

Some Observations and Reflections
on the Theory of the Microbic
Origin of Disease.



BY
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The history of medicine abounds in examples of curious and grotesque pathological doctrines. It has been marked by epidemics of medical fashions and fads, as well as by epidemics of disease. For more than two thousand years medical men have vied with one another in attempts to discover the cause of disease. Countless theories have been devised, each for a time having had a following of those who accepted it as the thing to be desired. It is a deplorable fact that many a fallacious theory has for a considerable time attained the reputation of a well-founded truth.

The history of medical theories has been a history of errors and blunders rather than one of discovery. This statement applies with especial fitness to the history of so-called "regular," "rational" or "scientific" medicine, as its exponents are pleased to call it.

The closing decades of the nineteenth century are destined to become memorable in the annals of history for the rise and spread of the most delusive pathological doctrine that has ever been devised.

This doctrine, commonly known as the "germ theory," of disease, ascribes the cause of infectious diseases to the invasion of the body by, and the development therein of "pathogenic" micro-organisms, or "disease" germs. For the last few decades the doctors of the self-styled "regular" school of

medicine have been industriously inculcating this doctrine which postulates that most diseases are of microbic origin and may be cured by the use of microbe-killers or germicides. The adherents of this doctrine emphatically declare that the origin and development of all infectious diseases are certainly due to the growth and multiplication within our bodies of micro-organisms which have gained entrance thereto. With an assurance born of enthusiasm the germists declare that bacteria not only cause disease, but also convey it from one person to another through the medium of the air we breathe, the water we drink and the food we eat. The micro-organisms to which many diseases or morbid processes are alleged to owe their origin have been differentiated, isolated, cultivated, studied, described and pictured in vast numbers and great varieties. Indeed they have become so numerous that they bid fair to outnumber the "legion of devils," which Jesus is said to have cast out of the man with the "unclean spirit."

The study of these minute organisms is called bacteriology. The literature of this so-called "science" is prodigious, many elaborate works on the subject having been written and published. Orthodox medical journals teem with lengthy dissertations on this fascinating subject which seems to have captivated the majority of medical men. Every medical school and hospital has its professional bacteriologist who devotes himself almost exclusively to the study and cultivation of these supposed causes of disease, and to expounding to his classes the mysteries of this perplexing subject, the most striking features of which seem to be uncertainty, mutation and variability. After all the learned researches and elaborate dissertations on this vexed subject, there appears to be no general

agreement among bacteriologists respecting any particular phase of this pretended science.

I have been unable to observe any unanimity of opinion as to what bacteria are. There seems to be no scientific definition or classification of these minute organisms. There is no consensus of opinion as to what names they should receive. They are called by many and various terms, such as disease-germs, bacilli, bacteria, microbes, et cetera. There appears to be no general agreement among bacteriologists as to the real meaning of the above mentioned terms, which are based upon the morphological characters of these organisms which are subject to great variations. Bacteriologists after all their "learned" researches and brilliant discoveries are not yet agreed as to whether these tiny creatures belong to the vegetable or the animal kingdom. I have been unable to find any unanimity of opinion in the writings of those who contend for the pathogenic properties of these micro-organisms, as regards the precise role they play in the production of disease.

Some of the germists regard them as being distinctly and essentially disease-germs, each species being capable when implanted into the tissues of the body under favorable conditions, of bringing forth its peculiar disease, just as seeds implanted into the soil of the earth reproduce their respective plants. Others contend that these bacteria cause disease by a sort of fermentation. Still others, like Lister, in his Liverpool address, assert that "the secretions of the bacteria possess poisonous qualities of astonishing intensity" and cause disease by the toxic action of these secretions. The pathological absurdity of attributing to organless bacteria the function of secretion is another example of the gross inconsistencies involved in the "germ-theory" of disease.

The conclusions which Pasteur arrived at in his investigations were to the effect that "not the bacteria but the toxins produced thereby were the cause of disturbances in the human organism.

Others again contend that bacteria do not produce disease in the human subject until the diseased human body has poisoned the bacteria which feed upon its toxic excretions. Thus it is claimed that a bacterium which is non-virulent at the time it effects an entrance into the body may thereafter become virulent by absorption of the poison from the diseased tissues of its host.

In this theory it is postulated that the majority of bacteria are filth-eaters and that a non-virulent bacterium may become virulent after having been poisoned by the toxins or disease products it has gathered in its capacity of scavenger. In other words, the bacterium was incapable of inducing disease until it got sick itself. Finally other bacteriological authorities declare that virulence or non-virulence of bacteria depends upon their ability or inability to produce toxin, some having this property and others lacking it. But all who denominate bacteria "pathogenic" thereby imply that in some way or other they are generators of disease. So great is the confusion that reigns among the adherents of the "cult of the microbe" that the expectation that order will ever come out of such chaos seems well-nigh hopeless.

Bacterianism seems to be synonymous with variability. Whereas, the earlier bacteriologists considered the microbe, *per se*, to be the "whole thing" in the causation of disease, and conceded nothing to predisposition or personal susceptibility, now the most radical hotspurs of the "cult of the microbe" maintain that nobody ever doubted the significance of external and internal influences. This admission is

in line with the same drastic shifting of attitude towards the fundamental problem as was ushered in by anti-microbic therapy with the transition from antiseptics to asepsis.

Is There Any Rigid Proof Available in Substantiation of the Claim That Micro-Organisms Are the Essential Etiological Factors in the Generation of Disease?

The presence of these tiny organisms in the lesions of a diseased body is not of itself sufficient evidence of their etiological relation.

Should one espy tadpoles in a mudpuddle he could not logically charge the pollywogs with having produced the mudhole wherein they were hatched. If the mudhole be abolished, tadpoles and mosquitoes will no longer be propagated in that particular locality.

Proof of the dependence of an infectious disease upon a given micro-organism as its essential cause requires the firm establishment of the three following fundamental conditions:

1. The constant presence of the specific micro-organism in the lesions of the particular disease it is supposed to cause.

2. The identification and isolation of the specific micro-organism in pure culture.

3. Evidence of the infective nature of the isolated specific micro-organism obtained by inoculating into the bodies of healthy human beings pure cultures thereof with the definite result of reproducing the essential lesions which characterize this specific disease.

Have these conditions been established?

It is a generally conceded fact that there have been many cases of disease ascribed to particular "pathogenic" micro-organisms in the lesions of which diseases the specific bacteria could not be

found. It is admitted by orthodox bacteriologists that many cases of undoubted diphtheria, for instance, have been met with in which not a single Klebs-Löffler bacillus was found after careful and repeated examinations by competent investigators. This circumstance, considered with the fact that "fully virulent" Klebs-Löffler bacilli have been repeatedly discovered in the throats of large numbers of healthy children and adults who had not suffered from diphtheria and did not get it afterwards, makes it difficult for a logical mind to believe that the bacilli are the cause of this disease. Bacteriologists now generally concede that the germ of tuberculosis is seldom found in a tuberculous patient during the first three months of the disease, and conclude, therefore, that the absence of the specific bacillus does not insure against the development of this disease.

It is held by most bacteriologists that infection in the great majority of cases of consumption occurs through inhalation of the dried tubercle bacilli, and, farther, that the lungs are the initial point of attack, and that the sputum is the chief vehicle by which the bacilli are discharged. If these conclusions of the bacteriologists are correct, is it not far more probable that the bacilli are a coincident, an effect, or a sequela of tuberculosis, than that they are its cause?

A Hopeless Muddle.

No better illustration of the chaotic condition of the teachings of the school of so-called "rational" medicine could be imagined than is to be found in the recorded statements of its leading exponents when these statements are compared one with another.

For instance, W. T. Councilman, M. D., writer

of the article on Tuberculosis in the last edition of the Reference Handbook of the Medical Sciences, defines tuberculosis as "An infectious disease caused by the bacillus tuberculosis." The statements throughout his article rest upon the unwarranted assumption that consumption owes its origin to the tubercle bacillus and that in the absence of this parasite tuberculosis can not occur.

In the Medical Record of July 29, 1905, p. 166, was printed a paper from the pen of Henry P. Loomis, M. D. (of New York), whose opportunities for investigating tuberculosis have been, perhaps, as extensive as those of any man in America, in which he says: "The analyses all showed that three and one-third months were the average time that elapsed from the actual beginning of the disease, as estimated from the history of physical examination and the first time tubercle bacilli were found in the sputum. The presence in the sputum of tubercle bacilli is not by any means an early development in my estimation." Here we have from two orthodox allopathic authorities, statements which to the discriminating mind convey ideas which are diametrically opposed to each other; the one teaching that in the absence of the bacillus the disease can not develop, while the other declares that the disease is usually in the fourth month of its development before the bacilli appear in the sputum of the patient. How is Dr. Loomis to escape the inevitable conclusion deducible from his own postulates, that the bacillus is a result, a sequela, or an incident, rather than the cause, of tuberculosis?

He tells us that the bacilli were not discoverable in the sputum until the patient had had the disease three and one-third months. If the bacilli could not be discovered what evidence was there for believing they were there? On no grounds can it be

maintained that the bacilli were present in these cases prior to the beginning of the disease; and as it can not be demonstrated that they were present prior to the onset of the disease, how can they logically be assigned as its cause? Who shall say that these bacilli which do not make their appearance in the sputum of the patient until months after the disease has manifested itself, are not scavengers, and, therefore, conservers of life?

The logic of the germ-hypothesis is past all understanding. The germ-theorists should keep constantly in mind the sapient words of their high-priest, the scholarly Rudolph Virchow, who recently said: "Microbes are always found where there is disease. They are also found where there is no appreciable disease and may be the result, and not the cause, of disease."

Another instance:

Professor William H. Park, M. D., in his work on bacteriology, unequivocally declares: "Diphtheria does not occur without the presence of the diphtheria bacilli." Contrast this arbitrary pronouncement with the statement of Professor William Osler, who says: "The clinical and bacteriological conceptions of diphtheria are at present not in accord. On the one hand there are cases of simple sore throat, which the bacteriologists, finding the Klebs-Löffler bacillus, call true diphtheria. On the other hand, cases of membranous sloughing angina, diagnosed by the physician as diphtheria, are called by the bacteriologists, in the absence of the Klebs-Loeffler bacillus, pseudo-diphtheria, or diphtheroid angina. The term diphtheroid may be used for the present to designate those forms in which the Klebs-Loeffler bacillus is not present. Though usually milder, severe constitutional disturbances and even paralysis may follow these so-

called pseudo-diphtheritic processes." (Practice of Medicine, p. 138).

Professor Osler's language just quoted clearly shows that he regards these bacteriologically diagnosed cases of "pseudo-diphtheria" as genuine diphtheria, notwithstanding the absence of the Klebs-Loeffler bacillus in the patients' throats.

As an adept clinician and an expert diagnostician Osler easily holds the first place in the ranks of the allopathic faculty.

Nothing could be more obvious to the experienced physician than the fact that these so-called "diphtheroid" cases are cases of true diphtheria, which, on account of the absence of the Klebs-Loeffler bacillus, have misled the diagnosticians of the laboratory.

Inoculation Experiments Upon the Lower Animals.

I am aware that there are on record reports of numerous inoculation experiments performed upon lower animals, such as rabbits, guinea pigs and white mice, with results which were alleged to be positive and decisive. Even canary, and other small birds have been made the victims of these experiments. But of what use are such experiments? In considering them it should be borne in mind that canary birds, and the small animals above mentioned, have but a feeble hold on life, and that each experimenter sees what he wishes to see, and his conclusions are sure to be contradicted by other experimenters in the same field of investigation. It should also be remembered that inoculation experiments on birds and lower animals are extremely untrustworthy for the further reason that experimenters pay little or no attention to the important fact that these birds and animals differ very materially from human beings both in anatomical

structure and constitution, as well as in their habits of living. Lower animals and birds are not human beings; and experiments made upon them are well-nigh worthless as evidence of what the results of similar experiments would have been had they been performed upon the human subject. The results of experiments which have been already made upon the lower animals I regard as sufficient proof of the futility of any further attempt to explain the effects of so-called "pathogenic" bacteria upon man by experiments upon these animals.

Notwithstanding the fact that many human beings have submitted to inoculation experiments performed upon their own persons for the specific purpose of proving that bacteria are the cause of disease, the results of these experiments so far as I have been able to ascertain have been uniformly negative. I have yet to learn of a single instance in which the essential lesions of a specific disease have been indisputably produced in the human subject by inoculating into his body pure cultures of the specific organism which is supposed to cause such disease.

In medical literature I find a number of recorded instances of the apparently healthy human body having been repeatedly inoculated hypodermically with pure cultures of the active bacillus typhosus, the supposed cause of typhoid fever. The bacillus typhosus in cultures has also been injected into the rectum of the human body, and applied to large abraded areas from which the cuticle had been removed for the purpose of facilitating absorption, with no other effects than those usually resulting from the puncture of the hypodermic needle and the abrasion of the integument.

In like manner cultures of the "fully virulent" bacillus anthracis have been introduced into the tissues of the healthy human organism—in every case

without having produced any apparent morbid effect. Into the apparently healthy human subject cultures of the so-called "virulent" Klebs-Loeffler bacilli have been inoculated without any apparent effect. The bacilli have also been applied to the mucous membrane of the human fauces as well as to abrasions of the skin without having been followed by any appreciable effect.

There are also recorded instances in which it is stated that the tubercle bacilli in pure cultures have been repeatedly introduced into the body of the human subject by the various methods above mentioned without apparent effect. Dried tuberculous sputum, which is regarded by the germ-theorists as the common vehicle of infection, has been introduced by insufflation into the lungs of the human body, and always with negative results. It is stated that the sputum used in these experiments was procured by a competent bacteriologist from a patient dying of phthisis pulmonalis, carefully desiccated and ten grains of the dried sputum taken by direct insufflation into the lungs.

In all these experiments with the various "pathogenic" bacilli not a single instance has been recorded of any disease whatsoever having thus been induced.

In the light of these experiments it would seem to be apparent that the germ-hypothesis of disease is a snare and a delusion.

The germ theorists when confronted with these facts set up the plea that all the persons inoculated with "pathogenic" organisms were insusceptible to infection by the above named diseases. Such a plea can, however, be regarded by a logical mind only as a silly subterfuge invented for the purpose of escaping from an embarrassing predicament. A bacteriological authority of such eminence as

Metchnikoff tells us that he found the bacilli of cholera widely distributed in many places throughout the world, in which the inhabitants are practically free from cholera.

Metchnikoff also says: "The bacilli of typhoid fever have been found in inhabited localities where typhoid fever has never been known to occur." These statements have been corroborated by many other bacteriologists and disputed by none.

Is it possible that the immunity dogma can be sufficiently stretched to explain all these exemptions?

Löffler himself admitted his inability to find the diphtheria bacillus in all cases of clinically diagnosed diphtheria, and beyond stating the "possibility" of the bacillus being the virus of diphtheria he did not go. In 1884 he made the following statements concerning the bacillus of diphtheria which have never been disproved:

a. The bacillus is absent in a number of cases of typical diphtheria.

b. The bacillus as typically observed in man is not found in the pseudo-membranes of inoculated rabbits and chickens.

c. On being brought into contact with the healthy mucosa of the throat, respiratory tract, eyes and vagina of animals otherwise susceptible of inoculation, the bacillus was without effect.

d. Animals that survived inoculation (injection) developed no paralysis.

e. In the mouths of perfectly healthy children bacilli were found identical, morphologically and physiologically, with the diphtheria bacillus.

Statistics show the absence of the Klebs-Löffler bacillus in cases of undoubted diphtheria, as follows:

In New York City, absent in 32.5 per cent. In-

vestigations of Roux and Yersin showed the absence of the specific bacillus in 32.5 per cent. of diphtheria cases. Martin reports the bacillus absent in 36 per cent. of cases which he investigated, while Hullock and Park found 66 per cent. of cases without the bacillus. The official Prussian report (1902) states that of 1,789 examinations for the bacillus only 864 (less than 50 per cent.) were positive.

The above quoted statistics from many of the most distinguished bacteriologists in the world indicate that the Klebs-Loeffler bacillus, which is supposed to be the cause of diphtheria, is absent in a large number of genuine cases of this disease, and cannot, therefore, be its cause.

In the face of this testimony Professor William H. Park, M. D., a bacteriologist of repute in this country, makes the following arbitrary statement: "Diphtheria does not occur without the presence of the diphtheria bacilli, but there have been many cases of diphtheria in which for one reason or another no bacilli were found in the cultures by the examiner. In many of these cases later cultures revealed them." Reference (Handbook of the Medical Sciences, 2d edition, 1904, Vol. III., p. 487, Art., Diphtheria.)

Professor Park's arbitrary pronouncement that "diphtheria does not occur without the presence of the diphtheria bacilli," considered in connection with his admission that "there have been many cases of diphtheria in which no bacilli were found in the cultures by the examiner" furnishes an apt illustration of the loose logic employed by the professional bacteriologist.

It would be interesting to hear Professor Park explain how he ascertained that "Diphtheria does not occur without the presence of the diphtheria

bacilli." Bacteriologists bend all reasoning to the curves of dogmatic theory.

Professor Park writes with an air of one who believes that his dictum should settle a problem beyond all cavil. Modesty is an element which seems to be found in very small quantities in the make-up of the professional bacteriologist. Professor Park's statement that "there are many cases of diphtheria in which no bacilli are found," while "in many of the cases later cultures reveal them," corroborates the contention of those who hold that bacteria are not the cause of disease, but the result thereof.

If the disease is established before the bacilli appear, is it not more reasonable to infer that the bacilli if not the result of the disease-process are at least an incident thereof?

The original contention that Loeffler's bacillus is found only in genuine diphtheria has been so often refuted by its demonstrated presence in the lesions of all sorts of diseases, as well as in the tissues of the perfectly healthy, that its ubiquitous distribution is to-day generally recognized.

Bacteriophobia and Health-Board Folly.

By means of false premises and erroneous deductions the bacteriologists have established, in opposition to all reason and common sense, the dogma that all infectious diseases are due to bacteria, and that all diseases in the lesions of which so-called "pathogenic" bacteria are found are infectious diseases. This unsubstantiated teaching has unfortunately become so popular that it is a matter of common comment in the daily press, and the gullible public are driven to a morbid bacteriophobia lest some microbe alight upon them and set up disease. The bacteriophobists who scent the bacillus everywhere tell us that we are constantly sur-

rounded and menaced by these insidious foes ; that the air we breathe, the food we eat, the water we drink, and the clothes we wear all swarm with these invisible enemies ever ready to assault us. By this pernicious teaching the credulous public are led to believe themselves the defenseless prey of unseen enemies which constantly surround and threaten them. On the baseless assumption that bacteria are the sole cause of disease many silly, obnoxious and oppressive health-board measures have been inflicted upon the public, and many laws antagonistic to public health and personal liberty have been passed by legislative incompetents at the instigation of medical factions. I here recount a few of the many farcical and nonsensical proposals and recommendations that have from time to time been seriously advocated by the adherents of the absurd hypothesis called the "germ-theory." It has been proposed and recommended that the hundreds of thousands of consumptives in the United States be removed from their homes and segregated in State sanatoria ; that pest-houses for consumptives be established to which these unfortunates shall be transferred (by force if necessary). and that everybody and everything in the remotest degree related to consumption be placed under health board surveillance ; that every house in which a consumptive has lived or died be destroyed by fire ; that the clothing of consumptives be fumigated and boiled before being sent to the laundry. Many such preposterous measures formulated by health-boards, coupled with their hysterical declamations about the communicability of tuberculosis, have put consumptives before the public in the attitude of criminals, besides inflicting upon this class of patients many other genuine hardships. It has been recommended that all domestics be examined by

official inspectors before being admitted into a household; that all school pupils have their throats officially inspected every morning before entering school; that all the children in our public schools be injected at stated intervals with antitoxin in order to immunize them against diphtheria; that it is dangerous for even a healthy person to spit upon the sidewalks; that it is not safe for men to wear whiskers; that it is dangerous to frequent the town post-office or the court-room unless these are daily disinfected; that it is not safe to enter a department store, a theatre or a trolley car that is not daily fumigated; that it is dangerous to receive letters written by a consumptive, or handled by consumptive clerks or carriers; that it is not safe to use plates, cups, knives, forks, or spoons in restaurants or hotels because the simple rinsing of these articles in boiling water is not sufficient to kill the microbes; that it is not safe to drink water which has not been sterilized; that it is unsafe to eat vegetables that have not been washed in sterilized water; that it is dangerous to eat the flesh of the bovine species until it has been cooked sufficiently to destroy the tubercle bacilli; that for the same reason it is dangerous to eat butter, cheese, cream or milk that has not been Pasteurized. This last warning is given by the bacteriophobists notwithstanding the fact that Koch, one of their high priests, emphatically declared in 1901, after a thorough investigation, that the bacillus of bovine tuberculosis is a specific variety which does not produce human tuberculosis. Koch further announced that the bacillus of human tuberculosis does not cause tuberculosis in cattle.

From American Medicine of December 31, 1904. I quote the following:

"Recent news from Berlin states that the Imperial Commission appointed by the government to

investigate bovine and human tuberculosis reports that investigation shows that bovine and human bacilli are absolutely distinct, biologically, and that one never changes nor develops into the other."

It has been gravely recommended that young children be fed exclusively on sterilized goat's milk; that ice should be made from sterilized water. M. Rich, a French physician, in an article which appeared in "Modern Medicine," stated that he found 175,000 microbes in a cubic centimeter of ice, and recommended, therefore, that no ice be used until it has been thoroughly boiled. Not wishing to question the sanity of Dr. Rich, it is my opinion that he was burlesquing the germ-enthusiasts. The Medical Times gravely suggests that as Dr. Nelpasse, a French physician, has figured out that there are 80,000, more or less, microbes to the square inch on the surface of a person's hand, the customary salutation of hand-shaking be abolished, and the Chinese custom (shake your own hand and bow) be adopted in its stead. The Medical Times was guilty of unpardonable negligence in failing to include in its sapient advice the additional important precaution: Remember when shaking that your back must be turned toward your friend, as there are several billion bacteria in each breath we exhale. Haven't the bacteriologists told us so? In the ignorant and blissful pre-microbial past no doubt millions of our youth unwittingly exposed themselves to every disease from tic douloureux to elephantiasis!

Some time ago kissing was put under the ban through the startling "discoveries" of a Missouri doctor who acquired considerable newspaper notoriety thereby, and now a young fellow can no longer squeeze the hand of his best girl without incurring the ghastly risk of exposing himself and

his sweetheart to infection by the agile and omnipresent germ.

Notwithstanding all this bacteriophobic excitement, lovers who remain true to the eternal laws of nature and ignore the changing postulates of medical theorists do not appear to be more frequently the victims of so-called germ-diseases than are the rest of mankind.

It now remains for some germ-crazed enthusiast to make the startling discovery that this germ infected planet is no fit abode for human beings who would better make haste in "getting off the earth" than to remain here in constant dread and danger of being pounced upon by the ever-present disease germ.

All the above-mentioned recommendations and many more equally absurd and senseless have been seriously advocated in medical journals, orthodox medical works, and in treatises on bacteriology.

It has also been urged from the same quarters that for the purpose of carrying out these various recommendations a special corps of salaried medical directors, inspectors, assistant inspectors, fumigators and disinfectors be appointed by the health boards and paid by the people.

With such measures in operation the medical profession would bid fair to become as attractive to the ambitious youth as the Standard Oil Trust, and "health" (?) officials would soon become as numerous and pestiferous as the locusts of the fabled Egyptian plague. Through meddlesome officialism life would become unendurable.

If one-half of what the microbe-hunters say about the dangers of these tiny creatures is true, the doctor is the greatest hero the world has ever seen. He is almost continually in the midst of

these formidable enemies, gallantly fighting the invincible foe; still he always comes out of the battle unscathed, thus proving that he is a good fighter so far as keeping the germs away from himself is concerned. Unfortunately, however, he has never found anything to keep them away from his patients.

If the probabilities of infection were even approximately as great as the adherents of the germ doctrine depict them, few physicians and nurses would be willing to expose themselves to such danger. But as a matter of fact we observe that infection of those who are engaged in nursing the sick and of those associated with them, although they usually do not, and can not, act with great precaution in their intercourse with patients, occurs by no means more frequently than is the case among those who have nothing to do with infected patients. One has only to note the patent fact that physicians and the members of their families are not by any means more frequently attacked by infectious diseases than are other individuals, who have nothing whatever to do with infectious maladies. These facts show that there is a wide gulf between the possibility and the probability of becoming infected.

When one stops to soberly think it over, he wonders how all the world's population from Adam to Brigham Young, and from the latter to the apostles of the cult of the "pathogenic" microbe, ever managed to pull through life in such mighty numbers, although in blissful ignorance of the omnipresent bacillus which threatened to blot out human existence.

In addition to being a terror to the non-medical world the microbial theory of disease has been a source of great annoyance to medical men who had

no faith whatever in it. Believing no more in the power of microbes to cause disease than in the ability of mites to cause decay in cheese, and convinced of the utter futility of bacteriology to render the slightest assistance either in the prevention or the cure of disease, these physicians had, nevertheless, to learn the jargon of that pretended science through fear of appearing to be deficient in the knowledge of what its numerous adherents deem the perfection of pathological science.

Has the Discovery of the So-Called "Pathogenic" Bacteria and the Employment of Anti-Microbic Measures Been of Any Appreciable or Demonstrable Value in the Prevention or the Cure of So-Called Parasitic Diseases?

Let the adherents of the bacillary theory compare the situation of the tuberculous, for instance, in the ante-bacterial period with that of the post-bacterial.

Let them compare the measures employed in the pre-microbian era against consumption, pneumonia and typhoid fever with those now in use. Let them furnish positive proof that these diseases have decreased in frequency or diminished in fatality in consequence of the employment of germicides and disinfectants. When Koch, in 1882 announced his wonderful discovery of the tubercle bacillus, and shortly thereafter introduced his wonder-cure (the tuberculin treatment), great were the hopes entertained that "the white plague" was soon to be banished from the earth. But, alas, for medical theories and human prescience! What was proclaimed as the savior proved to be the destroyer. Tuberculin and all its modifications were found to be worse than useless to the phthysical patients on whom it was employed. It was for a time, however, a great bonanza for the proprietor and pur-

veyor of this high priced nostrum which at first commanded exorbitant prices. Similar failures followed the use of all the antitoxic serums and antiseptic injection-preparations for the treatment of tuberculosis. One after another was tried upon the sick with such positively baneful results that they had to be discarded. Medicated inhalants, creosote, guaiacol, id genus omne, as well as scores of other nauseating "antiseptic" and "germicidal" remedies based on the theory of the bacillary origin of disease, have been tried upon the sick with injurious effects. All the "specifics" and "sure cures" for consumption have one after another been relegated to the vast heap of forgotten baubles that in their day had also been mistaken for verities.

During the last two decades billions of dollars of the people's money have been expended by our government in waging a relentless warfare against the invincible microbe, and in carrying out absurd health-board measures based on the germ-theory, for the prevention of this disease.

What has been the result of all this anti-microbial activity? Has tuberculosis, pneumonia, typhoid fever or any other disease been "stamped out" or mitigated by this germicidal crusade?

William Osler, M. D. (allopath), in the recent (fifth) edition of his "Practice of Medicine," pp. 258-259, says: "At a low estimate one can say that at least 150,000 persons die annually in the United States of some form of tuberculosis." I have been unable to find any estimate of the annual death rate from consumption in the United States during the pre-bacterial period which at all approximates in magnitude Dr. Osler's estimate for the present post-bacterial period. Mortality statistics on a broad scale gleaned from all parts of the civ-

ilized world show that at the present time about one-seventh of the deaths from all diseases are due to tuberculosis. In the United States Census Report for the year 1890, 102,188 deaths were stated to have been due to consumption. The last decennial census of the United States shows no decrease in the prevalence of this malady, nor does it indicate that there has been any diminution in the number of deaths therefrom.

To-day after the lapse of nearly a quarter of a century since the discovery of the tubercle bacillus (the supposed cause of consumption), and after the assiduous employment of anti-microbic therapy and the use of prophylactic measures based on this "discovery," what do we find? Tuberculosis is still the greatest scourge of the human race. Never in the world's recorded history have the victims of "the white plague" been more numerous than they are to-day. In the expression of these views concerning the inutility and the danger of modern "scientific" phthisiotherapy as practiced by the self-styled "regulars" I am not by any means alone.

Many physicians, even among the unsuspecting adherents of the microbian doctrine, share these same views. From the November (1905) issue of the "Medical Times," a staunch adherent of the "germ-theory" of disease I quote the following extract from an editorial on "The Trend of Modern Phthisiotherapy:"

"It is indeed an odd phase of medicine that the specific cause of consumption having been so brilliantly discovered, no means designed essentially for its destruction and elimination has been successful. Nay, worse than this, it is now generally agreed that such therapeusis has been actually baneful."

At the present writing I believe I am safe in stating that the consensus of opinion among the ablest exponents of old school therapy is that drugs of all kinds are worse than useless in the treatment of consumptives. One allopathic authority whom I have already quoted goes so far as to declare that in his opinion not a case of consumption has ever been cured by any drug in the *Materia Medica*.

Cyrus L. Topliff, member of the "National Association for the Study and Prevention of Tuberculosis," in speaking of consumption, says: "After several generations of study and experimentation the medical profession of the entire world has finally come to the conclusion that this disease is not amenable to drug treatment."

The advocates of anti-microbic phthisiotherapy are welcome to whatever cold comfort they can extract from these frank utterances of one of their distinguished colleagues. It is a sad commentary on the medical profession that notwithstanding the fact conceded by the ablest physicians of the old school that their drug-treatment of tuberculous patients is worse than useless, still the rank and file of allopathic practitioners go right on drugging, *secundum artem*, the unfortunate victims of this disease.

It is now generally agreed among the ablest practitioners and teachers of the old school that the only hope of salvation for the tuberculous patient is to be found in the remedies of old renown, viz., fresh air, sunshine, nutritious food and out-of-door life.

Pneumonia.

Let us next turn to pneumonia. Has this disease diminished in prevalence or lost any of its

terrors in consequence of the discovery of the pneumococcus, and the introduction of prophylactic measures based upon the theory that this disease is infectious, and the pneumococcus its cause? In April, 1884, it was announced by A. Fraenkel that he had determined that the previously discovered micrococcus lanceolatus (pneumococcus) was the specific etiological organism of acute lobar pneumonia. This micro-organism is now generally assumed by the "regulars" to be the specific cause of pneumonia.

What has Fraenkel's brilliant discovery of twenty-two years ago done to ameliorate the condition of the pneumonia patient?

Let one of the most eminent representatives of allopathic medical "science" answer.

Professor William Osler, M. D., in the recent edition of his work on the "Practice of Medicine," says: "The most widespread and fatal of all acute diseases, pneumonia is now the 'Captain of the Men of Death.' * * *. In the United States during the census year 1890 there died of it 76,496."
* * *

Referring to the statistics of pneumonia in the city of Chicago, Dr. Osler says: "In the last decade the death rate was 18.3 per 10,000 of population, as against 12.36 per 10,000 in the preceding decade." From these official records it appears that pneumonia has lost none of its terrors in Chicago, a city which for many years has been dominated by a health-board made up of the most zealous adherents of the microbial doctrine of the origin of disease. Professor Osler tells us further that "The admission of pneumonia cases to hospitals during the past few years has in some places almost doubled." (Pp. 108-109.)

Is pneumonia more amenable to old school

therapy at the present time, than it was previous to the discovery of the pneumococcus and the employment of germicidal measures based on this discovery? Again, let Professor William Osler answer this question. "Pneumonia is a self-limited disease, which can neither be aborted nor cut short by any known means at our command. Even under the most unfavorable circumstances it may terminate abruptly and naturally without a dose of medicine having been administered." (*Practice of Medicine* (fifth edition), by Wm. Osler, p. 134.)

Continuing, Prof. Osler says: "There is no specific treatment for pneumonia. The young practitioner may bear in mind that patients are more often damaged than helped by the promiscuous drugging which is still only too prevalent." (p. 134.) This scathing condemnation of modern old school therapy by one of its ablest teachers is significant, indeed. In the following words Prof. Osler briefly expresses his estimate of the pitiful futility of modern serum-therapy in the treatment of pneumonia: "Many trials have been made of the curative value of anti-pneumococcic serum in the treatment of pneumonia. Thus far it has not been shown that the serum influences in any marked degree the course of the disease in man." (*Practice of Medicine*, pp. 113-114.)

Judging from this estimate of an unquestioned authority, bacteriological "science" and the efforts to establish serum-therapy in the treatment of pneumonia do not seem to have helped matters much.

The efforts recently put forth by that notable company of scientists selected in view of their known skill and acknowledged integrity, "the Pneumonia Commission," whose proceedings were published by the Rockefeller Institute, have not

resulted in any positive progress. The best that can be gleaned from their report is of a negative character. So able and liberal a journal as the Medical Standard has summed up the results of their efforts in the following statements:

1. The diplococcus lanceolatus was found in indiscriminate frequency and numbers in the secretions of healthy and pneumonious subjects

2. Several varieties of the germ were located, of which it was impossible to differentiate any special one as the pathogenetic organism of pneumonia.

3. The inoculation of the various species of lanceolatus into healthy animals furnished no sufficiently constant results upon which to base a principle of micro-organic etiology.

Thus again was shown the impotence of bacteriological "science" as an adjunct in the treatment of pneumonia. In the face of the findings of this Commission the old school doctors still insist that the diplococcus lanceolatus must be the specific etiological factor in the production of acute lobar pneumonia which they define as an infectious disease.

Typhoid Fever.

Have the prophylactic measures based upon the bacillary doctrine of disease, or the employment of anti-microbic therapy availed anything in the prevention or cure of typhoid fever? In 1880 Eberth discovered the bacillus typhosus, the supposed cause of typhoid fever. On the basis of this "discovery" preventive and remedial measures have been extensively employed by the practitioners of the allopathic school in combatting typhoid fever. As to what the results of this treatment have been let the adherents of the germ-theory bear witness.

During the Spanish-American war typhoid

fever was so prevalent and wrought such fearful havoc among our encamped soldiers that a commission was appointed to investigate this grave matter. Notwithstanding the fact that government bacteriologists scrutinized all water supplies for the camps with such extreme caution that the thirsty soldiers had to wait at the well-curb or the spring for the arrival of the laboratory report before being permitted to slake their thirst, yet typhoid fever was overwhelmingly prominent among the causes of death among our troops thus "protected" from and guarded against the assaults of the typhoid bacillus.

According to the report of the Commission, consisting of Walter Read, Victor C. Vaughn and Edward O. Shakespeare. "One-fifth of all the soldiers in the national encampments in the United States suffered from typhoid fever." "Among 107,973 men there were 20,738 cases of this malady, and the deaths therefrom were 86.24 per cent. of the total deaths from all causes. In ninety per cent. of the volunteer regiments typhoid fever broke out within eight weeks of going into camp." These were the results in spite of all the government paraphernalia and machinery arbitrarily kept in continuous operation for the purpose of preventing and "stamping out" typhoid fever through the detection and destruction of the bacillus typhosus.

It is a sad commentary on the germ-hypothesis that after all the "scientific" researches and brilliant discoveries of its supporters, people continue to die in the same old accustomed way of consumption, diphtheria, pneumonia and typhoid fever just as they did in the ante-microbial era when people lived in blissful ignorance of the omnipresent bacilli.

As to the value of germicidal and antiseptic medication in the treatment of typhoid fever, I again quote from Osler's Practice of Medicine (p. 45): "Very laudable endeavors have been made in many quarters to introduce methods of treatment directed toward the destruction of the typhoid bacilli and the toxic agent which they produce, but so far without success." Selah!

Serum-therapy in typhoid fever, this authority dismisses with the following few words: "In spite of many experiments and clinical trials the results are still unsatisfactory."

Under the head of medicinal treatment of typhoid fever Osler says: "In hospital practice medicines are not often needed. A great majority of my cases do not receive a dose."

The foregoing extracts from the latest work of the leading allopathic authority of the world do not bespeak much for the success of anti-microbial prophylaxis or therapeutics in the prevention or the treatment of typhoid fever, a so-called parasitic disease.

Antitoxin in Diphtheria.

Let us next inquire what the discovery of the Klebs-Loeffler bacillus and diphtheria toxin have availed in the prevention and treatment of diphtheritis.

The antitoxin fad, like the Trilby craze, spread over the ranks of the allopathic profession like wildfire on a prairie, and has for some years been in general use among the rank and file of this school of medicine. Some weak-hearted and mongrel homeopaths have also been led astray by this allopathic ignis fatuus. So loud and long were the hosannas of the antitoxinists in praise of the alleged miracles wrought by the employment of sick horse juice in the prevention and the cure of diphtheria that a superficial observer might have been

led to believe that salvation from diphtheria had been achieved.

But Prof. Osler who has had extensive opportunities for observing the effects of antitoxic serum in the treatment of diphtheria frankly tells us that since the introduction of the serum-treatment diphtheria has increased.

On page 138 of the recent edition of his "Practice of Medicine," he says: "While other contagious diseases have diminished within the last decade, diphtheria has increased, particularly in cities."

What a curious anomaly that the very disease for the prevention and the cure of which a grand "prophylactic" and "specific" has been so brilliantly discovered and so extensively employed "has increased, particularly in cities," the very places in which the "prophylactic" and "specific" has been most extensively used; while other contagious diseases for which there is no known "specific" treatment have during the same period diminished. The more antitoxic serum the more diphtheria seems to be the rule.

Such are the glaring inconsistencies between theory and practice.

In the light of this revelation emanating from one of the most brilliant luminaries of the allopathic faculty, it is to be hoped that the practitioners of "rational" medicine may be enabled to perceive the advisability of employing more "sound horse-sense" and less sick-horse serum in the treatment of their diphtheria patients of the future.

From an article by Geo. B. H. Swayze, M. D., of Philadelphia, Pa., which appeared in the Medical Times for October, 1905, I take the following extract:

"Through the courtesy of the chief medical inspector I obtained these relevant official statistics. In Philadelphia for the six years immediately preceding the adoption of this rigid bacterian repression by the local board of health, the average deaths from diphtheria were 490 annually. For the equivalent six years immediately following when these germicidal tactics were pressed into official vogue the deaths from diphtheria in Philadelphia numbered the significant average of 1.070 annually." "Such," adds Dr. Swayze, "is an authentic demonstration of the futility of fighting the helpless bacillus." The treatment of diphtheria by the anti-diphtheritic serum, he tells us, has been pushed in Philadelphia for all it is worth by the combined forces of the agents of the local board of health, by gratuitous distribution of serum, by the potential enginery of professional obeisance and by public fear. Nevertheless the official report of diphtheria cases in Philadelphia for the three weeks ending November 25, 1905, showed 286 cases with 38 deaths.

Prof. Sorenson (Blegdam Hospital, Copenhagen) says: "A wonder-cure which shall completely change the course and prognosis of diphtheria is not found in antitoxin." Further statistics from the Blegdam Hospital by Ring and Ellerman, based upon 1,356 cases, announce that "statistical proof of the value of antitoxin has not been found." The profound researches of Prof. Kassowitz and Gottstein are annihilatory of the claims of serum as a remedial agent in diphtheria. After a very exhaustive study of the statistics of serum-therapy in diphtheria these cautious investigators (allopaths) put themselves on record in the following words: "Statistical evidence of its specific value is totally wanting." In 1896 in an article on Diphtheria.

Statistics, Prof. Kassowitz showed to what gross errors a false statistical method (such as the adherents of antitoxin usually resort to) leads, and how the ratio of diphtheria deaths compared with the total number of cases gives a false picture. He says: "For example, in Trieste in the summer of 1894, the physicians unanimously determined and agreed to treat antitoxically every case or suspected case of diphtheria, and, in fact, the death rate of the hospitals sank noticeably. Had this diminished death-rate been due to the specificity of serum then the town death rate should have been correspondingly lowered. The contrary was the case; for while the absolute diphtheria death-rate in Trieste was in 1888, 98 cases; 1889, 93 cases; 1890, 118 cases; 1891, 182 cases; 1893, 222 cases; in 1894, in spite of serum, it reached 349; in 1895, under the same treatment, sank to 271, while in the last three months of 1896, in spite of the universal serum treatment, more cases died of diphtheria in Trieste than had previously died during a whole year."

Prof. Sorenson (allopath, Blegdam Hospital) sums up, as the result of his vast experience, that "in serious cases of diphtheria antitoxin cases showed neither a more favorable progress nor a lessened death-rate. Nor has serum-action hindering the progress of the disease been observed."

Did space permit I could cite similar statistics by the page, chapter and volume. From all the observations I have been able to make both in my own practice and in the study of statistics on a broad scale I am convinced that the dangers and complications which threatened the diphtheria patient before the serum-era are still strongly in evidence, and that only the benign cases of diphtheria which progress favorably under almost any old

treatment are the ones that are "cured" by anti-toxin.

What has all this costly warfare waged against the helpless microbe amounted to in the prevention or the cure of disease, and what good has come of all this meddlesome official interference with the rights and liberties of the people?

Has consumption, diphtheria, pneumonia, scarlet fever, typhoid fever or any other disease been "stamped out" by these germicidal crusades?

Let a distinguished and scholarly adherent of the germ-theory answer. Prof. O. Rosenbach, M. D., of Berlin, an eminent old school clinician and teacher of wide experience, says: "In my opinion, neither by quarantine measures, nor by antiseptic deeds, nor by bacillary investigations are we able to prevent either the outbreak or the spread of any malady." (Physician vs. Bacteriologist, 1905, by O. Rosenbach, p. 220.)

Any person who has a modicum of common sense in his make-up can readily perceive that if the ubiquitous microbe infests the world in such vast numbers as the bacteriologists allege, it is wholly impracticable and utterly impossible to materially diminish the risk of encountering them and utterly hopeless to attempt to escape them by concerted efforts at their destruction.

In refutation of the germ-hypothesis I have here presented the testimony, not of its opponents, but that of its unsuspecting adherents.

The present status of the "germ-theory" may be briefly summed up in the following words of one of its ablest exponents: "Microbes are always found where there is disease. They are also found where there is no appreciable disease, and may be the result and not the cause of disease." The above quotation is from an address delivered by Dr.

Rudolph Virchow at the thirteenth triennial session of the International Medical Congress held in Paris in 1903. Virchow's candor and honesty deserve the admiration and respect of every lover of truth.

Medical Delusions, Past and Present.

Medicine, like millinery, has its fashions and fads. The practices of one generation of doctors become the laughing stock of the next. About one hundred years ago it was the prevailing fad with the self-styled "scientific" doctors popularly known as allopaths to inoculate into the bodies of well people the contagion of small-pox under the pretext of "stamping out" small-pox.

The wholesale inoculation of healthy communities with the infectious matter of small-pox was at that time recommended and practiced just as vaccination is to-day. This ruinous custom rested on the preposterous theory that small-pox could be eradicated by disseminating its contagion among the people. At the time of its introduction variolous inoculation was hailed by the doctors of the "regular" school as the greatest and grandest of medical discoveries, and the encomiums lavished upon it equalled those that have since been bestowed upon vaccination. While in vogue, small-pox inoculation was always spoken of by orthodox medical teachers and writers as "one of the best attested facts in medical science." In 1754 this loathsome rite was authoritatively sanctioned by the Royal College of Physicians (allopaths), who pronounced it "highly salutary to the human race."

Reader, think of it! Small-pox, one of the most loathsome of diseases, "highly salutary to the human race." Shades of Lazarus! O Tempora! O Mores!

In spite of the frightful havoc wrought by varicellous inoculation, this disastrous delusion continued to flourish for more than 150 years. Probably more than all other things combined this practice contributed to keep small-pox alive by constantly disseminating its infection among the people.

Viewed in the light of our present knowledge, small-pox inoculation is seen to be a disastrous delusion. Instead of being the "entirely harmless and beneficent invention" that it was claimed to be in 1721, it was found to be so pernicious a practice and so destructive of public health as to be branded a crime in 1840, when it was found necessary for a British Parliament to make it a penal offense.

Alas, for medical theories and human prescience! What had been proclaimed as the savior proved to be the destroyer.

Half a century ago it was the prevailing fashion with the "regulars" to bleed their clients at stated intervals on the pretext of keeping off sickness, and expectant mothers had to undergo the operation repeatedly. Old and young, sick and well, weak and strong, all were indiscriminately subjected to the lancet for the most trivial ailments by the advocates of this "scientific" practice. A few decades ago it would have been regarded by the allopathic doctors as almost criminal to have treated a case of pneumonia without bleeding the patient.

Under the sway of this disastrous rite hecatombs of human victims were sacrificed on the bloody altar of this medical Moloch. We smile with pity at the credulity and ignorance of those who were led to believe in such glaring absurdities, but it is no laughing matter when unwilling parents are urged by health board officials, and almost forced by law, to submit their healthy children to the as-

saults of the official vaccinators who are willing to pollute their pure blood with the poisonous matter from a sore on a diseased beast. It is indeed a deplorable state of affairs when a mere hypothesis is forced into the position of a dogma, adopted as infallible, and made to dominate the actions of daily life, and especially when men of learning become partisans of erroneous teaching, lose their common sense judgment and act in obedience to some ancient authority.

No doubt many of the Century's readers remember the craze which swept over the medical profession when Lister announced his views on the presence of disease-germs in the air, and his elaborate plan for their extermination by means of his famous carbolic spray. I need hardly remind my readers that Lister's views and practice were received with acclamation and adopted with enthusiasm in almost every part of the world. In Austria, Germany and Russia medical men and midwives were criminally prosecuted for neglecting to use Listerian antiseptics in their practice. Lister received the most fulsome adulation from every quarter. Through the fame acquired by his ridiculous proposal to get rid of imaginary disease germs in the air by means of his carbolic spray machine he was made a peer. The English Government, wishing to do honor to the medical profession, could think of no worthier recipient of a peerage than the discredited author of a ridiculous and injurious plan for killing disease-germs. It is needless to state that Lister's carbolic spray machine together with all its accessories has long since been discredited and discarded by the entire medical profession. Listerian antiseptics rested on the absurd hypothesis that the air contained the germs which were the most active and pernicious in

producing disease. This theory proved to be as empty as a soap bubble. It is now conceded by the germ faddists themselves that air contact is the least to be feared of all.

A perusal of the recorded accounts of Lister's heroic assaults upon imaginary disease germs in the air recalls vividly to mind Cervantes' celebrated satirical romance of the valiant Don Quixote and his encounters with windmills, which he mistook for giants.

Any surgeon who should at the present day undertake to carry out Lister's methods in the operating room would be looked upon by his colleagues as a fit subject for the services of a commission de lunatico inquirendo.

Thus do the medical fads of one generation of "scientific" doctors become the laughing stock of the next. Listerism has taken its appropriate place among the fossilized curiosities of medical literature and retains only a historical interest.

Only a few years ago the "regular" doctors indiscriminately bled, blistered, puked, purged, sweat and salivated their patients under the delusion that disease was an entity and could thus be expelled or eliminated from the body. This routine practice they were pleased to call "rational" and "scientific" medicine.

From the *Lancet* (London) of February 24, 1900, I quote the following: "Until fifty or sixty years ago disease was regarded as an entity distinct from the body, to be expelled from it by drugs, whereas we now regard it as a state affecting the entire man." If I may be permitted to prophesy, I venture the prediction that the "germ-theory" of disease will in due time follow the long procession of medical blunders into the limbo of exploded pathological doctrines.

