EVOLUTION IN MEDICAL THOUGHT AND PRACTICE

A LECTURE

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OBJECTS:

1. The study of the laws of health and their application to individual, occupational and social life.
2. The critical investigation of the results of prevalent medical theories and practices, of laboratory research and experiments on animals and human beings, recorded in medical and scientific journals, of operations and treatment in hospitals and asylums, of statistics in relation to preventative and curative treatment, of injury and death caused by vaccination and inoculation.
3. The exposure of the commercial interests underlying the prominence and advertisement given to serum and vaccine therapy and to the manufacture of certain drugs and medicinal substances.
4. The examination of the defects in current medical education by which the minds of students are directed too much to disease in all aspects and too little to the science of health.
5. A survey of the history of Medicine, of theories which have held sway and been abandoned, of fashions in treatment and operations, the object of such presentation being the stimulation of independent, well-informed and balanced judgment in matters medical.
6. The direction of public attention to the failure of Cancer Research, based on experiments on animals and carried out in laboratories and institutes maintained through public funds and charitable donations. The initiation of new methods of search for the cause and prevention of Cancer.
7. Education of the public in regard to the need of reform in diet; to the elimination of atmospheric pollution through discharge of soot, smoke and gases, and the abatement of noise; to the need of pure food through prohibition of chemical and other preservatives injurious to health, and to the benefits to be derived from those natural and simplified ways of living which tend to build up natural immunity.
8. The encouragement and support of methods of healing which are dissociated from experiments on animals, such as Homœopathy, Herbalism, Nature Cure, Physiotherapy in its various forms, Hydrotherapy, Osteopathy, manipulative treatment, light, ray and wireless-wave therapy, vegetarian and fruitarian systems of dietetics, Psychotherapeutics.
9. The publication of books, pamphlets and leaflets expressive of the views of the Council; the organization of lectures, meetings and conferences; the offering and distribution of prizes for works by members of the medical profession and others which promote the objects of the Council.
10. Dissemination of knowledge tending to show that the health of the peoples should not be measured by the number of existing hospitals, clinics and practitioners, but by the capacity of the citizen to maintain himself in health and efficiency.
11. Insistence on the individual rights of non-conformists in Medicine and a re-valuation of the standards of qualification in the practice of healing by which false pretences and charlatanism may be distinguished from genuine knowledge and capacity.

EVOLUTION IN MEDICAL THOUGHT AND PRACTICE

IT has become customary for historians of the progress of medical science to eulogise with undiscriminating enthusiasm the alleged triumphs of modern "laboratory" research, and to write of the science of medicine as though it were coincident with the last fifty years or so during which medical practice has proceeded under the dominance of the modern trilogy—Pasteur, Lister and the Germ Theory of disease—all preceding eras being rather contemptuously regarded as shrouded in the darkness of archaic ignorance, mediæval mysticism and popular superstition.

A typical instance of this was provided by the statement of Professor Harold Munro Fox, of Birmingham University, to which he gave utterance in the course of a broadcast talk to schools arranged by the British Broadcasting Corporation on October 26th, 1938; dealing with the position of medical science at the time of the birth of Pasteur, he said :—

"He was born just a century ago, and at that time no one knew the cause of any disease, When, later on, it was found that diseases are due to microbes, or germs, or bacteria, this discovery completely changed the whole of medical science. Before that time doctors could do practically nothing to cure diseases."

On the other hand, not a few eminent medical authorities, basing their opinions upon wide clinical experience, have within recent years reached and expressed conclusions which are in substance variations of the theme of the writer Wunderlock, who declared that "the history of medicine is the history of human error." As recently as March 1937, Dr. Chalmers Watson remarked in an article which he contributed to the *Medical World* that "the record of the results of curative treatment of the ordinary medical conditions, which fill our hospital beds today, is, to too large an extent, one of failure. It is probably true to say that in well over 90 per cent. of the cases the results today from the patient's point of view do not differ materially from those achieved 40 years ago."

Many such opinions expressed—and let us add courageously and frankly expressed—in the leading medical journals might be quoted. (1)*

It is clear, at all events, that the exaggerated optimism often exhibited in defence of the modern medical outlook in regard to the basic causes of disease, to disease prevention and to the methods of experimental research connected therewith, is dictated by a conscious or subconscious fear lest the open acknowledgment of comparative failure should undermine

*Reference numbers are to illustrative quotations in the *Addendum*, page 20, *et seq.*

public confidence in the priesthood of modern medicine, and reveal that many of the prevailing doctrines are but further examples to be added to that long series of errors which have to so large an extent comprised the history of medicine. Moreover, the results of such a revelation would undoubtedly constitute an imminent menace to those vast commercial interests to which medical practice has, unfortunately, become far too subservient at the present day. (2)

This explanation certainly accounts, as does none other, for the intense bitterness of the animosity which is invariably meted out to all critics, be they never so eminent, of the methods and results of modern medical science.

Yet it would appear that to anyone possessing insight into the laws governing the growth and development of human thought throughout the ages it should be possible to perceive evidence of an ordered plan underlying the outer changes, and so avoid both the hysterical adulation poured upon the fancied triumphs as well as the pessimism induced by a scrutiny of the obvious failures; viewing the outer changes as episodes in a gradual orderly progression in conformity with and inseparable from the general progress of human thought and conduct: ACHIEVEMENT—the fruitage of action in harmony with those laws which govern the spiritual welfare of mankind; DEFEAT—the inevitable outcome of action in ignorance of, and even in deliberate disregard of those laws.

Indeed, in the invariability of these sequential laws which the student of philosophy regards as operating in all departments of human activity, spiritual no less than physical, lies the greatest hope, nay the certainty of future attainment. Noting the occasions of past failure and the fundamental errors which led to them, we may turn from such unprofitable avenues, confident that repetition could have no other result than that already deplored; on the other hand, noting the successful issues and the lines of activity of which they were the outcome, we may be assured of the direction in which future achievement should be sought and in which it alone may be found.

There are clear indications that in scientific medical circles both a wider and deeper understanding of the problems involved in the search for health and avoidance of disease is being eagerly sought, and already to some extent attained. But, just as in the sphere of politics and outer world-affairs the conflict of newly-arising thought and aspiration with the old and outworn concepts of the past seems to be rapidly advancing towards a climax in which the very structure of society and civilisation, as we now know it, may be shattered in preparation for the establishment of a more human order of things, so also in the world of medical thought, which

shares in the general upheaval and re-shaping process, a state of deadlock between the opposing interests and ideals of the past and of the future appears to be approaching, the result of which bids fair to lead to the disintegration of the present foundation and structure of medicine. In fact, the reality of these coming changes is already foreshadowed in the writings of some of the more intuitive medical thinkers, even among the ranks of those hitherto considered orthodox. (3)

Needless to say, the student of deeper philosophy will not share their apprehension regarding the future of Medicine, but rather see in these approaching changes a fulfilment of those laws which his study has taught him to regard as invariably beneficent, a practical demonstration through the cumulative evidence of history of the truth of much of that *Ancient Wisdom* which hitherto he has perhaps only theoretically accepted as logically reasonable.

Even in the brief sketch of western medical history which is all it is possible to present here we shall find convincing evidence that modern science is re-discovering knowledge already possessed and taught by physicians and philosophers of ancient days, knowledge which was theirs because they too were inspired from the same fount of Wisdom which has been Man's heritage since the dawn of time.

The chief difference in the character of the knowledge acquired and expounded in the present cycle compared with that of more ancient times is one inherent in the different qualities and developmental needs of the racial types concerned.

Western medicine takes its origin in Ancient Greece among a people* whose cultural development proceeded chiefly along lines dictated by emotional stimulus and who accepted readily on authority teachings which those whom their devotion led them to revere gave out to them. In later days, before our Teutonic race† had become sufficiently established to exert its dominant influence on current thought, this very capacity for accepting on authority, almost blindly, whilst it promoted the rapid dissemination of a larger amount of occult and other knowledge than would otherwise have been within the intellectual compass of the majority of the people, had, on the other hand, the disadvantage of encouraging credulity and hence of breeding superstition, a phase of development well illustrated in the religious beliefs and medical practices of the middle ages.

*Spoken of by students of Theosophy as the fourth sub-race of the fifth, or Aryan, Root-race.

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With the advent of the era during which the concrete mind, characteristic of the Teutonic race, has become dominant there emerged a gradually increasing capacity for the intellectual comprehension of doctrines hitherto accepted on authority, and the insistent questions " Why?" and " How?" became the keynotes of scientific enquiry in all its various branches. Consequently the *mechanism* of life became the chief and most interesting subject of study, until eventually there seemed to be a danger that the " specialism " inevitably engendered by a close and detailed investigation of the *form* side would lead to an ignoring, and even to a repudiation of the integral relationship between the physical mechanism—physiological, chemical and electrical—of the body and those psychological and spiritual aspects of consciousness which taken together in their entirety constitute the Whole Man. (4)

This was, and still is to a certain extent, the special danger connected with our present Western race development; but there are already signs that with the dawn of the next racial type*, of which the chief characteristics are the development of the synthesizing powers of the mind and the intuition, this materialistic phase, which resulted in the disastrous divorce between science and religion (5) and led to the exaltation of utility over moral values and of expediency over righteousness (a phase which is typically exemplified in the practice of vivisection), has already passed its zenith and has begun to give place to a more synthetic view of life in which man himself as the Microcosm is looked upon as a whole, and hence his essential and integral relationship with that Whole, the Macrocosm, of which he is a reflection, is more deeply and perfectly realized.

Thomas M. Ling, M.A., M.B., M.R.C.P., writing in the *Medical World,* April 2nd, 1937, expressed this change in the following words :—

" Since the war, a new viewpoint has arisen in medicine and actually a great metamorphosis is taking place, although for all those living and practising contemporaneously, its extent and implications are not always obvious. Gradually but inexorably medicine is becoming once more an art. . . . we are now learning to realize the indissoluble character of psychic and somatic factors in the production of individual illness and that only by understanding and treating the 'whole man' in relation to his upbringing, occupation and desires, is it possible to achieve real and lasting therapy." (p. 177).

No glimpse of medical history, however brief, would be complete were reference not made to the fact that much of the knowledge and skill claimed as the achievement of modern

*Referred to by students of Theosophy as the sixth sub-race of the fifth, or Aryan Root-race. The era in which it is to flourish is spoken of as the Aquarian Age, and its key-note of co-operation is to replace that of individualism and competition.

science can be traced in part, at least, in the medical systems of ancient India, Egypt, Greece, and even China.

To ignore them would be to commit the almost incredible blunder of which Professor Munro Fox was guilty in his broadcast talk, already quoted (page 3, *ante*).

Moreover those who may be inclined to be dazzled by Western methods and hence rather contemptuous of the very differently expressed ideas of the East in these matters must not lose sight of the fact that each system of thought has always been one best suited and adapted to the particular needs of the race of whose cultural life it formed a part.

Nor can it be denied that, where faithfully observed, each medical system of the past, as laid down by the law-giver of the time, was effective in raising the standard of health, in reducing the ravages of disease and hence in promoting the happiness and general cultural development of the people. In fact, the discovery that even in remote ages man was in possession of knowledge and instruction far in advance of the unaided intellectual attainment of the time—often, indeed, approaching in accuracy and insight the achievements of modern science — constitutes in itself strong evidence that throughout its entire history mankind has progressed under the guidance of an Inner Government of the World that can cause even the blunders of humanity to serve Its ultimate purpose—the achievement of the immemorial Plan of the Logos.

Hippocrates, " the father of modern medicine," with whom Western medical history may be said to begin, laid down the fundamental law that " In order to cure the human body it is necessary to have a knowledge of the whole of things." This deeply philosophical concept can be traced down the centuries; it was echoed by Paracelsus in the XVI Century when he wrote: " True medicine only arises from a creative knowledge of the deepest powers of the whole universe; only he who grasps the innermost nature of man, can cure him in earnest "; and, as we shall see, it is finding increasing expression in medical writings at the present day.

In common with other medical philosophers of ancient Greece, Hippocrates, in attempting to explain the origin of disease, postulated three causative factors, two of which—termed the Krasis—consisted of the temperament and habits of life (including occupation and diet) and were therefore peculiar to the individual; whilst the third—termed the Katastasis—was an extra-corporeal factor consisting of the atmospheric status affecting the whole community at any given time. (6)

It was from this third factor that he derived his theory of Miasmas in the explanation of epidemics, a theory which held the field for two thousand years; Sydenham, the "English Hippocrates" of the XVII Century, modified it by "postulating that the seasonal periodicity of disease was dependent upon occult* rather than upon perceptible changes in the atmosphere," to quote R. G. Latham (*The Works of Thomas Sydenham, M.D., 1848, p.8*).

According to Dr. C. A. Gill (author of the *Genesis of Epidemics and the Natural History of Disease,* 1928):

"This theory was accepted until the advent of Pasteur in the latter half of the nineteenth century, but even as late as 1894 the miasmatic theory still held the field, for in that year a distinguished English Epidemiologist, Dr. Charles Creighton, published his classical *History of Epidemics in Britain,* in which, as the result of laborious research and long reflection, he endeavoured to prove that all epidemics were due to the explosion of noxious vapours from the ground by earthquakes or by volcanic action, or to a rapid change in the level of the subsoil water." (7)

With the advent of Louis Pasteur, and his theories as to the specific microbial cause of diseases, the whole outlook of Medicine changed, and, although the germ-theory as propounded by him and his contemporary Robert Koch has never been substantiated in a single instance, and it is now recognized by all leading bacteriologists that microbes when acting alone are innocuous (8), medical science became dominated by the most crude doctrines regarding the cause of disease conditions. It is only within quite recent years that medical thought has begun to realize their inadequacy and to stress once again the importance of the "soil" in relation to the "seed"; in other words to return to the ancient conception of disease as arising primarily from those causes which are comprised in the individual himself, in what Hippocrates termed the Crasis, or the temperament and habits of life. (9)

Even the old miasmatic theory has regained some of its lost prestige, notably as an important factor in the cause and control of malaria; and in the *Medical World* of January 2nd. 1931, we may read that recently Van Leeuwen has pointed out the hypersensitiveness of a large percentage of asthmatics to colloidal substances of unknown origin present in the air which he terms "miasms"; for many years it had been recognized that sufferers from such allergic diseases were free from symptoms in some parts of the country, while worse in others, and this explanation is one which has now both ancient teaching and modern evidence to support it.

*This would seem to foreshadow the theory propounded by J. E. R. McDonagh, F.R.C.S., in recent years regarding the influence of sun, stars and nebulæ upon epidemic diseases. (See page 10 post).

It will be realized by anyone acquainted with the history of medical thought that the main tendency since the days of the Greek philosophers has been towards a gradual materialization of the earlier concepts as well as an over-emphasis upon the external factors in disease causation.

This reached its nadir, as already hinted, in the doctrines of the French chemist, Pasteur, whose dominating influence upon medical thought, to the extent of practically eclipsing the magnificent work of Professor Antoine Béchamp (to be described later) is susceptible of no ordinary explanation. Even Robert Koch, who actually formulated the postulates of the germ-theory, was constrained to declare that " Pasteur was not a physician and could not be expected to have a correct knowledge of pathology and of the symptoms of diseases. But his medical colleagues should have protected him against the errors into which he had fallen." (Webb, G. B. : Robert Koch, *Ann. Med. Hist.* **4**, 514, Nov. 1932).

Yet, in addition to plagiarizing the discoveries of Béchamp, which, as the records of the Academy of Science at Paris prove, anticipated his own, he was able to cast such a glamour over succeeding generations of laboratory experimentalists, who carried on the tradition of vivisectional research, that even at the present day his name is held in a veneration which makes criticism appear almost blasphemous.

It would seem that the general change in the direction of medical thought was the almost inevitable accompaniment and outcome of the growth and eventual dominance of the lower mind over the hitherto emotional approach, and the consequent temporary relegation of spiritual values to the background of human consciousness. Happily it marks a stage which is now rapidly passing, having played its part in making possible a greater accuracy of observation and clarity of focus in all that comes within the ambit of man's awakening powers of sense-perception.

Now, as has been well said by Dr. Thomas M. Ling, the difference between the mental attitude of the East and that of the West towards the whole problem is that " in Oriental countries disease is regarded fundamentally as the removal of something spiritual from the body, while in the Occident the basis concept is that something—essentially tangible—is added to the body." (*Medical World*, April 2nd, 1937, p. 177).

It should not unduly surprise us, therefore, to find that even in regard to those meteorological factors which were held to be responsible in disease causation and especially in the production of epidemics—the more subtle influences of sun, moon and stars, acting through the medium of the personality and the physical body, as Astrologers taught—should have

become gradually relegated to the background and finally ridiculed; whilst eventually, as we have seen, the mistaken views of Pasteur, being in line with the generally materializing tendency of scientific thought, led to the entire abandonment of the last remaining shreds of the miasmatic theory. As Gill comments, "Medical opinion became seized with the view that the discovery of the specific cause of disease had *ipso facto* provided the key to the solution of the problem of epidemic causation; nevertheless, the miasmatists did not abandon their position without a struggle, and in many lands, notably in India, it was stoutly maintained, until quite recent times, that an air-borne miasm afforded a more satisfactory explanation of the genesis of epidemics than was possible in terms of the Germ Theory."

It was precisely the attempt to discover the reason why diseases, as is well known, change their characters from century to century and even from generation to generation; in other words, why, from the standpoint of the germ theory, microbes periodically acquire abnormal powers of diffusion and toxicity, that led to the virtual discrediting of this theory among the well-informed and, finally, to a re-statement of the doctrines of meteorological influence by Mr. J. E. R. McDonagh in a brilliant synthesis which showed bacteria as evolutionary entities changing their character and properties under influences emanating from the sun, stars and nebulæ, influences which, he claims, every atom in the vast cosmos, including the atoms of our bodies and associated bacteria, must share.

In his work, *The Nature of Disease Journal,* Vol. II (1933), he writes: "Climate is the primary factor responsible for the epidemics being seasonal and it appears to have a selecting influence upon the micro-organism destined to become active. The main factor in climate is *activity* which emanates from the sun, stars and nebulæ." (p. 149).

Mr. McDonagh regards the Universe merely from the point of view of chemical activity, but, even so, sees each particle so indissolubly linked with every other that every change in one part is propagated throughout the whole; and this principle, manifested throughout the larger cosmos, he also applies to the smaller cosmos, a man's physical body: no change in any part which does not affect the whole; not many specific diseases, separately indentifiable, distinct, but ONE disease with many varying manifestations depending upon the prevailing character of those subtle influences, which he ascribes to the sun, stars and nebulæ, upon a body the blood and cells of which have already been poisoned by the effects of the numerous habits of life involved in our so-called civilization,

—habits which so constantly contravene what he terms the fundamental ways of living and have a hereditary cumulative tendency towards the production of disease conditions.

Incidentally it is of interest to notice that in France Dr. Foveau de Courmelles and Dr. J. Risler were the first to make a scientific study of meteorological influences in this connection. In a communication to the Société de Pathologie Comparée of Paris, in 1926, they pointed out the considerable importance which meteorological agents had on the air we breathe, on the evolution of the exogenous and endogenous microbes, and on the reactions which light, heat, electricity, and the barometric and hygrometric conditions were imprinting upon our organisms, the whole depending upon the stars and their movements.

In America the researches of the eminent physicist, Professor Millikan, of the Technical Institute of California, confirming the views of Nodon in France, demonstrated that we are continually receiving rays of intense penetrative power from all directions of the universe, which he calls " cosmic rays " and which possess among other many remarkable properties that of synthesizing chemical elements from their constituent electrons.

McDonagh's concept of the material cosmos is one of a vast system of atoms and particles existing under laws known to govern the behaviour of colloidal particles of chemical elements in wide dispersion*, the colloidal particles which constitute the protoplasmic life of the human blood and tissues sharing in and reflecting the kaleidoscopic changes occurring among the particles dispersed throughout the outer universe.

This primary and ever-changing pattern of basic atomic structure is the background against which is played our own part—by virtue of our adding those paramount causal factors, thought, emotion and conduct, for which we are directly responsible—in shaping the conditions of health or disease in which at any given time we find ourselves.

It is of particular interest to note that this transcendental view is even now discernible, even though it be dimly and in part, in contemporary scientific speculations, and that this trend in medical thought has been brought about largely as the result of the failure of accepted theories—based upon crude materialistic hypotheses,—to afford any satisfactory explanation of the genesis of epidemic diseases. As a leading article

*Graham, the original investigator of colloidal states of matter declared " The colloidal is in fact the dynamic state of matter, crystalloid being the static condition. The colloidal possesses energia. It may be looked upon as the probable primary source of the force appearing in the phenomena of vitality." (*Philosophical Trans.*, 1861, Vol. cli, p. 184).

in the *Times* (London), August 13th, 1930, expressed it: "It is well known that diseases change their characters from century to century and even from generation to generation. . . . The nature of these and other variations has exercised the minds of physicians and bacteriologists during many years, but it cannot be said that any very clear views about them have been formulated."

Clifford A. Gill, in his text-book, *The Genesis of Epidemics*, (1928), confessed as much when he declared:

"The hypotheses and speculations regarding the causes of epidemics are therefore lacking neither in number nor in variety, but it is clear that none of them can claim to provide an adequate explanation of the causation of epidemics. . . . none can be described as the outcome of a systematic effort to assemble all the parts, to study their mutual relationship and to weave them into a consistent and intelligible scheme."

There is much to justify the suggestion that such a task could best be essayed by one conversant both with factual evidence of modern science and the philosophic doctrines of the Ancient Wisdom.

But that scientific thought is increasingly lending support to the older teachings along the lines we have been discussing is clearly shown by reference to C. A. Gill's book already quoted, for he declares that:—

"The unitary hypothesis is consistent with the general laws governing all natural phenomena, for whether it be in the infinitely little—in the structure of the atom—or in the infinitely great—in the ordering of the universe—Nature exhibits a remarkable unity of design, and it would be therefore as natural to anticipate a separate mechanism of epidemicity in each specific disease as to assume a separate act of creation in the case of each zoological species."

This demonstration of evolutionary design regulating the development and mutations of the minutest units of life, including the protoplasmic particles of our body-cells, as well as bacterial forms, would have undoubtedly been accepted far earlier in the history of medicine had it not been for the unfortunate usurpation by Pasteur's doctrines of the far more philosophically sound and scientifically accurate teachings of his contemporary, Professor Antoine Béchamp, whose brilliant researches into the ultimate units of physiological activity in cell-life, which he termed *Microzymas* (minute ferments), led him to conclusions that, had he but known it, were closely in harmony with the Ancient Wisdom.

Béchamp taught that the cell is a collection of little beings which have an independent life, build cells and, by the production of ferments, carry on the functions of metabolism and secretion. Further, he showed that they are physiologically indestructible and under conditions in which they are liberated from their proper environment may become destructive in character and, passing through intermediate forms, be con-

verted into bacteria, the medium of their growth having " a great influence on the appearance of the various forms in their evolution," so that " there is an infinity of species which vary in their function."

And here we must pause for a moment to compare Béchamp's views with the teachings of the Ancient Wisdom as set forth by H. P. Blavatsky in her work, *The Secret Doctrine** ; referring to the " countless lives that build up the material body and its cells," she declared :—

" Science, dimly perceiving the truth, may find bacteria and other infinitesimals in the human body, and see in them only occasional and abnormal visitors, to which diseases are attributed. Occultism—which discerns a Life in every atom and molecule, whether in a mineral or human body, in air, fire or water, affirms that our whole body is built of such lives; the smallest bacterium under the microscope being to them in comparative size like an elephant to the tiniest infusoria."†

With prophetic insight H. P. Blavatsky went on to add :

" So far as regards the purely animal and material portion of man, Science is on its way to discoveries that will go far towards corroborating this theory. Chemistry and Physiology are the two great magicians of the future, which are destined to open the eyes of mankind to great physical truths. With every day, the identity between animal and physical man, between the plant and man, and even between the reptile and its nest, the rock, and man, is more and more clearly shown. . . . the same invisible lives compose the atoms of the mountain and the daisy, of man and the ant, of the elephant and the tree which shelters it from the sun. Each particle—whether you call it organic or inorganic—*is* a Life. Every atom and molecule in the Universe is both *Life-giving* and *death-giving* to such forms."‡

H. P. Blavatsky explained that when through disease or death the force that constrains them into being the builders of the body is removed they then become the destroyers, for being deprived of oxygen they develop ferments which enable them to extract it from neighbouring tissues and then " the destruction so commenced steadily progresses."‖

Recent corroboration of these ideas is plentiful (10). For instance, Professor F. G. Donnan in an address to the British Association in 1928 said : " If life has sprung from the non-living, its earliest forms must have been excessively minute. We must look for these forms, if anywhere, in those queer things that the bacteriologists call the filterable viruses. These are living bacteria so exceedingly small that they are invisible to the finest microscopes."

Professor Donnan also referred to the work of the French investigator, d'Herelle, who had discovered that in bacterial cultures there develops frequently an extremely fine filterable virus which is destructive to the bacteria themselves, and hence

*First published in 1888.

†*Secret Doctrine,* Adyar Edition, I, 272. (3rd Ed., I, 245).

‡*Ibid,* I, 304-5. (3rd Ed., I, 281).

‖*Ibid,* I, 307. (3rd Ed., I, 283).

termed by him "bacteriophage," and declared that "if it be proved beyond all doubt that they are living organisms, then the bacteriophages are comparable in size with the known colloid aggregate of non-living matter." This view is now generally accepted by scientists.

Later, speaking of Professor Hill's researches into the mechanism of the living cell, Professor Donnan said: "It appeared from his work on nerve cells and on muscle that the organized structure of these cells is a chemico-dynamic structure which requires oxygen and therefore oxidation to preserve it. Life is a dynamic molecular organization kept going and preserved by oxidation. Death is the natural irreversible breakdown of this structure."

If these statements be pieced together and their full significance realized, it will be seen that the teachings of the *Secret Doctrine,* previously quoted, receive striking confirmation at the hands of modern science.

Even of greater significance in this connection are the theories of William F. Koch, M.D., Ph.D., of Detroit, which he has propounded in his book *Natural Immunity* (1936)*; we shall have occasion to refer to them again later, but, put very briefly, their essential theme is that disease conditions, including the scourges tuberculosis, diabetes, malignant growth, etc., are brought about through an interference by certain basic toxins with the normal oxidation processes of cell-life, which are the special work of the constituents of the cell that he terms "metabolites" (c.f. Microzymas and their ferments).

The success of Dr. Koch's treatment, directed to the destruction of this underlying toxin, proves incidentally that disease is fundamentally ONE. The amazing restoration of previously diseased organs, shown in the experience of Dr. Koch to be the second outstanding phenomenon to follow the removal of the inhibiting toxin and consequent re-activation of the metabolites, is in fullest harmony with, and finds explanation in, the existence of that "vital constructive energy" described in the Secret Doctrine by H. P. Blavatsky as that principle whose constraining influence causes the "countless myriads of lives" to build up the body-cells. (11).

This section of medical history is one of intense interest to the student and would well repay the closest study. It has not been possible to do more than indicate a few of the signposts from which the general trend of modern medical thought and its place in an orderly unfolding scheme of human development may be inferred.

*See also *Medical World,* March 10th, 17th and 24th, 1939: "Pathogenesis and Immunity."

Up to this point we have seen mainly how this unitary hypothesis is being successfully applied to the problem of disease as it affects the Katastasis, the exterior factors in the Greek classification of disease causation. But we may find evidence quite as readily that the Crasis, the group of factors peculiar to the individual—namely, habits of life and temperament—is equally sharing in the new outlook to which the rediscovery of ancient truth is gradually but inevitably leading.

For instance, Mr. J. E. R. McDonagh, already quoted in regard to the external causes, has come to regard many grave diseases, such as diabetes and cancer, which are usually considered to be entirely unrelated, as taking their origin from similar fundamental causes; that is to say, from faulty nutrition and elimination, and the immediate result—intestinal toxaemia.

The elimination of this toxaemia, due to wrong habits of life, would, he maintains, solve the problems connected with the prevention of these scourges of mankind, problems to which, be it noted, long and intensive research by animal experimentation the world over has signally failed to provide any solution.

As an indication of the degree to which the conclusions of this modern bacteriologist bear out the teachings of the Greeks and of the Ancient Wisdom a paragraph may be quoted in which he declares that " The main preventive measures against infections from within is the adoption of the fundamental ways of living. These embrace wholesome food, hygienic clothing, a sufficiency of fresh air and an adequate elimination of waste products. The harm done by faulty living through lack of knowledge of what constitutes health has been accumulating for so many generations as to render the victims of disease today born as such rather than made. This fact would prevent the adoption of the fundamental ways of living from bearing immediate fruit. As civilization is constituted at present, man's health would be better if he became strictly vegetarian."

It is no less remarkable that independently of McDonagh in London, William F. Koch of Detroit, U.S.A. has, as the result of prolonged research (entirely unconnected with experiments upon animals) into the chemistry of the human body, reached almost identical conclusions as regards the one fundamental basis upon which all such chronic diseases such as tuberculosis, diabetes and malignant disease rest—namely, a cumulative poisoning of every particle constituting the protoplasmic cell-life of the body by the products of flesh-food decomposition and other impurities which have failed to be eliminated. Further, as the result of brilliant chemical reason-

ing he has devised a catalytic substance synthesized from purely chemical elements which, when introduced into the blood-stream of the body, sets up a chemical reaction resulting in the destruction of the basic poison, which has permeated the whole system and perverted the normal metabolism of cell-life.

A diet from which flesh, fish and fowl and their products have been eliminated, as well as abstinence from alcohol, smoking, and the drinking of tea and coffee, form a contributary part of his treatment essential to the unimpeded chemical activity which is necessary in order to release the healing forces of Nature. His recorded successes in the treatment of even advanced cases of malignant disease in all its varieties have set the seal of practical achievement on a line of research, theoretical in its inception, but directed and conducted in accordance with the basic laws which govern the evolutionary unfolding of the heart as well as the mind of man.

In the whole history of medicine it would be difficult to find more striking proof of the principle that truly profitable methods of research will always be ethically sound and that really preventive medicine is always bound up with, and conducive to, the cultural progress of mankind than is afforded by Dr. Koch's investigations into Natural Immunity*.

Finally, we must consider briefly the modern indications of the re-establishment of the importance of the one remaining factor—the temperament—in disease causation.

Here we are faced with such a plethora of evidence regarding the influence of mind and emotions upon physiological functions of the body that the difficulty becomes one of selection. The rapid development of Psychological Medicine since the beginning of this century provides increasing witness to the recognition of the power of mind over matter both in the promotion of healing processes as well as in the production and perpetuation of ill-health.

Professor Strong of Columbia University recorded in his book *Why the Mind has a Body,* that " recent psychologists tell us that all mental states are followed by bodily changes—that all consciousness tends to action," a statement in accord with that of Professor Ladd, of Yale, who came to the conclusion that " even the most purely vegetative of the bodily processes are dependent for their character upon antecedent states of mind."†

**Medical World,* Feb. 4th and 11th, 1938: " Natural Immunity," by M. Beddow Bayly.

†*Physiological Psychology,* p. 75.

Franz Alexander, M.D., Chicago, more recently affirmed that " every psychic tendency seeks an adequate bodily expression."*

Professor Elmer Gates of the laboratory of Psychology and Psyurgy, Washington, who pursued experimental investigations with persons under varying states of emotion, came to the conclusion that " every emotion of a false and disagreeable nature produces a poison in the blood and cell tissue."†

As special instances of the application of these principles may be mentioned the following :

Professor Leonard Williams, M.D., has declared :

" Among the provoking causes of boils there is one which I do not remember to have seen mentioned, which, nevertheless, has always appeared to me to be among the most important, namely, the mental conditions of anger, irritation or annoyance. To describe these psychic states, the French have an expression *se faire du mauvais sang* (to make to oneself some bad blood) which I am sure is literally true where boils are concerned. We know that emotions are capable of producing very dramatic physical effects: as witness the attack of acute big-toe gout produced by a fit of anger, and the effect of fright in suddenly letting loose the symptom-complex of Grave's disease, or the multiform spasms of chorea."‡

In the *Medical World,* March 5th, 1937 (p. 46), is reproduced from the *Münchener Medizinische Wochenschrift* an article by Charles Drueck in which we may read that " depressing emotions, such as worry, fear, anger, may cause temporary constipation, and if not immediately overcome and adjustment made chronic trouble may ensue." (12)

A profoundly suggestive article, under the title *Psychological Factors in Rheumatism,* by J. L. Halliday, M.D., D.P.H., appeared in the *British Medical Journal,* Jan. 30th, 1937, in which many such physical reactions to emotional states were mentioned, and the symbolic significance of some of the symptoms of pain and limitation of movement were interpreted.

The foregoing are but a few instances culled at random, but they serve to illustrate the contention of Mr. McDonagh in the *Nature of Disease Journal,* (1933, p. 2), that "the realization by modern psychologists that disease is just as much a mental as a physical defect is one of the few hopeful signs on the horizon of modern medicine." (13)

So far has this truer conception of therapeutics gained ground of recent years that there has come into existence a new term " Holistic Medicine " to describe, according to I. C. Young, M.C., M.D., M.S. (1934), " a theory and practice of prevention and cure of disease, of which the cardinal principle is the recognition of the patient as a whole or *Individuum.*"

Journal of the American Medical Association,* 100, **7, 471 (Feb. 18th, 1933).

†*The Art of Mind Building,* p. 4.

‡*The Practitioner,* March 1930, p. 326.

Moreover, according to an article in the *Medical World,* August 18th, 1933, Alexander Cannon, M.D., Ph.D., D.P.M., has devised an instrument for actually measuring the effect of classified types of thought and emotion upon the respiratory and other chest movements. By means of this instrument, named at the suggestion of Sir James Baillie, Vice-Chancellor of Leeds University, the *Psychograph,* Cannon claims to have proved that "a definite 'pattern reaction' between thought processes and the act of respiration does exist," that "the rate of thought processes can definitely be demonstrated," and that by correcting the type of breathing it will be possible, after due research, to re-adjust abnormal thought processes. This last suggestion at once links his investigations with Indian systems of Yoga which embody the principle of the induction of states of consciousness by the control of the breath. Though not unattended with danger, the prospect of this development of western therapeutics cannot but command our profound interest.

Not alone among psychologists, moreover, but also in the wider sphere of general medicine is that truer conception of therapeutics rapidly gaining ground which, in fairness, it must be mentioned here, has been the guiding princple of one school of therapeutics, the Homœopathic, since the days of their founder Hahnemann, over a century ago.

This form of treatment, based upon the principle of selecting a remedy corresponding in minutest detail with the complete picture of the patient's individual temperament and habits, as well as with the immediate symptoms of his illness, is strictly in accord with the teaching of Hippocrates, and, although for long scorned and derided by the orthodox allopathic school of medicine, has of recent years gained more and more adherents among them.

The fact that it is a scientific and philosophic system founded upon the study of man himself and therefore free from the errors inseparable from the false analogies of animal experiment promises a brilliant and useful future for its practice. (14)

One of the most notable contributions made in quite recent years by a member of the orthodox school of western medicine was that of H. P. Newsholme, M.A., M.D., F.R.C.P., B.Sc., D.P.H., Medical Officer of the City of Birmingham, in his work, *Health, Disease and Integration* (1928). Newsholme not only pursued a careful investigation into the psychological factors associated with, and to some extent, at any rate, causal to inflammation of the brain and nervous system (encephalitis and poliomyelitis), tuberculosis, rheumatism, cancer, rabies, and certain other diseases, but went much further and

showed that " for health of the whole personality, and for the effective use of the will which is the means by which the personality as a whole reaches self-expression, there are needed :—

(a) Balance of action between the individual cells constituting the body.

(b) Balance between activity of body and activity of mind.

(c) Balance between activities of the emotional, the intellectual, and the spiritual sides of the mind." (p. 42).

Here we have expressed in modern terms a summing up of those factors in the maintenance of health and the production of disease which, in one form or another, have been taught throughout the ages, being implicit in the Ancient Wisdom and the keynote of the doctrines of the Greek medical philosophers, which have re-appeared from time to time in the intervening centuries among enlightened thinkers. Today, in spite of the temporary eclipse brought about by that materialistic phase of thought and research represented by the crude germ-theory and the vivisection laboratory, they are exercising an ever increasing influence upon the development of modern medical thought and practice. (15)

As to the Future—what the next step will be in this evolutionary process—that is a fascinating story with which we have no time to deal here, though we may confidently predict that the future will provide an ever widening meeting ground for the Ancient Wisdom and Modern Science, a meeting ground in which Justice and Compassion will be recognized as of even greater importance than Knowledge and Utility; and Spiritual Wholeness as a pre-requisite to Physical Health.

In the words of Dr. H. P. Newsholme, with which he concludes his book, *Health, Disease and Integration* :—

" Medicine, to be effective in its proper domain, must be intimately interwoven with the art and science of Religion. Medicine is only at the verge of its real sphere of activity, on which it will enter when it can systematically treat the individual as an intimate moulding, not merely of body and mind in their delicate adjustment to each other, but of body and mind as the vessel for the reception and expression of the spirit."

ADDENDUM

Quotations illustrative of statements in the text

(1) J. E. R. McDonagh, F.R.C.S., in *The Nature of Disease,* Introduction to Part II, 1924:—"During the past twenty years the author has devoted an ever increasing proportion of his labours to research in medicine and the allied sciences; looking back over this period the outstanding feature which strikes the impartial but interested observer is the relatively small advance made by medicine compared with other sciences."

Sir James Mackenzie, F.R.S., in the *British Medical Journal,* June 4th, 1921 (p. 797):—"Discoveries of the origins of common disease were so few during the past fifty years that we had difficulty in recognizing any advance."

Major Greenwood, F.R.S., D.Sc., F.R.C.P., in *The Medical Dictator and Other Clinical Studies,* 1936:—"So far as the practice of competent physicians is concerned, in a large majority of the illnesses described by Latham, the passage of ninety years has brought no fundamental change in methods of diagnosis or treatment."

Sir James Mackenzie, in *The Lancet,* November 3rd, 1923:—"If the present state of knowledge and practice regarding these diseases be compared with the state when I entered practice forty-five years ago, there is some difficulty in recognizing where progress has been made. The so-called minor ailments . . . are just as common and as little understood now as then, and we are just as helpless in the face of the grave acute illnesses." (p. 963).

(2) Lord Horder, K.C.V.O., F.R.C.P., in the *Annual Oration* to the Medical Society of London, reported in *British Medical Journal,* May 20th, 1933 (p. 860):—"Formerly the chemist was the servant of the doctor; today he tends to become the doctor's master."

Drs. Bosanquet and Eyre, in *Serums, Vaccines and Toxins* (1916 Ed. Preface, p. vii; omitted from later editions):—"A word of warning may perhaps not be out of place in regard to the intrusion of this commercial element into the fields of bacteriological therapeutics."

Dr. George Wilson, in *Presidential Address* to State Section, British Medical Association, reported in the *B.M. Journal,* August 5th, 1899 (p. 348):—"The whole bacteriological practice is steeped in commercialism."

(3) J. E. R. McDonagh, F.R.C.S., in *The Nature of Disease Journal,* Vol. I, 1932 (p. 1):—"The whole foundation upon which modern medicine has been built is unsound, and many further additions to the edifice will bring about its downfall. The cause of the unsoundness has been the search for goals and the neglect of the means whereby they are to be reached."

(4) J. E. R. McDonagh, F.R.C.S., in the Editorial to *The Nature of Disease Journal,* Vol. II, 1933 (p. 1):—"There are two great turning points in the history of medicine. The first is marked by the birth of the Art of Medicine as a whole; the second by the commencing disruption of this whole into disjointed specialisms. Medicine should always have remained a unit, with an eye directed towards every aspect of human affairs."

"The tendency to regard the mind as distinct from the body has led man to regard disease as a defect of the body instead of a defect of the whole organism. . . .

"It was this insistence on the physical aspect of disease that was one of the main factors in leading medicine into the paths of differentation to which reference was made in the opening paragraph." (p. 2).

Franz Alexander, M.D., of Chicago, in an article entitled *Functional Disturbances of Psychogenic Nature,* which appeared in *The Journal of the American Medical Association,* 100, **7**, 469 (Feb. 18th, 1933), defined "the basis of modern medical thinking" as:—

"The principle that the body and its functions can be fully reduced to physical and chemical processes."

He continued:—

"Medicine owes to this principle its imposing development in the second half of the nineteenth century, and the maintaining of this principle gave medicine the rank of an exact science.

"Indeed, among the exact sciences medicine became more pope-like than the pope himself.

"It is well known in the history of medicine that the neglect of the psychic factors is new and typical of recent laboratory period of medicine, whereas the physician of the prescientific period paid more attention to the whole life situation of his patient."

(5) That this antagonism is still recognized as existing even by the foremost scientists of our time is indicated in the following quotation from the *Sir Halley Stewart Lecture* delivered by Professor J. B. S. Haldane in 1935:—"There is perhaps a certain conflict between science and Christian ideals, and in some cases I think that it is a real conflict. Where that is so I can say without hesitation that I am in favour of science."

This statement might not unfairly be taken as representative of the attitude of the majority of medical scientists, particularly biologists and physiologists, at the present day.

(6) J. E. R. McDonagh, in *The Nature of Disease Journal,* Vol. II, 1933:—"The Greeks were only academically interested in the separate existence of the psyche. In their normal life they believed in the oneness of the organism, hence their insistence on bodily as well as mental culture. . . . Moreover, it was on this belief in unity that Hippocrates built his system of medicine." (p. 2).

(7) F. G. Crookshank, M.D., F.R.C.P., in a review in the *Medical Press,* October 1928:—"Charles Creighton, a student, thinker and morbid anatomist rather than a clinician . . . had set himself during the 'eighties to give us that '*History of Epidemics in Britain,*' which, when first published, was slow to meet with recognition, but is now reckoned amongst the few great classics of British medicine, and exerts every year an increasing influence upon thought and practice." (p. 321).

(8) *Annual Report* of the Medical Research Council, 1924-5:—"For a quarter of a century it has been known that some, perhaps many, of the microbes which are undeniably (sic) responsible in a causal sense for definite and grave diseases in man and other animals are in themselves completely non-virulent. Introduced into the body in the absence of other agents they are quite harmless . . . disease begins only if special circumstances are present, in which some change in the body, due to some other factor than the infecting parasite itself, has been brought about." (p. 15).

Chalmers Watson, M.D., in the *British Medical Journal*, November 3rd, 1928 (p. 817):—"Bacteria played an important part in the causation of disease, but these were for the most part *normally present* in the digestive tract or other tissues, *and were, during health, innocuous.*" (Writer's italics).

(9) Review of *Recent Advances in Disease of Children* by Drs. Pearson and Wyllie, in *The Medical Echo,* October 1928 (p. 49):—"Our authors insist that alterations in the chemistry of the body are antecedent to infection. . . . Deranged metabolism should be regarded as of greater importance in the causation of disease, and infection is to be looked upon as an incidental factor superimposed upon the metabolic disturbance."

(10) Professor A. E. Boycott, F.R.S., B.Sc., F.R.C.P., in his presidential address to the section of Pathology of the Royal Society of Medicine, on the subject of *The Transition from Live to Dead: The Nature of Filterable Viruses,* October 16th, 1928:—"If viruses do originate in tissue cells, what are we to imagine they are? Béchamp's ghost would answer 'microzymas, as I told you seventy years ago.'"

Professor E. A. Minchin, M.A., Hon. Ph.D., F.R.S., in an address to the Zoological Section of the British Association for the advancement of Science at Manchester in 1915:—"Many cytologists appear indeed to regard the cell, as they know it in the Metazoa and Metaphyta, as the beginning of all things, the primordial unit in the evolution of living beings. For my part I would as soon postulate the special creation of man as believe that the Metazoan cell, with its elaborate organization and its extraordinarily perfected method of nuclear division by karyokinesis, represents the starting-point of the evolution of life."

(11) C. J. Patten, in his work, *The Memory Factor in Biology* (1926):—"In endeavouring to trace to their ultimate analysis the marvels of protoplasmic structure and function, it becomes at once evident that unless one postulates the presence of a psychic side in all living things, any attempt to explain Memory phenomena on rational lines would signally break down . . . Memory is not only the dynamo of the individual life of the organism, but it is also the perpetuating force which links together the psychic side of all living things into one harmonious whole." (p. 9).

"The relationship between Memory and Habit is remarkably close; . . . indeed it is difficult to divorce the idea of the one from the other." (p. 69).

"Further . . . protoplasm . . . has the potentiality of remembering something about stimuli which have been sent into it, and of releasing such stimuli in various degrees without the aid of the original stimuli. This is virtually what is meant by Habit-formation. It becomes engraved on the ultimate particles of cell-protoplasm." (p. 73).

(12) W. A. Evans, M.D., formerly head of the Board of Health of Chicago, in the *Spokesman Review*, Washington, U.S.A., February 18th, 1933:—"There is one type of person on whom it is generally worthless to operate as a means of curing ulcer. He is about 25 years old, intelligent, sensitive and highly strung. . . . He is emotional and worries, usually about his business, but almost any other subject for worry will work. If a person of this kind has his ulcer cut away, he will have a new one, generally in about the same part of the digestive tract, within a few months after the operation. In the treatment of such cases it is more imporant to cut out the worry than it is to operate on the ulcer. Unless the subject can train himself in equanimity and can conquer his fears, he will merely trade new ulcers for old."

Dr. Charles S. Thompson, Medical Officer of Health, in a lecture on the causes and prevention of nervous breakdown, given at the Institute of Hygiene, Portland Place, London, on October 17th, 1928:—

"Anger and storms of passion can shake the nervous system to pieces. The coarser passions, such as anger, hatred, and jealousy, react adversely on the body far more commonly than the reactions of ambition, pride and æsthetic and intellectual emotions.

"The surest foundation of mental health is faith in things unseen —the sense that God is in His Heaven and all is right with the world. no matter what the appearances may be. The feet must be planted on some sure rock of religion or philosophy.

"In alleviating nervous disorders we must take into account not only suggestive therapeutics, medical hypnotism, the psycho-analysis of orthodox psychology, but go farther and attempt to understand how and on what basis prayer and appeals to the highest spiritual instinct of mankind have curative value."

(13) It is of particular significance that within the past few years systematic research into the relationship between physical and emotional states has formed an important part of the work carried out by a group of medical psychologists at the Tavistock Clinic, London (The Institute of Medical Psychology, founded in 1920).

In the *Annual Report* of this body for the year ending December 31st, 1937, mention is made of investigations which have shown that not only in diseases such as peptic ulcer, ulcerative colitis and "heart-pain," but "even in disorders of sensitivity related to undoubted external irritants (e.g., Hay-fever) psychological factors play a part."

The 18th issue of the Individual Psychology Medical Pamphlets, which is published by the C. W. Daniel Company, Ltd., London, contains among other interesting contributions a paper by Dr. T. A. Ross, entitled "The Psychological Approach," in the course of which the writer makes the following suggestive statement: "Illness, even if it has not originated psychologically, must soon be complicated by mental events . . . we shall not be able to ignore the mental aspect in any case of illness if we are to understand it other than superficially."

(14) J. E. R. McDonagh. F.R.C.S., in *The Nature of Disease Journal*, Vol. II, 1933:—"The homœopath lays stress upon the mentals, the patient's chief concern, and these the allopath invariably ignores, because he fails to understand their significance. Medicine will never tender the public the service it should until every physician is a master of the whole subject." (p. 134).

(15) Thomas M. Ling, M.A., M.B., M.R.C.P., in the *Journal of State Medicine*, December, 1936 (Reprinted in the *Medical World*, April 2nd, 1937):—

"As mentioned earlier, a new orientation is required that will replace the localised conceptions of 19th century pathology in which disease was considered as being always localised in an organ or group of organs, by an outlook embracing a pathology of the whole body and mind of the person, unique, changing but essentially striving to live. In striving to attain this breadth of clinical outlook, in which we are in reality taking on once more the totalitarian approach of the Greeks, we may be reminded and stimulated by Plato's description of medicine:—'And I said of Medicine, that this is an Art which considers the constitution of the patient, and has principles of action and reason in each case.'"

A list of the publications of the Health Education and Research Council will be sent, on application to the acting secretary of the Council at:—

15 ST. JAMES'S PLACE, LONDON, S.W.1

The Objects of the Council will be found on page 2 *ante*.