from a decrease of water-power the gates are closed for the purpose of accumulating power. Activities are ceased and no power is expended. In cases of impaired health the closing of all the waste-gates through which vital power is needlessly expended permits the accumulation of power.

THE LAW OF VITAL ACCOMMODATION — *Natures Balance wheel — ”The response of the vital organism to external stimuli is an instinctive one, based upon a self-preservative instinct which adapts itself to whatever influence it cannot destroy or control*.”

The man who habitually indulges in stimulation would exhaust and destroy himself with but few indulgencies if the organism had no means of curbing its reactions against the stimulation and thereby lessening the expenditure of vital power. The first effect of stimulation is exaltation of function; if it is long continued, or often repeated, exhaustion with an almost total abolition of function results. The repeated use of stimulants

would soon result in death. But their repeated use soon brings about a condition in which the organism ceases to respond so readily and violently to the stimulant. If the former amount of stimulation is to be received from the stimulant a larger amount of the stimulant must be used.

The first smoke or the first chew of tobacco usually occasions a very powerful reaction against it on the part of the organism. The young man or woman is made very sick; there is headache, nausea, vomiting, loss of appetite, weakness, etc. So long as the physiological powers and instincts are undepraved and unimpaired they instantly perceive the poisonous character of the tobacco and give the alarm to the whole system. A vigorous effort is made to destroy and eliminate it and the user is forced to throw away his tobacco.

But if he continues to repeat the performance the reaction against it grows less and less with each repetition until, finally, he is able to use many times the original amount without producing such results. His system learns to tolerate it and adapts itself to its use as far as possible. The system soon becomes depraved and its power impaired by the use of the tobacco, its poisonous character is no longer detected and no alarm is given, rather a craving for the substance is developed. However, the habitual use of any substance that is injurious in itself cannot in any way render it harmless or beneficial and the habitual presence of any such substance is injurious to life, even, though, no energetic effort is made to resist its action.

What is here said of tobacco is true of other poisonous substances. Ordinarily the user of drugs such as tobacco, opium, alcohol, cocaine, etc., becomes so accustomed to their use that he is able to take at one time enough of his favorite drug to kill several non-users outright, and yet, it only produces in him an apparent normal condition of comfort and strength. There was the ancient King who, in order to protect himself against poisoning by his foes, accustomed his body to various poisons by gradual increase in the amount taken, until, when a time finally arrived when he desired to take his own life, by poisoning, he failed in the attempt.

The first effort of the living organism, in response to adverse and inimical influences, is to overcome and destroy these. Failing in this it attempts to accommodate itself to such conditions and influences. For, what it cannot overcome, it must learn to endure or perish.

Men live in almost every conceivable climate and under almost every conceivable condition, are subject to all kinds of influences and indulge in many and often very opposite habits. If given time the body is able to adapt itself to these varying conditions. Only sudden and violent changes become immediately destructive of life. We cannot quickly transfer the Esquamaux to the tropics nor the Hottentot to Greenland. We can suddenly force upon the non-user the amount of alcohol, arsenic or opium used by the habitue, only at the expense of life itself.

Habits, gradually built and long established, cannot usually be suddenly broken. There is no immediate danger to life as a result of the sudden breaking off of a habit, long practiced, but it is often followed by one or more crises more or less severe as the organism seeks to accommodate itself to the changed conditions. Because a habit does not seem to be immediately destructive is no evidence that it is not destructive or that it is beneficial. Its secondary effects alone can furnish us with the clue to its influence.

A cup of coffee produces an immediate feeling of well being while no such feeling accompanies the taking of a glass of orange juice. But when the secondary effects of these two substances are viewed, no room for doubt is left as to which of these is really beneficial and which is injurious.

When the French revolutionists destroyed the Bastile, they found a man who had been confined for eighteen years in one of the cells, and his only bed a hatchel, or plank pierced with nails, the points of which protruded on the side on which he was forced to lie without protection from the points of the nails.

The man’s sufferings had been almost beyond endurance for the first two weeks of his incarceration, yet when he was removed by his friends, and supplied with a soft bed, he begged to be restored to his bed of nails for he could now rest no where else. But the same kind law of accommodation, which had made his

hatchet endurable, would soon have accommodated him to a soft bed. This law cushions the bottoms of the feet of bare-foot boys, girls and adults, and guards the hands of the manual laborer by a similar cushion.

In the mouth, throat, stomach, intestine and bowel, a similar hardening and thickening takes place to guard the at first sensitive linings of these organs against the constant irritation to which they are ignorantly subjected by those who use, tobacco, antiseptic dentrifices, mouth washes and gargles, alcohol, coffee, tea, salt, pepper, mustard, horse-radish, spices, cathartics, mineral waters, etc. But this is an expensive business - this business of keeping the system accustomed to the action of irritants so that the sensibilities shall not be kept under torture by these. Such protection does not render them harmless.

That hard (mineral) waters do contain substances that are unfriendly to life is obvious from their effects upon the hands that are much washed in such waters. The skin of the hands is firmer and more resistant to such influences than is the delicate membrane which lines the digestive tract and the lining of the internal surfaces of the arteries and veins. Yet these latter must come in contact with such substances if they are taken into the body.

When such waters are first taken the irritation they set up occasions a diarrhea. But as their use is continued thickening and hardening of the lining of the digestive tract occurs to protect these and the diarrheas cease. A similar hardening and thickening must take place in the arteries and veins. Hardening of the arteries is due to irritation caused by toxins and irritants of all kinds.

Other, and perhaps less important, laws no doubt exist, but they have not yet been formulated. One of these which may rightly be denominated the Law of Selective Elimination remains to be formulated. It is known that all injurious substances, which by any means, gain admittance within the domain of vitality, are counteracted, neutralized and expelled in such a manner and through such channels as will produce the least amount of wear and tear to the system. This law accounts for the fact that some drugs apparently act on the bowels, some on the liver, some on the kidneys, etc. These are the organs, which are selected to act on the drugs.

The *Law of Stimulation* remains to be formulated. Also the *Law of Repose*. These
I shall attempt to formulate in the chapters on Rest and Stimulation.

Herbert M. Shelton

Human Life - Its Philosophies and Laws
An Exposition of the
Principles and Practices of Orthopathy
Chapter II
1928

THE LAWS OF LIFE (1928)

Primary:

LIFE S GREAT LAW: "***Every particle of living matter in the organized body is endowed with an instinct of self-preservation, sustained by a force inherent in the organism, usually called vital force or life, the success of whose work is directly proportioned to the amount of the force, and inversely to the degree of its activity***."

Secondary to "*Life's Great Law*" are the *Laws of Vital Relation*.

1) **THE LAW OF ACTION**: "***Whenever action occurs in the living organism, as the result of extraneous influences, the action must be ascribed to the living thing which has the power of action, and not to the dead whose leading characteristic is inertia."***

2) **LAW OF POWER**: "***The power employed, and consequently expended, in any vital or medicinal action is vital power that is, power from within and not from without***."

3) **THE LAW OF DISTRIBUTION**: ***In proportion to the importance and needs of the various organs and tissues of the body is the power of the body, whether much or little, apportioned out among them.***

4) **THE LAW OF DUAL EFFECT**: ***The secondary effect upon the living organism of any act habit indulgence or agent is the exact opposite and equal of the primary effect***.

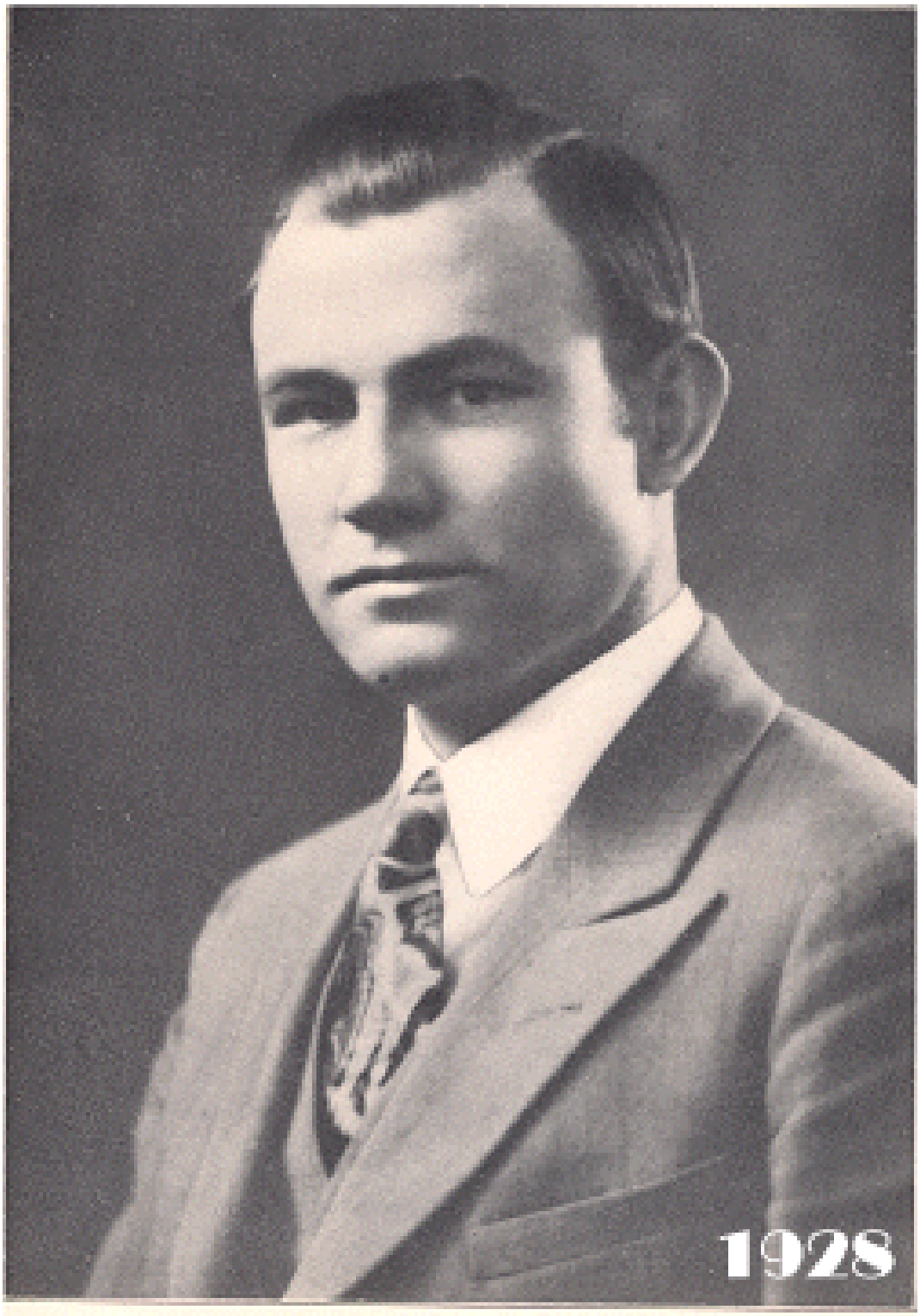
5) **THE LAW OF LIMITATION** :— ***Whenever and wherever the expenditure of vital power has advanced so far that a fatal exhaustion is eminent, a check is put upon the unnecessary expenditure of power and the organism rebels against the further use of even an accustomed stimulant.***

6) **THE LAW OF SPECIAL ECONOMY**:—***The vital organism, under favorable conditions, stores up all excess of vital funds, above the current expenditures, as a reserve fund, to be employed in a time of special need***.

7) **THE LAW OF VITAL ACCOMMODATION** — ***Natures Balance wheel — "The response of the vital organism to external stimuli is an instinctive one, based upon a self-preservative instinct which adapts itself to whatever influence it cannot destroy or control***."

LAW OF STIMULATION - ***"Whenever any toxic or irritating agent or influence is brought upon the living organism this occasions vital resistance and excitation, …."***

LAW OF REPOSE - ***"Whenever action in the animal body has expended the substance and available energy of the body, rest is demanded and received in order to replenish the substance and for recuperation of power."***



Yours for Health Truth
Herbert M. Shelton