Health Through Natural Forces

By
John H. Dequer
(DECKER)

Health Through Natural Forces

A Series of Essays On Life and Living

ILLUSTRATED

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SALT LAKE CITY, UTAH

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PREFACE

To First and Second Editions

A preface being usually an apology for an author's "nerve," in inflicting yet another book on the already over-burdened public, I shall uphold the custom, but make it brief; for, really, I believe in the adage: "Never apologize; your friends don't need it, and your enemies will not accept it—so what's the use?"

Ever since I became interested in our growing disease problem, I have been watching mankind from a therapeutic viewpoint. It did not take long to become convinced that, in spite of all the noise about science, there was as yet no science of healing; and as I personally had been given up as hopeless by the best medical talent, I set out to discover, if possible, the path of health for myself. This I found, not in measures for the cure of disease, but rather in measures for the maintenance of health. The result of my work in this field is set forth in these essays, which are synoptic of a series of lectures delivered in Chicago during the winter of 1920-1921.

The Author.

Chicago, Ill., October, 1921

PREFACE

To The Third Edition

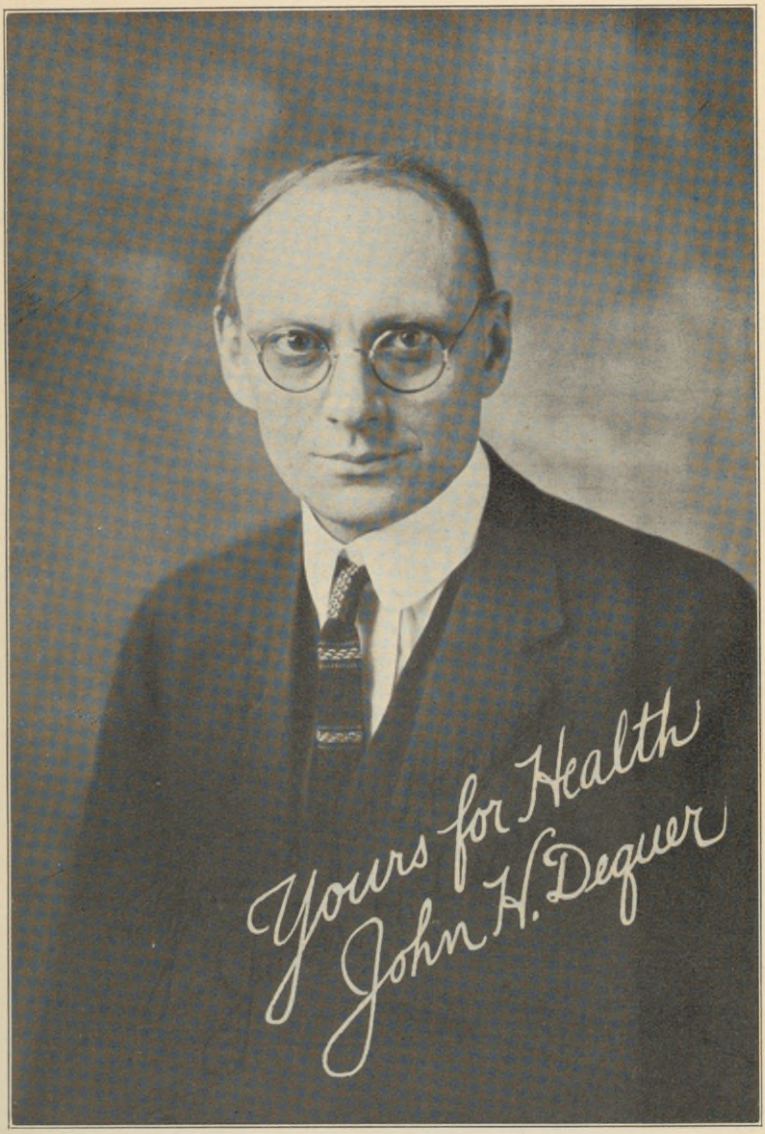
Health through Natural Forces was originally compiled from stenographic notes taken at my Chicago lectures, and published in pamphlet form. In this form they were sold in large numbers at my subsequent lectures in different parts of the country.

Necessarily these notes were more or less crude, and needed considerable revision. This I have endeavored to give them in this, the third edition. I have also added considerable matter and illustrations, which will make the work more useful as well as more scientific.

While I have given some thought to a few disease conditions, the book as a whole aims at prevention rather than cure—my aim being to teach how one may retain and regain health by observing the Natural laws governing his body.

Salt Lake City, Utah,

September 20, 1922


Yours for Health
John H. Dequer

HEALTH THROUGH NATURAL FORCES

Essay I—General Considerations

The title of this little work would indicate it to be an attempt at pointing out the requirements of health, a work which I regard as of more importance than the cure of disease. Experience has taught me that those who are ill, in the vast majority of cases, may be restored to health by following the same methods which will keep those who are well from becoming diseased.

Perfect health should be the normal—that is to say, man's usual state. Unfortunately this is not true of the human race today, and especially so of that part of it that inhabits civilized countries. The great majority of us are in some way afflicted. We are a nation in pain. Needless to say, this condition, which is admitted by practically everybody, is a powerful detriment to the growth of happiness and idealism, without which no nation can be either truly good or great. For it is evident that there cannot be a healthy mind in a diseased body. Our facts reflect our thoughts, and our thoughts are influenced by the physical state of the organism through which they are expressed. A diseased body cannot harbor thoughts that are generous, virile, and noble, any more than a rose bush planted in sour soil on the north side of a barn can bloom with the same beauty and fragrance that characterizes its neighbor on the lawn.

Men and women are not unlike roses; they too need the sunlight, the air, and dew, as well as wholesome food, if they would bloom in purity and splendor. But unlike the rose, man has the power to modify his environment. He can come from behind the barn, out from the noisome recesses that are inhospitable to his growth and development, and enter the sunlight and starlight of health. I say he can do this; if not individually, then collectively; but it can be done.

HEALTH IS NATURE'S REWARD FOR OBEDIENCE TO HER LAWS. DISEASE, WITH RARE EXCEPTIONS, IS A CRIME.

Ninety per cent of all disease may be attributed to ignorance of the laws governing our bodily functions, but ignorance of the law is no excuse, as is evident from the conditions in which mankind finds itself. Ignorance concerning the laws of health is so prevalent as to be practically universal. One actually meets people who take a sort of perverted pride in their afflictions; they love to talk about their nauseas, their rheumatism, their billiousness, as if they were rare possessions. These good people would not think of going without a bath, or of eating with unwashed hands; yet each day of their curtailed lives they defile themselves in various ways. Outwardly, they are clean—inwardly, they are literal tombs of uncleanliness. Is it any wonder they are diseased?

IT MAY BE STATED AS A GENERAL PROPOSITION THAT DISEASE IS SYSTEMIC FILTH, FROM WHICH IT FOLLOWS THAT CURE MUST BE SYSTEMIC CLEANSING.

Disease does not come, in the majority of cases, like a thief in the night; it slowly accumulates in the tissues of the body; it represents the combined work of POOR VENTILATION, OVER-DRESSING, FAULTY EATING OF IMPROPERLY SELECTED AND PREPARED FOODS, HOT BATHING, AND DRUG MEDICATION. This continuous violation of natural law tends to load down the system with unused and unusable material, which now becomes the ground work for the vast majority of chronic diseases. Thus we find that while serums or medicines may and often do stop symptoms of acute disease, they do not cleanse the intercellular structures, and therefore only change acute into chronic trouble. They affect the filth-encumbered body in much the same way that a whip affects a tired horse. Their influence is stimulative or suppressive; it is seldom, if ever, corrective. MEDICINE IS ONLY TOO OFTEN AN

ADDED BURDEN TO AN ALREADY OVER WORKED ORGANISM.

Hot springs, Turkish baths, all kinds of bake-oven and hot-pack treatments, as given at various institutions and health resorts, are a standard advertisement to the ultimate inadequacy of medical treatment. They work on the principle, whether it is admitted or not, that the way to restore a patient to health is to eliminate from his system the ground work of disease. Hannemann's theory of psora (disease soil) is one of the few scientific high lights in our therapeutic knowledge.

THE ROAD TO HEALTH

The road to health is obedience to natural law as it pertains to the physical and mental being. This obedience consists in confirmation to natural law in the following respects: First, dietetically. Whether well or ill, one should not eat foods that are unproductive of an undue amount of waste. It may be necessary, during periods of illness, in order to eliminate all waste matter from the alimentary tract, to abstain for several days from all solid food, and take only diluted fruit juices in moderate quantity instead of the customary meals, and to remove all salt from the diet, as that compound creates a false appetite, causing one to stuff himself. And what is true of salt is also true of acids, condiments, pre-Volstead drinks and tonics.

Whenever the tongue is coated and the breath bad, you may be sure that the body is making an effort to rid itself of impurities by way of the mucus lining of the digestive tract. A coated tongue is an indication for an eliminative diet, or complete fast.

Let us next consider the kidneys,—which are very important waste eliminators. They take much of the excess fluid from the blood, and with it many waste products produced by organic activity. Whenever the bowels or skin become incapable of adequate function, the overload falls

on them, as a result we have "indican" and other abnormal products in the urine. Especially do we notice an increased acidity, as well as blood pressure, giving rise to organic kidney and heart disease, and also to dropsical affections. Faulty life habits, break down the kidneys, with the consequent evolution of symptoms which doctors label with a variety of Latin names. If you do not overwork the bowels, and keep the skin in good condition, you greatly aid the kidneys in their work, thereby safe-guarding your general health.

Next to be considered are the lungs. They are the bellows of the living forge. They take the oxygen from the air and send it through the body, via the blood. They take the carbon from the blood, and, in the form of carbon-dioxide, expel it from the body. Hence in order that every organ may at all times have an abundance of oxygen, with which to carry on its functions, it is necessary that pure, fresh air be at all times available.

We cannot leave this subject without considering the skin with its million of pores for the elimination of waste matter. It is a very important and little understood eliminative organ, having several distinct functions:

(1) As a regulator of temperature.

(2) As an auxiliary to the kidneys in the expulsion of surplus fluids from the body.

To excite a dormant skin to activity in order that it may do its share in the eliminative work, is a favorite practice with nearly all schools of healing. Some do it by means of drugs (Pilocarpin), others do it by means of bake ovens, electric light cabinets, hot baths, mud baths, exercise and cold packs.

Doubtless the very best way to activate the skin is to exercise every part of the body while it is exposed to the open air. This exercise should be of sufficient intensity to thoroughly excite all sweat glands; but where this cannot

be done, on account of weakness or pain, we prefer a properly wired electric blanket, for the following reasons:

(1) The patient enters this appliance at atmospheric temperature, and the Blanket gradually warms, giving the system a chance to make the needed physiologic readjustment.

(2) The patient can lie down or recline at ease, thereby putting the least possible strain upon the nervous system.

(3) The current, from the house wire, running through twelve hundred feet of especially insulated cable, develops a magnetic field, which has a tonic effect upon all tissues of the body.

(4) The lines of force generated by such a blanket are cut by the circulating blood, increasing the electrolytic activity in the organs, causing them to increase their functional capacity; it also aids in dissolving various abnormal crystals and wastes, thereby facilitating their elimination from the body.

(5) By dissolving the waste, toning up the tissues and relaxing vasso-motor tension, this method perfects the circulation, and increases both nutrition and drainage.

IT IS A SINGULAR FACT, AND NOT ONE TO BE OVERLOOKED, THAT WHILE NATURE HAS FURNISHED US WITH ONLY ONE MOUTH BY WHICH TO TAKE IN FOOD, SHE HAS SUPPLIED US WITH FOUR AVENUES THROUGH WHICH TO ELIMINATE WASTE.

Essay II—The Factors Involved

Our bodies are made of bony framework, to which is fastened a muscular system of five hundred muscles. These are supplied with blood from the arteries and are drained of their functional waste by the veins. Between the arteries and the veins, ramifying the cellular structure of the tissues, are minute blood vessels called capillaries. Through these capillaries the blood cells pass single-file. Here they give up their oxygen and nutritive material to the cells and take up their load of waste, which they bring to the organs of elimination. Now it goes without saying, that if a muscle remains unexercised, these capillaries have a tendency to become obstructed with colloid material. In other words, they become diseased—that is, over-burdened with waste.

This undrained waste naturally undergoes chemical changes due to oxidation and fermentation, some of these causing inflamation of the lymph glands, thus giving rise to characteristic symptoms.

HEALTH DEMANDS THAT EVERY MUSCLE FUNCTION FREELY AND FULLY, that it shall expand and contract as Nature intended; for unless we keep the circulation perfect through full and systematic exercises, we can not escape disease.

NUTRITION

The function of nutrition is of course very important, and in this we are apt to sin rather by commission than by omission. Eating, so necessary to the proper maintenance of vital currents, has for civilized beings become an art. Food is frequently not eaten to meet the requirements of life, but rather to satisfy the sense of taste; this is perversion of function and can only lead to harmful results.

The function of assimilation and nutrition depends upon a constant supply of all the elements needed by the body.

To withhold any of these elements means mal-nutrition. To over-supply any of them, leads to toxemia, poisoning by food waste.

NATURAL FOODS

Man is by nature, as the structure of his teeth and digestive tract would indicate, an omnivorous animal. He is not adapted to live by bread alone; he must have a variety of foods. In this respect he is not unlike the bear and ape family. In his prehistoric evolution, and in a modified degree up to recent times, man followed instinctively the order of Nature, with the result that digestive disturbances were rare and constipation practically unknown.

SEASONAL VARIATION

In another part of this work, we shall discuss more in detail the matter suggested by this heading. Suffice it here to say that throughout the ages the human organism has been subject to decided seasonal variations in the character and supply of its nutriment. Our bodies conformed to the dietetic order of Nature, as this was evolved by the seasons. At least, such was the case during our savage, barbaric, and early civilized stages of development.

Now let us consider the order of Nature in pre-civilized times.

WINTER

In winter man naturally lived on fats, meats and grains. Fats, being heat-producing, or rather, heat-retaining, and easily preservable foods, were a natural winter diet, as were the starch and protein-bearing nuts and grains. Fats, nuts and grains, because they are unaffected by freezing, and can therefore be easily preserved, met our winter needs.

SPRING

In the spring when the body was more or less encumbered with the waste of the heavier winter foods, man took

to the young plant life, rich in chlorophyl and neutralizing mineral salts. Thus he unintentionally cleansed his system from the starch and protein waste incident to his winter fare.

SUMMER

Following the mineral chlorophyl diet of spring, the acid fruits of summer further cleansed and strengthened the body; and then the fall again brought nuts and grains for winter fare and fat.

In that way man became lean towards spring and fat towards fall. In fact he was subject to an annual cleansing of the flesh. Nature balanced his diet. He was adapted to things as they were and gave no thought to things as they ought to be.

But the primitive order is gone. Man is an artificial environment. To this environment he is as yet but slightly adapted; he must therefore use his intelligence to adapt the environment to his physical requirements. If he is to escape the burden of disease he must learn to select his food according to the needs of his body.

SLEEP

Sleep is the restorative function; it is the only perfect rest. During our waking hours we may relax, and change our activity; but during sleep we rebuild and restore that which is broken down.

The hours of sleep before midnight are the most refreshing. From this it follows that those who habitually lead a night life, are unduly taxing their vitality and will likely reap as they sow.

Man is not a nocturnal animal. There is a reason for this not generally considered in physiologic literature. During the day the earth, or rather that portion of it which we

inhabit, is in the direct blaze of the solar energy, which intensifies the life processes, through electro-magnetic stimulation. It is the solar light that causes plant growth and activity. As soon as the sun sets, plant growth stops. The flowers close their petals at night. In high latitudes where the summers are very short, farming succeeds only because of the almost continuous daylight. Light has a quickening influence on life; from which it follows that our activities should be confined as far as possible to the hours of daylight. It is a well known fact that most deaths occur during the small hours of the morning, when our earth is turned away from the sun, bringing vitality to the lowest ebb. It was a common saying among doctors during the recent "flu" epidemic, "Support the heart during the small hours of the night," which they did, not by intensifying the magnetic field about the patient, but by means of drugs, such as digitalis, strychnine and kindred substances, with the result that "crosses, row on row" rewarded their efforts.

We sleep at night because the supply of radiant energy is low; we cease bodily activity, and use all the available forces of Nature in the processes of cleansing. Reconstruction takes place during the hours of natural sleep. Natural sleep is most beneficial when stimulative energy (solar electrification) is at low ebb, that is, during the night. Thus we darken a room if we wish to sleep during the day.

THOUGHT

Thought is the function of the brain, as sight is the function of the eyes. It is the supreme function, the foremost essential to survival. Our environment influences our thinking, and our thinking influences our bodies for weal or woe.

EMOTIONS: FEAR

Fear balances the skin—that is, it withdraws the peripheral circulation. It stops secretions by inhibiting glandular activity. It causes weakness and trembling, which

proves that it has paralyzing effects upon the nervous system. Under certain conditions it suddenly releases all available energy in a few moments, leaving the body completly exhausted. It has been proved that when a rabbit hears the barking of a dog, its heart immediately speeds up, its digestion stops, and sugar is thrown into its muscles. Through the emotion of fear, Nature prepares the rabbit for flight, which is its only means of defense. The important thing to note is that fear stops digestion and essential secretions. An acute attack has been known to cause paralysis. People have been frightened into life-long helplessness, a sudden fright practically destroying their nerve power in a single moment.

WORRY

Worry is a state of chronic fear; its effects are less intense, but identical in character with those of acute fear. It hinders secretion, digestion and circulation, ultimately lowering nutrition and accentuating toxidity. Thoughts of fear are thoughts of death. Worry is the process of dying. Christian Science, by denying the existence of disease, removes the fear activity from the brain. The fear being removed, normal secretion and circulation restore health. Fear and worry kill by lowering the vitality. Their effects are similar to those of freezing. "Scared stiff" is a vulgar expression, reflecting on unconscious recognition of the fact that the effects of fear and frost upon the human organism are very similar.

ANGER

Anger is another extreme of human defensive emotions, and has, in certain respects at least, the opposite effect of fear. It increases the temperature, and poisons the blood to such an extent that an infuriated mother has been known to poison her child with her milk.

Anger destroys the body as with fire, and is even worse than fear, in its destructive effects. It is necessary to con-

trol our anger and obey the Scriptural injunction, "Let not the sun set on thy wrath." In other words, do not poison yourself with your spleen.

SUPPRESSION

To suppress any motion may drive it down into the subconscious and from there it will work secretly; but not less destructively. If you are frightened or angry, admit it to yourself, talk about it to some trusted friend, and as soon as possible, change your center of interest, and you will experience little harm from either fright or anger.

SEX

This is perhaps one of the most vital as well as the most complicated of human functions. It occupies, directly or indirectly, one-half of all human thought. Its physical influence affects the entire body. It is a physical function and should be exercised normally. Voluntary celibacy is insanity; however, that is no argument for lust. What is needed from a health view-point, is that the sexes should be mated at the proper ages, so that the sex functions may have expression in normal ways. Suppression leads to perversion and perversion to death.

Many a man thinks of his sex life as he thinks of his stomach. He imagines that the stomach exists to gratify the sense of taste, and that sex exists for the enjoyment of orgasm.

But we may as well recognize that through the thousands of years that women have been slaves to the male passion, a secondary sexual characteristic has grown up in the human race. This characteristic is closely allied in its importance to the reproductive faculty. It is essential to the continuous sense of dependence between the man and woman, and that alone makes possible the home and civilization. It has been argued that a woman clings to a man for bread, and that a man clings to woman for gratification.

Careful observation will show the fallacy of this position. Subconsciously, both feel that sex expression is a physical need which cannot go unassuaged. In the process of our social evolution, sex expression has become a socio-physiologic necessity. Civilization is founded upon sex pleasure, regulated to meet the economic requirement of the race. The family is an institution adapted to modern needs. It may have its faults, but so far, though many schemes have been tried, nothing more practical or fundamentally just has been discovered than the monogamous union. It protects the woman in motherhood. It tends to guarantee to the child a home; and it causes the man, theoretically at least, to exercise that restraint over his passions which distinguishes him from the brute.

Man should not eat extremely hot food in this world.

We are told that God made man, and we know that after that event man made flour mills, sugar refineries, pickle factories, opened salt mines, and introduced such substances as coal tar dyes, glucose, saccharine, and carpenters glue into his food, just to show God that he did not know his business when he gave men the herbs of the field, the fruits of the trees, the roots of the earth, and the fresh flesh of beast and fish for food. But God being above everything else a humorist laughs last and consequently best.

Vaccination means, according to certain very eminent scientists, the inoculation of a healthy person with syphilis as a prophylactic against small pox.

Essay III—Disorganizing Factors

In our first essay we discussed the factors entering into health and disease in a general way. Let us now consider the causes of disease, old age and death. Here it will become necessary to forsake the conventional text books, and listen for a while to therapeutic heretics, and see if they appeal directly to Nature which is after all the Court of last resort on all controversional subjects.

Life is probably the simplest, and the most potent form of energy. When the truth is finally known, we will probably find that it is not the result of material interaction, but that material interaction is the result of it. I CONCEIVE IT TO BE THE ORGANIZING FORCE IN THE UNIVERSE. From which it follows THAT LIFE AND DEATH ARE CO-EVAL, AND CO-ETERNAL, the rhythmic swing of the organic pendulum.

The question then arises; what is it that causes death The answer, if we concede Life to be a form of etheric energy, must obviously be, a form of rhythm in the universal ether; its upward movement spelling Life, and its downward movement, disease and death.

Barring accidents, we may say that three main factors are active in the disease process. The first of these is improper food; second, inadequate exercise; and third, too intense, or insufficient light; or other forms of energy, such as thermal, electric, magnetic, psychic, and vital modes of vibration.

We shall consider these factors in the order named, beginning with food as a possible factor in disease. The late Dr. Powell, M. D., who, after a life time spent in unique and original investigation into the causes of human afflictions, came to the conclusion that disease, old age and death, in the animal organism, are natural results of protein and other wastes accumulating in the blood stream. He main-

tained that even the small quantity of protein and other unassimilable matter in normal food, is, in itself, enough to ultimately bring on senility and death. In his enthusiasm he may have gone too far at certain points, but the fact remains that his ideas coincide remarkably with observed facts.

Denying the commonly accepted dictum of medical and physiologic scientists, that the body undergoes continual destruction and repair, except at its surface, and lining tissues, he maintained that when protein is no longer needed for cell-building purposes, it accumulates as waste in the blood in the form of a serum-albumen. This gradually thickens that fluid, obstructing its capillary circulation and, if nothing, worse, bringing on the phenomenon of old age. From this, he inferred that, if it were possible for us to walk in a path of perfect dietetic rectitude; (that is, if, after our maturity, we could live on a practically protein-free diet), that then, everything being equal, our blood would remain youthful; its circulation perfect, the nutrition and drainage of the cells at all times adequate, and, consequently, death would be theoretically unnecessary. Still the fact remains that life subsists on life, and that all living substance, being composed of cells, must of necessity have a protein base. Therefore, neither man nor animal can help taking this substance in excess of physiological requirements, making death inevitable through thickening of the blood.

SERUM-ALBUMEN—PATHOGEN

Dr. Powell further argued that this serum-albumen absorbed from our food in the process of digestion finds no place in the non-vegetative processes of the cells, and therefore, makes an excellent culture media for those scavangers, which we are pleased to call disease bacteria. Bacteria decompose useless portein material into secondary products, the toxic action of which, gives rise to various combinations of symptoms, classified as so many diseases. But, as sometimes happens, the body makes an independent effort to

expel this useless material by way of the mucus membranes of the nose, throat, lungs or intestinal tract. Then we have such manifestations as colds, catarrh and other muco-purulent discharges; a sort of house cleaning on the part of Mother Nature. If, however, the house cleaning does not take place, and this material decomposed within the body, either through chemical or bacterial action, it gives rise to such substances as uric acid and other destructive compounds, which are sure to produce suffering unless they are eliminated from the body by rational means. To this albuminoid substance, Dr. Powell gave the technical name "pathogen," which in plain language means "STUFF WHICH CAUSES SUFFERING."

He advanced, in connection with the theory of the pathogenic origin of disease, the equally revolutionary concept, already alluded to, of the permanent endurance of all, but our covering and lining tissues, contending that when the body has once grown to maturity, its cells do not break down, as commonly thought, but that they are co-eval with the life of the organism to which they belong. Generally speaking, we are the same cell aggregate at eighty that we were at twenty-five. Nutrition in the adult body is almost wholly expended in function. The function of movement is probably the most prominent activity of the body, yet, according to Powell, it does not depend upon protein, but upon carbon. The mineral salts, which modern man denies himself so carefully, are of course needed in the formation of secretions; from which it follows, that the habit of stuffing the body with the little needed protein compounds, cannot be anything but destructive. It is the source of death in the world.

The question now presents itself; if the body cells do not break down as a result of exertion, where does the carbon dioxide and other waste products observed in the excreta come from? Dr. Powell answered that the carbon-dioxide does not result from the destruction of the cells, but from the combustion of nutrient matter within them. He argues that the carbon from the food, and the oxygen

from the air, meet in the blood and are carried to the cells where they are combined under the influence of nerve energy, in a way similar to that by which carbon and hydrogen are united in plant tissues, under the influence of sunlight.

The cell leads a practically autonomous existence. If supplied with the proper media it will endure, yea, even grow and multiply apart from the body (vide the Carrell experiments). It is only through the process of evolution that it has become a part or an organism, in a way not unlike that in which a worker bee is a part of its colony. It has given up its reproductive function for the privilege of individual survival, during the life of the organism as a whole. The individual cell, if continually supplied with proper nutriment would be immortal. For it, there is no natural death; it must be killed.

But, as the body manifests subjective and objective functions, so the individual cells have functions dealing with their own survival, and others, which play a part in the survival of the organism to which they belong. Therefore, in order that we may understand the causes of ill health in the body, we shall have to learn something concerning the individual cells of which it is composed.

CAUSE OF MUSCULAR MOTION

The source of mechanical motion in the animal organisms, according to Powell, is not due to the oxic action of the supposedly very nutrious protein, but of the relatively less prized carbon. Chemists tell us that when oxygen unites with carbon, energy is set free equal to a pressure of forty atmospheres. It is this suddenly liberated energy in the cell, which causes the muscles to contract as they do in all movement. Once this work is performed, the carbon-dioxide escapes by way of the veins, and is carried to the systemic exhaust valves—the lungs— to be expelled from the body. Thus, the carbon of the carbo-hydrates in the food and the oxygen from the air, and not the nitrogen,

sulphur and phosphorus of protein, cause the phenomena of muscle power in living things. Organic carbohydrates and the essential negative elements to give the necessary diamagnetic quality to the blood for the production of the proper nerve force, should, on the basis of this theory, be as near an ideal diet as the human race may hope to attain. And on this point, Dr. Hinhede, who was in charge of the food situation for the Danish nation during the World War, gives some interesting information, on which we will touch later.

What I wish to bring out here, above everything else, is the fact that the blood must continually supply carbon and oxygen to the muscular tissues for their mechanical functions. It makes no difference if the energy of these functions be expended on a base ball diamond, or in the peristaltic action of the bowels, or in the beating of the heart; they all depend upon the formation of carbon-dioxide within the bodies of the cells composing the tissues involved, while the nerve energy, that makes the formation of this substance possible, is in all probability due to the fact that the circulation of the blood cuts the magnetic lines of force in the earth's field, in a way analogous to a dynamo in a power house.

It does not strike me as unreasonable that blood which is loaded down with a sticky colloid substance flows more slowly than it would if it were not so encumbered. The result is a lessened supply of vital electricity with a consequent weakening of the functional powers in every department of the body, presenting the paradoxical condition of starvation as a result of over-feeding.

FAT

Dr. Powell tells us that fat is not due to the formation of new cells, but that it is fuel and nourishment stored up by the body for future use. It is energy-bearing material, which is not immediately needed for active work, and so is passed on through the cell walls into the intercellular spaces where

it remains until called upon by the organism in times when food is not available. The fact that civilized man allows Nature to store up such a surplus and gives her no opportunity to consume it, is a sad commentary on his intelligence. It is my opinion—and I shall speak of it more in detail later—that man should so order his life as to become moderately lean once a year; that is, he should subject himself to an annual cleansing of flesh. Continuous fatness is only too often an evidence of laziness and internal filth.

While it is true that the ideas advanced by Dr. Powell are considered heterodox, we must not forget that even among orthodox medical writers, this and similar ideas are gaining ground. Even the most ardent devotees of the pill box are willing to admit that when all is said and done, the only way to reduce one's flesh is to reduce the quantity of our food and increase that of our exercise.

USE

After "pathogen" in the blood stream as a result of an excess of protein compounds in the diet, and fat as a result of overfeeding, we must consider another hardly less potent cause of disease, i. e., the lack of use or exercise of the structures. LIFE IS ACTIVITY; CESSATION OF ACTIVITY IS DEATH. The bodily structures not exercised gradually shrivel or soften, and when filled with waste, which acts as food for bacteria, rot. REST IS RUST; rust is destruction. There can be no doubt that the modern elevator, motor, and trolley car are no small factors in the increase of destructive diseases. For we must not forget that it is the heat of physical exertion that activates the skin glands so they may do their allotted one-half of the eliminative work of the body. Physical inactivity then is another great cause of disease. Man was not created to fill a swivel chair or a cushioned seat all his days. He must expend an amount of energy equivalent to his nourishment, or the unused food, as pointed out in previous paragraphs, will become first an encumbrance and later a poison.

DYNAMIC FACTORS

In the first part of this discussion we have stressed Powell's concept of disease—pathogenic obstruction. Let us now consider the dynamic concept. Dynamic factors were, until Abrams and White got busy, the stamping grounds of the metaphysicians. And it must be said to the credit of the latter, that many of their theories which were ridiculed by the scientists were later mechanically and mathematically verified. For instance, the psychometry of Buchanan written fifty years ago, foreshadowed the Electronic Reactions of Abrams, and his Law of Periodicity has since been verified by Mendelljeff in chemistry, Hertz in electricity, and Lindlahr in disease. In the same way, time has verified many of the concepts of such men as Jules Verne, Edward Belamy and Count Tolstoi.

Some years ago, Henry Lindlahr, M. D., inspired by the inductive writings of Buchanan T. K., and others published his book, "Nature Cure Philosophy," in which he formulated definitions of health and disease. These were sneered at and called consummate nonsense by many orthodox physicians. He wrote: "Health is the normal and harmonious vibration of the elements and forces composing the human entity, on the physical, mental and moral planes of being, in conformity with the constructive principle in Nature applied to individual life." And disease, he said, is "Abnormal or inharmonious vibration of the elements and forces composing the human entity on one or more planes of being, in conformity with the destructive principle in Nature applied to individual life."

He then mentions three paths through which disease may enter: (1) "Lowered Vitality," that is, inadequate energy, or the dynamic factor; (2) "Abnormal Composition of Blood and Lymph," the pathogenic factor, which is naturally inter-related with the dynamic factor, as all chemical change is accompanied by, or rather consists in a play of thermal, electrical, magnetic and radiant forces; (3) "The Accumulation of Waste, Morbid Materials, and Poison."

This last factor is hardly needed, as waste, morbid matter and poisons are all foreign substances capable of undergoing chemical change. Thus, Lindlahr's three factors reduce themselves to two—the dynamic and the chemico-obstructive factors. But the point which interests us here is that disease is a question of the flow of substance and the vibration of sub-material forces in those bundles of matter we call men and beasts.

That vital force exsits has been believed from time immemorial. It is referred to in all religious literature, probably because the cell manifests an almost transcendental wisdom. Science being unable to weigh and measure this force for want of sufficiently sensitive instruments, tried to rule it out of Court. In the hands of Abrams and White, however, the cells of the stomach muscle proved to be sensitive to energy which the most intricate instruments born of human ingenuity could not detect, so that once more the intuitive faith of mankind is verified by science. We discover that superstition is but distorted science, and that science is but rectified superstition. Disease is therefore not to be looked upon as the natural result of cells gone wrong or germs gone wild, but as being a derangement of the interacting life current. I believe that what Abrams now calls "Electronic Reactions," will sooner or later be more justly called "Vital," or "Bionic Reactions," recognizing that we are dealing with what is not primarily an electrical but rather a magnetic or possibly a submagnetic force.

Abrams in his "New Concepts in Diagnosis and Treatment" tells us that "Disease is regarded as an entity only because we do not know enough about it to specify it as a reaction of a symptom." And again on page 177 he says, "Just as there is a 'Periodic Law' with reference to the periodicity of the elements, so may we anticipate a similar law with relation to morbid processes. We must not only content ourselves in determining the energy evolved, but also determine its polarity, vibration rate and wave-metric index." And on page 203, he comes to the conclusion that whereas we have been taught Pathology (disease)

is the "physiology of the sick," from his viewpoint it might more properly be called "the physics of disharmonious vibration."

We therefore conclude that in the care of one's health, and in the treatment of disease, we ought to take into consideration these three factors:

(1) Perfect nutrition.

(2) Complete and sufficient exercise.

(3) The dynamic requirements of our organism realizing that these are to no small extent under the control of thought processes.

To our physical and chemical means we will sooner or later have to add dynamic means; that is, we will have to not only remove the mice nests from our tissues, but also put the instrument we call our body back in tune. This tuning process we anticipate will be the chief work of the physician of the future.

"Have a heart that never hardens, a temper that never tires, a touch that never hurts."—Dickens.

For the hygienic care of the mouth and teeth there is nothing that quite equals lemon juice.

For all my pains were due to blunders
I must always groan and ache;
Tell me not in mournful numbers,
Which I now shall cease to make.

ESSAY IV—EXERCISE

That the full and complete exercise and function in the body is absolutely essential to the maintenance of health, is a fact so well known as to need no argument. In what such exercise should consist, and how, and when, as well as why it should be systematically practiced, is, however, not so well understood and may, therefore, be profitably explained and discussed.

One of the most prevelant, as well as the most harmful misconceptions concerning the nature of our bodily functions, is that our ordinary occupations, many of which are indeed strenuous enough, are sufficient to meet all the requirements of health. This is a grave mistake. Work is not exercise in the true sense of the word. It may bring into play only a small part of our musculature. To illustrate: a stenographer may work hard at the keys of a typewriter, thoroughly exercising her fingers and, to a less degree, certain muscles of the arm, but this leaves the rest of her body in a comparatively quiescent position. It gets almost no exercise. And what is true of the stenographer is also true of the vast majority of the professional, office, clerical, and, to no small degree, industrial workers. The high degree of specialization required by the vocations incident to the con-

duct of modern civilization, involuntary lead us to develop specialized sets of muscles and other organs.

It is a well known fact that when we over-develop any set of tissues, we do so at the expense of others. This is known as the law of compensation; it proves that we can not get anything in Nature without giving an equivalent in return. If, for a time, we seem to succeed, we need not be deceived into the idea that we will ultimately triumph; for the law is inexorable. In the end we or our progeny must pay.

It is well that we should hold the law of compensation in mind. It works with unfailing precision in all domains of Nature. The apparent exceptions but do reinforce the general law, if carried to their ultimate conclusion.

By the word "exercise," then, we do not mean work at a special occupation or trade, but rather the frequent activation, at stated intervals, of all those structures which, under modern conditions, are in constant danger of neglect. We wish to point out that it is a solemn duty to ourselves and future generations to keep our bodies perfect in both structures and function. The danger is always at hand, that man, wearied with his daily routine of toil, will forget to bring into play the functions and organs which we acquired during our aboreal and savage existance. True, we might let them die; but we will find that by doing so the vast majority of us would die with them. We might give rise to an adaptable mutation, but this is small consolation to us who live today. We must struggle to survive in the machine age. For this reason we have worked out a simple plan for keeping the body in a functional equilibrium. But at the outset be it understood that its rules must be modified somewhat in extreme sickness, weakness, or old-age, also in cases of injury. In this as in all things temper rules with reason.

1. Upon arising in the morning, stand erect, take a full breath, paying special attention to expand the muscles of the abdomen, and while holding the breath, rotate the head to the right, describing as large a circle as possible. Exhale, thoroughly emptying the lungs, and relax. After a few seconds relaxation, inhale as before, and rotate to the left, again describing as large a circle as possible, exhale and relax as before. Next, try to bend the neck as far back as possible, having first inhaled the breath, and then bend it

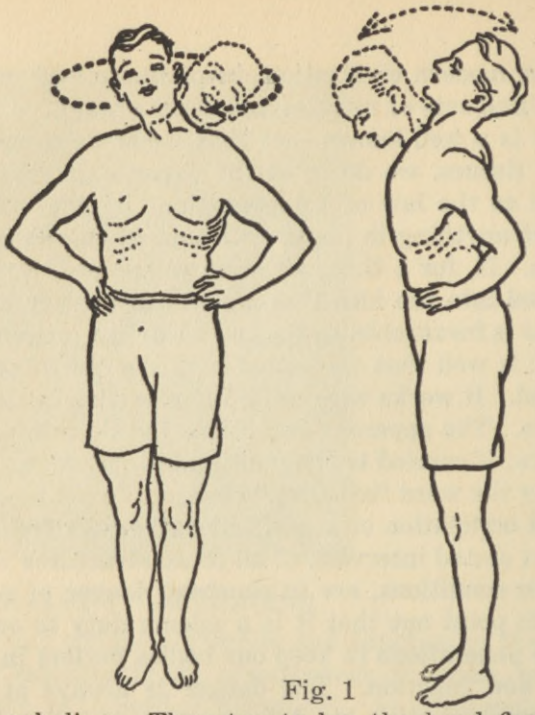


Fig. 1

forward, exhaling. Then try to lay the head first on the right and then on the left shoulder. (Your own shoulder should be used for this exercise, those of other people having no special value from a therapeutic viewpoint. Repeat all these exercises from three to eight times.

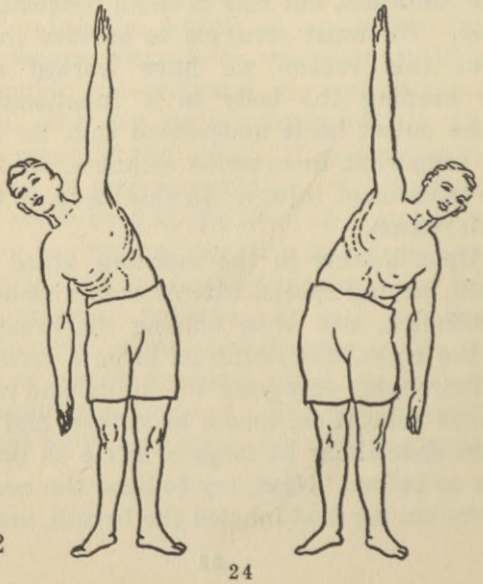


Fig. 2

2. Next, with hands and arms extended horizontally to the side, bend the body forcibly to the right as far as possible, and then to the left, keeping the arms in position. Do this three or four times in rapid succession, with lungs well filled. Then exhale vigorously and relax.

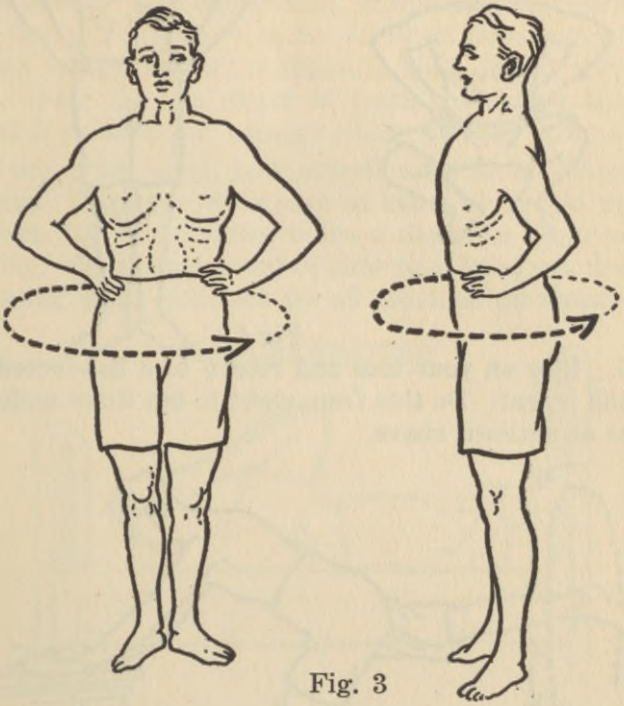


Fig. 3

3. With heels together and toes out at an angle of forty-five degrees, vigorously rotate the body from the hips up, first to the right with lungs well filled and abdomen inflated, three or four times. Exhale and relax. Then repeat, turning to the left.

4. Dip with the knees, arms extended to the side, four or five times. This exercise should be taken while balancing the body on the toes. Let the body go down so that the buttocks touch the heels. From this position arise without support to standing position, and repeat four or five times. Exhale and relax.

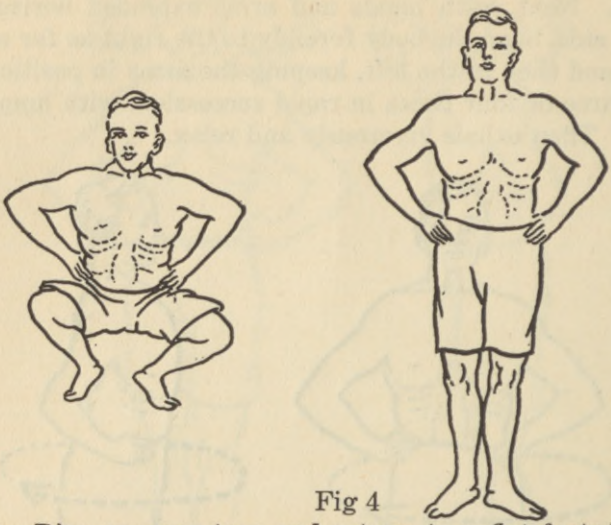


Fig 4

5. Rise on your toes and return to a flat-footed position and repeat. Do this from eight to ten times under conditions as outlined above.

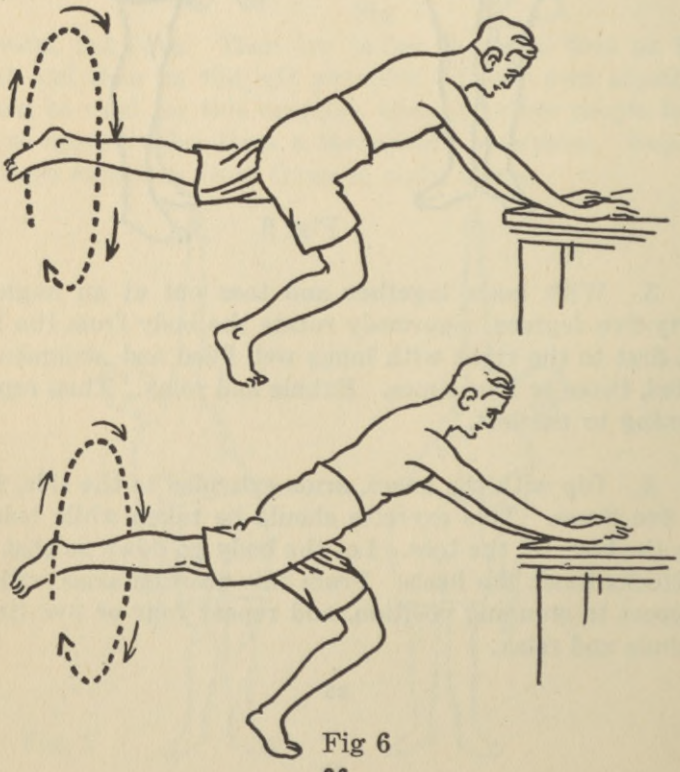


Fig 6

6. With one hand against a wall or other suitable object of support, rotate the limbs first forward and then backward, describing the utmost circle. Do this first with one limb and then with the other; also kick from three to eight times in every direction for which you have muscles of movement. Remember that, within certain limitations, there are no restrictions to be placed on these exercises on account of age, sex, or condition. They should always be taken where there is plenty of fresh air, and on the open ground if possible, for reasons which we shall discuss later.

I now wish to call your attention to the following illustrations. These exercises may be taken by people who are bed fast, for five minutes twice a day, five minutes each morning. No great amount of time need be spent, five minutes being quite sufficient for all practical purposes.

BED EXERCISES

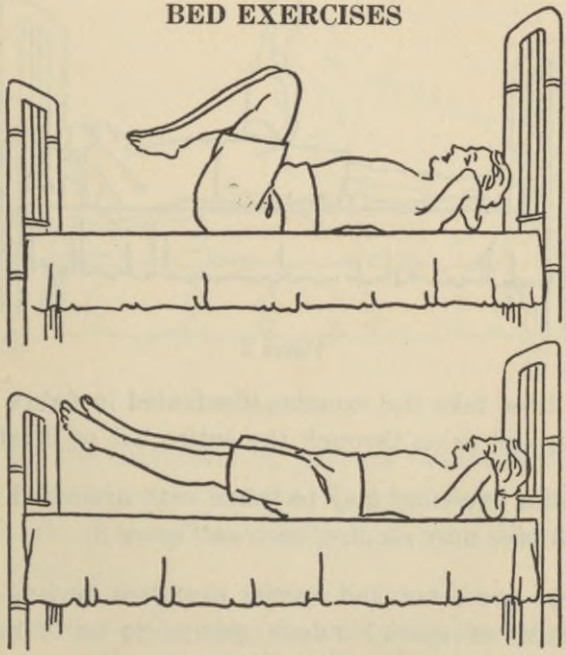


Figure 1

1. Begin the system by executing the movement illustrated in figure one, five times, and increase one every third day until you can take thirty. Of course you may be able to

take thirty the first time, but do not do it. Even the will sometimes needs discipline.

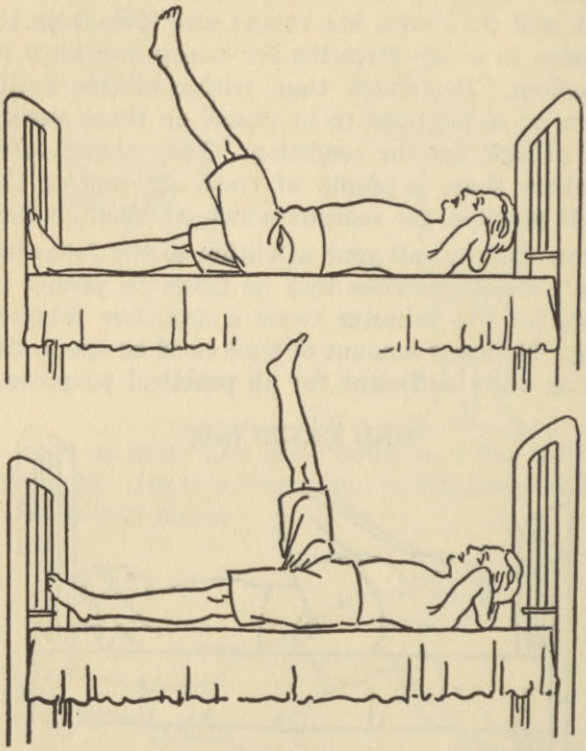


Figure 2

2. Now take the exercise illustrated in figure 2, same as above, and so on through the entire list of illustrations.

Similar exercises may be taken with arms and neck, as circumstances may require, such as Figure 3.

There are other and special exercises devised for the development of special muscle groups so as to bring out their strength and skill. This is illustrated by exercise for the fingers to gain proficiency on musical instruments, and the larger muscle groups which are designed to hold poses for dance, stage, or artistic effect. There are also exercises

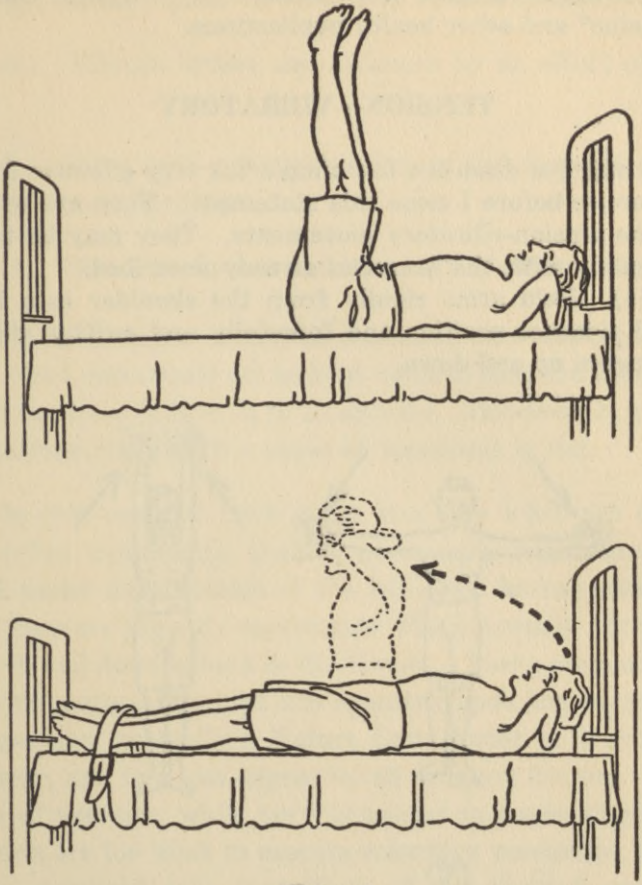


Figure 3

devised for the correction of physical deformities such as crooked spines, legs, and necks. It would take a volume to discuss each of these separately, and must, therefore, be omitted here.

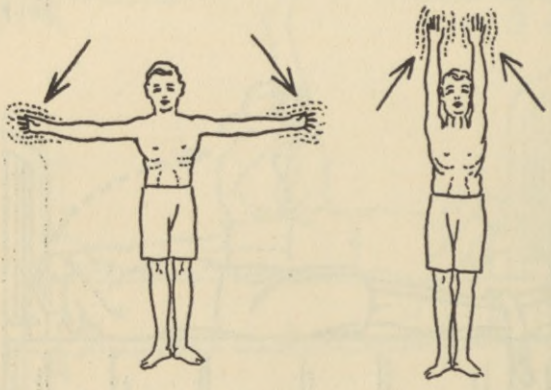
It must be remembered that not only does physical exercise tend to keep the body in healthy condition, but if wisely used, helps in the cure of many chronic diseases. Medical gymnastics for therapeutic are employed the world over. Those who wish to strictly follow this matter in detail

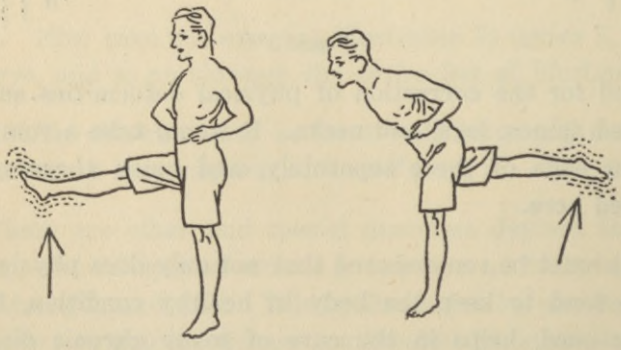
will get much valuable information from "Physical Culture Magazine" and other health publications.

TENSION—VIBRATORY

I may yet discuss a few simple but very effective forms of exercise before I close this statement. They are what I call the tension-vibratory movements. They may be taken alternately with the exercises already described.

(a) Hold arms rigidly from the shoulder in a horizontal sidewise position and forcefully and swiftly vibrate the fingers up and down.





(b) Hold the arms rigidly before you, palms inward, and vibrate your hands in and out.

(c) Arms rigidly upward, and vibrate as above.

(d) Vibrate breast and abdomen by an effort of the will.

(e) With limb extended backward and forward alternately, vibrate each foot.

(f) Stand on tiptoes and vibrate the entire body.

These exercises should be continued until the parts become tired, but should not be kept up until they are fatigued. In all exercise, fatigue is to be avoided. However, it is well to continue them until a sense of weariness is felt.

In this essay, I have given you only what are called the active movements, that is, movements which are executed under the direction of the will—and let me point out that they are the only movements which actually stimulate growth and development in the tissues. There are also systems of movement which are executed upon the person by an operator, generally a Nature Cure doctor or a Swedish Masseur, and to a less degree by all drugless doctors. This form of exercise, while very beneficial in cases where the patients are too weak to execute voluntary movement, is not to be compared with the effects of self-directed exercise. To obtain the greatest benefit, the mind must take a joyous part in the work. A slave does not grow; he vegetates. Anything done with a feeling of obligation is slavery. To get healing effects, our soul must enter into the work of reconstruction. We must set for ourselves a mental standard of perfection and diligently work until it is realized in our life.

ESSAY V—THEORY AND PRACTICE OF DIETETICS

Slowly but surely we are compelled to recognize that proper dietetic practice is one of the main factors in the problem of health; for even a casual survey makes it plain that our present day commercial foods do not meet the requirements of our physical organism. It is indeed a sad commentary on our intelligence that in this twentieth century, when man boasts of victories over the forces of Nature, he has not yet learned to ask the question: "How and what, under my present environment, shall I eat that I and my race may endure," To this question the schools, it is true, endeavor to give answers; but so far they have succeeded in evolving but a mass of enigmatic and contradictory propositions, oftentimes so hopelessly out of harmony with biological law that even the lay-man becomes convinced that the sages are only too often hiding their ignorance under clouds of words, or are having their opinions made by those who make and sell commercial compounds without regard for their effect upon the people.

If the reader should think that this statement is exaggerated, let him ask ten doctors of the same school or of different schools for a diet list, say for a rheumatic sufferer, and see the result. There would remain, no doubt, in his mind that the average doctor is not a dietitian. He would find that he should consider himself fortunate if two agreed. The Hon. Charles Edward Russell, speaking before the Medical Liberty League at Chicago, some time ago, said that while he was City Editor of one of the New York City papers, he sent a reporter to thirty different doctors, with instructions that he detail the same symptoms to each, and get a prescription. The reporter brought back a literal wilderness of drug names, hardly two of which were identical. And this is the state of the healing art today in the domain of drugs, and our experience is, that the ignorance is even more dense when it comes to foods.

PREVALENT IDEAS

"Eat what you like." "Let your appetite be your guide." "Eat good nourishing food"—and by that is meant the bread-meat-potato-coffee and condiment concoctions looked upon as nourishing food by the average man and woman. Such is the advice of many men high in authority today, and further illustrates the confusion in high places.

Desire, when normal, may be a safe guide; but how is one to determine off-hand what is normal? The drunkard, the smoker, the coffee and morphine habitues, all have desires in various degrees of development which manifest the desire to assuage these cravings that causes them to oftentimes before these substances are taken. In fact, it is experiment with drugs, although most of our dope fiends are made by doctors and nurses.

Nature does not rely on desires and cravings as a guide by which to nourish her species. She feeds them according to types and seasons. The organism of animals in a state of Nature is adapted by natural selection to the seasonal

bounty of the year. No matter how much a rabbit, on the plains of Dakota may desire green leaves in winter, Nature supplies only dried grass. And if the greens are artifically supplied, the wild rabbit ignores them; or, if, through starvation, he is forced to eat, he soon sheds his hair and dies from cold. Physiologically, it is adapted to that which Nature has in store.

MAN'S PREHISTORIC DEVELOPMENT

Man is an omnivorous creature, with a strong frugivorous leaning due to an undoubted period in the life history of the race when, as a result of his tree-dwelling habits, he chiefly subsisted on fruits and nuts. This period, known as the "arboreal age," occupied the latter part of the Tertiary Geologic Era. Thus an inclination toward a predominant fruit diet lies at the very foundation of our food psychology. For hundreds of thousands of years, we may have lived this arboreal life, with the result that this tendency became so deeply rooted, that subsequent environmental changes were unable to entirely eradicate it from our mind processes.

A completely frugivorous diet is an impossibility in a state of Nature, from the fact that fruit is naturally seasonal. Personally, I know of no tree, with the possible exception of breadfruit, which bears fruit the year round and of no country where it is at all times abundant; hence, even in the frugivorous age, if ever was such in the time sense of the word, it is more than likely that, like the present monkeys, we also were insectivorous.

MAN AN OMNIVOROUS ANIMAL

While the cow, and for that matter all herbivora, can build their entire structure, from grasses alone, man is not so constituted. A study of his internal anatomy shows him to be of a mixed type. His teeth show both a nut and a meat-devouring character. His salivary glands and other secretory organs along the alimentary track show him to be

adapted to dry starch products. The length of his intestines would indicate him to be a natural fruit eater. Taking it all in all, he is an omnivorous creature and must nourish himself accordingly. There are, however, great differences in various types of man, due to the environmental changes through which their race has passed in its march upward from the premordial cell. Originating, as man prabably did, in the tropics, this must have basically influenced his food requirements. Living as he did a frugivorous and possibly insectivorous life, he was probably lighter of frame and more agile of body than he is today, being then as he was until recently, perfectly adapted to his environment.

Geology teaches us that the continent of Lemuria, on which, according to Heakle and other scientists, man probably originated, went down prior to the last glacial period, and the Hindoo legend of creation tells us that the first human couple came from the islands to the south, and were hindered from going back by the sinking of the connecting land. These and many other facts shed a light on the early movements of the race, and the physical conditions of its primitive home.

Archeology, legend and history also prove that man's food supply has been subjected to various more or less drastic changes from the fruit and insect eating aboreal days to the probably almost exclusive meat diet of the glacial epoch, and the later centuries of pastoral existence. Then again, there came a change with the introduction of agriculture, and later again, when the arts of salting, cooking and preserving made their appearance, and now, once more the organism of man is called upon to make a re-adaption—this time to denatured, demoralized, and often positively poisonous food.

He has now taken the problem of his nutrition out of the hands of God, and put it into the keeping of doctors, who of course, know more about such things than the Almighty ever dreamed of knowing. The result is a wild profusion of literature, telling what is good and bad in the

way of food, but ignoring the fact that man evolved by, and is adapted to, the pure unadulterated products of Nature. Thus we are told that we must eat foods which will evolve a sufficient number of heat units (calories) to adequately supply the physical and thermal energies required by our bodies, and this idea has led to stuffing the system with inordinate quantities of starch, proteins, and fats, entirely forgetting the vitamines and electro-magnetic mineral salts which are found in the green leaves of vegetables, as well as in the hulls of grain and the peelings of fruit. They are absolutely essential to the digestion and assimilation of all other food substances.

Man may be likened to an internal cumbustion engine, and, although we have treated our bodies as such since the advent of modern commercial food, we forget that such an engine needs a battery or magneto, which liberates dynamic power, necessary to make the energy on the other food compounds available. It is nervous energy which breaks up and recombines the starch, sugar, and fat molecules, liberating their dynamic energy at a temperature of about 104 degrees F., a feat which can be accomplished in the laboratory only at the temperature of the electric arc, which is many hundred times higher. The transforming process in our bodies, then, is not one of mere oxidation, but depends upon an inter-change of electro-positive and the electro-negative chemical constituents acted upon by the properly polarized organs of the body, from all of which it follows that laboratory findings are worthless when it comes to a determination of food values.

Nature, however, gives us a perfect food standard in the composition of human milk. It is Nature's standard food for the young: Red arterial blood which supplies all the tissues of the body with nourishment throughout the entire span of life, also is a natural standard for those who are interested in the chemistry of foods.

But let me warn you that to merely supply the needed elements does not in, itself spell nutrition, but is just as

likely to be destructive. It is not only a fact that we need certain elements but also that we must need them at the organic rate of vibration. The difference between living and non-living matter being a difference of periodicity. Both milk and blood carry all the nutritive elements in perfect combination, and we can have no scientific system of diet unless we take these combinations and their radio-activity into account.

Human milk contains 87.2 per cent water and 12.56 per cent solid negative matter, 3.50 per thousand of positive mineral matter. Water being an element of all food, we shall not discuss in this, but shall take up the solids in the order of their appearance.

PROTEIN

(1) Protein: This is the first compound of elements that comes to our notice when analyzing milk. It is composed of carbon, oxygen, hydrogen, nitrogen, phosphorus and sulphur in organic molecular combination. These elements are also present in such foods as nuts, the gluten of grains, eggs, meat, dairy products, peas, beans, mushrooms, etc. In milk there is only 2.36 per cent, from which it follows that when we make it sixty or seventy per cent of our food, we are stuffing the body with an excess not only far beyond its requirements, but beyond its power to eliminate, as well. It is more than possible that the apparent strength we feel after a heavy protein meal is only the defensive battle of Nature against this folly, and, as has been pointed out, it may lead to disease and ultimately destroy the life-sustaining power of the body.

FATS

(2) The next compound found in milk is fat. It represents 3.94 per cent of the total bulk. It is also found in such foods as butter, meat, lard, vegetable oils, etc. And, if taken in excess, as frequently it is, it also calls upon the energy of the body in order that it may be eliminated.

SUGAR

(3) Sugar is of similar chemical combination as fats and oils, being composed of carbon, hydrogen, and oxygen, and it constitutes 6.26 per cent of the total volume of the milk. It is represented in the normal foods of the adults by such products as honey, white parts of grains, potatoes, sweet fruits, beet sugar, etc., from which it follows that if these things are taken greatly in excess of this proportion, they become a detriment to our well being.

MINERAL

(4) The last group of elements found in milk are the positive mineral alkaline elements. Potassium, sodium, iron, lime, and magnesium. These constitute 2.40 per thousand of the total food mass.

The heat-producing power of milk is 320 calories per pound and it may be put down as common observation that an ordinary lusty infant expends a good deal more heat and energy than 320 calories for every pound of milk it consumes.

NORMAL DIET

A normal diet for a growing child, then, should consist, on an average, of about one-fifth protein. Fats and oil-bearing foods should comprise one-third. We speak strictly of solids, keeping in mind that all foods contain considerable water; milk being almost 87 per cent of this fluid.

STARCH

This is not found in milk, its place being taken by sugar. It should compose nearly one-half of our food. By this, we do not mean that you should make one-third of your food grains and potatoes, or that one-third should be solid fat, but that it should consist of preponderately starch-bearing foods. Sugar and starches as well as fats and oils are

found in all fruits and vegetables in wonderfully effective combinations.

The positive mineral elements should be taken together with all of the foods mentioned; for, without them, the process of digestion and nutrition is impossible. This would be a difficult thing to do were it not for the fact that Nature properly combines all food, so that if we eat what Nature provides and do not tamper with it, we can make no mistakes.

Natural food combinations, furthermore, depend on the species to be considered. A cow, for instance, is a vegetarian from her nose back. She may feed on grass alone and from it build her own body and nourish her calf. If several bales of hay were reduced to their chemical constituents and the carcass of the cow were similarly reduced, there would be found little discrepancy in the elements thus obtained.

COOKING

The body needs approximately seventeen elements tuned to the rate of organic vibration, if it is to function perfectly. These elements must be taken into the body as food. Cooking disorganizes some, and frying destroys the normal vibratory or radio activity of others. Hence, people who have poor digestion should abstain from all fried foods. Fruits and raw vegetables should constitute the major portion of their food. In that way the life elements are more assimilable and also more abundant, and therefore, help in the recuperative work.

WATER

The body needs a certain amount of water. It should be taken in the cool natural state. If taken in any other form, it acts as a solvent or poison. Drink water only when you are thirsty. If your diet contains plenty of raw fruits and vegetables without the addition of table salt—which, beyond the very moderate amount probably needed in the

inorganic form by the blood, is nothing more than an excitement of dormant and worn-out taste-buds—we will experience very little, if any thirst. Water taken in large quantities adds weight to the blood stream, and puts additional strain on the heart and kidneys, especially if the skin has been rendered inactive by hot baths or other means discussed in previous essays.

In hot weather our bodies need more fluid than in cold weather. The system needs the additional moisture to compensate for the perspiration continually thrown out upon the skin by the action of the heat regulating mechanism of the body. A good rule to follow is 'never drink unless thirsty,' and to do nothing medically or otherwise to excite the sense. It should be borne in mind that, if during hot weather we abstain from all meats and protein products and reduce our intake of sugars, fats, and starches to a minimum, living as nearly as possible upon the fruits and vegetables, we will suffer but little from heat during the hotest days. The reason for this, being that we do not take into the body any excessive heat-producing compounds, but only such foods as are rich in water and the non-heating chemical salts, together with sufficient carbo-hydrates for mechanical requirements.

The habit of drinking distilled water should always be discouraged. Our bodies were not evolved in a distillery, neither did the race originate in a sterilizer. We need oxygenated and moderately mineralized drinking water; for such is all water in its natural state. Water is the greatest solvent known to science. The power to dissolve substances increases with its purity, making distilled water especially active; so that, when taken into the body, it has a tendency to leach away important mineral elements from the tissues, causing weakness, of both structure and function.

SCIENTIFIC DIET

From the foregoing, it becomes evident that a science of dietetics for the human race must take into account the

individual. It must ask, what has been in the race history of this man? Is he a blond, with the propensities developed in the ice age still in his physical make-up, or is he a brunette, whose ancestors have not gone through this experience, except to the degree that his blood is mixed with the blond's in later ages? Is he neither one or the other, but a mixture of both. In other words, what is the food to which heredity has adapted his organism.

Next, what were the seasonal variations of food to which his ancestors adhered for the last twenty or thirty generations; for it is evident that the history of an Italian, living chiefly on vegetables and fruits, is quite different from that of the Norwegian or Swede, who lives chiefly on fish and grain, or of the desert Bedouin, 'gorged on his leek green lizard meat.' Where, as frequently happens in this country, two types intermarry, the problem naturally becomes complicated.

Racial purity in blood and a close adherence to the customary dietetic habits of one's ancestors, is the best prophylaxis against disease imaginable. Apart from our comparatively new methods of eating and almost catholic vaccination, much of the affliction found in the American people may be traced to mixed types. Pure-blooded races, when fed on their normal fare, even if unsanitary, generally prosper, while the weakness of the half-breed is proverbial. Hybrids are exceptionally vigorous, says Redfield, and Burbank agrees with him, but a human half-breed is not a hybrid—he is a mongrel, and of those the reverse is true.

A prophylactic thein diet must be based upon historic and individual analysis of the person in question, and it must also take into consideration the climatic condition under which such a person now lives.

A blond man will consume large quantities of fat in Alaska with apparently no ill effects. I have noticed Italians and Greeks who endured terrific cold, nourished only on cereals and raisins, the organism of these people being espe-

cially adapted to the handling of raisins and other fruits in winter. Their types are evolved in a grape country, hence, their ability to subsist on this fare, even in terrific cold, while an Englishman or a Dane, having been raised in fish and meat countries, will consume large quantities of protein and fats, and does not fare well on raisin diet in low temperature. From this, it follows that, when the Italian goes further south, he fares better on still more acid fruit, and the Englishman, if he goes further south, will thrive far better on an added supply of green vegetables. Summer, to the Italian, means more acid fruit in the diet, and to the dweller in the Northland it means more vegetable chlorophyl.

The coming of the Chinese gardeners to the tropics with their lettuce, spinach, cabbage, and other greens, has done more to preserve the white men in these regions than all the medical science evolved in all the universities of Christendom. When there is no winter, a man should not eat winter food, and by parity of reasoning, where there is no summer, he should not eat summer food. The dried vegetables sent to Alaska, being sun-cured foods, naturally prepared for winter, have done more to abolish disease in a single year than all the drugs and serums ever made could possibly have accomplished.

THERAPEUTIC DIET

In the foregoing paragraphs, we have discussed how man should eat in order to retain health. Let us now consider how he should eat in order to regain it when lost.

Remember that disease is generally due to the accumulation of morbid matter in the system, as a result of overeating and improper food. We must not forget that the greatest offender in the category of our foods is protein. Protein produces serum albumen, or pathogen, which decomposes into uric acid, to say nothing of leucamian, cadaverin, and other poisons. These poisons give rise to nerve trouble and all the fifty-seven varities of rheumatism, also Brights's disease and many other chronic afflictions. Pro-

tein-poisoning being a prolific source of disease, it follows that protein starvation for a period of time is the first essential element in a cure. Hence we recommend for the meat-gorged American people a predominantly vegetarian and frugivorous diet, using grains, dried fruits, and fresh sweet fruits during the winter months. Where such diseases are pronounced the grains should be eliminated from the dietary and juicy fruits such as grapes, apples and pears substituted. I am speaking now of the white man belonging to the predominantly white races, living in his natural habitat between the 25th and 50th parallels of latitude.

In the spring, they should eat the young fresh greens which Nature provides at that time of the year—dandelions, lettuce, young onions, and radishes, and all things green that grow at that time of year. I do not say that these should be the exclusive diet, but they should constitute a large part of the regimen. At all events, meats, nuts, eggs, cheese, etc., should be entirely excluded from the diet of those who are protein-poisoned. A little dairy product is about all the protein that should be taken by such individuals until the last vestige of their disease has disappeared.

During the summer, the fruits and vegetables should be the predominant diet, and toward fall bread and cereals may be added to the fruits of the season.

Those who are suffering from diseases that directly result from an over-ingestion of starch and sugar, chief among which is constipation, with its associated chain of evils, such as hemorrhoids, appendicitis, diabetes, gastritis, cancer, pelvic troubles, and a great many other afflictions, should eat as above outlined, but should eliminate all grains and sugar products from their food until their systems abate.

It should not be inferred from what has preceded that proper diet alone will always cure the results of long-continued excesses. We simply wish to emphasize that it is an absolute essential in any treatment of disease. Faulty diet being a cause, it goes without saying that correct diet must

have a place in the cure of disease. In cases where an excess of sugar or starch has produced an abnormality of function, it must be greatly reduced or entirely eliminated, even in fall and winter, and the organs gradually re-educated when the condition has been corrected.

The normal food for man is that which the seasons bring forth in the region where he and his ancestors have lived for several generations. The reason that the South has so large a percentage of physical inefficiency is doubtless due to the fact that they eat Scotch, Dutch, Danish diet in a Spanish, Italian and Grecian climate. The result is pellagra, malaria, rheumatism, asthma, and numerous other afflictions running far above ordinary percentages. If the Southern people would only forget their pork, hot biscuits and fried eggs, and eat only the sweet wholesome products of Nature, with which they are so abundantly surrounded, they would be the healthiest portion of American people.

GENERAL ANTI AUTO-INTOXICATION DIET

As auto-intoxication is the child of constipation and constipation is the mother of fully three-fourths of the diseases commonly affecting mankind, it goes without saying that the re-establishment of proper bowel condition must precede all attempts at curing disease and maintaining efficient health.

It has been our experience that if the average patient of Anglo-saxon, Teutonic, Celtic, or Latin blood will adhere to the following dietetic rules, constipation is invariably cured, and health restored in a comparatively short time.

Upon arising in the morning, drink one or two glasses of cold water, to which the juice of half a lemon has been added, one-half an hour to one hour before breakfast. This is a good rule for all to follow, whether they are sick or well. Then follow this by a breakfast according to the season, and the case.

Fall and Winter Diet

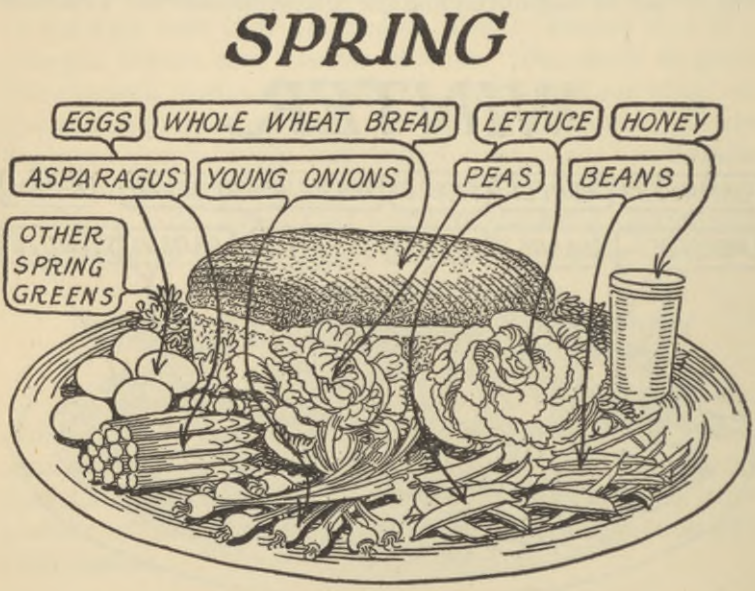
BREAKFAST

This meal during the fall and winter months should consist of such foods as shredded wheat biscuit, whole wheat bread and butter, with a liberal amount of sweet fruits, such as figs, prunes and raisins. Insist on the sundried kinds and refuse all sulphured and lye scalded products. You have

a body of flesh and blood, built to handle organic food products. You are not a crude chemical works for the reduction of sulphur dioxide and calcium chloride and other dangerous substances. Insist upon the natural foods always!

To the above may be added a soft boiled or poached egg —every other day—and milk, cottage cheese and other dairy products as desired. If a warm drink is needed, milk, at a temperature a little above that of blood is to be preferred, although cereal coffee and sweet fruit juices are good.

Coffee should not be used, as the best one can say for it, is that it is dirty water, and the worst, that it is a poison responsible for a good deal of headache, rheumatism and heart trouble. If, however, you are advanced in years, and have used the stuff the greater part of your life, it may take more will power than you possess to break the habit. Under such circumstances I advise that you take a small cup for breakfast, and sympathize with the drunkard and the dope fiend, who are bound with similar chains.



Spring and Summer

BREAKFAST

In the spring one should eat freely of asparagus, radishes, lettuce and the young green onions, and gradually reduce the amount of his cereal food. Eggs are the normal proteid of this season, while meats should be substantially reduced.

To those who crave sweets, honey, maple sugar, and cane syrup, also dark brown sugar, may be allowed, unless

especially counter-indicated by diabetic, or fermentative conditions. Sweets are necessary foods during all but the hottest summer months.

Summer Breakfast

From all those who are suffering from the toxic or acid conditions referred to, the all melon and summer fruit breakfast helps the badly over worked bowels to regain their normal tone and activity more quickly than any other one thing. We advise the eating of a liberal portion of cantaloup, muskmelon, watermellon or casaba, together with fresh peaches, apricots, plums, summer pears, or other sub-acid fruits without an admixture of anything else. During the hot weather this will prove to be sufficient for all but the heaviest workers.

Fall and Winter Luncheon

Winter luncheon for all sufferers from the above named conditions, except perhaps those who do heavy work, or those who are exposed to extreme cold, should consist of a fruit and winter vegetable salads. These salads should be composed of raw grapes, apples, pears, peaches, etc., and such vegetables as celery, cabbage, carrots, rutabagas, turnips, etc. Not all of these in each salad, but different combinations at different times. (Hothouse summer vegetables are not winter food). To this may be added warm baked potatoes, with butter, whole wheat bread, nuts, dairy products, and honey. Occasionally a little roast or broiled meat, unless counter-indicated by special conditions.

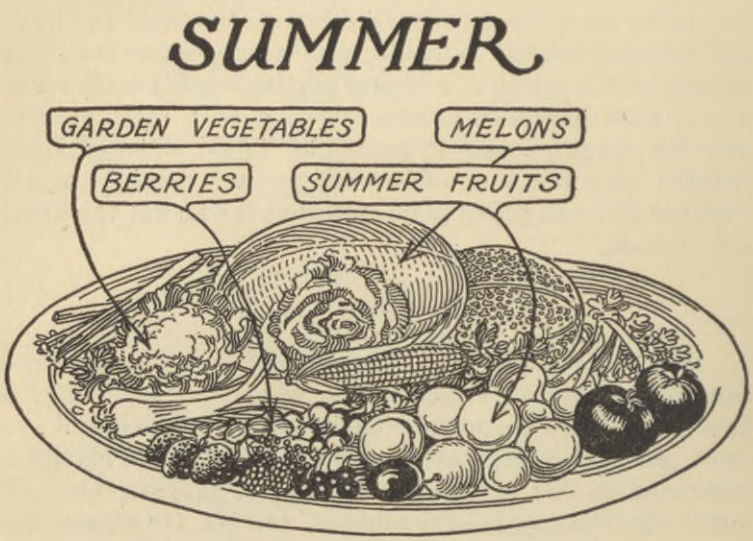
For drink; water, milk, postum or fruit juice may be used.

In the fall the fruits should lead while during the winter, grains, fats, sugars, roots and meats are in order.

Spring and Summer Luncheon

During the spring, the roots and fruits of the salad, should give way to the garden vegetables, and strawberries,

while during the summer such things as cucumbers, green peppers, and the cresses should be used. Let it not be forgotten that sorrell is a splendid spring time food and may well be eaten without stint at each meal where grains and grain products are not used. Asparagus and dandelion greens may be used with grain products.

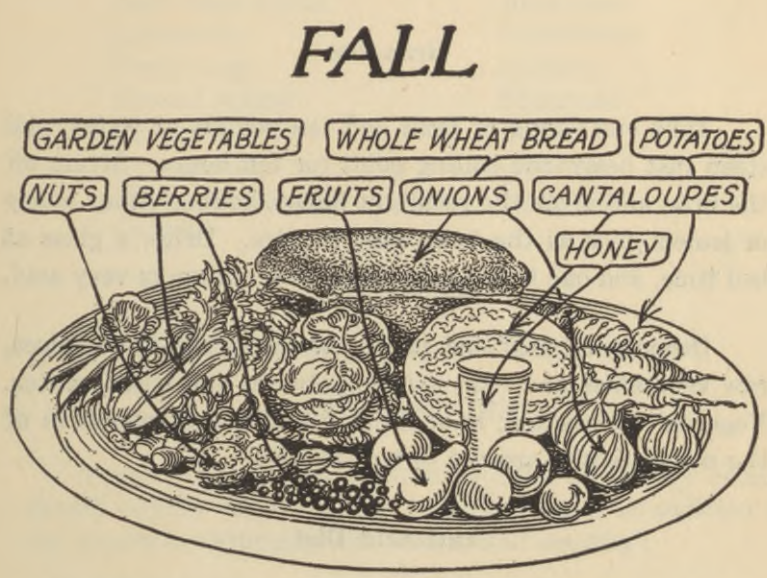


As has been said, during the heat of the summer the grains should almost disappear from the diet, while new potatoes and fresh young garden roots take their place. Meats and fats may now be almost entirely dispensed with, being taken up again later in the year. Milk remains a good drink throughout the year, but it is best not to use it when the diet is largely fruit. Custards and rice pudding, may be used sparingly when they cause no fermentation.

Fall and Winter Dinner

As this is generally the heaviest meal of the day, we generally prescribe two cooked vegetables, baked potatoes, whole grain bread and unless especially counter-indicated,

meats, fish or dairy products, nuts, sweet fruits, and milk, or other drink, barring coffee, tea and "boot-leg booze." It must be understood that with this meal the while grain and



vegetable should lead, and meat, if any, should not be a daily affair. Its place is splendidly taken by nuts, peas, beans and lentils, as well as dairy products. Baked potatoes are a splendid food and the vegetables may be chosen from any of the list appended hereto, according to the requirements of the case.

Spring and Summer Dinner

This meal remains much the same during the year in its general character, except, that creamed new potatoes, take the place of the baked variety, and that the grains and sugars are greatly reduced while the fruits and salads have the more prominent place.

Acids and Citrus Fruits

These are valuable in sickness when it is well to let them constitute at times the sole article of diet. Generally,

however, we advise that they be eaten between meals, as they frequently cause starches to ferment and create unpleasant conditions.

Bran Tea

Take one pound of bran and ten pounds of water, and steep just below the boiling point for ten hours. Strain off the bran and drink the resultant liquor, adding either honey or lemon juice as the taste may require. Drink a glass at bed time, and one in the morning if the system is very acid.

Other good acid and poison breakers are fruit juices, raw vegetables and fruit salads, potatoes and potato-water. Vegetable juices and, in summer, the different members of the melon family are not to be despised.

Anti-Acid Diet

To those who suffer with excessive acid, baked potatoes, buttermilk, fruits of all kinds and bran tea are especially indicated.

To those who suffer excessively with the heat in summer, the following foods are of special benefit: Artichokes, cauliflower, celery, cabbage (raw) currants, cucumbers, endive, potatoes, onions, greens of all kinds, sorrell, radishes and spinach.

The accompanying lists are appended in the hope that they may make the theoretical ideas contained in this essay more practical, or at least easier of practical application.

As constipations is an almost universal ailment, and as it results in no small amount of suffering, we herewith ap-

pend a list of foods which will prove to be laxative at any season of the year—

Fresh fruits	Irish potatoes
Acid fruit juices	Asparagus
Lemonade	Cauliflower
Fruit soup	Spinach
Stewed raisins	Tomatoes
Prunes	Butter
Buttermilk	Olive oil
Nuts and nut oils	Ripe olives
Carrots	

Bran bread

and tea made from wheat bran; also, potato-water.

FATTENING DIET

People who are lean from other than hereditary causes should strictly adhere to the following foods, in addition to the products natural to the season and country:

Unpolished rice	Potatoes
Cream	Nuts (for growing people)
Meltose	Honey

People who want to gain flesh should not eat too great a variety of foods at any one meal.

FAT REDUCTION

Cut the quantity of all foods in half, and double your amount of exercise, but above all abstain entirely from salt and salted foods.

ANTITOXIC DIET

People who suffer from auto-intoxication should religiously abstain from all such food as milk, meat, eggs, and all animal fats, with the possible exception of butter. I find

that they get the quickest and most lasting benefit when put on fruit, fruit juice and salad diet in summer, to which a liberal quantity of potatoes may be added in fall and winter. In very severe cases, honey, fruit juices, and melons are most effective.

STIMULANTS AND NARCOTICS,—THEIR EFFECTS

Stimulants are divided into (I) Alkaloids and Narcotics, (II) Alcohols. The alkaloids are derived from vegetable sources. They effect the nervous system. Tobacco, tea, coffee and cocoa as well as many patent medicines and drugs. Tobacco is probably the most detrimental of all the narcotics, with the possible exception of opium. The nicotine is one of the most deadly poisons known. It has a tendency to partially paralyze the nervous system and uses up sexual vitality.

Tea is very much like coffee in its effects. Thein is its chief stimulating ingredient, but tannin has a very destructive action in the lining of the stomach; we have but to keep in mind leather that has been prepared in the tannery and nothing more need be added.

Coffee has caffeine as its most active principle. It acts very much in the same way the thein does in over-stimulating the nervous system with its consequent reaction. In time both wear out the bodily vigor, ending in premature decay and death.

Cocoa—This drink has as its basic ingredient the alkaloid theobromine, a stimulant first, but ending in sedation. As action and reaction are equal, stimulation must have a reaction to correspond, and that means a state of depression, which must inhibit the normal action of the organs of the body.

Alcohol—As this stimulant has been proscribed as a beverage in this country, we need not consider it under that head, but there are other forms in which it may be found,

viz.—Patent medicines, etc. If people knew what they were taking when they buy a bottle of this Elixir of Life in a bottle, it would not matter so much, but as a matter of fact most of the so-called benefits from their use comes from the stimulating effects of the poor grade alcohol found in these pernicious cure-alls.

HOW TO COOK FOODS

Vegetables

Vegetables should be covered with only enough water to prevent burning. When they are done, nothing should remain but the vegetables and a thick juice, which should be taken also, as the water contains the life-giving mineral salts. Steam or fireless cooking is the best method, as the juices are all retained. Season to suit the taste, but use nothing except a little salt. Better even omit this too if you can, for salt is an inorganic mineral.

Meats

If eaten at all, meats should be roasted or boiled—never fried.

Fish—are better baked or boiled, but should never be eaten fried.

Cereals

In cooking oatmeal or cornmeal use five parts of water to one of the cereal, cook at least four hours, so as to break up the starch atom. Use cream and a little salt, but no sugar, as sugar causes it to ferment.

Beans

These should be soaked overnight and when cooking use the same water they have been soaked in, as the minerals are necessary, the same as potatoes or other vegetables.

Health Soup

A very nutritious soup may be made as follows, and I have known many weak patients to be wonderfully improved by it: Take carrots, parsnips, turnips, spinach, celery, tomatoes, potatoes, onions—boil for four hours in water just sufficient to cover. Drain off the liquid and drink as much as needed and follow with some whole wheat bread.

MENUS

For people of sedentary occupations the menus that follow are a good and sufficient diet. They may, however, be varied so as to meet the requirements of all.

MENUS FOR WINTER

Breakfast

Fruit, such as Orange or Apple, with some Dates, Figs or Raisins

Lunch

Toasted Whole Wheat Bread
Milk or Buttermilk

Dinner

Soup
Fish or Lamb
Two Vegetables
Salad of Lettuce, Celery and Tomatoes or Sweet Onion, dressed with Olive Oil and Lemon Juice

MENU—SUMMER

Breakfast

Fresh Fruit—as before

Lunch

Toasted Biscuit Fruit Salad

Dinner

Celery or Tomato Soup
Stewed Lamb—twice a week
Carrots Spinach Baked Potato
Salad String Beans Stewed Onions

MENUS FOR THOSE LEADING ACTIVE LIVES

Breakfast

Muffins or Corn Bread
Honey and Baked Apple or some other Fruit

Lunch

Tomato or Vegetable Soup
Baked Potato Salad Carrots
Parsnips or Turnips

Dinner

Melons or Fruit
Two boiled Vegetables
Baked Potatoes

ALTERNATE MEALS

Breakfast

Buckwheat Cakes and Syrup

Dinner

Soup
Baked Beans Salad
Sweet Corn and a Vegetable

Supper

Apple Sauce Cheese Fruit
Whole Wheat Bread

Breakfast

Bran Muffins and Butter or Honey

Dinner

Egg—soft boiled or Poached
Spinach Nut Salad
Vegetable Soup

Supper

Fresh Fruit and Milk or Biscuit
Some Mutton or good Beef twice a week

DIETS FOR CHILDREN

8 to 16 YEARS OF AGE

Breakfast

Oatmeal Milk Egg Whole Wheat Bread

Lunch

Toast (Whole Wheat) Baked Apple
Butter Milk

Dinner

Egg Potato (baked) Spinach or Lettuce Salad
Nuts or Raisins

Breakfast

Bran Muffins or Biscuit Honey Milk

Lunch

Whole Wheat Bread and Milk Sweet Fruit

Dinner

Fish Salad Two Vegetables
Rye Krisp or Whole Wheat Bread

Breakfast

Fruit (Apple, Orange) Dates, Figs or Raisins

Lunch

Whole Wheat Bread or Milk
Rye Krisp and sweet Fruit

Dinner

Rice Spinach Boiled Onions Salad
Whole Wheat Bread and Butter, also Nuts and Honey

The foods to be avoided by those who suffer from auto-intoxication are meats of all sorts and all cereals, eggs, cocoa,

coffee, tea, and heavy cheese, also all condiments, such as mustard, pepper and salt.

ANTI-ACID DIET

Baked potatoes	Buttermilk
Fruits (all kinds except bananas)	Bran tea

PREPONDERANT DIET FOR SUMMER

Potatoes	Sorrell
Spinach	Radishes
Artichoke	Cucumbers
Cauliflower	Cabbage (raw)
Greens (of all kinds)	Currants
Celery	Strawberries
Onions	Endive

It must be remembered that the articles here listed are not to be the sole food, but the preponderant food, at the time, and for the condition indicated.

WINTER DIET

The normal winter foods in North Temperature latitudes are nuts, grains, sweet fruits, dried fruits, potatoes, and all other edible roots which retain their vitality during the winter months. These in their various combinations make a most excellent winter diet. The habit of living on green vegetables during extreme cold weather I have found to be productive of more harm than good.

A FEW DON'TS

Don't eat pickles in any of their fifty-seven denatured forms. They are absolutely unfit for human consumption. They are simply vehicles for introducing acetic acid, salt,

and alcohol into the system. Don't eat them! If you want to eat cucumbers, eat them fresh from the garden, skin and all, without the addition of salt, vinegar, or pepper.

Don't, on any pretext, use vinegar; it coagulates and destroys protoplasm of your cells and shortens your life. You may as well use alcohol.

Don't eat or drink anything at an excessively high temperature. Our bodies are not supposed to endure extreme heat in this world.

Don't eat anything that is fried. Frying destroys much of the food value, and develops dangerous acids.

Don't over-eat on protein. Chittenden has demonstrated that the amount of protein ordinarily taken is more than three times the amount required by the system. And Doctors Hinehede and Powell have proved that even this one-third is far more than is actually needed. Protein, although necessary to growth, becomes the cause of death when the organism is matured.

These few suggestions we believe will guide the average individual safely through the dietetic wilderness.

Barring accidents the surgeon is called only where the Doctor has failed to understand the natural law governing the case.

Man is not a dog, then why dismember that animal in an effort to learn things concerning human life. Vivesection only keeps the tiger and the ape alive in the human breast.

ESSAY VIII—EUGENICS

As birth control is in reality a measure in eugenics we cannot help but disagree with those well meaning, but we believe mistaken, people who seek to place the question, race improvement, in the hands of governmental authority. Governments are not co-eval with the race; and should, therefore, not determine its development. Governments must serve the race, at no time should the race serve the government. Yet we realize that birth control will be an increasingly pressing problem, upon the scientific solution of which the future of civilization will in no small degree depend. As the race multiplies and the sources of food supply diminish, the struggle for existence must ultimately become even keener than it is now, and in this struggle keen intelligence and vigorous power will be ever more in demand. The very needs of social evolution will make it necessary for humanity to develop a consciousness which shall place the common good above the mere desire for self-gratification.

Too frequently, the motives behind many ill-considered marriages are social or financial advantage, or, as is quite as frequently the case brute thoughtlessness of its social consequences. We forget that Nature is not interested in either society or finance, but works in accordance with the laws governing variation, selection, and biodynamic resistance. We should then avoid the mating of incompatible types as we avoid incest. Our moral concepts must be changed so that we shall not ask some official doctor the question, "May I have children?" but ask ourselves, "How should I mate, so that if I do have children, these children will be useful and healthy, and not defective members of society?" That is the main reason why we urge the development of race consciousness so that we will consider the social and racial good, as a working bee places the welfare of the hive above its individual gratification or safety.

Up to the present, mating for a majority of the people has been little more than a response to the primal impulse

which impels the sexes to unite, although it must be said that this is modified by the customs and regulations which grew up during the evolution of society. Long before the advent of the commercial age, man realized that instinct was an unsafe guide in matters of procreation. But today the customs which were developed during the savage, barbarian, and hand tool stages of social evolution through which our immediate and remote ancestors have passed in their struggle upward from the brute, are no longer adequate for race requirements. The environments which gave rise to these customs, modern civilization has swept away, making it necessary for the race to readapt itself to changed conditions, not only in selection of food, ventilation, exercise, and emotional activity, but also in the selection of mates for the work of race-perpetuation, and in regulating the time at which mating may take place. This last is probably more important than any other factor. In the future man will have to bestow a little thought upon the child before as well as after it is born. We will beget children who are mentally adapted to present day requirements.

"Now," someone says, "this puts love upon a cold, calculating, materialistic basis. It robs youth of its poetry and romance, which in a measure compensate for the dull and prosy life which falls to the lot of most of us after marriage. It does away with that joyous abandon that sprinkles our pathway with sunlight and starlight, causing us to forget that there is such a thing as reality. It not only rolls upon the shoulders of youth a premature burden of care, but leaves out of consideration the providence of God."

The answer naturally is, that the laws of Nature are the words of God, and that, one of these laws demands that life must readapt itself to changing environment, and our concepts in philosophy, morals, politics, and the religion must change with it. Nothing is eternal but the law of change.

In savagery man learned to eschew incest, not because God told him it was wrong, but because experience proved

it to be detrimental; and so it became the moral law not to mate within his immediate family. The elders urged the young men to go out and steal or capture a wife from another tribe. Of course, a child could not go out and capture a wife from a hostile tribe, and hence he had to wait until he had accumulated strength and experience to do so. This did away with the natural tendency to excessively young mating, giving the children the benefit of a more matured parentage. Redfield's investigations tend to prove that the habit of interfering with early mating practised by nearly all tribes and nations of men, is responsible for man's mental elevation above the brute.

He points out as a noteworthy fact that tribes which, for one reason or another, have made it difficult for the sexes to unite have made the most rapid progress toward civilization. And not only toward civilization but toward longevity as well. Very old people, centenarians for instance, are frequently the children of comparatively old people, showing not only that mental acumen but that physical strength and longevity as well, are in a measure inherited. Birth control should, then, be practised by the young until they have reached their full maturity. Parenthood should be forbidden until the father is approximately thirty years of age and has done a definite amount of mental and physical work. Mere age means nothing but time, but the use we make of time is all important.

It may be well to point out at this point that Redfield does not contend that just because a man becomes a father late in life he must of necessity beget a brilliant son. Quite the reverse may be true. What he does contend, however, is that a father who is mentally and physically active will accumulate mental and physical power, and may bequeath a relatively greater capacity to these things for his offspring. He then goes on and cites facts from history and biography to establish his contention. We append the following table from his book, "Human Heredity."

Percentages of Births to Fathers of Different Ages

Age of Fathers	In Normal Pedigrees	In Pedigrees of Eminent Men	Relative Value of Father Age
24 and under	9.06	1.63	1.000
25 to 29	23.05	9.77	2.356
30 to 34	26.00	16.63	3.557
35 to 39	19.67	19.19	5.426
40 to 44	13.39	20.23	8.406
45 to 49	5.50	14.53	14.670
50 to 54	2.22	10.12	25.328
55 to 59	0.72	4.30	33.138
60 and over	0.39	3.60	51.562

Mr. Redfield then continues:

"This table shows that normally more than nine per cent of all children are born when their fathers are less than twenty-five years of age, but that in the pedigrees of eminent men, less than two per cent are the offspring of such young fathers. Normally more than twenty-three per cent of children are born after the fathers are twenty-five and before they are thirty, but in pedigrees of eminent men less than ten per cent are the offspring of such young fathers. Continuing the comparison, it is seen that eminent men are not produced in the same manner that ordinary people are produced."

"The last column is calculated from the other two in a well-known manner. It shows to what extent added age in the father helps to give the son a good mental inheritance."

It is conceivable, then, that further improvement can be made by applying the known laws of life to man as well as to hogs. Or, do higher education and greater refinement render us incapable of reason and absolutely dependent upon

the capricious promptings of primal impulses, which were not suited to savage life, to say nothing of civilized existence?

"But," say other good people, "marriage is a divine command, with which human reason should not tinker." But one might answer, "If God wants us to pass into parenthood through a fairy land of poetry, then he should not have made the laws governing heredity." But let us not be frightened by the sayings of the ancients. Gods, like patriotism, are too frequently used by those who are interested in keeping the mass in ignorance. An enlightened man is useless to those who profit from ignorance.

Modern civilization has made it necessary to implant reason as a substitute for custom. It is only a small step in evolution from the realization that the mating of relatives will hinder the progress of the race, to a recognition of the fact that the mating of certain types and ages is detrimental to the collective weal.

The old biology taught that a toothless woman should not marry a toothless man, unless indeed they wished to foster a toothless race. But the new biology says that a man with defective teeth can exercise and strengthen them, and then mate with a woman whose teeth are perfect. By exercise he can build up that which is defective. This later light on the problems of life is the more beautiful because more constructive and dynamic. And if man would not mate until he had made himself what he should be, we should not have to blame Providence for millions of mentally defective and idiotic children resulting from our present ignorant spawning.

For when all is said, parenthood is the keynote of marriage, the only valid excuse for a legal contract between man and woman. If it were not for the fact that marriage makes man responsible for his children, it would be but a ceremony to gag Mother Grundy. The child is and ever will be the foundation and tower of the home, that is, if the

child is the fruit of normal love and desire and not the poor waif begotten of ignorance and accident, resented before and exploited after birth.

For excepting the weakened characteristics due to faulty heredity, we also have to contend with this menace, which, for the want of a better name, we might call psychic blastorphia. An unwanted child is born with a blight, severe in direct proportion to the mother's resentment of its conception. Anger and resentment should not be permitted to poison the blood of an expectant mother. No woman should bear children against her will. It injures both the mother and the child.

The great causes of anti-social types with which our reformers and criminologists have to deal are:

(a) Improperly matched parenthood.

(b) Unwilling motherhood.

(c) Mental depression due to economic and social uncertainty.

(d) Mating of young and inexperienced parents.

While we maintain that no mother should bear a child unless that child was properly loved and nourished from the day of its conception, we also realize that under modern conditions this is the lot of but a small percentage of all children born.

Of course, many good people still hold their breath when the laws that govern the phenomena of life and sex are discussed. They are not yet emancipated from the Phallic worship of their ancestors. In one breath, they will tell you that the subject is too nasty, and in the next, that it is too sacred to be publicly discussed. If it is nasty, then these organs should be removed from the motives of hygiene; and if sacred, then knowledge concerning these functions should be propagandized from motives of duty. The fact

is, we are simply ignorant of the laws of life, and hide that ignorance behind clouds of sacerdotal and meaningless twaddle.

From remote ages our leaders and teachers have kept our minds awed by the mystery of life, so that we are afraid to tear away the veil and see the light, lest it blind us. Again many of us are too indolent to think of anything but our own lust. What matter children, what matters the race when gratification is at stake? If this be our state of mind, then we have not yet progressed very far above the brute, and will not profit from what is written here.

We may as well concede that progress in mental and physical power lies not in the enactment of laws compelling proper mating, but in the repeal of laws hindering education. Knowledge is the key to the temple of freedom, when it becomes a part of the activities of life. Law regulates human conduct. Education purifies the mind and frees it from that ignorance which alone makes laws necessary. As long as there is ignorance, there will have to be restraint.

But we cannot leave this subject without saying a word about those who cannot or will not be educated. It has been contended that unless the ignorant are restrained, they will continue to breed and finally overpower by their numbers the more enlightened and conservative elements of society. The objection, however, is hardly valid. For as society becomes more complex, it also becomes ever more difficult for the hopelessly ignorant to survive, except during periods of war, when normal men are called to battle and an abnormal demand for labor is awakened in industry. In what we are pleased to call normal times, those who cannot measure up to a certain degree of efficiency and cunning drift into the army of unemployed and casual workers if they are male, and beyond the Great White Way if they are female. Here is no procreation. Society rots at the bottom, and a rotten tree makes but little growth. At the top the families of the mighty are extraordinarily small. The people who oppose birth control the hardest, practice it the most zealously.

We may profitably speculate on the reasons for this paradoxical condition, but at present it would take us too far afield. We do not wish to write a brief for the so called.

"RACE SUICIDE"

Our aim is not death, but a fuller and more complete life. Race perpetuation is by far the most serious business in which man can be engaged upon this planet, and it is our endeavor to take it out of the realm of accident and chance, and place it under the control of reason and science.

We should think seriously before we thrust life upon a little child. Remember we take them out of sweet oblivion and hurl them into the pain and struggle for existence, and expect them to thank us for it. Let us not forget that we owe everything to the child. The child owes us, as parents, nothing. They who thoughtlessly bring children into the world under a handicap are not far from criminal. It is our duty to be prepared for parenthood before we add life to this teeming world.

All food is good food if manufacturers have not fooled with it.—McCann.

Hope may be dope to the pessimist but it keeps most people alive at that. It is one kind of dope that we can take in large doses and experience no ill effects.

To cure a person of bodily ill, and leave the mind uncured leaves the person as sick as before.—White.

To be well preserved does not mean that you have to be pickled.

ESSAY IX—PSYCHOLOGY

Psychology from the Greek word "Psyche"—the Mind; and "Logos"—the Word, is the name given to that branch of physiology which deals with the functions of brain and nerve cells as they manifest through organic bodies. It is differentiated from brain anatomy, in that it deals primarily with function. It is the science of mental phenomena in contradistinction to what are called psychic phenonema.

Physic phenomena as commonly understood are often physical in their nature, and should, therefore, granting that they exist, come under the head of biodynamics. In this essay, however, I shall try to confine myself to a discussion of the Thinker and his thoughts.

From this it must not be inferred that I exclude from the subject matter of psychology all things investigated by those who are interested in psychic research. Such objects as telepathy, intuition, premonition, and other phases of conscious and unconscious mental activity, are, and forever will be, legitimate material for the psychologist. But when it comes to a quest after an excarnate world, and its inhabitants, we are beyond the field of psychology and enter the domain of the meta-physician.

This is not a denial that an ex-carnate world exists. On the contrary, I realize that science has, in the last decade, increased, rather than decreased, our faith in its probability, although there are as yet no definite facts available.

Since the atom has been dethroned as the ultimate unit in Nature, and the electron and quantelle have come to proclaim the existence of a sub-stratum of something which, for want of a better name, we call the ether, we cannot help

but feel that things physical are not what in the last century we thought them to be, ultimate realities, but only a few steps in the cosmic process. It is not possible that, in these sub-material forms, there may be beings highly organized and capable of setting up etheric motion which our brains intercept as thought. I do not say this is so, for I have no desire to start a church; I only say that, while we cannot prove it, neither can I prove the contrary. In the realms beyond matter, we are all brothers in ignorance.

All that we know is that something finer than matter causing the phenomena of life in its various degrees of in-exists and that it acts upon and through natural media, tensity. Life and Mind, to me, are similar terms. That is, if by "Mind" we are to understand selective power.

There are numerous ways in which the word "psychology" is being misused, nor is this misuse always due to ignorance. It is well for us to remember that psychology is the study of mental processes as biology is the study of life, and geology the study of earth phenomena.. It is in no sense a religious creed or fanatical scheme. Its purpose is to know the forces that manifest through the brain of man, so as to enable us to explain, rather than to condemn, human conduct; it aims to study its effect upon the self and upon the collectivity to which that self belongs. It wants to know how it is that we know, or think we know. It may be called the physiology of the ego as it functions through brain. It will not necessarily bring us in touch with those who have gone before, neither will its mere study bring us wealth. It will, however, broaden our understanding of mankind and thereby deepen our sympathy with human weaknesses. It also will give us the power better to adapt ourselves to our environment and to those with whom we are associated.

I consider the study of psychology a foremost essential in our struggle for existence. The known laws of mind ought to be taught in every school, so that the rising generation should be fully conversant with the dual aspect of our mental life. The fact that our mentality operates through conscious, and subconscious phases, and that these are represented by the cerebro-spinal and sympathetic nervous systems, is of the greatest importance. Everybody should know that the conscious mind is the individual in the making; that creation was not finished in Eden, but is going on now; what food is to the growing child, sense impressions are to the unfolding brain.

Sense impressions enter the consciousness and become habits, and as such become an integral part of the individual. A habit once established seems to affect the germ cells in such a way as to influence the offspring, giving rise to memory. If these impressions are repeated often, they form what may be called a proclivity to perform a certain act or combination of acts. If these acts are essential in the struggle for existence, then such impressions will be reinforced from generation to generation, until finally the habit needs no longer to be acquired—it has become an instinct.

An instinct is a race memory, or, better still, a race habit; after long persistence, it tends to become a reflex—that is, an unconscious act over which the will has lost power.

The conscious mind, then, is that phase of life which takes in and reacts to sense perceptions. Sense perceptions may be termed external stimuli to the memory-storing brain centers.

The subconscious mind, on the other hand, is that phase of our mentality which registers sense impressions and makes them an integral part of our structural being.

Now, it is evident that we do not always build useful habits, and just to that extent do we lessen our chances for happiness and success. It is man's privilege to take part in the process of his own creation. The establishment of habit builds the individual and the race.

But this statement ought not to go without some qualification; for, while it is true that we may all acquire habits which may help or hinder us in the struggle for existence, in proportion as they are wisely or foolishly formed, it is also true that we cannot all acquire habits with equal ease. Types differ. For instance, no matter how I might struggle to acquire the habit of music, I would never succeed, I know; for I have spent both time and money in an endeavor to acquire such knowledge. I have no sense of rhythm, or whatever it is that makes a musician. A color-blind person can never develop a keen sense of chromatic discrimination. There is a lack somewhere in his heredity. Peculiar thought modes can only manifest through definite brain cells, and if the brain cells are absent it is evident that these modes can not be established.

In some people the herd instinct is strong enough that they easily acquire the habit of co-operation; while others simply cannot subdue their ego. They may try very hard, but the habit will not establish itself. These people are not evil. They are simply different.

Others can acquire habits only when they are young. After a certain age their characters seem to set and new ideas or principles do not affect them. They are static. They are not more stupid than other folks; their brains are ripe, and hence incapable of further growth. They have ceased to turn memory images into habit factors. They use their heads to live rather than to grow.

Leaving types for the moment, let us consider how the establishment of habit affects the organism as a whole. The exercise of a muscle, if performed to accomplish a purpose, causes it to develop and gather strength; it also may become more delicate in function, as is shown in the case of sleight of hand performers and others whose work demand great muscular dexterity. This illustrates the law of nourishment and use, which applies with equal force to muscle and brain. In other words, those whose brains have not grown static, may improve them by proper use, and through the proper use of the brain, may improve their bodies as a whole. We may acquire the habit of health with a great deal more profit than we may acquire the habit of disease. For remember, disease is as frequently a habit, as a result of faulty habits.

It is of the utmost importance that our children acquire constructive habits. Much of the time in our present-day schools is spent in an effort to break faultily formed habits of speech and conduct, replacing them with others, often quite as detrimental. This waste of time and energy could be entirely avoided if parents and teachers were thoroughly trained in the arts of applied psychology and psycho-analysis. We would then not try to force things upon children for which their brains were not prepared or never evolved.

As has been pointed out, our various subconscious acts are nothing more than race habits, which have become a part of our mental life by repetition through countless generations. All that happens in us subsconsciously was, at some time in our existence, performed consciously, and became successively, habit, instinct and reflex as it was repeated through the ages. We all know how hard it is to break a habit, once it is established. We have all sympathized with the struggle of the liquor, tobacco, coffee and

drug fiends. One can always tell a public speaker who has been a preacher; he simply cannot forget his clerical mannerisms. But, as it is difficult to break a habit, it is often more difficult to establish them along lines in which the race has not been moving. Habits are the stuff of which our daily lives are made, and we bequeath a tendency to their formation to our offspring. That is why a drinking father may bequeath a tendency to drunkenness to his boy, even though he has ceased to drink before that boy is born. He has given him the inclination. This inclination may be so strong that the horrible consequences of drink which ought to appeal to his reason do not in any way seem to warn the victim. His inherited habit tendency is stronger than his reason.

We could go on indefinitely giving examples of how habit affects the race, but time and space forbid. We must pass on to the next phase of our discussion.

Emotion is a state of feeling which is initiated like a brain storm, causing disturbances throughout the entire organism. The effect of emotion is apparent in muscular and bodily expression; it also causes chemic changes in the secretions of the internal organs. It is a well-known fact that, if a person assumes a certain attitude, the emotional characteristic of that attitude will manifest itself more or less intensely. When an actor assumes a defiant attitude, he actually feels anger; if he does not, his acting is a failure. A man cannot walk with a girl's mincing step without feeling frivolous. Thus, we see that induced emotions will reflect themselves in bodily attitudes; and that bodily attitudes have a tendency to create emotional states.

As this work is primarily intended to assist people in regaining and retaining their health, it is well to call attention to the fact that, all things being equal, the man who forms

the habit of smiling will keep his internal secretions in good order. Normal secretion always follows and makes the problem of acquiring health easier, hence the invigorating influence of an optimistic attitude of mind.

The proof that the internal secretions are influenced by our emotional states is found in the fact that excited individuals have the quantity of phosphates in their urine increased. Many a doctor has made the mistake of treating a frightened heart as if it were weak. A diagnosis of weak heart cannot be made at one sitting. The patient must become accustomed to the physician and his methods of examination, before the influence of fear upon the heart's action may be excluded. Nervousness may cause the secretions of the mouth to dry up, the lips to parch, and, in many cases, will cause diarrhea. Some of the experiments made by Prof. Gates have demonstrated that different chemical substances appear in the human breath as a result of different emotions. He found that when his patient was angry, a brownish substance appeared, and that if this substance was injected into other men or animals, symptoms of excitement and anger were the results. He also discovered that sorrow causes a gray, and remorse a pink, precipitate.

We have all heard how mothers, both animal and human, have poisoned the young with their milk while they were under the emotion of anger or fright. The celebrated John Hunter, who suffered from heart disease, said that his life was at the mercy of any scoundrel who should make him angry. At a meeting, he was contradicted by one of his colleagues, and an attack of angina occured; he ceased speaking, and fell dead in the arms of a friend.

Emotions have a most powerful effect upon the arterial structure, enlarging the capillaries in blushing, and con-

tracting them in blanching. They may be either constructive or destructive. It is therefore to our advantage to cultivate the constructive phases of our emotional lives, and to ignore the destructive urges which will from time to time obtrude themselves upon our consciousness.

The power of the emotions is well illustrated in the stigmatization found in certain religious fanatics during the middle ages. These unfortunates worked themselves into such a frenzy that they produced on themselves skin markings, resembling the wounds on the feet and hands of Christ. This was not a miracle, but an unusual influence of the mind on the vaso-motor system; an instance in which the consciousness was lashed to so high a pitch as to take charge of the sympathetic and the vaso-motor nervous system, causing these to respond to the will. Certain Hindu sorcerers, not regarded as saints by Christians, have the power of voluntary inhibiting the action of their hearts.

There are many other phases of mind which might profitably be discussed in a separate series of essays, but enough has been said here to give us some idea of the interaction of mental and physical factors.

ESSAY X—SUGGESTION

In the last essay of the old series I said that psychology is a science and not a religious creed or cult. I now wish to add that suggestion is a factor in that science and has nothing to do with religious belief or disbelief. It is simply a method of getting ideas, good or bad, into the subconscious, where they operate according to their nature for good or ill on our mental or physical economy. Suggestion is a common fact in everyone's experience, and which we must learn to utilize for our physical and mental welfare, not as is so often imagined, to get ahead of the other fellow, but rather to bring out the best in ourselves.

Ever since the advent of scientific psychology we have known that when a suggestion enters the subconscious, it becomes a dynamic factor in our lives, but how to get the subconscious to accept the needed suggestion without the dangerous process of hypnosis has been a problem with which psychologists until recently have wrestled in vain. It is probable, however, that the work of Emille Coue partially solved this problem and gave to the world a fairly workable formula for reaching the deeper and dynamic recesses of our psychic life. He seems to accomplish the things other psychologists have felt ought to be accomplished, but in which they failed because they appealed to the will rather than to the faith of the patient. **They overlooked the fact that faith inspires courage, while the will defeated produces despair.**

The very simplicity of the Coue method is probably its saving grace. For were it a system a little more complicated, like, for instance, the psychoanalysis of Freud or the suggestive therapeutics of Weltmer, it would in all prob-

ability also lend itself as "sucker bait" to a host of charlatans and fakirs, who would graft it on to some pseudo religion to fleece the weak and the unwary of their substance.

The simplicity of Coue's method lies in the fact that his system feeds the subconscious mind with the proper ideas as a good cook feeds the body with proper food. He points out that in suggesting to your unconscious, you are setting in motion the constructive power within you. If the suggestion is wholesome and constructive, it will realize itself in your mental and physical life as such; if destructive you will realize its effect in kind. All this is but a restatement of the ancient dictum, "As a man thinketh in his heart so is he." The heart in this instance is the symbol of the unconscious.

Now the question presents itself: What is the subconscious mind? What are its powers? Its limitations? In the first place let us define consciousness as a state of life so intense as to be actively aware of the changes going on in its environment. In short, a state of awareness. Subconsciousness then is a lesser state (not necessarily a lesser quality) of awareness. It is the mental life that does not react to, but records and acts upon, the sense impressions received from the outside world. Consciousness really is but the light or radiance of the subconscious. The subconscious is what heredity and environment have made us, our real selves.

First of all, the subconscious is a receptacle of impressions, which it stores for future use.

Secondly, it is the constructive factor, for it modifies the organs of the species through successive generations, so as to meet the requirements of an ever changing environment.

Thirdly, it is directive. When not hampered by the conscious, it uses the organs which it has built up, with an absolute accuracy. Witness all instinctive acts of men and beasts, such as migrating and homing or the incredible feats of sonambulists.

The great problems for psychology to solve are how to make the store of our subconscious knowledge available for conscious use, and how to store the subconscious with constructive instead of destructive material.

All educated men today know that physical evolution is a fact of nature, but in what the adapting and evolving power consists is of course as yet a matter of controversy. My conception is that the cell is innately intelligent, and that the subconscious is but the sum total of the intelligence of all the cells comprising the organism, as the physical body is the result of a combination of the sum total of its cells. And as the physical body is resisted by the pressure of environmental factors, so the inner or subconscious is set in motion to adapt the organism to that pressure. Naturally there are limits beyond which the adaptive power of the cell cannot go in one generation, but what it can do in many generations is amply evident when we study the diversity of life upon the earth. When we consider that all life forms evolved and are still evolving from single cells, we get some idea of the wonderous power of responding to suggestion inherent in these microscopic organisms. For a study of biology convinces us that each species is what its environment has suggested it to be. These environmental suggestions have given the bittern a beak like a rapier and the eagle one like a hook; they have given stripes to the tiger so that its color might harmonize with the gray shadows of the jungle, and spots to the leopard so that its color might harmonize with those with its native forest. Accord-

ing to the suggestion that each received from its environment, so the cells organized themselves. The word of creation is a suggestion to the life force operative through the cell.

Now do not misunderstand me. I do not say that suggestion, auto or otherwise, can change John Smith into a racoon, or a racoon into a wolf. What I do say is that a suggestive force which causes an organism, be it that of John Smith or of a racoon or of any other being to exercise itself in a given direction will in the course of generations so modify the structure of that organism as to perfectly meet all its life requirements, or rather it will develop new specie characteristics in the progeny of those organisms. Whether such new characters are good or bad from our viewpoint does not concern us. What we wish to point out is that suggestion is a stimulant to the constructive factor in the unconscious, which makes for chemical and dynamic changes in the first generation, and if the stimulation continues, for structural changes in succeeding generations.

Now what environmental suggestion such as rain, wind and frost, mountain, hill and dell, can do in the formation of species, the spoken word can do in the formation of bodily states, that is, if that word succeeds in reaching the subconscious, carrying to it the desired idea.

To illustrate: When a person in whom you have no confidence tells you of an impending danger, it does not go through to the unconscious but is intercepted by the judgment and rejected. But if a trusted family physician or your legal advisor speaks the word, it probably goes on through to the subconscious and sets the fear mechanism in motion, with the result of emotional and chemical change in your organism. If the suggestion is one of injustice, anger

or resentment, with their concomitant phenomena, will be the result. The reports of danger and injustice may not be true, but that makes no difference; as long as your subconscious accepts them as being true, the effect will be the same.

Belief is the key which opens the door to suggestion.

Doctors would starve for want of business if they had to rely on their remedies for their success. The successful physician is he who inspires confidence in his means, be they what they may. He must dress to look the part; his office must contain an impressive array of books, instruments or relics, according to the mental status of his clientele. All these things impress the laymen with the ponderosity of the doctor's knowledge—a fact which gives confidence—and when once the confidence is gained suggestion wisely given will work beneficient wonders in the physical condition of the patient. And per contra, when wrongly or maliciously given, may prepare him for a painful or expensive operation.

Notice that in all this the will does not play a part. You cannot will to believe or disbelieve. Belief is not a matter of volition: it cannot be compelled. You cannot suggest seasickness to a sailor and produce nausea,, but in mercy do not try it on a passenger who has crossed the bar for the first time.

In the first instance the sailor is confident of his immunity, and hence your suggestion is rejected. In the second place, the passenger is convinced of his susceptibility, and he takes the suggestion at once and his organism responds to it.

The boy who is learning to ride a bicycle feels sure he cannot miss a post at the roadside, and straightway runs into it. He does not what he wills, but what he believes. He

thinks he cannot miss, and he does not. If he were confident he could miss it, the contrary would be true. We might go on multiplying illustrations of how belief in a thing predisposes us to the receipt of suggestions and how we unconsciously act on them. Herein lies the often weird power of the most silly supersitions over some persons' lives. Being believed in, the omens frequently suggest to the subconscious the very acts which are a seeing fulfillment. This has been proved over and over again by the researches of Freud.

In view of these facts it is interesting to note that the teachings attributed to Christ hold that faith rather than will is the essential element in mental therapeutic work. "Thy faith hath saved thee," and "thy faith hath made thee whole," are expressions which occur frequently in the gospels. He realized that a person cannot be healed against his will, nor, paradoxical as it may sound, with his will. For a contrary will debars the suggestion from the subconscious where alone it can become a reality, and a positive will, in a consciousness skeptic of the means, is powerless to overcome the skepticism, which is an attribute of judgment.

Hence Coue recommends that we suggest health to ourselves when we retire, just as we enter sleep. Then the will is most quiescent, and the door to the subconscious is ajar. The suggestion of health can now enter and do its work. Another good time for implanting a suggestion is just after awaking, before the consciousness is fully active. Then too the way is open to the constructive power of the body.

He further tells us not to suggest any specific strength for a specific organ but to suggest general perfection, leaving it to the subconscious to distribute the energy released by the suggestion, according to existing requirements.

Coue says that the now famous formula, "Every day in every way I am getting better and better," is probably the best. Perhaps it is. Try it and similar ones, along with the teachings set forth in these essays, and I too believe that every day in every way you will be getting better and better.

The Finis.

April 26, 1923.