THE CAUSE AND CURE OF MALIGNANCY.

AN IMPORTANT ANNOUNCEMENT TO THE MEDICAL PROFESSION.

BY

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PREFACE.

OCCASIONALLY, original articles appear in the different Medical Journals which, according to the subject matter they contain, are more or less interesting to the medical practitioner. They have their place and serve their purpose in aiding medical advancement, which enables the physician to accomplish greater results than are otherwise attainable. The self-sacrificing characteristic, in advancing everything from whatever source that will relieve the pain and suffering of humanity in general, is always to be found in the true physician. Science neither tolerates prejudice nor mercenary motives from any source. According to science, everything must stand or fall, if not found in possession of that intrinsic merit set forth by its advocate. It is easy to recall the many plausible announcements made to the Medical Profession and their failure to hold water when examined. We have not far to look for a reason of this fact. It is sometimes due to over-zealousness, on the part of the practitioner, to communicate the supposed advantages obtained in the treatment of a particular disease. The many disappointments, after glowing accounts of the results obtained in the treatment of the so-called incurable diseases, and the many failures to substantiate the claims set forth by their adherents are the cause of doubt and suspicion arising in the mind of every practitioner, who would be otherwise rather than sceptical.

The subject matter of this paper is an explanation of the Cause and Cure of Malignancy and the promise made in my work entitled Philosophy of the Three Ethers, issued in 1891, I now begin to fulfil by placing at the disposal of the Medical Profession "the means that can be adopted in the treatment" of the gravest class "of those diseases which are now the *approbia medicorum*."

With these few preliminary remarks, I beg most respectfully to leave this paper to the judgment of the reader.

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PART I.

Gentlemen of the Medical Profession:

I hasten to you as custodians of the public health to make known a discovery, a discovery of such a nature that it may be received by you almost, if not quite, in the same light as one that could announce the discovery of the Philosopher's Stone or that any one of the so-called Follies of Science is no longer untenable. The turning of the baser metals into gold, as claimed by the Alchemists of old, would be believed as quickly by you as the discovery I am now prepared to announce, unless supported by the most incontrovertible evidence and sustained by facts. I am now prepared to say to you, Gentlemen, that the fell monster, that has slain his thousands of our noble race, has himself been slain and this paper will lay before you the plan of the campaign that has ended in such a victory and will explain to you how this fell enemy was routed and driven from that territory on which he can never appear again.

This discovery was not the result of accident, but the result of laborious investigation in the fields of medical and pathological chemistry, occupying over twenty years in its duration.

It would take more time than I think you would care to spend in listening to the numerous disappointments and unsatisfactory results that I could relate, that have occurred to me during these twenty years of investigation, before ending in the discovery of the cure of malignancy.

It requires more than a mere announcement to convince you, Gentlemen, that all diseases of a malignant type can be prevented and also removed when established, without other means than internally adminstered formulæ, no applications of any kind whatever being required. You will not be satisfied with any statements made until you have seen the results obtained. Before referring to the history and successful treatment of cases, I think you will desire to hear first the

groundwork of reasoning pursued in order to obtain these results.

In the first place, by exhaustive mathemetical reasoning, I reached the conclusion that there is only one kind of matter in nature and that the physical differences of substances can be accounted for by the relative positions of the atoms in their composition; and also that all chemical compounds arise from the arrangement of their atoms, because we find the same formula in so many physically different substances. One kind of matter, modified by the physical agencies of nature, also accounts for the physical and chemical distinction between organic matter on the one side and inorganic matter on the other. This distinction is made without requiring vitality to explain the distinction. In this way I reached the conclusion that there is no such thing in nature as living matter, and upon this fact rests the discovery of the cause and cure of malignancy. This assertion that matter does not live is opposed to the present system of biology as understood throughout the world. We hear from the most eminent biologists of living and non-living matter, organic and inorganic, so that it may seem to you almost presumption in me to say that matter does not live nor is it necessary to live, in order to explain the phenomena of organization.

If we can find no difference between the processes of living or organic and non-living or inorganic chemistry, we shall have established the fact that organic or living and inorganic or non-living matter are identical, with the exception that the organizing process is a more highly elaborated state of the other. (I wish to state here that wherever I use the words living matter I mean so-called living matter.) Before examining into the chemistry of the building up of living compounds, we should first be acquainted with the chemical action going on in the inorganic or non-living world; that is, we must know as much as possible the way in which chemical combination takes place and the changes going on in inorganic or non-living bodies of all kinds in nature.

Chemists speak of as many kinds of matter as there are chemical elements in nature. I maintain that there is only

one kind of matter in nature, the apparent differences being only accidental and produced by the potentiality or potentialities pent up in each particular element. The multiform compounds in nature are produced by the differentiations of one kind matter by the joint and mutual potentialities concerned in the production of each particular compound of whatever degree of complexity. It is the simple or composite potentialities of the elements known in chemistry that gives them their peculiar power and properties, which make them differ so much from one another, so that the so-called elements are not elements but compounds of simple matter plus their potentialities. The so-called chemical combination of these elements comes from the liberation of a peculiar stress between them. Remove the forces opposing the unity of any two elements and they become more mechanically and not chemically combined. The stress to which I refer is the same somewhat as the stress to be overcome before the electric spark appears, in combining the different potentials of electricty.

The one kind of matter to which I refer is amorphous or non-crystallizable in character. The physical changes arise in it, as soon as the polar forces enter amorphous matter to make it crystallizable. Animal matter is another form or modification of amorphous matter so differentiated as to prevent the polar forces from remaining in it. The way the binary became ternary, in the origin of the complex combination of elements for life to appear, came from the liberation of the potentialities that prevented their union. The prevention of the polar forces from remaining in amorphous matter is the cause of animation and reproduction, making viscosity and flexibility within given limitations absolutely necessary for animation to appear. The continual abstraction of the polar forces from individual cells and from the collective cells forming the human body constitutes the rhythmical motion known as the internal respiration of cells, which continues their flexibitity and viscosity during functionality.

It is known by every biologist and naturalist that a particular complexity of matter was necessary before life could

appear on earth, so that the physical agencies of nature had to elaborate a highly complex matter for this purpose, namely, protoplasm, which is the same in all animate bodies and is known as a viscous, jelly-like substance, possessing motion, secretion, digestion, excretion and reproduction. Of the nature and composition of protoplasm very little more is known today by physiological chemists than about its mysterious origin; its chemical composition and functionality are very little understood by the most advanced scientists throughout the world. Confronted by these facts I undertook the laborious task of investigating into the origin, nature and composition of this mysteriously arranged complexity of matter.

All non-crystallizable mineral matter contributing to the ultimate formation of protoplasm, when fully elaborated, is colloid in its nature, possessing a specific decree of viscosity and flexibility before and when animated. As we ascend from the first unit or cell of protoplasm in the scale of vitality, we reach that degree of morphological differentiation where the crystallizable matter for the fabric of higher species is required. Such being the case, I make a very necessary distinction between protoplasm on the one side and crystallization on the other, in explaining the way in which organizable differs from inorganizable material on a chemical basis, life taking no part in elaborating this distinction, vitality or life coming to it when nature has completed its work of elaboration and then only by association for a limited time.

I use the term colloid as a general term representing all the soft and flexible parts of the tissues of the animal body and every other known body in nature that, in the absence of crystallizable mineral matter, does not crystallize.

In the albuminoid principles are combined intimately the crystalloid and the colloid. In the albuminoid we have both the nitrogenous and non-nitrogenous principles intimately combined. These principles are found as products of the decomposition of the albuminoid, as it is from these that we separate the colloid from the crystalloid in the process of dialysis. The physiological chemist is familiar with the method of their separation, one from the other.

Since we can have the colloid manifesting life without the crystal, there being mineral matter only that does not assume the crystalline form in the bodies of the lowest units of life, these being almost purely colloid specks, it proves that the colloid matter must be the animal matter of the body as distinct from the crystalloid. The colloids of protoplasm are proteids which permeate the crystalline part of the animal body. In all instances of so-called living matter we must find colloid matter. Mineral matter is necessary and associated with protoplasm in order to continue the chemical changes going on in the process of reproduction, but crystallizable matter is perfectly distinct from the colloids of protoplasm. The physical agencies of nature differentiate the colloids till they culminate in the formation of protoplasm, so that protoplasm is a representation of the completely elaborated compounds taken into the body as food. The chemical interchanges and the more consumable parts of the body, in health and disease, are to be found in the colloids, which of necessity require mineral matter to conduct such changes on account of the intimate association of the colloids with mineral matter, and without which the interchanges could not go on.

The crystalloids build up the fabric of the body, but the colloid both institutes and continues the process of reproduction. Through the colloid the binary became ternary. In order to form a colloid body, we require in all instances the same aggregation of chemical matter, which is arranged about the same way in every living body. We do not require a special aggregation of chemicals to form crystals, as crystals can be formed by different kinds of matter. Notwithstanding that the inorganic part of the body is the mineral part, in the absence of the mineral life could not go on, making the mineral of the inorganic as indispensable to life as the colloids of the organic or living.

We have abundant evidence that the condition for life to appear must have been first, which gives us the absolute authority to assert that crystallization existed before colloid or albuminoid formation, in those periods before life appeared. It is quite evident that carbon and phosphorus had to be form-

ulated by the physical agencies of nature, before life could appear. This fact is absolutely certain, showing that life depends upon a certain chemical nucleus in order to associate itself with matter. After the central point is formed, which resembles a nucleus in the accretion of particles to the formation of crystals, we have evidence in inorganic nature of the forces acting from the periphery or circumference to the centre by the accretion of units, manifesting the law of symmetrical aggregation, the units being arranged during crystallization by the polar forces internal and external to the matter acted upon, so that there must be a reciprocal response between the forces acting interior to a crystal and those acting exterior. Polar force does not enter, or if it does it escapes from amorphous matter composing the colloid. When colloid matter loses its polar force, it cannot be made to crystallize. Rhythmical attraction and repulsion within given limits is the cause of flexibility in colloid matter. The highest function of the crystal is its structural power, derived from the polar forces of its units arranging themselves symmetrically about its central point or nucleus. The gradational abstraction of polar force from crystallizable matter causes rhythmical motion in colloid matter. In what is called living matter there is another agency acting, which distinguishes the difference between the so-called living and the non-living matter. The forces acting within and upon the matter associated with life not only possess everything in common, but are identical with the forces of nature. Each particular crystal demands in all instances the same influences, which minister to the production of its type. The forces forming the crystal are the same forces acting in or controlling the symmetrical aggregation of the cells forming the human body.

If we examine into the mode of growth of the living body or the simplest unit or cell, we shall find that functionality arises from the centre or nucleus, where there is one, and then extends gradationally to the circumference of the cell as already proven, but there is no growth whatever manifested in dead matter nor any power to reproduce its kind. Morphological differentiation continues with physic evolu-

tion, the matter associated with this agency acting through and in harmony with it, from the inward where life has entered to the outward; that is, from the centre or nucleus of the cell to the periphery or the circumference.

Every living thing requires either a nucleus or a central point of origin before it can appear, sustaining the fact that there must be only one kind of matter in nature, although there are cells without a nucleus but not without a central point. Heat, light, electricity, mechanical power and magnetism are the agencies acting upon one kind of nucleus of like nature throughout, causing and bringing, by colonization, the many different kinds of animal bodies into existence, a sort of creation, as it were, as far as material goes, on a natural and not a supernatural basis. The above leads us to the fact that it was absolutely necessary, before life could appear on earth, for the potentialities of nature to prepare a nucleus for this purpose. The nature and composition of this nucleus must be understood, before we can know anything about the cause of its appearance.

By the aid of the spectroscope and other means I have found that sulphur and phosphorus are compounds and not elements as supposed by chemists, and that phosphorus is produced from a differentiation of sulphur by the potentialities of chlorine and hydrogen, its consistency being derived from electrical fixity. After it is once formed, it becomes a nucleus in the formation of protoplasm and is afterwards the point or nucleus which permits the action of the electrical potentiality of nitrogen, drawing the polarities of the earth through it, in conducting the physical and chemical changes for the production of seeds, plants, vegetables and animals.

I now come to a very important announcement, which is that I have discovered what that incentive is which acts upon the nucleus, first formed by the agencies of nature, and starts the process for the ultimate production of protoplasm and afterwards animation, by having found that nitrogen plays a much more important part in the economy of living matter than oxygen does.

Sunlight acting upon phosphorus, in the already prepared nucleus, attracts an electrical energy or potentiality

that I have found pent up in that so-called indolent nitrogen. This, by the aid of magnetic iron, carbon and amorphous matter, attracts or draws forth the electrical energy from the polarities of the earth, through phosphorus as a nucleus, which starts the oxygenating process and prevents the amorphous matter from becoming chrystallizable; generation then arises, when life comes.

The soil of the earth with its environment generates the specie. The soil furnished by the female during fruition is merely an elevated state of the soil of the earth. The chlorophyllian function of the plant is to break asunder the bonds holding carbon and oxygen together, appropriating to itself part of the carbon upon which its growth of substance depends. The function of the higher animals is to feed upon and transform the matter of their environment into the substance of their own bodies. The demand made upon fungi, by the agencies acting upon them, compels them to abstract from their environment that which institutes fermentation, reproduction going on during their activity, causing more of the same kind of bodies to appear. This will in a measure explain the phenomena of reproduction as far as fermentation is concerned.

The synthetical process of building up belongs essentially to the carbo-hydrates, and the analytical or splitting up process belongs essentially to the mineral or inorganic kingdom, again making the distinction between the organic and the inorganic in a chemical point of view. The synthetic generators are the first known builders, the lowest order of living units possessing the power to transform the inorganic into the organic. The lowest order of reproduction is manifested and carried on by these units imbibing and transforming the matter of their environment. This is where generation commenced; not from one unit in particular, but from an infinite number of units at one and the same time, as there are many different types of synthetic generators, after which generation continued in its evolutional course of differentiation for the production of higher species.

Since there is only one kind of matter in nature, modified by the potentialities before mentioned, there can be no limi-

tation to the production of differences as a consequence, except in the case of a perfect crystal, as we have reached the limitation of morphological inorganic differentiation when the type of crystal is produced. In evolution differentiation arises and is without limitation, there being no end to the production of differences. The phenomena of evolution and crystallization are distinct and different. Crystallization is limited, but evolution is continually active. The limitation of morphological perfection is reached by crystallization, but has not been reached in the process of evolution, although the possibilities of evolution are apparent by the improvement going on.

Since the vegetable lives to a certain extent upon what the animal throws off, there must of necessity exist a neutral point between them, such a point as we find in the neutral point between the poles of a battery, where we find neither one nor the other form of electricity, that is, neither positive nor negative. Biologists are at a loss to know today where the vegetable unit ends and where the animal unit begins in the process of evolution. This, indeed, would furnish us with a knowledge of the missing link in this region of biology. Now, if units exist that arise *de novo* from the neutral point, we have a positive certainty of the reason why there can be no distinction between them. One degree removed each way from the neutral point would produce the zoöphyte and by chemical and morphological differentiation a distinction is ultimately reached between the animal and the vegetable unit or cell. The distinction between the animal and the vegetable came at the time that the first living body, in the form of a colonization of cells, obtained the power to locomote in mass and at will.

Nature requires motion in animal bodies before locomotion can take place, the force and power being taken from the food and air which are the necessary dependents of the animal for its degree of motion. Since action and reaction, and motion to and fro, are essential to the splitting up of the pabulum and returning of the excreta to the external world, we have absolute authority for the origin of that flexibility and viscosity necessary to associate the crystal with

the colloid. This is the first necessity for the institution of motion which is indispensable to all animation, that is, intrinsic and extrinsic motion, or the taking in of matter from the environment, its conversion and the waste matter after conversion returned to whence it came, as taking in, elevating and returning is the function necessary before reproduction can take place. Successive impulses transmitted and absorbed give to bodies the power to locomote. These influences must be rhythmical or regular in their progression, the volitional continuity of which enables them to transport themselves bodily from one place to another.

I have discovered nitrogen to be the originator of locomotion, as in the absence of nitrogen locomotion does not take place, nor can it be made to take place. Nitrogen is an element possessing much more electrical potentiality than any other element in nature, which institutes the power of locomotion in all animal bodies either by direct or indirect transmission and modification. It is not the vivifying power of oxygen, but the explosive power of nitrogen that originates locomotion. Now, by the rhythmitical explosions of nitrogen the respiratory process originates and continues, which is the cause of that motion in nutrition, such as the taking in of the essentials for vivification and the removal of the waste and worn out matter that is not required in the economy. Nitrogen, which is supposed to be the most indolent thing in nature, is the most powerful essential to the movement of all bodies. Since explosions are consequent upon the instantaneous liberation of nitrogen, we can, by modifying the speed of the elimination of nitrogen from any compound, modify the explosive power of that compound; and in the process of respiration, upon which animals depend for their ability to breath and locomote, we must understand that there has been a modification of the explosions of nitrogen until they have become rhythmical and continuous. In all instances of explosion, where the propulsion of units one from another takes place, the explosion is a measure of the force exerted in producimg it. The nitrogenous series of medical treatment are more directed to

the nerve centres than to any other part of the body, and as the nerve centres originate the incentive to locomotion, you see that nitrogen is required for locomotion, and where we get nitrogen, carbon, oxygen and hydrogen complexly arranged for the association of life, we have all those essentials necessary for the purpose of locomotion. Intrinsic motion arises and is sustained by the nitrogenous series combined with the carbo-hydrates making perfect pabulum necessary, which must contain nitrogen, carbon, oxygen and hydrogen.

Nitrogen is also required as a controlling agent to prevent rapid reduction of tissue. It is quite evident that nitrogen does prevent tissue reduction, as it controls the oxidizing process during the combustion of tissue. Urea being formed at all times during physiological functionality shows nitrogen compounds in the excrement, indicating an increase or decrease in the speed of burning or combustion of the body. What would the result be without the interposition of nitrogen? Consumption of tissue without compensation. Nitrogen controls chemical action during the process of reproduction and enables the body to continue functionality to the end of the organizing process, which culminates in the separation of the vital from the chemical. By the above it will be seen that it is not the vivifying power of oxygen, but of nitrogen, from which the generative and reproductive processes originate and continue.

What the other chemicals do in the economy requires to be understood, in order to find out how far they contribute towards tissue change. Carbon is always found in the formation of the colloid, as it is a carbon compound and associates with the crystalloid to promote functionality by its gradational combustion by oxygen. Where carbon dioxide is formed in nature, it is always as a product of either slow or rapid combustion. The burning of any combustible matter outside of the body is identical with the process of combustion that we have in burning the body to sustain life, the temperatures only being different. The combination of carbon with oxygen in the production

of carbon dioxide is identically the same that goes on in the body. The formation of water is the same both in and outside of the body. The combination of nitrogen and hydrogen to form ammonia is the same. The formation of sulphuretted and phosphuretted hydrogen is the same. In fact, there is no distinction in the chemical combinations of the mineral parts of the body, as they are identical with the same changes in such compounds going on at all times outside of the body. The only difference between the organic and the inorganic chemical process is, that the one is merely a further elaborated condition of the other, being on a higher plane of action, which means a more rationally systematic grouping of those elements that are found in inorganic nature; so that the whole process of organization is not vital, but absolutely and exclusively chemical. In the reduction of the necessary incentives to oxidation, that should be found in the body of man, life is endangered.

I have shown that the vital meets the chemical, when elevated to the organic state which is purely chemical, everything being accounted for in that process, nothing more being desired but a positive or practical knowledge that there is no distinction. The foregoing has rendered it sufficiently clear that there is no difference whatever between organic and inorganic matter, the one being only a higher plane of the other, that is, further elaborated to the necessity for living association.

PART II.

It is admitted by all advanced pathologists that a correct appreciation of the morphology or structure of malignant growths is of the first and greatest importance as a prelude to the study of the cause of malignancy. This is my reason for going into the minutia of its pathological histology as well as the physiological morphology of every part in which malignancy arises. Tumors of different types, arising from what is known as vestiges and rests, arise from the same incentives as malignancy in other parts. This paper is not concerned with the location of malignancy in any part of the body, as that is left for clinical investigation to determine, but is concerned altogether with the cause and cure of malignancy. Therefore I have not found it necessary to go into that infinity of chemical formulation usually exhausted in every recognized work on physiological chemistry. I have entered altogether into the essentials only for the purpose of this paper, leaving it to those who are interested to examine the works on physiological chemistry for further facts not herein referred to.

Chemical differentiation within the physiological limitation of functionality goes on with biological evolution in the production of species, chemical differentiation being under the control of the physical agencies of nature, while evolution is concerned with vital formations. The productions of those differences where physiological limitation ceases in normal tissue leads us to question all processes of animation beyond this point for a knowledge of how and where pathological differentiation commences. In order to understand what any disease is we must be well acquainted with normal tissue formations.

Organization is instituted and continues in the generative process by analytical and synthetical operations, leading to the facts observed in normal histology. In physiological histology, we must understand that there are two important

factors at work in the construction of normal tissue, the albuminoids of protoplasm which are colloids and crystalloids. Normal differentiation must take place in these two factors, in the absence of which normal tissue cannot be produced. Now, in abnormal tissue formations these two factors are also at work in the production of all those changes that give rise to disease.

The units of living bodies are always the same in character, function and chemical composition, from the first unit or speck of living jelly-like substance, to the highest aggregate of such units found in the body of man. Man's body represents the highest order of complexity of matter in the process of evolution, and is the present culmination of evolution, his formation being the result of a differentiation of one kind of matter, by the forces of nature pent up as potentialities in it.

The amoebæ so resemble the units composing the different organs of the body, that they appear to be the essential requirements for the production of all aggregates or types of existence. The amoeba is the simplest element in nature, and is called by some the first atom of organic nature. I am inclined to believe that they are the ultimate elements formed in nutrition and after formation, they pass into those tissues, which have an affinity for them, and thus by their aggregation constitute the organs of the body. As the already existing cells of the organs gradationally pass away, others are ascending into the region from whence they departed, and so, by a continuous functional elevation, each unit or cell is produced and carried away, in the function of organic formation.

As the units forming a crystal march into place, under those peculiar influences directing its formation, so like influences direct the formation of the organic complexity of the human body. Everything not only taking its allotted place, but afterwards forming and transforming, and still holding its position and relative importance in the animal body.

The formulation of animal starch is the most important fnnction of the animal body. After its complete elabora-

tion, it breaks down by chemical transformation, until it is returned by the successive stages of splitting up to whence it came, to the inorganic region again. It is the office of the stomach and intestines to abstract and transform the matter of ingesta into the proteids and peptones, necessary to form the matter of nutrition.

Among the chief formed elements are the red and white corpuscles of the blood. Normal blood is formed by the products of synthesis and analysis, and is the fluid containing the matter to be assimilated by organic synthesis, each cell taking from the blood its own particular matter for further conversion. The blood is an irrigating fluid containing, not only the matter of formation, but the fertilizers for the different cells of the body. The function of the already formed cells is manifested in selecting their special matter of supply, for conversion into protoplasm, from the carbo-hydrates and nitrogeneous compounds contained in the food.

The highly elaborated material of cells are the enzymes or products of ferments, which leads us to investigate their importance, in producing normal as well as abnormal tissue. The cells of the body appear to take their food somewhat in the same way that the ferments in chemical transformation take theirs, such as when splitting up sugar into alchohol and carbonic anhydride, in the vinous fermentation by the yeast fungi. I have found that the food, taken from the matter of solution to be split up by the fungi, constitutes the process of fermentation and the product of fermentation is its excreta. We may liken the whole human body to a colonization of fungi, which is normal when its physiological functionality goes on uninterruptedly, each fungus or cell changing its environment into itself and the products of its excreta. On this ground, the whole body of man lives by the joint ferments of his own structure, each one in the form of a cell contributing its function after colonization thus sustaining the edifice, any revolt in the colonies, by their refusal to contribute their part to normal functionality, producing disease. The greatest revolt of the units produces malignancy.

Normal integrity requires that the colloids and the crystalloids of the body shall respond to chemical integrity,

and since these are what the normal construction and activity of the tissues depend upon, we must investigate by every possible means for a knowledge of the cause of departure of any one of them from its chemical integrity, a continuity of which would end either in producing diseases of self-limitation or the extreme of disorganization, which extreme would be the highest order of malignancy.

It is quite evident that normal tissue cannot be formed, in the absence of what the cells would naturally select and appropriate, in continuing normal organization in every part of the body. Here we have absolute certainty of differentiation arising, if foreign matter be appropriated by the cells of a part. The cause of differentiation arises from the nature of that which is appropriated or retained, which interrupts normal functionality. Malignancy is a peculiar differentiation of tissue, which evidences the type of departure from normal formation, and is produced by an incumbrance to normal organization. The degrees of malignancy indicate the degrees of departure from the normal state to the extreme of pathological degeneration.

How far protoplasm can transform, and still be within the physiological limitation of functionality, is the question to decide as to where pathological differentiation commences. When differentiation manifests itself sufficiently to interfere with organization, structural changes commence and continue. The quality of tissue varies in accordance with its matter of supply. When the units or cells are normally active and relative, there is a certain viscosity manifested in them, as in all the other soft parts of the body. An alteration of the normal viscosity, in any of these parts, will evidence either an increase or a reduction of the consistency of such parts. The phenomena of tumefaction must be explained from this fact. The cause of alteration of consistency above or below the normal as well as structural change, formed the groundwork of investigation as to the origin of malignant and non-malignant diseases. Modifications in the proximate principles and colloids of nutrition are the factors producing structural change in tissue. An abnormal differentiation of the albuminoid or colloid

must take place, in order to furnish the different types of malignant growths. When the colloid and the crystalloid are perfectly in harmony with each other, we have the normal integrity of tissues. When differentiation arises in the one, the other must also differentiate. This is what I define as disease.

When the viscosity and flexibility of the colloid keeps within the limitation of functionality, we have normal consistency of the different organs or parts of the body. An increase of the consistency of any tissue beyond this limitation produces induration or hardening. In carcinoma of a schirrus type, we have the crystalline matter of the tissues enroaching upon colloid movement, by crowding the animal matter out of the colloid, something like the way in which vacuolation and substitution takes place in cells, during degenerations in different parts of the body. Now, if movement within a given limitation is the function of the colloid, furnished by its degrees of viscosity and flexibility, we can see at once why the crowding out of amorphous mineral matter and the substitution of crystalline matter increases the consistency of organs or parts. The normal balance of internal respiration of cells in the human being is maintained by a temperature of about 98.5 degrees Fahrenheit. An elevation of a few degrees beyond this temperature produces fever, by increasing the speed of the respiration of cells, by which we have more rapid metabolism at the expense of a gradational reduction of vitality in their reproductory power; this would if continued produce, by over stimulation, necrosis or death of the cell, and in fact of the whole body, if carried very far beyond the physiological limitation of their functionality. In single or double pneumonia, the crystalline matter, such as chloride of sodium, etc., diminishes in the urine, as the induration or hardening of the lungs is increasing, showing the encroachment of crystalline matter upon the function of rhythmical motion by substitution. The same encroachment also occurs in calcareous infiltration of the muscular tissue of the heart and blood vessels. Cerebro spinal sclerosis or hardening of neurolgia or nerve tissues and other parts of the brain and

spinal cord, afford other instances of the above mentioned encroachment of crystalline matter upon colloid consistency and functionality. In the case of softening, such as we find in carcinoma of an encephaloid type, we find crystalline matter decreasing and at the same time diminishing the consistency of tissue, the cells, losing their reproductory power, become necrosed and break down, the sloughing of tissue being a consequence. When the vitality of the cell is so reduced that it has lost its reproductory power, then we have necrosis and sloughing of tissue, known in carcinoma and sarcoma. In all instances of hardening of tissue, the colloid is incumbered by the infiltration and substitution of crystalline matter, and where softening occurs the opposite takes place.

If there be an incentive to interrupt the necessary changes, going on in the production of all those proteids required and found in the composition of healthy protoplasm, we have disease. This would arise either from a change of the matter of supply, producing degeneration, or from a chemical and physical alteration, arising from the disturbing incentive, producing changes of tissue. Every differentiation producing disease has its particular impetus, which arises in both the colloid and the crystalloid. The phenomena of malignancy is complete in itself, and is distinct for a very limited time from normal operations, going on in the system in which it originated, and by which it is sustained, so long as it remains local.

A perversion of the forces, controlling normal changes of the tissues, is the cause of abnormal transformation, such as we find in all growths of different types, from the benign to the most malignant. If these agencies, which have become perverted till they form a malignant tumor, be made by medication to become normally active, the tumor reduces in size and ultimately passes away, the passing away merely meaning readjustment of the cell's elements to their normal condition and relative position, by instituting the normal agencies. Those agencies which form crystals, in the absence of vitality, are the same agencies that control tissue formation in all accretions of particular units, found in diseases of the type of malignant tumors.

A malignant growth of whatever type is produced by a specific change, brought about by a particular impetus, the presence of which is manifested by a change in the internal structure and relative position of the units or cells of a particular part of the body, producing colloid fungation in the form of carcinoma and sarcoma of different types. This impetus acts upon the nucleus and protoplasm of the cell. Abnormal cell formation is dependent upon these influences, that come to the nucleus and protoplasm of the cell, changing the determinants and biophors in cell proliferation. The stroma and multinuclear cell, with proliferation of free nuclei, is the typical indication of malignancy, and their presence may be assumed to be an abortive effort on their part to reproduce themselves, as indicated by the additional number of nuclei in each particular cell, and free nuclei outside of the cell. This is the cause of the breaking of the barrier of normal limitation, as malignancy proceeds. The extent and speed of tissue transformation is a measure of the height of the malignancy of the part.

The oxidation of phosphorus is one of the chief chemical and physical functions of normal cellular tissue change. This is why phosphorus in its crude state is found in the nuclein of the cell nucleus. Now, if by any means there be not sufficient crude phosphorus abstracted from the different foods containing it, the cell must suffer for want of that which forms it nucleus, in which the vitality of the cell resides. Phosphorus is the nearest chemical in nature to life and the most indispensable to the cell's existence. The oxidation of phosphorus continues during animation and goes on till the process is at an end, and if it were not for the continued production of phosphorus in a cell, the cell life would come to an end. The chemical function of oxidizing phosphorus, through the agency of nitrogen, is the chief essential in the process of reproduction. In these as formed elements and compounds we have the differentiation of tissue, that arises in the fungating process. The appropriation of carbon, in addition to phosphoric acid, constitutes the essential for vegetating growths.

I have discovered that the specific impetus producing malignancy is in the form of a nitrogenous enzyme, which does not leave the cell during normal metabolism, a retention of which institutes fungation or malignant degeneration, by preventing the normal elimination of phosphoric acid, derived from the oxidation of the crude phosphorus contained in the body and nuclein of the cell. This nitrogenous enzyme, that is retained instead of being excreted, differentiates, by mal-appropriation, the tissue into the growth of whatever type, by causing the retention of phosphoric acid that should be eliminated during normal cell metabolism. Phosphoric acid interrupts the oxidation of crude phosphorus, and fungation of spongeoplasm at once takes place, which gives rise to malignant carcinoma and also sarcoma.

By abstracting the enzyme, acting upon the normal cell nucleus and protoplasm, we cut off the power that institutes differentiation, after which we aid nature in transforming the differentiating units to their normal standard condition again.

The removal of disease consists in promoting the gradational return of the tissues, that have departed from integrity, to their normal standard condition. I propose to show how this differentiation can be arrested and malignancy removed, by the restoration of chemism. The term chemism, when referred to the whole body or any of its parts, means that the colloids and crystalloids must possess the normal proportion of those elements and compounds necessary to their formation. Disease should be defined as the first degree of departure, from whatever cause, from normal chemism. When we remove disease by the restoration of chemism, every fluid and solid must be made to respond to physiological integrity. This is to be accomplished by chemical formulation.

The regressive chemical transformation of the cell contents producing malignancy must be understood, before we can make clear the therapeutic action of the formulæ removing malignancy. This can be done only by following degeneration from the healthy state of the cells to the malig-

nant state of protoplasm. The whole process is essentially one of gradational vacuolation and substitution of the malignant essentials. In order to follow intelligibly the successive changes going on in the metabolism of cells, it presupposes a familarity with the physiological chemistry of tissue formation. Malignancy of the cells could not take place in the absence of that incentive, differentiating its structure and its matter of supply, furnished by nutrition, which is the incentive that alters the metabolic function of the cell, making it produce a foreign body or type of malignancy. In following the course of the disease, from its incipiency to its termination, I have had some opportunities to experiment in formulating its cure. I have had but few such opportunities, because most of my cases have been far advanced before applying to me for relief or treatment, holding me in reserve, as it were, as a last resort, after surgeons of distinction had operated on them. This will explain the number of cases which I have lost from time to time, before completing the formulation of a cure for malignancy.

The treatment and cure of malignancy consists in aiding the elimination of foreign matter, in addition to purging the cell of its nitrogenous enzyme. Since the typical cells of higher organization are the result of the differentiation of so many different kinds of cells, found everywhere in animated nature, they are susceptible to taking on almost any of the forms through which they have passed during their evolutional course. Given the pabulum and other favorable surroundings, and the change of type of a structure arises. This is why degeneration into malignancy takes place from a change in pabulum and environment, together with the spermatic power of the cells known in reproduction. The direct evidence of the successful treatment of malignancy must consist in promoting the complete elaboration of glycogen, which is the so-called animal starch, into what is really animal starch and is found most completely formed as animal starch in the nerve substance of the body. After its complete formation, medical treatment should be directed to its complete transformation through successive stages, till returned to the inorganic region again, viz: first animal

sarcode into the starch forming it, then into animal cellulose, then glycogen, fat, and the crystallizable mineral matter, till the end producing the detritus for excreta.

The first part of the treatment consists in arresting the disease, so that the first two formulæ given are for this purpose, and are continued for from fourteen to twenty-eight days, in accordance with the extent of the disease and the parts involved. The dose of the first formula is from five to thirty drops, in a table-spoonful of water, night and morning, one hour after eating. The dose of the second is twenty drops, in a table-spoonful of water, one hour after the middle meal. The next formula, following the expiration of twenty-eight days, is to aid the work done, by resolving the tissue into the healthy state again, and is altogether different from the first, and is of tonic nature. The dose of this third formula is thirty drops, in a table-spoonful of water, one hour after eating, three times a day. The duration of treatment will cover from six to nine months, according to the stage of advancement of the case.

The formulæ for the treatment and cure of malignant growths can be furnished directly by me to any physician of scientific standing, also to any of the Hospitals in the United States recognized as regular institutions. I will furnish sufficient of the remedies required for trial at my own expense, but I think I am justified in reserving the right to hold the formulæ till the Medical Profession, after seeing the results obtained, testify that everything has proved to their satisfaction, and as I have represented in my paper of announcement, at which time I shall take the greatest pleasure of my life in presenting the complete formulæ, with the method of their preparation, to the Medical Profession throughout the World.

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