

Phthisis pulmonalis; or, Tubercular phthisis.

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Publication/Creation

New York : Boericke & Tafel, 1882.

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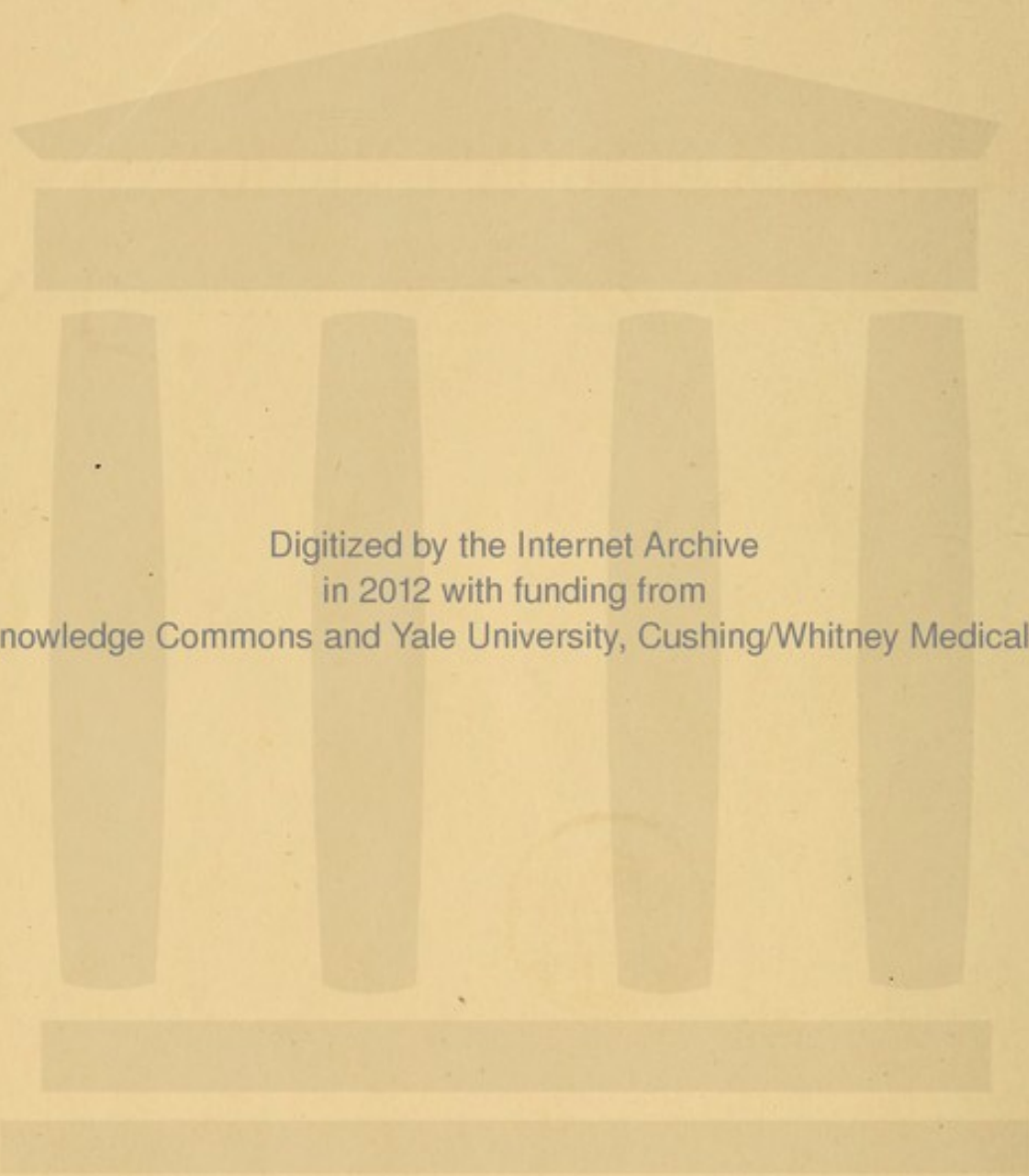
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PHTHISIS PULMONALIS:

OR

TUBERCULAR CONSUMPTION.

BY

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Grand Rapids, Mich.



BOERICKE & TAFEL,

NEW YORK :
145 GRAND STREET.

PHILADELPHIA :
1011 ARCH STREET.

LONDON: LEATH & ROSS, 5 SAINT PAUL CHURCH YARD.

LONDON: HOMOEOPATHIC PUBLISHING CO., NO. 2 FINSBURY CIRCUS.

1882.

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INTRODUCTION.

NUMEROUS as our treatises upon pulmonary consumption may be, the appearance of this work needs no apology, provided the author has something to say. From the homœopathic standpoint no very exhaustive treatise has yet appeared. Upon histological and pathological questions, much has been written of late, and yet the profession have come to no agreement.

But it must be admitted that there is quite a change of opinion going on among leading men of all schools, both as to the causes of phthisis, and the sources and character of the morbid products. The controversy between the followers of Prof. Bennett, who believes the disease to be essentially one of faulty nutrition, and those of Prof. Virchow, who believes the disease essentially one of inflammation, is far from being settled.

The more recent doctrines of Prof. Rindfleisch, relegating it to our class of infectious diseases, does not tend to bring harmony of opinion upon the subject.

We have endeavored to present in a succinct manner the salient points advanced by each of these leading pathologists, not doubting that there may be much truth in what is advanced by each of them, but doubting if any one of the above mentioned writers presents the whole matter included in the causes and transformations of the lesion known by the general term of phthisis pulmonalis.

We have thought best to state causes in the ordinary manner of treating this subject, believing a work so handled is more practical, and that our indications for treatment will be the better mastered. For it is the successful management of these cases, after all, which we aim to present.

Without claiming that we have said all, or even the best that can be said, upon this grave subject, we hope that we have said enough to stimulate to further investigation in the direction that we have taken; and that at no remote period, we shall find means within our grasp to treat effectually the disease which has so long been an approbrium to the healing art.

If pathology is, to a certain extent, unsettled, and the histology of the disease under review, and possibly the whole matter in a transition state, we, who study more the inward expressions of a morbid force acting upon the sentient and vital forces, can well wait for time to settle these controversies; while we more especially apply ourselves to the study and application of the law of cure, formulated by the founder of homœopathy, to determining the best dilutions to use, and the frequency of their administration.

We do not claim to have added anything to the subject of physical diagnosis from what may be found in text-books, yet it is convenient that the matter should appear here.

The author acknowledges himself under obligation to many of his colleagues who have kindly given him support in preparing this work.

Especially would he mention the late and lamented Dr. Constantine Hering as offering invaluable aid. He is also under many obligations to Prof. Raue for valuable suggestions, and to Drs. Hempel and Arndt for cases drawn from their *Materia Medica*, and to Dr. Arndt also for valuable clinical translations from the German; and lastly to the labors of Dr. Dunham. The author has tried to illustrate in his work, by reporting clinical cases, the types and phases of disease to which our different remedial agents seem applicable; and also to show by cumulative evidence that phthisis has proved to a certain extent amenable to remedies.

G. N. B.

PHTHISIS PULMONALIS.

CHAPTER I.

PRELIMINARY REMARKS.

This disease is more frequently called *pulmonary consumption*. The word phthisis means a wasting away—a slow death. The use of the term more recently has, by common consent, been restricted to that species of wasting away which attends the occupation of the lungs with tuberculous matter and the changes in its transformation, and the destruction of tissue where it works. And yet this is a very inadequate definition, because this local phenomenon must usually be considered only as a fragment of a constitutional malady; the focus where morbid forces concentrate and become expressed in pathological changes. That the lungs should become the focus of the tubercular deposit does not seem strange when we come to consider that all the blood and blood-making material has a constant flow into this organ, there to undergo the process of parting with carbon and of receiving oxygen. The blood fluid in all stages and conditions of purity, at high grade and low grade of vitality, passes into this sifting, assimilating and eliminating organ, to be prepared for the highest uses in the production of structural formation and for supporting functional activity. That portions of debris should become immeshed in this net-work of cells does not seem strange. And that any such matter should become a source of irritation, provoking a chronic inflammation of the interstitial tissue, would seem natural enough. Further, that when hyperplasia of the parent tissue has been developed, pressure upon the vascular

vessels would follow, cutting off more or less the supply of blood, possibly causing exudation from the walls of these vascular vessels and from the lymphatic glands. In defining pulmonary phthisis, if the lesion be confined to the lungs, as the term implies, we can correctly speak of pulmonary phthisis only when the morbid force assails the lungs, and of tubercular phthisis only when tubercle is deposited.

Again, tubercle has been considered the cause of the phthisis, whereas it would seem to be a pathological product of a morbid force working in the system producing this kind of neoplasm, if it be a growth. It may safely be said that tubercle does not exist till the morbid force, or disease, is well advanced. It is uniformly present, however, in pulmonary phthisis of the variety of which we are speaking: The pathological changes must be referred to some force affecting the correlating forces of the human body. And as transformations begin in molecules, no doubt the morbid agent or force is first felt in the molecular movements. Our understanding of vitality itself is, that it is a correlating energy—an energy all the time supplied by the transmutation of force ascending from the planes of the mineral, vegetable, and lower animal kingdom, and that all force is distributed from molecules. The action, then, of any specific virus or morbid force as well as the power of a drug whereby it impresses the organism, is properly spoken of as a mode of molecular energy. A remedy, if it does anything to aid vitality in its struggle against opposing forces, does so by imparting something of its own molecular energy, or by supporting the molecular or correlating energy or vitality; more commonly, I think, the first, foods and assimilable substances usually yielding the last. Indirectly, the drug energy may do something, yes, much, by removing impediments which so embarrasses vital energy that assimilation, which is a mode of correlation, is unable to go forward.

Consumption a Curable Disease.—We hold that consumption is not incurable so long as vitality can be made to take a more self-asserting influence in the tuberculated tissue than that of degrading chemical forces. Consumption is cured by aiding nature to convert the albuminous exudation into fat, so

that it can be absorbed—by controlling inflammation which leads to the breaking down of structure; by tubercle becoming encysted and non-irritating; by tubercle becoming cretaceous and no longer subject to softening; lastly, by tubercle softening and being expectorated through the tubular passages, abscesses and ulcers closing by cicatrization.

It is not an easy disease to cure, and when the graver lesions are set up, serious doubts of recovery must be entertained. This may be said of all the graver diseases, that they reach a point where vitality is so overwhelmed that a majority of cases will succumb in the struggle.

However, consumption must be classified among our most fatal diseases. It being usually a slowly developing disease, the case often gets well along before the attention of the physician is called to the patient's condition. The opinion, also, of medical men upon this disease, usually disarms them of all means to help in the case. Indeed, medical men are very apt to overlook an incipient phthisis and let it run along well into the second stage, tubercular stage I mean, before they recognize the true condition of things. This is most unfortunate, for the successful management of our consumptive cases, depends largely upon early recognition, and prompt attention to dietary management, good air, proper clothing, possibly change of climate, and lastly, to efficient medication; we mean by the administration of the true homœopathic agent, and in such dilution as to call into activity healthy morphic movements in place of morbid.

The Function of the Lungs.—Have we given sufficient importance, in the study of caseous accumulations, to the fact that the lungs receive all the venous blood in the system, together with the blood-making material from the digestive system, in a constantly inflowing stream, performing at the same time the function of discharging carbons and other matters, and taking in oxygen? The double function of elimination and assimilation being here carried on, it follows that there must be much debris in a workshop of such activity and capacity. It is easy to see that very great activity in the clearing away process will be constantly demanded—that any re-

tarded movement in the drift, tends to load down any portion of the lung where the movement is slowest; this would probably be in the apices where cheesy exudation usually occurs. Whether a blood-stasis here becomes the initiative step to the exudative process termed cheesy pneumonia by our German friends, and caseous exudation by Bennett and his followers, it may be proper to enquire. Possibly, here may be the elements of irritation in portions of the lung where such detritus remains, operating from within the vessels, as the dust of factories and other work-shops operate without, each provoking a sufficient amount of inflammation to cause albuminous or fibrinous deposit from the vascular vessels. Such detritus might be compared to the moraines in the drift of a glacier or the sediment of a river. It is easy to see that any cause operating to degrade force here would become an active agent in bringing on a tuberculosis; its might be heredity, scrofula, malaria, mercury, alcoholism, bad air, excessive venery or any specific poison. The importance of the function of the lungs and the amount of matter that must pass into the vessels, small and great, in these organs is really of a nature to astonish. The wonder is that they remain healthy so long. To keep them clear of obstructions must be a very important part of our treatment of persons becoming enfeebled from any cause.

CHAPTER II.

CAUSES OF PHTHISIS.

First, predisposing causes. In a general way, I think we may say that any force tending to degrade vital force may be a cause of tubercular degradation of the elements of nutrition, and hence a factor in any given case of phthisis. But it may be accepted that the same force would be active in developing tubercle in one person and not have any apparent effect in that direction in another.

Constitutional conditions then play an important part in the history of tubercle, and, of course, in pulmonary phthisis.

Among these causes we may mention, first, hereditary transmission of impaired vitality. And from this impaired vitality we get a neoplasm called tubercle. Why this morbid force expresses itself in tubercular degradation we know not any more than we know why measles or whooping cough have their own peculiar workings in the vital economy. It seems proper to say that we are not able to explain the first cause of a phthisis coming through heredity, a cachexia, or otherwise, till investigations are able to eliminate some poison, germ, force or forces, capable of diverging the lines of morphology, first, in embryo, and peradventure through the entire period of life. It may be that the menace to life comes as much from conformation, which is largely hereditary, as from a deteriorating force which degrades the plasma, or works through nutrition, and then nutrition lies behind growth. Most of us agree that the germs of tubercle, or the conditions favoring the production of tubercle, are often hereditary. And yet, possibly, too much stress has been laid upon the hereditary bias. Again, many regard that phthisis is communicable from contagion or infection. Especially is it believed that a latent tubercular habit is quickened into activity by being associated with active phthisis in the ulcerative stage. We have had cases which seemed to support such a theory. These facts tend to show something specific and of its own kind, in the morbid force of tubercular phthisis. But phthisis has seemed almost as clearly to have come from other sources as from this hereditary element. It can hardly be doubted but that it has come of other transmitted morbid states, such as, for instance, arise from alcoholism and syphilis. We have known a family where both parents lived to an advanced age, dying of old age, when four out of six of their children died of consumption between the ages of thirty and fifty, the only cause to be conceived, being that both parents were intemperate. Then may we not have a phthisis engrafted upon the constitutional taint of a syphilis or gonorrhœa? Our predisposing causes are chiefly the different cachexias. First among these is the scrofulous; then follow the syphilitic and sycotic cachexias and alcoholism. Alcoholism, impresses the vitality to a degree to destroy

largely the viability of offspring. I would recognize an alcoholic cachexia and put it well forward as a predisposing cause, both in the intemperate themselves and in their children.

Would it not be as proper to speak of scrofula as hereditary, sycosis, syphilis and alcoholism as hereditary, and phthisis as a mode of death or advancing degeneration of different morbid forces with their focus planted in the lung tissue, the early pathological expression of which is found in tubercle and caseous exudation? It will be objected, no doubt, that the morbid force which produces tubercle is *sui generis* and unlike anything else. Well, we do not know its parentage, if such an individuality really exists. Reason as we will, we have to treat certain pathological conditions, and to overcome a morbid force acting in a very dangerous and pretty uniform way upon the life forces. Perhaps this method of study will best help in doing it. We generally speak of scrofula as the root out of which consumption sprouts. But scrofula is often the offspring of syphilis, sycosis and alcoholism, to say nothing of bad air, bad food and many other things which undermine the vital energies. The rule is, we confess, that specific poisons tend to propagate their like—syphilis a syphilitic taint, gonorrhœa a gonorrhœic, etc. And yet, after a little, these poisons do become changed, and a scrofulous condition is apt to follow. I think it is pretty safe to say that anything which tends to destroy the life and coherency of the blood corpuscle, tends also to phthisis. So that, although every morbid force may have something of its own kind differing from anything else, yet, as it carries with it a slow decay, something which deteriorates the vital force, this molecular death, or corpuscular degradation, shows itself very commonly in a final relegation to chemical laws in the lungs. To continue our discussion, we will name a few causes not so remote.

Food.—Improper and insufficient food is no doubt an important factor in blood degradation, and through this avenue a cause of phthisis. When, for any length of time, waste exceeds supply, we may look for pulmonary troubles. Emaciation is one of the first indications of a pulmonary phthisis. We have noticed that many of the disciples of Dr. Graham die of consumption. Poor food furnishes only poor blood.

Bad Air.—Living in damp unwholesome tenements, and breathing bad air, rapidly deteriorates the blood; and this, conjoined with bad food, is well known to develop tubercle.

Breathing bad air in badly ventilated rooms and churches, school houses and factories, has no doubt much to do with the mortality from consumption.

Malaria.—Malaria being capable of making a permanent lodgment in the system, may be said to develop something akin to cachexia. Many cases of phthisis seem to spring up out of the soil impregnated with malaria.

Exanthemata.—Some of the exanthemata have the power to degrade vital movements to the extent of preparing the way for a tubercular deposit. Especially may this be said of measles and small-pox; and then it holds true of some of the chronic forms of skin diseases. Perhaps these may as often be exciting causes as predisposing causes.

Marriage.—Conformation of the chest, as well as high grade of vitality, are usually derived from ancestry. The narrow chest can often be obviated by careful conjugal selection. Menace to life through pulmonary tendencies will be very sure to follow a marriage where both father and mother are of consumptive habit. The laws of atavism and variability nowhere need to be more carefully studied than in relation to the subject under consideration.

Climate.—The last cause which we will mention is climate. There is little doubt that climate has much to do in forming physical and mental types of the people living in it.

Conformation, habits and mental and moral peculiarities largely originate in climate. Even man's food is modified by it, as well as his dwellings, clothing, and many other essentials of life. Some have said that consumption was the offspring of civilization. Dr. Livingstone says that pulmonary consumption scarcely exists among the natives of interior Africa.

This tends to show that living largely in the open air, and according to primitive customs, obviates tubercular tendencies. A climate subject to sudden changes, no doubt, is a cause of congestion of the lung tissues; and this is followed by inflammation, and inflammation is followed by tubercle. Where

climate has favored the highest civilization, we have the most consumption. Consumption among civilized communities, however, is not more in consequence of climatic influences, than incident to the industries of this civilization.

EXCITING CAUSES.

At the head of these we place dust-particles of various kinds; woolen and cotton fabrics, wood and steel furnishing the largest per cent. Autopsies are beginning to show us how numerous are lung diseases apparently provoked from what is breathed into the lungs. The dust which is flying in our workshops is even worse than the heated air deprived of its oxygen. All these foreign particles tend to irritate the mucous membranes and develop an inflammatory condition of a sub-acute character, which sooner or later, brings on hyperplasia of the tissue, the next step to cheesy exudation. The mortality among the operatives in the woolen and cotton mills of New England goes to confirm our theory. It may be well to inquire here, if the carpets upon our floors, especially the cheaper and more loosely-woven grades, should not be condemned on sanitary grounds. The amount of dust arising therefrom which is taken into the lungs is probably much greater than we are aware of.

Some of our cases of pneumonitis have their origin in the irritation caused by foreign substances; that these and pneumonias badly managed are at the bottom of much of the consumption in Massachusetts, we think, hardly admits of a doubt. Inflammation often ends in contraction of the lung tissue, and contraction favors caseous condensation.

We have known such irritation and chronic inflammation to follow from the lodgment of a foreign body at the bronchial bifurcation that pulmonary phthisis followed.

The consumption of needle-grinders is but too well known.

Exhausting Drains upon the System.—These are of the character of overwork of mind and body; too prolonged lactation; too frequent conceptions; excessive venery, marital, illicit and solitary. Typhoid fever, caries of the bones and old abscesses may be added to the list.

Nervous Shock.—The effects of disappointment, ceaseless anxiety, remorse of conscience, and inconsolable grief, no doubt have been the exciting causes to a pulmonary phthisis; who of us has not seen such victims from cruel and harsh treatments, and from heart-breaking disappointments.

Catarrh.—It hardly need be said that a cold often leads to a consumption. Very commonly a chronic catarrh produces hyperplasia of the mucous membranes and of adjacent tissues. This produces pressure upon the vascular vessels, and cuts off more or less of the blood supply. In this pathological state albuminous or fibrinous exudation is apt to follow, giving us the cheesy deposit. This is thought by many to be a fertile source of pulmonary phthisis.

Pneumonitis.—Inflammation and occlusion of the alveoli offer impediments to such supply of air as is necessary to the changes which must be made to supply the system with good blood; it is easy enough to see that we must have here an exciting cause. Improper æration means bad blood; obstruction in the capillary vessels means opportunity for the loading down process from stasis of the blood, and then the sowing of debris in inactive lung tissue. Inflammation continued means hyperplasia of the parent tissue, pressure upon the vascular vessels, and a field favorable for the sowing of tubercle. Frequent pneumonias are apt to end in pulmonary phthisis.

Hæmoptysis.—Hæmorrhages of the lungs are often the first indications of a pulmonary phthisis. They often arise from tubercular lesions. Again, they occur from other causes, and tubercle is finally sown in the soil which has come of unabsorbed matters, injuries to vessels or fracture of tissue, followed by interstitial pneumonia; the end being a consumption. Yet probably in most of these cases we will find a previous tendency to morbid action of which the hæmoptysis is only a symptom announcing the danger.

Menstrual Derangements.—The end of a chlorosis, the dangers of an anæmia, and the troubles which may arise from a suppression, have long been well understood. It is not too much to say that a uterine catarrh from its exhausting and deteriorating effects upon the one hand, and the possibility of

a metastasis to the lungs on the other hand may become an exciting cause to a pulmonary attack with tubercle associated. Some of these causes will be considered more in detail hereafter.

To conclude this part of our discussion, we say, then, that the causes of phthisis are various. It may spring out of a root so permanently planted in the organism as to be transmissible by hereditary laws. It may arise from cachexias that undermine the system and form a soil for the sowing of tubercle. It may arise from accidental causes, no previous taint having affected the system.

In other words phthisis may be constitutional and hereditary, or accidental. Accidental phthisis, once developed, no doubt, often becomes transmissible, and tends to permanency in structural transformations.

LEUKÆMIA.

The decrease of red blood corpuscles and increase of the white corpuscles may have much to do with the caseous exudation; the white corpuscles are composed chiefly of albumen, and the fact that they fail to become red corpuscles, or that a red corpuscle loses the coloring matter, indicates an arrest in the advance of albumen toward a state favorable to healthy tissue-transformation. In other words, when it leaves the blood-vessels it is in a condition of low vitality, with a tendency to retrograding transformations, such as to fatty degeneration, salts of soda and lime, which are the constituents of tubercle. May we not properly call this condition a hyper-albuminosis or hyper-fibrinosis of the blood; the cause traceable to faults of secondary assimilation? This diathesis is often called strumous, because of the tendency to glandular enlargement; what particular function the glands may have in elevating albumen to structural fitness may be a question; but the tendency of the glands to hypertrophy and to take on inflammatory action in leukæmia is fully admitted. Whether tubercular infiltration is the product of a lymphangitis may be a question for pathologists to settle hereafter. It was claimed at one time that the matter called tubercle was no more nor

less than white corpuscle extravasated into the tissues. It is held still, that tubercle is exudative matter of an albuminous character, thrown out from the vessels as tissue-matter with a low grade of vitality, and hence with a tendency to degradation to a lower plane, such as earthy matters and fat. It is pretty generally agreed that red corpuscles become diminished in connection with tubercular deposit; and as this expresses a low grade of vitality, it favors exudation. It may be a question, however, if this be not one of the primary pathological changes, and more of a symptom than an element of causation. If so, we would still have to go behind for the element, or elements of causation. Further, it may yet be considered debatable ground as to whether tubercle is deposited from vessels which carry structure-building material forward for tissue alliance, which alliance fails because the material is of too low vitality, or whether after all it is deposited from vessels conveying from the system rejected matter, moving under chemical law, which in the form of excreta, in one way and another, is drifting to a lower plane, and tends to move out of the system. It is claimed by as respectable authority as Dr. Prout that a tendency to assume the crystalline form, is evidence of matter being of the character of excreta, which must be rejected from the system.

It is conceded by all, that the lungs are one of the emunctories, and carry large quantities of rejected matter from the system.

There is no doubt but that tubercle takes the chemical direction in transformation and tends to enter into the crystalline form. Whether our opinions are to undergo any change hereafter, remains to be seen. That tubercle once deposited must be treated as a foreign substance needing to be absorbed and thrown out of the system as excreta is very clear; nor do I think that we can successfully contend against the position that tubercular deposit is a pathological product.

CHAPTER III.

THEORETICAL OPINIONS UPON TUBERCLE.

Two theories upon the histology and pathology of tubercle prevail; one of the English and one of the German school of pathologists. Professor Hughes Bennett may be said to head the English school, and Flint and Reynolds adopt his opinions into their text-books.

This theory holds that the tubercular exudation comes of a low form of histo-genesis, originating out of some dyscrasia that deteriorates the blood, and that the cheesy tuberculous matter is thrown out from vascular vessels into the interstices of the parent tissue, where it undergoes transformation. We quote the Professor's own words: "With regard to its mode of production, tubercular matter is first separated from the blood-vessels as a fluid exudation, forming by its first coagulation a molecular blastema. The molecules of which it is composed then aggregate or melt into each other to produce the tubercular corpuscles. These, if compressed together and formed slowly, constitute the dense granulations described by Bayle; but, if separated by soft molecular tissue, produce the more common yellow tubercles."

The other theory, which is championed by Virchow, and adopted in Niemeyer's Theory and Practice, regards tubercle as a new growth and as the outcome of cell-proliferation. Reginald Southey presents the following doctrines as expressing the views of German histologists:

"Tubercle is a new growth belonging to the lymph tumors, constructed after the pattern of lymph glands, and standing in closest relation to connective tissue formations. The single tubercular, or tuberculous tumor, is not capable of identification from any one element entering into its composition; but its origin, its development, and its minute structure, together confer a particular stamp upon it as a whole, which renders it capable of distinct recognition. The tubercle formation is cell-structured from the moment of its first appearance; it proceeds always out of connective tissue, or from some tissue closely

allied to this, such as false membrane, fat, or the medullary tissue of bone. It exists in two forms, the one the cellular, the other the fibrous form; but they have such features in common as imply unmistakable oneness. The fibrous form is only a slight structural modification of the simple cellular—a modification impressed upon it by the external conditions of growth. The origin and mode of development of the simple cellular form is best of all to be studied from the tuberculous growth, as this is found upon serous membranes, or upon the mucous membrane of the larynx. This young growth here is smaller than a millet seed; has a granular look, and contains soft, imperfectly developed cells, which are easily broken down, and also free nuclei. Its elements are identical with those that constitute a normal lymph gland, although differently grouped. This isolated tubercle forms the tiniest tumor that occurs on the human body, but it is rarely, if ever, single. These growths are found in nest-like groups, close together, and multitudes of nodules, originally and individually distinct, combine together and form a conglomerate tumor." Caseous or cheesy exudations, which are believed to be usually the result of chronic catarrh, are spoken of as gland tumors of a scrofulous nature, or the outcome of scrofulous hepatization of the lungs, which is thought to be distinct from the tubercular neoplasm.

Dr. Southey goes on to say: "The catarrhal process extends into the air-cells, the appearances finally obtained being scarcely distinguished from those which attend acute pneumonia; catarrhal mucus cells and fibro-plastic ovoid nuclei are mixed together and block up the alveoli; the inter-vascular spaces are trebled in thickness ("hyperplasia"), and come to present a dense and more or less fibrillated connective tissue."

The disciples of Virchow thus make a distinction between what they call caseous pneumonia, and the tubercle found upon serous and mucous surfaces.

The caseous exudation, so often found in the apices of the lungs, they speak of as a mucous cast of an *air-sac*; and the diseased action by the term caseous pneumonia, reserving for the diffuse, millet-sized neoplasm the term tubercle. And yet, consenting and affirming that the adventitious product

called caseous exudation or mucous cast, produces in softening, cavities and destruction of the lung. They say: "It is an adventitious product; it is the result of a local inflammatory process, true enough. It is deposited from the blood, and coagulates in the part where it is found; softens into a cheesy mass from the center. It almost plugs up the smaller bronchi; death follows from pressure and cutting off nutritive supplies."

Now there is much to be said in favor of making a distinction between pulmonary phthisis developing out of inflammatory action, such as a catarrh, a pneumonia, and the irritations arising from dust of one kind and another, as well as other accidental causes, and the disease known as scrofulous pulmonary phthisis, or the phthisis arising from faults of nutrition, as the English school would make all cases of phthisis to arise. Much stress is laid upon this histological and pathological disagreement of the two schools by James Henry Bennett, bearing upon the treatment of phthisis. One believing the disease to arise from defective nutrition, from which we get a low form of histo-genesis represented in these coagulated exudations from the blood, while the other considers them new growths of a fibrous or cellular form, developed out of the connective tissue, and resulting from irritation and inflammation largely, it follows that the treatment is likely to be very unlike. This, indeed, has much significance from an old school stand-point, but it will not be likely to trouble the homœopath much, as he is to give the *similissimum* in any event. The histology of tubercle, then, is hardly a settled question. And for the present work, we, with the French physicians, shall accept both theories in part, not admitting that either party, or both parties combined, have yet learned, pathologically and histologically, all that is to be learned of the disease known as pulmonary phthisis.

Hitchman affirms that consumption is primarily a disease of the nervous system: "A derangement *par excellence* of the nerve globules;" the steps in tuberculosis proceeding in indigestion, and consequent mal-assimilation of the food and impoverishment of the blood, accompanied with an excess of acidity in the alimentary canal, the final fact being tubercular

deposit. Now, this seems to me to be as far from answering the question as any other theory advanced. It may be doubted if nerve-waste be any earlier involved in the retrograde metamorphosis than some other of the tissue elements. Albumen is found in exceptional proportions in the composition of nerve globules; and this being the fact, it is not easy to see why that particular structure should be the first to suffer, with this excess of fibrin or albuminoid matters flowing all the time in the blood to the brain.

It may be said that it does not come in a condition to be correlated, or allied, with structure. If that be the fact, it goes far to prove that we must go behind this hypothesis for the first cause.

Though pathology, so far as it affects treatment, is of less importance to a homœopath than an allopath, yet it might modify both his treatment and prognosis, if he should decide that a phthisis began as a lymphangitis, and from it we had hyperplasia of the connective tissue the same as we get hyperplasia in other organs where the inflammation extends from the mucus membranes to the parent tissue or to fibrinous structures. Hyperplasia of the parent tissue really seems to be one of the early pathological changes in tubercular phthisis. It is prepared ground for the sowing of tubercle. A lymphangitis, or even a hyperplasia of the areola tissue would be held by most of our physicians, no doubt, to be curable; the diathesis in a pulmonary lymphangitis to be considered, as in treating a disease of the kind elsewhere located. The hereditary feature of the disease, should not preoccupy our minds to such an extent as to have us yield our ground without a battle.

With our homœopathic remedies we may expect to neutralize even the hereditary element, in some sense. Admitting this disease to be of a nature subtle enough to work among the molecules, and to degrade protoplasm, we have agents as subtle in our list of potentized drugs. Recognize the morbid force as something working against vitality, something arresting and degrading the correlating energy within, which we will term organic correlating force, or life force, and we, above all physicians, are prepared to grapple with this *something*

which so successfully eludes the scalpel and the microscope. We have the language of the mind and the entire nervous centers, as well as every objective symptom, to guide us to the character and seat of our enemy.

REVIEW OF PATHOLOGICAL AND HISTOLOGICAL THEORIES.

That a majority of our cases of consumption are not the result of neoplasm (tubercle), but of inflammation, as Virchow says, such authors as Niemeyer, Guttman and others agree to, and the French pathologists seem to lean that way. This is Niemeyer's language: "The knowledge that a majority of cases of consumption are not the result of *neoplasm*, but inflammation, and that when tubercles exist in phthisical lungs, the tuberculosis is almost always preceded by a pneumonic process, which, by caseous degeneration of its products, has prepared the soil for the growth of tubercle, has been of material assistance in explaining the etiology of consumption. Numerous well established facts, which had hitherto defied all interpretation (as long as consumption was always a neoplasm), are now fully reconcilable to the generally acknowledged laws of pathology. Predisposition to pulmonary consumption, or to speak more precisely, the predisposition toward pneumonia terminating in cheesy infiltration, is strongest in persons of feeble and delicate constitution."

After saying that croupal pneumonia, whooping cough and measles, may all end in caseous infiltration, that delicate and ill-nourished subjects have a peculiar liability to pneumonia, that the inflammatory derangements of nutrition occurring under such conditions give rise to a profuse formation of young and indeterminate cells which are of a perishable nature, he adds: "The main points of the subject may be summed up as follows: The consolidation and destruction of the lungs, which form the anatomical basis for consumption, are usually the products of inflammatory action, and the greater the quantity of cellular elements collected in the vesicles, and the longer the duration of inflammation, so much the more readily will pneumonia lead to consumption, since these are the conditions

most favorable for the production of caseous infiltration. Secondly, pneumonia resulting in caseous infiltration occurs most frequently, but not exclusively, in puny, badly nourished subjects. This is partially because all inflammatory nutritive disorders by which they may be affected show a tendency to copious cell formation, with subsequent caseous degeneration."

The scrofulous diathesis he makes to be a tendency to hyperplasia of the lymphatic glands with profuse cell proliferation. This brings us nearly to the point where tubercular exudation should properly be called the product of lymphangitis, phthisis a glandular hyperplasia with exudation into the connective tissue. The tubercular phthisis of Virchow would seem to be a disease of the glands, and caseous pneumonia the real disease of which our pulmonary patients usually die.

This view has the merit of simplicity of statement, and there are many analogies to support the theory.

The question whether consumption comes from inflammatory action, as Niemeyer and Virchow affirm, or from the non-inflammatory (are we sure that anæmia is opposed to inflammation?), as John Hughes Bennett and others affirm, does not so much concern the homœopath to know, for his treatment will ever be to meet the law of cure; his remedy coming through the pathogenesis of the drug; and this he will support by hygienic measures. Perhaps his cases will be more intelligently studied if the inflammatory or non-inflammatory theory can be settled, and yet it is hardly to be made a vital issue. If his case come to him with a dyscrasia, he should recognize and treat it as an all-important modifying cause, be it what it may.

That we often have to go behind all facts which pathological study reveals to the vital force itself, and to primary molecular movements to find causes, seems to us well settled.

The Why? is not to be answered as yet; not even Where? and When? the first divergence from progressive morphology begins. We are of the opinion that we should keep pneumonia distinct in our nomenclature of diseases from tubercular phthisis. We do not believe pneumonia to be a hereditary

disease, but the scrofulous or tubercular diathesis we do believe to be hereditary, and with it phthisis pulmonalis of the scrofulous type. We do not believe pneumonia to be a contagious disease, nor that it has any germ by which a woman bearing children from a husband affected with pneumonitis, even if he have hepatization, can be inoculated with the germs of the disease; and yet we hold that tubercular phthisis can be transmitted in both of these ways, that is, by child-bearing and by infection from sputa. Nevertheless, we do believe that we may have pneumonitis, degenerating into a pathological condition which yields the cheesy product, and out of it will open up fatal cavities in the lungs, tubercle being a concomitant. It becomes a phthisis in final transformation and degradation of the adventitious matter, though probably lacking the element of propagation, so far as the pneumonitis is concerned, at least.

We have no hesitation in saying that a large per cent. of our fatal cases dying of what is called consumption begin in pneumonia, or chronic catarrh. Such cases come to us from our factories, our coal workers, stone-cutters, needle-grinders and other occupations; of inflammations from irritating substances carried upon the lungs in respiration, the inflammation ending in thickening the connective or areolar tissue, and developing a fibrinous mass which is the best of soil for tubercle if not the chief and only cause of tubercle. Consumption is also the result, oftentimes, of a prolonged catarrhal inflammation of the bronchi, when it is doubtful if tubercle be present at all. Perhaps we more often have bronchial dilatation and bronchiectatic cavities which become reservoirs for secretions to undergo purulent changes; and a bronchiectasis is only a little less grave than a cavity following tuberculous infiltration. That we should give most important heed to catarrhs and pneumonias, as sources of fatal troubles of a pulmonary character, seems to me no one can question. Especially should one be on the alert for an attack of chronic interstitial pneumonia if the gravest termination of our cases is to be avoided. Call this pathological condition pulmonary phthisis, if it will provoke any more energy in treatment. It, at least, is an

almost universal concomitant. Then, again, we cannot too strongly emphasize the dangers which arise from any cause which tends to provoke an anæmic state and derange the progressive morphic movements; such as onanism, venereal excesses, intemperance, immoderate study, too severe an application to business, excessive lactation, drains from leucorrhœas, etc.; for it is idle to say that consumption, as it is understood by a majority of the profession and people, does not come of each and all of these causes, and, so far as we can judge, independent of hereditary bias. Then, claiming, as we do, something individual, and of its own kind, for scrofulous or hereditary tubercular phthisis, nevertheless, there come to us from many causes, cases which are attended with caseous degeneration, going through with all the stages of transformation which attend tubercle associated with the scrofulous diathesis.

INFECTION AS THE SOURCE OF TUBERCULAR INVASION.

The theory of Professor Rindfleisch, of Wurzburg, Germany, that tuberculosis is essentially an infection-disease, is not altogether unworthy of our consideration. Rindfleisch bases his theory largely upon the fact that numerous experiments by vaccination with the tubercle-virus taken from the human species works upon animals, and he accounts for the fact that it does not take in a large per cent. of the *genus homo*, claiming from this, the latter have obtained immunity by quasi habituation. These are his words:

“Originally tuberculosis probably was a similar infection-disease as we find syphilis to day. Perhaps it was more virulent. It possessed, and possesses even now, the faculty of being transmitted from parents to children. By such transmission the tubercle-virus became more and more diluted, but at the same time it gradually became the property of mankind, and thus by its heredity acquired a certain immunity to outside infection.” There is no doubt but that there is an element of infection at certain stages of tuberculosis, but whether the infective power is gained by transformation of the elements or be an anterior fact, may be a question. Is infection a proper

term to apply to hereditary transmission? He goes on to say: "Tuberculosis shows itself in that peculiar course, taken by certain inflammatory processes, produced by moderate stimuli."

"A tubercular inflammation may be considered:

1. "The disseminate miliary tuberculosis; where we find in most organs of the body miliary and submiliary nodules. It is the typical eruptive form of an infectious general disease, similar to the efflorescence of pustules in variola.

2. "A more localized miliary tuberculosis; where a solitary organ remains the chief seat of the eruption, and of the accompanying inflammation, whereas all other organs are relatively slightly affected.

3. "It may also be considered as localized miliary tuberculosis: where around an inflamed spot of the organ we meet more or less miliary tubercles, they finally enter themselves into the composition of the inflammatory focus, and eventually form the great mass of the entire infiltration. *Genuine phthisis tuberculosa.*

4. "Inflammatory processes, especially ulcerations of a slow course with a decided tendency to intervals of rest, or with a total cure, where we have no, or barely any, local development of miliary tubercles, but nearly without exception tuberculosis of the lymph-glands. *Chronic caseous and scrofulous inflammations.*

"All such manifestations of tuberculosis must be considered as inflammations, whereby the tubercle-poison acts either as the sole inflammatory stimulus, or where it, in connection with other stimuli, especially mechanical, causes a local inflammation, such being localized tuberculosis. Considering the part which the miliary tubercle plays in the inflammatory processes, we naturally surmise that we possess in it a real specific product of tuberculosis; where the tuberculosis appears without admixture, and where it presents itself as the first and sole manifestation of an infection with tubercle-poison, we always meet it in this form."

We get the idea from reading the professor's article, that he would regard the entire race either as having nearly worn out the tubercle-virus, or carrying in them the infection, only

latent because no adequate stimulus has yet provoked it into activity. Persons are only immature, after all, by keeping up a good nutrition and a good quality of blood. A strong point of danger, the professor thinks, is from auto-infection, and we must admit the full force of such danger, especially as bearing upon pharyngeal, laryngeal and broncho-tracheal complications. No doubt tubercle multiplies by infection even in the lungs and mesenteric glands. It is satisfactorily proven that the human species can be inoculated from the tuberculosis of the bovine species, but it does not seem to be histologically the identical disease known as tuberculosis in the human species. Whether it be the original from which human tuberculosis is descended, may form the subject of an important enquiry; it is very fatal and rapid in its course. The question, whether, or not, tubercular phthisis is essentially an infectious disease, must at least be considered open for further investigation.

I am pretty sure that we have cases of phthisis from the effects of alcoholism, and from other causes not infectious. Alcoholism operates to work a slow death of the spermatozoa, and anything which tends to destroy life in the germinal state tends to develop a phthisis in the end, and the lungs more than any other organ, will be the seat of such morbid changes. Some have broached the theory that spermatozoids are only leucocytes or parent cells; that really this necrosis begins with the decay of parent cells or leucocytes; and this is getting pretty near to primary work.

Evidences seem to prove that phthisis pulmonalis is a disease of civilization, and of more recent origin than the theory put forward by Professor Rindfleisch would indicate. Livingstone states that the natives of Africa know nothing about the disease. It must be remembered that the theory of infection is gaining ground as applied to very many diseases at this time. Chicken cholera, diphtheria, glanders and other diseases, are proved to be infectious. The infection does not often go to the extent of being reproduced in offspring however.

In bringing under the tuberculous habit the processes of cheesification, the formation of atonic ulcers, and other morbid forms akin to these, by which the phenomena of the morbid

force becomes widened, is, we are inclined to think, sound reasoning. On the whole, Professor Rindfleisch has done the profession good service in calling their attention to this subject, and it may help us to a more thorough knowledge of this dreaded disease.

When our catarrhs, pneumonias and malarias run on into a phthisis, he would have it that they provoked an inflammatory action, which awakened the tubercle-virus in a constitution not immune.

Heubner, of Leipzig, in speaking of phthisis of the respiratory organs, says: "It may appear difficult to extirpate rooted ideas on a disease of daily occurrence, but the doctrine of the infectiousness of tuberculosis clears the way to the understanding of a unity of tuberculosis. All manifestations found in the respiratory organs in phthisis can be derivated from one cause, the tubercular poison, whether it be a catarrh of the apices, a cheesy infiltration, a hæmoptoe or a phthisis originating in a pleurisy. We deal therefore with an *infectious disease*, produced everywhere by the same poison. Thus we understand many a thing in the semiology of phthisis, which was formerly not clear." To what extent this theory of propagation by infection will be accepted by the profession, time will tell. There is a tendency to increase the number of our infectious diseases. Life is propagative and death is propagative and alliances are with likes. Like begets like. The retrograde metamorphosis once having set in, it has a tendency to carry molecular movements in that direction. If the transformation become rapid, we say it is virulent. And like the leaven in yeast, the fermentation goes on about its work, and the greater the activity the greater the power to engraft and propagate. Whether phthisis is infectious until the stage of active transformation of tissue sets in, may be gravely questioned. Even small-pox is not infectious until the pustules fill, nor diphtheria until chemical action in the exudation begins.

This theory no doubt is partly true, and how much it will aid us in arriving at a more complete knowledge of this disease, and how far it will aid us in arresting its ravages, remains to

be seen. It is well said by these gentlemen that our first duty is to destroy this poison if it be infectious. But as that does not appear to be practical, the next thing to do is to increase the power of the race collectively, and in the individual, to resist the action of the virus. I have no doubt but that phthisis has been propagated from one person to another in the same family, through the medium of the sputum, and by the breath when active ulceration was going on. Persons with an hereditary predisposition would be more liable to danger. In the case of man and wife I have seen phthisis apparently communicate where there was no predisposition. The following is admirable: "Where the poison has affected an individual, our treatment must be more directed toward the whole organism, as thus only we diminish his disposition to disease, facilitate the encysting or excretion of the poison, and thus prevent auto-infection *de novo*, to which the patient, even with a solitary tuberculous focus, is exposed."

Hereditary transmission is generally believed to be by far the most prolific cause of phthisis; it is not in conformation alone but in diathesis or hereditary cachexia that it propagates, or as just stated by infection. There is no doubt but that nature tends to perpetuate types and peculiarities; no doubt but that the expression of vitality, even in the germ, is very variable. In fact, there is no doubt about the transmission of disease from parent to child, by hereditary laws. This element of disease may come in, I believe, with immediate ancestors, or it may be propagated from generation to generation; rheumatism, syphilis and tubercle are instances. I must affirm my belief that tubercle may come in accidentally, and afterward become a permanent cachexia, handed from generation to generation, unless eradicated by potential measures. To do this, it must carry the power of modifying cell-life. This morbid force being engrafted into the cell-nuclei is a degrading energy and a propagating energy, from the parent cells, out of which morphological movements begin. I do not see any objection to naming this unknown morbid force, tubercle-virus, as Professor Rindfleisch would have us.

But is that a bar to the theory, that the poison may be gen-

erated by some process of transformation which is set up recently, and may be produced at any time, conditions favoring, independent of a virus carried in an ancestor, and by the whole family of man in a state of quasi habituation? In other words, if tubercle-virus may not be of spontaneous generation? It is doubtful indeed, if the morbid force be identical in all cases of phthisis pulmonalis. And yet it may be, as what seems exceptional may be undergoing such modifications as incidental influences are responsible for.

A bovine phthisis pulmonalis is believed to be distinct from phthisis originating primarily from human sources. It has many close resemblances in its workings, and only for its rapidity and complications could hardly have any histological difference. The tubercular transformation is the same. The course of acute miliary tuberculosis and the course of bovine tuberculosis are quite as much alike as the course of acute tuberculosis and the course of chronic tuberculosis or caseous exudation. It may be as true to say that they belong to a family, as that they are identical.

The spontaneous generation of infectious diseases seems to be pretty well settled. Scarlatina, diphtheria, cholera and other contagious and infectious diseases, are supposed to be generated from chemical changes of excreta and transformations occurring in connection with degrading molecular movements. Why may not tubercle-virus originate in a similar way? Plastic exudations follow in the course of the development of some of these diseases. If the virus of any of these diseases is thoroughly eliminated, it is not transmitted; if it becomes a constitutional taint, it is transmitted by cell degradation.

CHAPTER IV.

TUBERCULAR TRANSFORMATIONS.

The earliest tendency of tubercle seems to be to undergo fatty transformation, in which condition it becomes easily absorbed; caseous degeneration is probably only at a little re-

move from fatty degeneration; perhaps as much a product of an imperfect effort of nature to fatty transformation, as anything. The structure of tubercle is modified by the time it has been deposited; it varies in consistence from soft to hard. Soft, cheesy tubercle, studied with the microscope by mixing a little with water and breaking it down, presents to the eye a number of irregular bodies with numerous molecules. To these molecules pathologists have given the name of tubercle corpuscles; they are of a rounded, irregular form, and measure from the $\frac{1}{2000}$ to $\frac{1}{4000}$ of an inch. They are distinct in outlines and with a very high magnifying power are seen to have in their walls smaller bodies which are called granules. Albumen, fat and minerals seem to be constituents of tubercle, albumen chiefly at first. The softer the tubercle, the more readily detected the granules, and the more abundant they seem to be. In hard tubercle the granules are very indistinct; again, the more plastic and fluent the tubercular substance, the greater the proportion of corpuscular or molecular element; and, again, the more chronic and cretaceous the tubercular elements, the more are they transformed into gritty particles, which chemistry shows to be earthy salts. Cretaceous or hardened tubercle varies very considerably in size and shape.

Tubercle, as an unchanged exudation matter, is acted upon by acetic acid to a small degree; the corpuscles are dissolved by ammonia and liquor of potassa, but are not affected by ether or alcohol to any noticeable extent.

By chemical analysis, tubercle is proven, then, to consist of animal matter mixed with certain earthy salts, and the relative proportion of these constituents varies in different specimens of tubercle; the animal matter being more abundant in newly deposited tubercle, and the earthy matter the more abundant in chronic tubercular deposit. Analysis further shows, that the animal matter is chiefly albumen with a trace of fibrin, to which is added fat in still smaller quantities; but that the fatty element increases more and more as the process of disintegration goes on, separating, of course, from the earthy elements, which also increase as the transformation progresses. Of the

earthy constituents, it is proved that the salts found are composed chiefly of the insoluble phosphate and carbonate of lime, mixed with a small proportion of the soluble salts of soda. The difference, then, between tubercle and other albuminous compounds is very slight, so far as science is yet able to detect. Structurally and chemically, tubercle must be regarded as a product resulting from the working of vital processes upon a plane where there is a constant tendency to fatty and mineral transformations of albuminous matter.

It will be remembered that the phosphates and carbonates of lime and soda, are remedies which have thus far gained the highest reputation in the treatment of pulmonary tuberculosis with the dominant school, and that these have been supplemented with cod-liver oil. Dr. Samuel Swan formulates a principle asserting that the potentized preparations of an agent are able to arrest the degradation or transformation of the same matter moving upon a lower plane. What remedies have done thus far in the treatment of consumption, has been largely with matter which is found in tubercle when undergoing transformation. Shall we gain anything by the use of highly potentized matter of the same sort, is the question? Another question, arises with us, based upon clinical experience. Sulphur in the higher potencies has proved more satisfactory in its results with some than any other agent; that is, it has served in the largest number of cases. Has such service been done on an eliminating basis? Sulphur is known to be the most universally eliminating agent of the *materia medica*. The facts may be tentative to some generalization of very great importance; and yet, we do not expect to be able to do away with the most thorough individualizing of our cases, and the close work of differentiation as relates to remedies, if we are to succeed in practice.

To what extent this knowledge will be made scientific data, to help in the solution of proper therapeutical measures to arrest the mortality of this terrible disease, remains to be seen.

That the salts, which constitute a part of the tuberculous matter, and which increase relatively in the transformation going forward where soft tubercle is changed to hard or crea-

taceous tubercle, should be the agents used most successfully in the cure of the tubercular destruction, is a fact of much significance. Does it assist in converting the soft tubercle into the creataceous, might be asked? that would tend to amelioration certainly. Do these agents give to nutrition correlating energy toward higher transformation? With these facts before us, we can hardly say they are of no value. It is not as clear that we know how to apply these agents to the best purpose. Query: Is it not just possible that it is only some of the liberated molecules even, in the more crude preparations, which are freed from the cohesive force of crystallization, and acting as a nascent force, which is the true causative element of arrest in degradation? Most transformations work in the molecules; perhaps all. Physical science asserts that the correlating energy is exerted in the nascent state, while molecules are passing from one plane to another. Is there not then a scientific reason for using attenuations carried to the separation of the individual molecules; thereby bringing the molecules into a condition to enter into new transformation? and in passing into such a change, no doubt these molecules or atoms would carry other atoms with them in a sort of catalytic action or distribution of correlating force. The attenuations are eminently worthy of trial.

Chemistry, it is presumed, has not yet made the ultimate analysis of tubercle. Sulphur, and other minerals, no doubt, will be found on a more complete analysis. Indeed it is presumable, that Sulphur is present in all albuminous products; in the muscles, where fibrin is most abundant, it certainly exists. It is one of the constituents of albumen. Exactly what part it plays in the organic economies I am not able to say. We shall have occasion to report some clinical experiences with this agent in phthisis pulmonalis further along. Pathologists have classified tubercle: First, into miliary, where the tubercle is of the size of a millet-seed, and is scattered extensively through the tissue which is its seat; second, into infiltrated, where the tubercular deposit occurs in diffuse masses, such masses involving often the chief part of an organ or membrane; third, into nodular or encysted, where the tubercle is

found in isolated, rounded bodies, from the size of a pea to a hazel nut; and, lastly, they make the variety called the cretaceous or calcareous tubercle, which is the result of an absorption of animal matters from the primary exudation.

These divisions are more or less arbitrary, of course, and not infrequently several of the varieties are found in a single autopsy. Probably tubercular matter is essentially alike, the difference in appearance being accidental; for miliary tubercle commonly is soft and can be crushed beneath the fingers, and is of yellow color; as is the caseous; more rarely it is found as a minute granule, and is semi-transparent or grayish, and hard to the touch. Possibly, it may now have undergone the calcareous transformation retaining its millet-seed form. The miliary tubercle, however, varies from what is called caseous exudation by being sprinkled throughout the lung, while the caseous exudation is usually confined to the apices. And yet, many assert that miliary tubercle is very commonly associated with the caseous exudation, the school of Bennett affirming, and the school of Virchow denying, as a rule. But this is agreed, that the diffuse tubercle is miliary. Then, again, it is affirmed that infiltrated tubercle is often but an agglomeration of miliary tubercle. Miliary and infiltrated tubercle are certainly found in all shades of consistency, from the soft and diffuent to the calcareous. It looks very much as if all forms of tubercle run into one another. The soft certainly runs into the hard, and all varieties we have named are found in the same lung. The caseous and miliary exudations follow the same order in transformation. In both varieties the miliary tubercle and the cheesy exudation will be recent deposit, while the encysted and cretaceous will be old deposit.

APPEARANCE OF THE LUNGS AS THE TUBERCULAR DISINTEGRATION GOES ON.

The softening of tubercle commences at the center of the tubercle-corpuscles, which become turbid, yellowish, cheesy or opaque, and finally soften down into a purulent matter.

A group of tubercles soften and break down in many places, corresponding to the number of corpuscles of which the group

is composed. As some groups will be more advanced in the softening process, we shall find small primitive ulcers of a tubercular character, and these may soon open into one another, forming a common cavity as the intervening mass melts down in the softening process. It is important to the management of phthisis to understand how these tubercular ulcers enlarge and continue their ravages in the lungs. Whenever the softening process has advanced to the breaking down stage, the surrounding tissue takes on that degree of irritation or inflammation which results in the sowing of a new crop of tubercles, abundant or less abundant, according to the intensity of the constitutional disease or dyscrasia.

These again break away and carry down the structures in which they are deposited with a rapidity corresponding to the intensity of the constitutional affection; and so the destruction goes on. If this process is so rapid as to exhaust the reactive powers of the constitution quickly, the ulcer will be found to have extended itself unequally in various directions, forming an irregular and apparently lacerated cavity with its walls loaded with softened tubercles. The internal surface of this cavity will present a gnawed appearance, without exhibiting evidences of a lining membrane as in the more chronic process of disintegration.

On the other hand the walls will be loaded with pus globules and the thin border of parenchymatous structure will be of a dirty brownish discoloration and present a condition known as *canification*. More often softening proceeds from several points simultaneously, two or more cavities forming in near proximity, which sooner or later open into each other; we even find a number of cavities frequently communicating with each other by sinuses or fistulous passages running in direct, or perhaps tortuous courses, making the invaded lung look as if scooped out into a multi-sacular cavern.

Bridges of parenchymatous structure will traverse these abscesses in various directions, and shreds of tissue will be seen hanging into the cavity. As the apices of the lungs are the seat of most extensive tubercular deposit, here we shall find the largest cavities as a rule. It is of interest to note how the

bronchi and blood-vessels are affected by this destructive process as well as the pleura.

In cutting into a cavity and dissecting out the bronchial tubes we shall find that the smaller or capillary bronchi have undergone the same degeneration as the parenchymatous portions of the lung, that their walls are filled with tubercles, and also that the mucous membrane is implicated. Reaching the larger tubes by extension of the lesion, they are perforated and communication is established with the abscess or cavity. Sometimes several bronchi are found opening into a cavity of large size. The blood-vessels, which usually run in an opposite direction, are obliterated as a rule, and are seen traversing the walls of the cavity as ligamentous stripes. The arteries are of such tissue formation that they more often withstand ulceration, after the surrounding tissue has broken down. Still it does happen much too frequently that the arterial walls are thinned, and losing support, they give way, and dangerous hæmoptysis follows.

More commonly a slower process of disintegration is set up, and the inflammatory action, which begins in the parenchyma adjacent to the softening tubercle, and perhaps in lately formed tubercle, throws out an albuminous grayish-white and viscid exudation.

This is regarded by eminent observers to be a curative process on the part of nature, as it tends to close up the air-cells and produce atrophy by compression. While this process is going on, the walls of the cavity grow more even and regular, and often become covered with a thin, grayish lining membrane.

Lænnic regarded this exudation similar to that thrown out by cut surfaces or ulcerated surfaces in the healing process. The parenchyma forming the walls of cavities also become atrophied by the continuance of this process, all of which tends to curative action and limitation of the ravages of a phthisis.

Nature's effort here is too often unavailing, it is true, but it remains to be seen to what extent we can aid this effort of limitation and arrest of degradation of tissue. The pleura is

often involved by abscesses reaching to the outer walls. Sometimes this is from softening of tubercles sown in deep-seated structure and gradually working itself outward; but more often from softening of tubercles sown in the neighborhood of the pleura.

When the abscess extends sufficiently to come in contact with the pleura, we are apt to have that soften also and become lacerated. Through this lesion escapes purulent matter and air, giving us a severe pleurisy and pneumothorax, which usually terminates in speedy death. Fortunately, more frequently, the pleura has taken on such a degree of inflammation in consequence of adjacent morbid action, that we have sufficiently firm adhesions to secure resistance to the disintegrating process at this point; the callous, cellulo-fibrous or fibro-cartilaginous pseudo-membranes which are the product of this inflammation, being the barriers of resistance.

These callous walls, however, do not always resist the destructive process. These adhesions, as we would suppose, are more often in the region of the apices where tubercle is most abundantly, as well as most frequently found.

When we have interstitial tubercular deposit, conjoined with tubercular infiltration, we have rapid breaking down of structure, causing what is popularly known as "galloping consumption."

In this variety we are more apt to have the pleura involved, both, because of the rapidity of action, and because infiltrated tubercle occurs for the most part in the apices, and is more superficially seated. The appearance of the lung in addition to what has been said, cannot be better described than by quoting from "Pathological Anatomy," Part, I, by Rokitanski, pages 138, 139 and 140:

"In the upper third of the superior lobes we generally find a large cavern, surrounded inferiorly by several of a smaller size, some of which communicate with the former; between these we find yellow tubercles which are on the point of softening; a little lower down, gray tubercles, just becoming opaque and discolored; in the lower portions of the upper, and in the inferior lobes, a proportionately far smaller number of gray, crude tubercular granulations."

The pulmonary parenchyma between the tubercles is found in various conditions, according to the stage of the consumption.

It is found normal, but more generally in a state of slight vicarious emphysema of its superficial parts, with hyperæmia and œdema of its deeper seated parts. But it is more important to notice the atrophy of the parenchyma, induced in part by the interstitial inflammation, partly by the obliteration of the bronchi and air-cells, from the pressure exerted upon them by the agglomerated tubercles, and in part by the obstruction of the bronchi by the blenorrhœic mucous secretion. On the other hand, croupous pneumonia may have attacked the greater part of the parenchyma which is free from tubercles; it appears partly as brownish-red hepatization, partly as grayish-red, which are quickly converted into yellow tubercular infiltration, and break down into abscesses in various places. At other times, the pneumonia is followed by an exudation of the gelatino-glutinous product already described. In the best marked cases of this kind, the lungs are very voluminous, and are coated with a grayish-yellow, generally thin, pleuritic exudation, through which and the pulmonary pleura, we can see superficial tubercular infiltrations, surrounded by emphysematous patches.

In the larynx we find tuberculous ulcers in various numbers and of different sizes; also aphthous erosions upon the tracheal, and at times upon the pharyngeal mucous membrane.

The mucous membrane of the bronchi which go to the abscesses is in a state of infiltration to some distance, and the tubes are filled with tuberculous matter; besides this, they are always in a state of catarrh, with reddening and softening of their mucous membrane, which secretes a muco-purulent matter, forming by far the greater proportion of the sputa which are expectorated in the course of consumption. The bronchial glands are enlarged and tuberculous in various degrees.

Externally upon the lungs we find pleurisies of various extents, and, with the most different exudations, their organizations and consequences. They occasion, at times, those very acute pains in the chest, which so frequently annoy phthisical

patients. Except when they arise from superficial pneumonia, they are generally developed during the softening down of tubercles and the formation of the abscesses, and are complicated with inflammatory reaction in the adjacent interstitial cellular tissue. Among these the pleurisies around the apices of the lungs and the body of the upper lobes are remarkable for the constancy of their occurrence; they correspond to the favorite seat of tubercles, and deposit an exudation, which either becomes organized into fibro-cellular bands, or into thick, compact, fibrous swathes, which cover the upper lobes from their apices downwards in the form of a cap; they are thickest superiorly and gradually grow thinner from thence downward; they bring about an intimate adhesion of the lungs to the costal walls, and thus afford an effectual protection against perforation of the pleura by large abscesses."

CHAPTER V.

PHYSICAL DIAGNOSIS.

Accurate diagnosis is important to the success of treatment in our cases of phthisis, as well as in other grave lesions of the body; diagnosis in advance of tubercular exudation if possible, but at the inception of exudation, at all events.

In acute miliary tuberculosis there may be much difficulty in applying percussion to advantage, as the resonance is not so much diminished as to be easily detected, condensation not being sufficiently pronounced. The respirations, however, are likely to be increased, the dyspnœa more marked, and the more on going up-stairs and from rapid walking. Then again we may look for the prolonged expiration which occurs from pulmonary obstruction. Guttman says: "The thoracic resonance may be perfectly normal during the first stages of phthisis," and that it suffers but slight modification when patches of healthy lung tissues are still found between the condensed portions. This is good authority, yet we do not believe tubercular deposit can go on to any considerable extent without

diminishing the resonant capacity of the lungs. In addition to obtaining the facts upon points already named, we may use the spirometer and thus determine the vital capacity; if there should be found a loss of forty cubic inches in lung capacity, it would denote condensation of a cubic inch of the lungs and suggest tubercle. Dr. Radclyffe Hall, of London, says: "To know how much air a man does habitually consume is second in importance to no other fact in determining his condition. It is a symptom to be noticed and measured in every case of disease, most especially diseases of the lungs; the great and most satisfactory deduction being, that if on a proper examination, the lungs of any given person are working freely and fully, one thing is demonstrably true, he or she certainly has nothing like consumption. On the other hand, just in proportion as a person is habitually breathing less air than he ought, in such proportion is he falling fast and surely into a fatal disease." This tendency to consumption can usually be discovered years in advance of actual occurrence of the disease. In the early stages of consumption the spirometer is of much more value, it seems to me, than auscultation or percussion.

Jerking Respirations.—The jerking respiration is another symptom of condensation. This term is used to describe a vesicular inspiration, which divides into two or more parts; should the air-cells in the apices, for instance, become partially blocked by infiltration of a caseous degeneration, and the bronchii at the same time be reduced in size by tumefaction of the mucous membrane, the lung tissue would be less accessible to air, and the air would reach the cells later than the freely permeable lung would expand,—this gives a jerking or interrupted way of breathing. More often, perhaps, it may point to incipient catarrh of the apices, but this is a precursor of cheesy condensation. Says Guttman: "Experience shows that catarrh of the apices is seldom primary but usually secondary, indicating the beginning of caseous condensation in these parts."

The Rough Murmur.—The harsh or rough vesicular murmur, if heard in one or both apices and remaining permanently, furnishes good grounds for suspicion of a phthisical attack.

Prolonged Expiration.—Prolonged expiration, as we have said, is one of the earliest signs of the commencement of tubercular deposit or cheesy degeneration. It is often attended with rales, either dry or moist, which point to the same inference; it always points at least to a hindrance to the free escape of the air. A point to be made is that in cheesy condensation the murmur is more localized than if caused by other obstructions than tubercle.

Force in Expiration.—In the healthy person the force of expiration exceeds that of inspiration; upon this fact diseases of the lungs have been divided into two pneumatrometric types. When the positive expiratory pressure becomes less than the negative inspiratory force, we may be sure of *diminution of elasticity in the lung-tissue*, as in bronchitis, nervous asthma and pulmonary emphysema. When the inspiratory power is lessened, it is clear that there is *a resistance to expansion of the lung-tissue*, and this may come of stenosis of the trachea and larynx; from pneumonia, pleurisy and tubercle. In tubercle the inspiratory power is lessened when the disease is of very slight extent. In diagnosis we will easily be able to say whether this diminution of inspiratory power comes of stenosis of the larynx, from pleurisy, and very likely if of pneumonia, especially if we take the entire history of the case into account. Diminished force in inspiration then becomes a valuable symptom in the diagnosis of tuberculosis of the lungs, especially in the early stage. A careful examination covering these points will very definitely enable one to decide whether they have an incipient phthisis in progress of development, certainly if family and private history and temperament be carefully studied. This early period of the disease is most important to be made out, as at this stage a large per cent. of phthisical cases are curable, while if left to the course of nature, at no very remote period, a large majority of the cases are not found amenable to remedies. The latter stages of the disease, of course, are more easily determined by physical diagnosis, and this should be carefully applied.

Configuration.—Abnormal changes in the thoracic walls are important to note in all examinations for thoracic diseases.

A typical chest is noted for the symmetry of the two sides vertically and in each circle from the sternum to the spine. The supra and infra-clavicular spaces should round up nearly level with the clavicles, with a gradual swell of the chest to the nipples and then a gradual return curve, leaving the walls most prominent at the fifth rib; the vertebral column and sternum should be vertical or nearly so, and the scapula placed so as to keep the generally swelling curves complete, with a symmetrical depression in the line of the vertebral column, from which the spinous processes stand prominent. From a typical chest different deviations can be studied; there are a few deviations which are physiological and of no importance as bearing upon a morbid condition of the lungs—undue prominence of the clavicles in the line of the costo-sternal articulations, and possibly of the sternum itself, belong to this class. Depressions may also exist and more often in the sternum than elsewhere, especially the inferior portion, and is often the result of the *last* of the shoemaker.

Changes which indicate pathological conditions are what we wish to study; of these, expansion and contraction are most important to note. Expansion may be upon one side or upon both sides; this may be brought about by hepatization of the lung, if complete, but more often it comes of morbid growths, or the presence of air, serum, or purulent matters within the pleural sac. Pleuritic effusions not unfrequently occupy so large a space in the thoracic cavity as to cause very considerable enlargement. The first indication of enlargement in these cases is that of flattening of the intercostal spaces, as the muscles become inactive from the limited range of movement of the lung. Both the vertical and transverse diameters are increased when large accumulations have taken place; if the morbid product be a fluid, it will occupy the lower portion of the thoracic spaces, and change as the patient changes position from the sitting to the recumbent posture, or from side to side; this makes pleuritic infiltrations easy to determine; morbid growths or misplaced viscera have no such mobility. Pneumothorax, or air in the pleural sac, presents the same external conformation of the chest as does pleuritic effusion,

but it is usually more sudden, often coming from a fractured rib, a stab, or a gunshot wound, more rarely from the rupture of some pulmonary cavity, which communicates with one of the larger bronchi. Then the resonance of air upon percussion is quite unlike the dulness of serum, nor does air gravitate as does water. Bulging of the lower portions of the thorax when upon the right side, if not of pleuritic effusions, is usually from morbid enlargements of the liver, such as hydatids, and when upon the left side more commonly from enlargement of the spleen.

In pneumonia we have usually an acute attack with highly inflammatory symptoms; we also have as a rule the lower lobes of the lungs as the seat of the attack, especially does this hold good of the right lung; yet we may have the upper lobe or the middle lobe, or even both lower lobes as the seat of attack. When the entire lower lobe is affected we have resonance diminished as high as to the middle of the scapula posteriorly; if the middle lobe be the seat of attack dulness is most clearly detected between the fourth and fifth ribs. In pneumonia of the apices the dulness extends down to the fourth or fifth rib; if the whole lobe is hepatized we are able to trace externally the outlines, as the lobe so consolidated increases considerably in bulk, and the region occupied becomes expanded. There may be isolated patches with pneumonic infiltration, and the percussion note not be altered, so resonant is all the surrounding tissue. Pneumonia in the middle of the lung presents similar difficulties in the way of percussion.

Hepatization presents us a condition of complete consolidation and a corresponding dulness; other varieties of pulmonary condensation will have a measure of dulness modified by locality and density of the lung. Cheesy exudation and chronic interstitial pneumonia, involving usually the apices of the lungs and known often by the collective term phthisis, give us the most marked examples of condensation outside of hepatization of the lungs. In the disease known as cheesy pneumonia in Germany but as caseous exudation in England and America, condensation of the lung may occur in both

upper lobes, but seldom at the same time with equal severity. If the attack is uni-lateral it is usually upon the right side. Dulness in such attacks is most marked in the supra-clavicular regions and on the clavicles themselves. Possibly the dulness is most marked in the supra-spinous regions fixing the exudation in the posterior apices. If the condensation extends downward the dulness extends with it, and this is frequently the case too as low as the fourth rib. Exceptionally the percussion sound may be tympanitic in the supra and infra-clavicular space in a case of caseous infiltration, but the sound will always be muffled and tone does not change when the mouth is open.

Depressions upon the Surface.—A group of pathological symptoms more definitely related to our subject, is where we have circumscribed depressions of the surface; they follow shrinking of the lung from any cause which may occasion a collapse, but by far the most common cause is caseous condensation of the lungs. The reason of the depression is clear, for when the lung fails to occupy as much space by reason of condensation, the walls become depressed from the force of atmospheric pressure acting upon the outer walls. The upper anterior portions of the chest in the supra and infra-clavicular regions, are the points where such depressions are most frequently found. There is likely to be little depression on the lower posterior portion of the chest, even if the lung tissue has shrunk away, because of the large and powerful dorsal muscles. Tubercle is not nearly as frequently found in the lower lobes of the lungs, however, and depressions here are more likely to be from other causes. In chronic interstitial pneumonia the pulmonary contraction is often very marked, especially if the subject be a child. There is a kind of chest malformation which depends upon structural development, and has its origin, no doubt, in faults of nutrition, as has rachitis and kindred affections.

It will be recognized as the consumptive chest, long, thin and narrow, with wing-like projection of the shoulder-blades, the scapular end of the clavicles prominent; associated with this chest we have the elongated neck, long extremities, deli-

cate skin and possibly distorted joints of the fingers. A conformation favoring condensation because of the cramped spaces which prevent the free action of the lungs. Presumably the low grade of vitality which such a condition indicates is the first and the greater cause after all.

Thoracic Measurements.—It is quite well to take the measurements of the chest when estimating the condition of soundness or unsoundness, and yet to a practiced eye very slight variations in the form and capacity of the chest will be pretty accurately judged of, simply by inspection, some variations are even better detected by the eye. The tape and callipers have commonly been resorted to for obtaining thoracic mensuration. It should be remembered that the right lung is usually the larger. The circumference taken at the point of the nipple and lower angles of the scapula, when the arms are raised and extended, is a fraction less than 32.3 inches in the average man at the end of an ordinary expiration, and not far from 34 inches after a deep inspiration. In old age it diminishes somewhat. The measurement at the ensiform cartilage also shows that the lower respiration increases while the upper diminishes as age advances. The above are Trolich's numbers. The diameter of the chest taken from the clavicle to the base of the chest is called the long diameter; diameters taken from any point on the sides to a corresponding point upon the other side, and from a point anteriorly to a corresponding point posteriorly, are called respectively transverse diameters and antero-posterior or sterno-vertebral diameters. The long diameter is very variable. The sterno-vertebral varies from a little less than 6.3 inches superiorly to 7.5, or nearly, inferiorly. The transverse diameters run from 9.8 to 10.2, and a little more. Women give smaller diameters as their type of organic life is more diminutive.

Respiratory Movements.—The lung movement corresponds to the movements of the thoracic walls; such movement takes place in two directions, from above downward and from behind forward, the apex being the fixed point of the first, and the latter having a fixed point at the posterior center of the lung probably. Any considerable inequality of

movement is easily detected by the eye and points to some obstruction in the lung tissue. Such differences are more easily detected with the person standing in profile; the movements of the shoulder-blades also are quite diagnostic; should the obstruction be situated in the upper lobe of one or both lungs, the more common point of tubercular deposit, the limitation of the chest movements is seen to be in the upper thoracic region; if only one side is affected, on the affected side of course; if both lungs, the embarrassment extends across over both sides; but in this event it would be more difficult to judge of it because of having no sound lung by which to compare the movements. Again in cases where we have extensive softening of tubercle giving a large cavity, it has been noticed that at the time of inspiration there is marked depression in the walls at that place and at the time of expiration there is seen a bulging prominence. This is accounted for on the theory that the lung being condensed by tubercle it is inexpandible and does not follow the chest walls when raised by inspiration. We have also depressions from vesicular emphysema and croupal strictures, but these are more often seen at the supra-clavicular regions above the sternal notch or in the lower lateral intercostal spaces in the region of the epigastrium. A very low respiration again is often diagnostic of tubercle. When an impediment to the passage of air into the upper portion of the lobes of the lungs exists, the lower lobes act more vigorously, the diaphragm contracts more powerfully, and the chest inferiorly swells and broadens in an exaggerated manner. Carefully studied these various peculiarities help make out a correct diagnosis. When studying the respiratory movements we should remember that in women the thoracic movements tend to decrease from above downwards, and also that in young persons the upper portion frequently moves more than the lower portion, a condition reversed in old age.

Frequency of Respiration.—From sixteen to twenty respirations may be set down as about the average number per minute in the healthy adult male, rather less than more; some allow one respiration to four pulse beats—in sleep this is perhaps very nearly correct. Many causes operate to increase the

frequency of respiration; among the more marked we may mention impoverishment of the blood, and diseases of the heart, which prevent a proper return of the blood, stenosis from croupal exudations, pleuritic pains which limit expansion of the lungs, and obstruction from pneumonic and tubercular infiltrations. The value of this frequency of respiration is of most importance in judging of the extent of the infiltration. Shortness of breath should be looked upon with suspicion when not adequately accounted for from other causes. It is not always increased, however, even when considerable progress in a tubercular disease has been made. The volume of blood is known to *determine largely* the character of respiration. When by the progress of a chronic disease, like tubercle, the system has become impoverished of blood, the lungs, even though greatly crippled, will be able to perform a necessary function, to so small a volume of blood, and hence little acceleration of breathing will be present.

CHAPTER VI.

THORACIC PERCUSSION.

The practice of percussing the thoracic walls in the study of tubercular affections of the lungs has become a part of every thorough examination, and its importance is not likely to be overestimated. Two methods are used, the mediate and immediate; the immediate, which was the method of Auenbrugger, is performed by striking the walls with the finger-tips directly; the mediate is where some substance intervenes and is struck upon; this may be the finger or a pleximeter, and we may strike the pleximeter with the finger or a hammer. The important fact is to familiarize the ear to the normal sounds of the chest and to learn to detect any variation, especially dulness, if we are looking for tubercular exudation. We prefer the index or second finger of the left hand, firmly applied to the walls, to any other media; this can be better fitted to the uneven surfaces than the pleximeter, and the blow is

given with the middle finger of the right hand to bring out the chest sounds. Certainly if we wish to define sharply the bounds of sound and unsound structure, this is the most feasible way. Others prefer the glass or ivory pleximeter and strike with the finger or hammer, as they may choose. Flint has invented a good percussor and pleximeter, and Winterich has also invented an admirable percussion hammer which is manufactured by Tiemann. Those who are curious in these matters will consult some handbook on physical diagnosis. By any of these methods a nearly absolutely accurate result may be obtained, provided the physician has attained to skill in the performance of his work, if we except those cases heretofore discussed. It may be said of a skilful digital manipulator that he will use the hammer almost equally as well, while one who learns by the hammer does not prove to have gained much in the way of qualification for a good digital examiner. A very important point is that one possess a very sensitive ear, and this needs to be well trained to the different vibrations in sound; quality of sound and volume of sound are to be very carefully studied. The stroke is also of importance; if there be overlying tissue of considerable thickness, as in the mammary and supra-scapular regions, and some places covered with the larger muscles, it will require a stroke carrying much more force, in order to bring out from the parenchymatous structure the representative sounds, than on places covered with but little material to embarrass sound. Again, we may want to bring out sounds from structure containing air underlying other internal organs, especially would this require a forcible impulse upon the walls, contrariwise, it will be necessary to give a gentle blow where the walls are thin and the structure being explored is superficial. In following down also upon the border of the liver, a gentle stroke gives the boundary between lung-tissue and hepatic tissue much better than the forcible impulse.

RESONANCE.

The principal factor in the production of thoracic sounds, is the vibration of air contained in the pulmonary air-cells; to this is added the vibration of the chest-walls and the ten-

sion of the parenchyma of the lungs; this is proven from the fact that as the air vesicles become occluded, dulness of sound increases as in tubercular infiltration and hepatization. But a lung out of the thoracic cavity is not as resonant as one in, so we must conclude that something of resonance is obtained from the walls; and then, pathological changes modifying tension, modify resonance also. In relation to the quality of sound perhaps the terms *clear* and *dull*, or *resonant*, and *dull*, may convey what is meant as well as any, although attempts have been made to amplify and improve our nomenclature—*muffled* or *obscured* may be added if we wish for nicer distinctions. When we have less than normal resonance in a percussion sound, we may expect one of two conditions, either that the air vesicles are obliterated by plastic exudation, or that they are closed from pressure such as would follow from the presence of fluids in the pleural sacs or tumors within the thoracic spaces. Of dulness due to infiltration we need to study carefully that of hepatization from caseous degeneration and other forms of tubercle, also that of emphysema and the products of pleurisy. In the first stage of pneumonia, even though the capillaries become strangulated and over-distended with blood, the thoracic resonance is normal; it is only at the end of the second stage when the alveoli are filled with plastic exudation that the intensity of sound diminishes. If the infiltration goes on instead of being absorbed, and remains a permanent impediment in the form of chronic induration, we have what is known as a hepatized lung with the dull liver sound. In a case of hepatization you will not only have dulness, but bronchial respiration much more marked than in other forms of condensation. The character of the acute attack, the rust-colored sputa if we have it, will help to distinguish a pneumonic hepatization from tubercular condensation. In diagnosing as to whether dulness in the lower lobe comes of hepatization or vesicular emphysema, it is important to define accurately the boundaries of the border of the right lung; for if it does not go beyond the normal limits it may be safely concluded that we have no emphysema. Dulness from effusions are distinguished from both tubercle and hepatization by their mobility, thus shifting the place of dulness, espe-

cially the upper border. It is of importance when comparing the probabilities of tubercular condensation as against hepaticization, to remember that the caseous exudation occurs far more frequently in the apices of the lungs than elsewhere, while pneumonia attacks the lower lobes, especially upon the right side. It is not common to have both apices attacked at the same time, though possibly they may be; but it is very common for the disease to propagate from one apex to the other in tubercle. Dulness produced from caseous exudation into the apices, is usually most marked from percussing the clavicles and the infra-clavicular spaces. The tone in the supra-spinous regions also becomes dull if the whole of the apex is involved, whether the condensation be more anteriorly or posteriorly may be judged of by increase of dulness where the condensation is most marked. Infra-clavicular dulness follows with the progress of condensation downward in the superior lobe which may extend as far as the fourth rib. We have occasionally found the lower portion of the upper lobe infiltrated, while the apices appeared to be comparatively free; especially have we met this after imperfectly cured pneumonic attacks.

Hemorrhagic infarctions caused by mitral lesions are sometimes met with, but they occur in the middle and lower lobes of the right lung usually, and the valvular sounds and history of case will clear up all doubts in such cases. Tumors in the mediastinum sometimes are met with, but they are not likely to be mistaken for tubercular condensation.

Degrees of Resonance.—Degrees of resonance and dullness are much more readily made out in all places where sound can be properly eliminated, from the gentle tap than the more energetic blow. Of course in children there is less need of a strong blow, and if given, might possibly deceive from the fact that the impulse would be likely to call out resonant sounds from the abdomen; over tubercular places where softening has begun, and over cavities, gentleness in our explorations is necessary if we would avoid pain, and possibly hemorrhage in consequence of violent coughing which we may provoke. In percussing the back the patient should be

required to fold his arms in front so as to give all possible space between the two scapulæ, also in percussing over the region of the supra-clavicular fossæ, the patient should look directly forwards and keep the head erect, so as to avoid tension of the muscles spreading over this space, which would obstruct sound. Percussion should be carried on symmetrically, comparing one side with the other, as any difference in sound is best detected by this method, and work from above downwards; on the right side this may be carried to the edge of the lung, on the left side the heart will be encountered at the fourth rib. Lateral examinations can be instituted and comparisons made till the fourth rib is reached, when the space occupied by the heart will have to be deducted. Similar tension of muscles upon the two sides should be maintained, if we are to make accurate and nice comparative distinctions. The details well carried out often makes the difference between accuracy in diagnosis, and an examination of no practical value.

CHARACTER OF TONES.

Different tones following the percussion blow have been classed as tympanitic percussion sounds, tracheal resonance, amphoric resonance and the cracked-pot sounds. These have some significance in following out a tubercular condensation as it goes through different periods of transformation.

Tympanitic Sounds.—Any condition which favors retraction of the lung tissue may give rise to a tympanitic percussion sound. Pleurisy, pneumonia, œdema and caseous condensation may all produce retraction; but it is in the apices chiefly that this will be observed, and will be heard in the supra and infra-clavicular spaces. The sound will be somewhat muffled, and the pitch will not change on opening or shutting the mouth, a point which will distinguish condensation from a cavity here. It is owing to the tissue not being completely infiltrated, some of the alveoli yet filling with air, while at the same time the lung tissue is relaxed. The tracheal resonance is found almost exclusively upon the left side, and is probably due to the greater length of the chief bronchus on that side;

it more often is the result of pneumonic infiltration filling completely the upper left lobe than anything else. The tone is louder on opening the mouth, and deeper on closing it.

The Cracked-pot Sound.—The cracked-pot sound occurs when cavities exist in moderate size; in thoracic fistula which may follow the use of the trochar; in pneumothorax from gunshot wounds or stabbing, possibly in pleurisy and in pneumonia. There will be this difference if it come of either of these last conditions: the cracked-pot sound will not be augmented by opening the mouth, while in the other cases it will be very considerably increased. By far the most common cause of its production is vomicæ in the upper lobes, and if a patient is known to be tuberculous, it may be considered diagnostic of a cavity.

Amphoric Resonance.—The amphoric resonance is heard where large cavities exist, and where there is an accumulation of air in the pleural sac. Apart from the percussion stroke the sound depends for the most part upon the size of the cavity, if it be from tubercular disintegration. It is increased somewhat by opening the mouth—the sound is almost identical with that produced by striking on the side of an empty cask or large india rubber ball.

CHAPTER VII.

AUSCULTATION.

As in percussion there are two methods of auscultation, *mediate* and *immediate*; the *immediate* being that of applying the ear directly to the walls of the chest, and the *mediate* where the stethoscope is employed. Applying the ear direct has some advantages; the sounds are more distinct, while a larger area can be examined at the same moment. It is necessary sometimes to go through an examination rapidly, because of the weakness of your patient: this method at such a time has great advantage. It may be more difficult to adjust the ear to such points as the supra-clavicular spaces, especially if

much emaciation exist; again if there should be hair upon the chest the friction occasioned by respiration might mislead, but the application of a little water would obviate this friction sound. If it were necessary to confine the exploration within very narrow limits, the stethoscope would have great advantages, so it is well to familiarize the ear to both methods. Although very satisfactory examinations are made when the chest remains covered with the chemise, the ear applied to the walls of the chest direct gives the sounds more distinct, and this adds to certainty; and very few after proper explanation will object. A thin handkerchief will less obstruct the murmurs than the chemise. As an early diagnosis of tubercle in the lungs is of more practical importance than a later one, and as such diagnosis is much more difficult to be made in the inceptive stage of tuberculosis, a thorough and complete examination is imperative. Education of the ear to normal and abnormal sounds becomes necessary to a good auscultator. If the stethoscope be used, care should be taken not to press too hard on the thoracic wall, as this is painful where there is emaciation. Sounds produced by both inspiration and expiration are to be studied. These sounds have been classified into: first, simple respiratory murmurs; second, rales occurring during respiration and produced by the presence of fluid matter in the bronchi or parenchyma of the lung; third, friction sounds coming from the rubbing of roughened pleural surfaces upon each other; and fourthly, sounds arising from the cough and voice. Skoda divides the simple respiratory murmurs, both in the sound and diseased lung, into three varieties: first, the vesicular respiratory murmur; second, the bronchial respiratory murmur; and third, the indeterminate respiratory murmur. The first is produced at the instant at which the air passes into the alveoli; how the murmur is produced is not well understood. Skoda and Laennec thought it arose from the friction of air against the cell walls while in a state of dilatation; Niemeyer and others, say that it is caused by a temporary stenosis which takes place in the minute bronchioles. Baas regards that all respiratory murmurs are of tracheal origin, being modified by the

resonant spaces to which the air is conducted; in the bronchi it is bronchial respiration; in the alveoli it is vesicular. The vesicular murmur over the healthy lung is most intense where the walls are the thinnest; hence it is louder anteriorly than posteriorly; most intensified at the infra-clavicular spaces; weakest at supra and infra-scapular regions. Wherever the lung tissue becomes thin the murmur also weakens, as at the apices and the inferior borders. The vesicular murmur is audible only during inspiration; this murmur has been divided into the rough murmur and the soft murmur; the normal murmur is soft, but any impediment to ingress of air to the alveoli gives a rough or harsh murmur. For instance, if the walls become thickened by a catarrh, the hypertrophy produces the harsh vesicular murmur; this rough murmur may be circumscribed, or it may extend to the whole lung; it is of diagnostic value to decide if the rough murmur be strictly confined within narrow limits if we would determine the nature and cause of our catarrh; for if it be at the apices it is suggestive of caseous exudation—a primary catarrh rarely commences here; if of secondary origin, as has been remarked, there is probably tubercle in the apices. The harsh sound, however, is heard over the whole lung in simple bronchial catarrh, as also in secondary bronchial inflammations with complications. The *circumscribed* character is the important diagnostic point; this, taken together with associated symptoms will determine the existence or non-existence of tubercle. In children under twelve years of age we have the harsh murmur as a normal sound, and it is called in this case puerile.

Jerking Inspiration.—Another variety of the vesicular murmur has obtained the name of jerking inspiration. This will occur if the alveoli of the apices become obstructed with caseous exudation, or even if the lung-tissue become infiltrated from any cause—the more common cause, however, being tubercle. The reason for the sound is that the finer bronchi become narrowed, either by compression or thickening of the walls of the bronchioles, or both. This condition does not admit the air as readily into the air-cells, occasioning the lung

to be later in expanding—a fact which gives the interrupted inspiration. This will be likely to disappear after repeated full inspirations or after an attack of coughing, for a time, only to return, however, after a little. Possibly this character of respiration may exist from other obstructive causes of a temporary nature, when, of course, no serious import would attach to it; but if it continue for any considerable time, the fact is very significant as pointing to a serious invasion of the apices. Conjoined with this peculiar murmur, we shall also be likely to have prolonged expiration if tubercle exist in the apices. Collapse of the lung from aqueous effusions, pyemia or emphysema would abolish the vesicular murmur entire; also in extensive hepatization it would no longer be heard wherever such condensation existed. Occlusion of one of the principal bronchi by a foreign body would also so diminish the murmur as to well nigh make it imperceptible to the ear.

The Expiratory Murmur.—This is a sound produced by the egress of air through the bronchial passages; it is a sort of buzzing, not very well defined sound, much shorter than the vesicular murmur and wholly dissimilar in character. The abnormal expiratory murmur may be of two classes: the prolonged and the harsh murmur, and more often both will be found together. The prolonged expiration always indicates obstruction to freedom in the escape of air; it attends severe bronchial catarrh, as such attacks thicken the mucus walls of the bronchi; it is even more marked in cases of diffuse bronchial catarrh associated with emphysema. It is also found connected with condensation of the lungs, but in this case more localized. If limited, for instance, to one of the apices, it is one of the earliest indications of caseous exudation. The harsh expiratory murmur, also caused by obstruction, has about the same significance.

Bronchial Respiratory Murmurs.—They occur in condensation of the lung tissue and in pulmonary cavities. As pneumonic hepatization affords the highest degree of condensation, so the bronchial sound is most sonorous in this variety of condensation. If the lower lobe be the seat of hepatization, this

bruit is likely to be heard from the base of the lung to the middle of the scapula; should the pneumonia, however, be circumscribed, as possibly it may be, the bronchial sound might not exist at all, for there must be bronchi of sufficient size included in the condensed portion to yield the bronchial sound, or it will be absent. The sound also ceases upon the clearing up of the hepatic infiltration. In cases of caseous condensation and in chronic interstitial pneumonia associated with dilatation of the bronchi, the bronchial respiration is found, but never so intense as in pulmonary hepatization, both for the reason that the dull spaces are more limited, and because there is likely to be more or less of the alveoli in the immediate locality still admitting the air, which always deadens the murmur. The bronchial sound will occur whenever the lung is rendered void of air from any cause. Pleuritic exudations, pneumothorax, hypertrophy of the heart, etc., all yield the bronchial sound. Softening of tubercle and the opening up of cavities in the lungs, however, is the more common cause. The vomicae must be of some size, and if situated superficially, this favors the production of a bronchial sound. The size of the bronchi which opens into the cavity has much to do with the intensity of the sound; it is also increased by the energy of the respiration. It is not often, however, heard in the smaller cavities, especially if they be removed from the larger bronchial tubes. A modified bronchial murmur has been introduced into handbooks of physical diagnosis from Seitz. It occurs only at the time of inspiration; it is a very harsh murmur, such as is heard in cases of stenosis of the bronchi, or diffuse bronchial catarrh of long standing allied with emphysema.

The sound continues for about one-third of the length of the inspiration, which is then followed by a metallic echo, rales and other bronchial murmurs; it is always associated with cavities, and for the most part is heard in the upper lobes.

Amphoric Respiratory Sound.—This again has the metallic tone or echo; it owes its name to its resemblance to the sound produced by blowing into a bottle, where the air passes

from a narrow space into a large chamber. It may occur at the time of inspiration alone, at the time of expiration alone, or in both cases, but is generally loudest when it accompanies expiration. The cavities must be large in order to obtain the conditions necessary to its production. It occurs also in cases of accumulation of air in the plural sac. As the majority of pulmonary cavities are to be found in the upper lobes, of course here is where we more frequently find the murmur; and as the walls are thinnest anteriorly, there the sound will be heard most pronounced.

Indeterminate Respiratory Sounds.—Skoda in differentiating between the vesicular and bronchial respiratory murmurs found transition murmurs which could not properly be classed as either bronchial or vesicular, which he named indeterminate. It needs a trained ear to appreciate this kind of murmur. One cause of the murmur seems to be a shallow inspiration; this sends the air with too little force into the air-cells to obtain the vesicular murmur, especially where coverings of the chest walls are thick as about the shoulders. A forcible respiration will usually bring out a clear vesicular murmur.

The causes are, first, insufficient expansion of the air-cells; second, obstruction of a large bronchus or of several smaller bronchi where there is infiltrated lung tissue, and generally with it there will be abundant secretion of mucus. This occurs in cases of caseous exudation associated with a bronchial catarrh. Indeterminate sounds in such cases often disappear after coughing and clearing out the mucus obstruction. Lastly, all pathological murmurs become indeterminate when marked by loud rales.

RALES.

In normal respiration we have no rales, but as soon as the mucous membrane of the respiratory tract becomes uneven by thickening or hyperplasia, and the mucus glands begin to throw out mucus freely, we have accessory sounds added to the normal murmur, and these have obtained the name of rales. The manner in which these rales are produced is very variable, depending upon the peculiar pathological conditions present. They are produced in the alveoli, in the

larger and smaller bronchi, and in cavities of the lungs. For the most, they are dependent upon the action of air entering fluids and forming bubbles which break in the bronchi or cavities with a crackling or explosive sound. Possibly in the alveoli and minute bronchioles the rales may be produced by air passing over the fluids at the time of contraction and expansion. Rales are divided into two varieties, the moist and the dry; difference in the consistence of the secretions being the cause of the different sounds; the moist being caused by thin and watery secretions, and the dry by thick and more tenacious secretions. The moist rales are quite like to the breaking of soap bubbles in character of sound; the finer rales are more like the sounds produced by rubbing the hair between the fingers or the crepitating sound of salt when thrown upon fire. The constituent character of the fluid producing the rales is not usually easily made out from the rales. It may be judged of when determined whether the rales come from cavities or bronchial tubes, and the seat of the rales is not usually difficult to be made out. Rales are audible in all stages of respiration, rather more frequently perhaps in inspiration. Very commonly the fluid in which the rales are produced is lodged in the bronchioles, and in such cases the rales occur at the acme of inspiration and at commencement of expiration. Should the secretion be so abundant as to be found in the larger bronchi at the same time, the rales would be almost continuous. We have rales in the respiratory pause, and they indicate cavities in the lungs. Guttman says that he has never heard them except in connection with large cavities. Rales are scanty or abundant as the case may be; their number depends upon the amount of fluid in the alveoli, bronchi and cavities, as well as the proximity of the lesion to the thoracic walls. Persistent and abundant rales have been spoken of as gurgling rales; such are found more commonly in connection with cavities of considerable size secreting very copiously; possibly they may be found in connection with aggravated catarrhal attacks of the smaller bronchi.

Intensity of the Rales. — Intensity corresponds to the energy of the respiratory act and the quantity of fluid present; it is also increased by the extent of tissue involved, and if it

be near the walls it is the more readily communicated to the ear. The larger bronchi always give a louder rale than the smaller or the air-cells. If the rale come from the larger bronchi, it is not necessary that there should be a great amount of fluid to get a very decided rale, the surface being very considerable here and superficial to the ear, while in the finer bronchial tubes the rales, though numerous, are not easily detected without the aid of mediate or immediate auscultation. Though they should be very pronounced in cavities even, they are not as distinct to the ear as the rales from the larger bronchi, for the obvious reason that they are farther removed from the ear, and come to the ear through walls which intercept the sound. Then again if the stethoscope be used, the nearer the cavity to the stethoscope the more intense the sound, and it is to be remembered, that the louder rales will be carried farther than the feebler rales. Galvagni claims that rales in the deeper structures are heard most accurately from the mouth; others think such a statement requires modification; certain it is that rales in the apices are heard surprisingly loud if the stethoscope be placed near the mouth. Rales have again been divided into fine bubbling rales, coarse bubbling rales, and medium-sized bubbling rales. The distinction is valuable perhaps for determining the locality of the rale; the fine usually will be generated, as we should expect, in the bronchioles, and the coarse in the larger bronchi and cavities. The fine uniform bubbling rale is more often known as the moist crepitating rale of Lænnec, such as simulates rubbing of the hair between the fingers, and belongs emphatically to the air-cells and bronchioles. It has been regarded as pathognomonic of pneumonia, and is heard in the first and third stages of the disease. The significance is, that the alveoli contain both air and fluid. There is a point to be made in the regularity of the rales, as an irregular crepitating rale may be found in connection with condensation,—the rale coming from the smaller bronchi when the alveoli are impervious to air; this crepitation is not usually affected by coughing, as the contents of the alveoli are not thus dislodged. It should be remembered that the medium-sized and the larger rales, which are always more distinct

and louder than the smaller rales, are associated with the simple and primary of the bronchi, and yet their chief importance in diagnosis consists in their being a frequent accompaniment of secondary catarrh which is allied with parenchymal diseases of the lungs and with cavities. The rales themselves are not of a character to enable one to decide upon the question of condensation, but percussion and the character of the respirations, presumably will so far aid as to leave little doubt. The rales of a secondary catarrh which would be likely to be associated with caseous condensation however, are likely to be quite limited in distribution. Then as a rule they are of the medium size coming from the smaller bronchi and are not often appreciated by the hand.

Resonant and Non-resonant Rales.—Resonant rales are always associated with condensation and cavities, while with a spongy texture the rales will always be non-resonant. The cause is apparent; the dense structure favors the transmission of sound to the superficies, while the resonant quality is lost in passing through any considerable amount of lung expanded with air. It is not a fact, however, that all condensation yields us the resonant rale—should the dense part of the lung be exceedingly limited then the lesion would be surrounded by lung substance still admitting air, and this would destroy the resonance. The most pronounced resonance comes from cavities situated superficially and near the thoracic walls, as these rales will be nearer the ear and more removed from tissue which deadens the resonance by containing air. In other words resonance is increased by proximity to the walls and the degree of condensation of lung tissue.

Creaking Sounds.—We have creaking sounds associated chiefly with cheesy condensation of the apices which are valuable to study. They are never heard except when the secretion is scanty, and then these sounds seem close to the ear. They are often observed for awhile, then disappear—perhaps on account of the bronchial secretion being arrested. Other means of determining the condensation, such as percussion and observing the character of the respiration, will be applied if these creaking rales are detected, for they might be found associated with a primary bronchial catarrh after all.

Metallic Rales.—The ringing metallic rales are the most musical and accurate in pitch of all tones given out from the chest; they are best imitated by letting drops of water fall upon the bottom of a metallic vessel—they are always found in connection with cavities of considerable size and near the thoracic walls—precisely the same conditions which afford us the metallic percussion sound and the amphoric respiratory murmur.

Auscultation of the Voice.—Auscultation of the voice is employed to supplement or corroborate opinions formed from auscultation of the respiratory murmur and percussion; the sounds are classified as bronchophony and egophony. Bronchophony is a normal sound in the larynx, but when found in the chest it invariably points to condensation or a large cavity in solid walls. By far the most common causes of condensation, as has been stated, result from caseous exudation and hepatization. In cavities formed from cheesy degeneration the bronchophony is more intense usually than when we have dilatation of the bronchial tubes. Gangrenous cavities rarely obtain to sufficient size to yield this phenomenon. In large cavities following caseous degeneration, there is frequently a metallic ringing character to the voice sounds—it is not so loud, however, as that which attends coughing.

Phthisical patients so far advanced as to have bronchophony, are usually weak, and the voice is also weak and perhaps hoarse and feeble from laryngeal complications: these conditions modify the voice sounds coming from cavities as would be expected. Bronchial respiration and bronchophony arise from the same conditions and are always found associated; they are, however, of unequal intensity. Lænnec designated the more exaggerated sounds in bronchophony, pectoriloquy, it is a term of no particular significance. Skoda speaks of faint and loud bronchophony, the loud being merely Lænnec's pectoriloquy. As we have said, bronchophony is more distinct in cavities; yet infiltration under some circumstances yields quite as pronounced a sound.

Baccelli has shown that the more fluid and homogeneous the effusion, the more readily and thoroughly will it be penetrated with the vocal vibrations, and that if circumstances favor, even

a whisper will become audible through the effusion; while through fibrinous and purulent effusions the wave sounds pass with difficulty or not at all; hence it is claimed that it is quite possible to decide by the whisper whether it be serous, fibrinous or purulent matter through which the vibrations are transmitted. It is advised that one ear be pressed firmly against the walls when we are to explore, while the other ear is stopped by the finger, and than that the patient turn his face from the auscultator and speak either loud, or in a whisper, or both.

Aegophony. — This term is applied to a sound which has the peculiar tremulous character thought to resemble the bleating of the goat. The sound produced by speaking against a comb covered with paper, or the twang heard when speaking with the nostrils closed, gives a very fair conception of the sound.

Aegophony is produced, as it is thought, by the vibration of the walls of flattened or compressed bronchi; the voice vibrations being transmitted to a thin layer of fluid lying between the chest-wall and the lung; — moderate pleuritic exudation would give such a pathological condition. It occurs, according to Skoda, also in the absence of fluid, as it has been heard in cases of exudative hepatic pneumonia and in caseous condensation with and without cavities. It is not unusual to find bronchophony and aegophony at the same points or not far removed. After all the aegophony may be considered as only a modification of a bronchophony.

CHAPTER VII.

SPUTA.

The lungs may be extensively infiltrated with miliary tubercle and the sputa not be different from that in a bronchitis, because in the early stages the irritation only provokes an increased catarrhal secretion. Sometimes, however, before the disease has had a continuance sufficient for anything which

looks to suppurative action, the microscope reveals the existence of elastic fibres, which is conclusive evidence of destructive wastes in the parenchyma, even if physical signs fail to detect condensation or tubercular degeneration. The presence of pulmonary epithelium, at one time, was looked upon as diagnostic of that form of phthisis which is usually designated as a desquamative pneumonia, but it is now known that epithelium of this character has been detected in the sputum which attends an attack of simple catarrh. The quantity of sputa ejected depends largely upon the extent and severity of the irritation, and in caseous degeneration the irritation is usually progressive, the sputa being scanty in the outset and very abundant in the latter stages of degradation. Should the disease be arrested temporarily even, the expectoration would also be arrested, and be very definitely modified by the progress of the disease. Sometimes we have blood-stains and blood-streaks—hardly will these be diffuse; if these exist for any considerable time it is extremely suggestive of caseous infiltration, and should be accepted as good evidence, even if the physical signs usually attendant are not detected. Prolonged expiration especially should be watched for as a corroborative sign, available even before auscultation and percussion in diagnosis. The sputum of cavities at once takes such peculiar character as admits of no mistake; it is of firm consistence, rounded in shape, of a dirty greenish or grayish color, and sinks in water; possibly there might be blood mixed with the expectorated mass. There will be a quantity of mucus also contained in the sputum, as the mucous membranes will keep up their secretions as before the cavity formed. It is even quite possible that the quantity of mucus may be in such proportions as to hold up the purulent portion in water, because of the quantity of air-bubbles confined in the expectorated matters. Cavernous sputa examined with the microscope reveal pus-cells, free nuclei, elastic fibres and other debris of the destructive process. Should the sputa from any cause be retained for any considerable time in the cavities, changes most likely would occur, tending toward a septic nature, and fermentation would break down more or less the cohesiveness,

and an offensive odor would follow, the sputa taking on a muddy, dull color.

Putrefaction in tubercular cavities, however, is much more rare than in bronchiectatic cavities, as the cavities from tubercle usually are more superficial and in the upper lobes, while bronchial dilatation is usually in the smaller bronchi, and situated in the lower lobes, making expectoration more difficult.

Septic degradation in bronchitis with dilatative and gangrenous destruction of the lung-tissue, presents about the same quality of sputa; it differs in both cases from cavernous sputa arising from tuberculous action; in that it contains few or no elastic fibres; evidently there is an element in the sputa which chemically destroys the elastic fibre. Though the sputa of tubercular cavities has not the tendency to putrefactive degradation that exists in bronchiectosis and some kinds of inflammation of the parenchymatous tissue, such as sometimes follows pneumonia, or such as comes from inhaling poisonous vapors and from causes which debilitate and degrade the blood, yet we must regard that septicæmic influences have not a little to do with the fatality of phthisis. The study of the sputa then is valuable for the purpose of following the progressive advance of the tubercular transformation.

Then we may classify the expectorated matter into mucous sputum, which consists of the normal elements of the secreting mucous glands, mucous, water, and albumen in small quantities, albumen always abundant when inflammatory action sets in; muco-purulent sputum, which contains pus cells in addition; and the purulent sputum which closely resembles the pus discharged from an abscess. These constitute the base constituents of all sputa. If blood be mixed it may be called sanguinolent, to indicate such fact, though blood constitutes but a small part of the elements—more proper would it be to say sanguinio-purulent or sanguinio-albuminous.

Gangrenous sputum is somewhat distinct, especially in odor and possibly the addition of parasites, though probably these are accidental and not elementary. The appearance however, is different. The sputum is usually thin and abundant, of brownish or dirty green, or yellowish-green color, and sepa-

rates into three strata on standing; the upper layer is frothy, opaque and greenish; the middle is of a glairy albuminous character, even almost a serous matter, while the bottom is yellowish opaque matter, composed of pus corpuscles and a detritus forming yellowish-white cores which are very fetid, in which are found needle-shaped crystals of fatty acids. Gangrenous sputum rarely comes from tubercular cavities. Dilated bronchi, emphysematous cavities and degradation of tissue, blood thrombus, or burrowing abscesses formed from inhaling sewer gas or other noxious agents, are the more common causes of this sputum; it follows also from breaking down of the lung tissue in the third stage of pneumonia. Elastic fibres and blood stains, frequently appearing, then, may be regarded as of great importance to note, as they are found early, often before other physical signs can be made available for a diagnosis; they are very significant and appear at a time when remedial agents and proper regimen promise most for our patients. The sputum indicating progressive destructive wastes later on may still be studied for the purpose of selecting the proper remedy, the extent of the pathological lesion and prognosis; though the last by most will be thought to be a very easy matter.

CHAPTER IX.

IMPORTANCE OF EARLY RECOGNITION OF PHTHISICAL TENDENCIES.

As a morbid influence phthisis often proceeds far along in the work of disintegration of molecules if not of structure, before tubercular deposit follows; although tubercular deposit is almost a constant concomitant in the retrograde movement. Great emaciation, extreme nervous irritability and motor incapacity are often reached with little, if any deposit of tubercle. We cannot be too much on the alert for the first expression of vital deterioration, and retrograde tendencies in morphological movements. The arrest of these early vital and molecular

movements which tend to locate a morbid focus in the lungs, should be our first and chief care. It is not necessary to wait till auscultation and percussion reveal the indications of tubercular deposit before we are able to say whether there be steps taken in the phthisical dyscrasia toward degradation of vital force and the plasma. Indeed we may have tubercle in the lungs, and the expert in physical diagnosis fail to detect such a condition; but in saying this we do not wish to underrate the value of physical exploration in this disease.

PRODROMIC SYMPTOMS.

Among the earlier and perhaps the symptom of first importance is weariness. Patient says, I wish I could once get rested; feels too feeble for doing anything; particularly wearied and out of breath on going up hill or up stairs. At this stage may also be noticed the delay in expiration while breathing; the expiration being relatively longer than the inspiration. Then follows the constantly increasing muscular attenuation, the liability to take cold, the short, dry, hacking cough, the complexion showing that the coloring matter of the blood is also diminishing, for this pallor comes in the early stages almost uniformly. If your patient is connected with a phthisical family, these symptoms are all the more significant. If they come from any unexplainable source they are of the gravest import. If they follow an anæmia or exhausting draughts upon the constitution there is not a moment to be lost. Whatever the antecedents the case has reached a critical period.

At this stage the appetite is likely to be capricious; some articles of food are taken with a relish, perhaps, while others are loathed. In young girls suffering from menstrual disorders, who have phthisical tendencies, especially is this the case. In not a few, there seems to be a dislike of fatty foods; perhaps they will relish butter and dislike other fats. Then there is a class who eat well but constantly lose flesh. They are nervous, irritable and apprehensive; a condition of mind in exact contrast to what is seen at a later stage of the disease.

ACTIVITY OF MIND.—DaCosta and others remark upon the great brilliancy of the mental faculties, and some mention it

as a premonitory symptom. Our observation is, that very promising persons as to their mental gifts, often fall a prey to this disease, and we remember cases where this mental activity seemed to precede by a few months, well declared symptoms of phthisis. If the symptom found corroboration in family history, or by other prodromic symptoms, we would attach much importance to it.

HOARSENESS.—We have noticed that many of our cases treated for aphonia died later of pulmonary phthisis; sometimes not for years, however. Hoarseness may be looked upon with suspicion when it is chronic, or when repeatedly occurring in persons of delicate health; especially if they have obstinate catarrhal attacks with coughs which are difficult to get rid of. No doubt chronic laryngitis is often suggestive of incipient tubercularization of the lungs. According to Cohen and other laryngoscopists, even tubercle is often detected in the larynx before physical examination shows any invasion of the lungs.

COUGH.—A cough is often the first thing which attracts attention; it is much more constant than hoarseness and may exist for many years, but never loses any of its significance. It is usually a dry irritative cough, sometimes of a loud barking or explosive character. Possibly it may be only a mere hack with an inclination to clear the throat of some viscid secretion. At this time it is doubtful if it be more than a catarrh where the walls are only a little thickened; but we all know the significance of a catarrh, especially when lodged in a scrofulous diathesis.

TEMPERATURE.—Temperature is of very great value in *rapidly developing* phthisis, as an early symptom, it is of less value in very slowly developing cases of phthisis. Prof. Flint says: "Increase of the temperature is evidence for, and absence of any increase, is evidence against the existence of the disease." Usually, and perhaps always, there will be found periods of increase of temperature, before physical signs indicate tubercle; and, as has been stated, these vary as to the time of appearance and in the degree of fever expressed. If the temperature be high it indicates rapidity of disease, extensive tubercular invasion and early softening of tubercle. It is important to

take the temperature night and morning, and for a week or two, if we would have much value attach to this symptom. The morning temperature may even be higher than the evening, which would be an exception, and this fact can only be known by a comparison. The temperature may vary one day with another, and this can only be determined by taking the temperature sufficiently long, to get at an average; and the remission of the fever itself, may be important if found. If the temperature taken in the axilla is maintained as high as 99° for a few weeks, it is indicative of tubercular troubles; and if it is supported by other symptoms or occurs in a constitution seemingly predisposed to consumption there is reason for grave apprehension.

SUGGESTIONS FOR MANAGEMENT.

The whole regimen needs prompt attention, the totality of symptoms need careful study, the proper remedy needs to be selected and judiciously given. It may be Phosphorus, it may be Sulphur, or it may be Zincum, or some other remedy more fully covering the symptoms. Good air, good food, warm clothing, plenty of sunlight and plenty of sleep are now indispensable. And yet, the homœopathic agent, taking the rank of the *similimum*, is our lever and the great thing on which to rely. No morbid element or factor can be overlooked. Mastery of the totality of symptoms must be made if we expect any success; not the *outward symptoms* alone, or chiefly, but the *dyscrasia*, the *radix*, and the most occult vital impediment. It is of much less importance in a therapeutical sense to determine the location of a vomica than to differentiate and classify the objective and subjective symptoms concerning the cough, sputa, complexion, aggravations, ameliorations, etc., so as to be able to give a remedy which shall so act upon the vital movements as to arrest this retrograde process. Well as it may be for one to be skilful in all the methods of physical exploration, this other study of vital expression is indispensable. Certain it is, there is no excuse at this day for a man's being ignorant in our methods of physical diagnosis. If he cannot tell, as a rule, if he have tubercular dulness, bronchophony, ægophony, or pectoriloquy, he is

not to be commended for his learning, and yet there are weightier matters; yet, it may be doubted if one knows nothing of physical diagnosis, if he will be a very good diagnostician on higher grounds. We must know it all, pathology is a part of the totality of conditions, and is not to be separated from the symptoms. The first step in a large class of our cases will be to eradicate the constitutional dyscrasia, or to eliminate from the system such impedimenta as put progressive vital movements under arrest. This dyscrasia, no doubt, is what Hahnemann would often express as a psora, having a much broader significance than scabies or its family implied in the term. Faulty assimilation, and faulty excretion, are to be attended to, and faulty excretion may often be the antecedent of faulty nutritive preparation and assimilation. All impedimenta tend to functional inertia, and functional inertia to low grades of vital activity or poor health, the earlier retrograde steps to the later and more serious disintegrations. Then, attack the tubercular dyscrasia, the psoric-dyscrasia, or the hydrogenoid-diatheses, or whatever name be given to it, in its most latent form; acting upon the principle of tubercular prevention as the first duty of the physician. Outside of therapeutical prescriptions, much may be done in grading our vital status up by proper choice in marriage alliances, a matter for every well-wisher to his household to think of, and for students of sociology to study. Tuberculosis on both sides will surely bring death to offspring. Training for muscular development, which antagonizes somewhat the tubercular diathesis, is another way of overcoming danger. Muscular development and activity divert fibrin from the overcharged vessels in the lungs, and relieve the damming up process so favorable to tubercular exudation. Too much brain work must not be put upon growing persons, or even upon older persons with tubercular tendencies. Free expansion of the lungs and liberal activity of the muscles clear the stasis in the capillary and venous vessels, and the oxygenoid processes will go on more completely, working up fibrin to a condition adapted to structure building, and separating the unallying and effete matters, and giving them a current toward the eliminating channels. Abundance of sun, air of a high electrical status, giving a dry atmosphere

instead of a moist, is an adjunct. A systematic practice of expanding the lungs to their full capacity by the spirometer is of considerable value, as by such efforts at keeping the air-cells open, they are less likely to become the receptacles of cheesy deposit. It is a noticeable fact that tubercle has a facile tendency to infiltrate into the tissues of the apex of the lungs, and may not this be explained largely upon the generally feebler expansion of the cells at the apices?

Comprehensively, reserve force is to be carefully economized, and so far as may be built up and accumulated, while overwork and every devitalizing influence is to be avoided.

CHAPTER X.

DIFFERENT CAUSES SUGGEST DIFFERENT TREATMENT.

Whether we are to alter our opinions upon the nature and curability of that disease which has from time immemorial been the scourge of our race and the opprobrium of the profession, in the advancing light of science, is a question which our moral courage should permit us at least to consider. Possibly we have emphasized the difficulties of the situation from taking our data too much from one class of cases, and that the worst class. Autopsies reveal more cures, or arrest of advance at least, in descending transformations, than had been supposed to exist. Have we given sufficient scope to our investigation of causes? Indeed, have we not laid too much stress upon hereditary transmission of the disease we call phthisis, and overlooked the accidents of arrest of nutrition and elimination, particularly the last? Suffice to say, that it seems to us that the causes of phthisis are various, and possibly the pathology may yet have to undergo a revision. Any foreign substance acting as an irritant to the lungs may finally end in destruction of tissue and the degradation possibly may take the course of caseous exudation. We once knew a young man who by accident drew into the air-passages a portion of the

husk of a beech-nut; it lodged at the bronchial bifurcation, provoking a violent cough for two years or more, and slight hemorrhage at times. At length it was coughed up, but it had provoked tubercular deposit, of which he died within the year. There might have been some slight predisposition to tubercle, but inflammations cause infiltrations of fibrin or fibrinoid matter into the lungs, and this has a tendency to undergo degrading transformations and open up pus receptacles to be followed by all the results of retrograde metamorphosis.

It is hardly denied that tubercle is a constant accompaniment of phthisis proper, but this tubercle possibly may be an incident of the disease. We are almost inclined to think we can have a nervous phthisis, no tubercle existing till the phthisis has been long set up. We dare not deny death may occur before the stage of deposit. We find a large per cent. of consumptives in districts where many of the inhabitants are confined in manufacturing establishments, breathing the dust of mills, much of it dust from cotton and woolen fabrics. Probably such a life meets more often the extremes of heat and cold, which of course tends to congestions and disturbances in the vascular vessels. Pneumonias follow, possibly tubercle even in good constitutions.

What we breathe into our lungs, no doubt has much to do with their soundness. Indeed, we may say that this is no longer a question, pathological study having fully settled the fact. An eminent student of pathology has declared that the number found with affected lungs is surprising, and that inhaled particles of dust of one fabric and another is clearly the cause of the largest per cent. of all diseases, and especially of consumption. A climate subject to extreme changes is a very common cause no doubt, as congestions, catarrhs and pneumonias, are often the admitted antecedents of consumption. We have kept the record of a large neighborhood in a town of New England for over forty years, and, to our surprise, more of its citizens have died of consumption than all other diseases put together. The neighborhood is located upon a plateau of high land sloping southeasterly for the most part, and the balance occupying a basin at the foot of a mountain range—the

stream flowing south through the valley. We do not suppose this is exceptional. Several cases did not seem to trace to any hereditary predisposition. In one instance the person had been attacked several times with pneumonia and did not die till past fifty; a brother died of pneumonia not far from fifty-five; the parents died quite old; several sisters and a brother are living now and quite along in years. Still another case, that of a young lady, æt. about twenty-one; she had hemoptysis and died within a year and a half; father died of fever and mother lived to be very aged. Three brothers and three sisters, most of whom are living yet, *never* showed the least trace of tubercular troubles, and these cases can be duplicated in the same neighborhood. In another family one daughter and three sons died of consumption, while one daughter escapes so far; and a son nearly sixty is living, but has a bronchial trouble of a serious nature. The father and mother both lived up to eighty or more years. At the time the children were being carried in *utero* the mother was intemperate as well as the father. Consumption afflicts the second generation in this line in two families, that of the eldest son who died at about fifty years, and the second son who died a little younger. The third son who died even earlier in life had no family so far as known. It looks very much here as if alcoholism was able to so far vitiate the evolutionary force as to insure early retrograde metamorphosis, which in this case took the course of caseous degeneration of the lungs, and also carried a hereditary bias with it. We have known thoroughly the history of several cases in different localities where syphilis had been contracted, that ended in pulmonary consumption with syphilization and tubercularization conjoined, and part of them did not seem to have any particular predisposition to phthisis; one case, that of a woman, who was one of a family of eleven children, parents living to be seventy-one and seventy-eight. The other children are still vigorous, many of them well along in years.

We have known other cases where gonorrhœa developed a phthisis out of its own root, or provoked germs of scrofulosis quite too latent to be recognizable by any symptoms or his-

torical proofs in family genealogy. We do not say that such cases follow the identical course of a scrofulous phthisis, but they end with pathological lesions, and other phenomena so thoroughly alike that we are unable to draw the lines at least. Rindfleisch would say, these were stimuli to latent infections. A phthisis developing out of a syphilitic taint, is apt to be *slower in progress* in the second and third stages, we should say, than a phthisis developed from scrofula *per se*. Some may doubt if such cases should be called pulmonary phthisis; well, we have tubercular degeneration and cavities. We say that a phthisis developing out of a pneumonitis is not a phthisis *direct*, but we have tubercle and cavities, and the same septicæmic influences followed by death. The beginning is different but the end the same. This is the point we are laboring to show. A case is not studied in its totality till every element is also well studied. Hahnemann studied thus the totality of the constitutional morbid forces.

Experience must determine how far Aurum muriaticum, Kali hydriodicum and Nitric acid can be made to aid in the restoration of the vital forces in a phthisis pulmonalis with a syphilitic antecedent. We have no doubt but that these agents in such cases will be much more frequently indicated than Phosphorus, which is so efficient in cases arising from pneumonitis, or than Sulphur, so widely applicable to many forms of chronic disease, especially the catarrhal and those arising from faulty elimination. In cases where measles, or any other eruptive disease seems to be the provoking cause, we need to study the case by giving due importance to the unknown morbid force which was declared first in the rubeola, or variola as it may be; and what is known in therapeutics as corrective of these morbid forces may find a further adaptability in the degradation whose focus is the lungs. So of gonorrhœa we may look for Mercurius or Thuja to serve beyond other remedies in the tubercular complication. We do not say that generalization shall take the place of symptomatology, that we are not to give the best indicated remedy from the standpoint of subjective and objective symptoms, especially the first, these being the highest in rank. But very likely our

case will agree in this totality, and possibly subjective symptoms will be very deficient. If our course of reasoning is correct, it is easy to see that no one remedy can be a panacea for tuberculosis of the lungs; cod liver oil, phosphate of lime and soda, or anything else. Each case must be individualized and treated in its totality. Treating our cases by including the totality of the symptoms, the history and pathology being a part of that totality, we should naturally conclude that cases arising from different causes and with different phenomenal progress, would require different remedies for treatment. To instance another class of cases, consumption dating its beginning from a malarial poison, would more naturally suggest Arsenicum, Lycopodium, or Natrum muriaticum, than Stannum or Sulphur, and presumably the out-cropping phenomena would better correspond to the provings of these remedies. For the more purely scrofulous cases, with faulty nutrition and glandular obstructions, to meet temperamental defects and hereditary bias, those agents used for the removal of the deepest chronic dyscrasias will naturally suggest themselves. With this interpretation of phthisis the element of hereditary transmission will not attach in all cases, although the law of nature which tends to a perpetuation of types is admitted. Consumption thus studied and thus treated, we apprehend, will prove the triumphs of science instead of standing a perpetual opprobrium upon our art.

CHAPTER XI.

AMENORRHŒA, OVARITIS AND ENDOMETRITIS AS CAUSES OF PHTHISIS.

The non-appearance of the menses at the age of puberty has its cause usually in some cachexia; such faults of second assimilation as show themselves in rachitis, chlorosis and scrofulosis very likely may be at the bottom of the difficulty. In some cases the ovaries degenerate and become atrophied; very

often the amenorrhœa is associated with a general anæmia; there are associated with these cases as a cause or as a complication, chronic infarctions of the womb and oviducts, the result of catarrh or a uterine lymphangitis. These troubles need to be successfully treated to save invasion of the lungs in the end. It has been ascertained that the spontaneous movements of the white blood corpuscles are dependent upon the oxygen imparted to them from the red corpuscles. In chlorosis the red corpuscles are rapidly depreciated, and the oxygen bearing capacity is greatly reduced. It is fair to suppose that as the spontaneous movement of the white corpuscles ceases, they will impact in the minute capillaries. And as the apices of the lungs present a favorable point for the lodgment of such corpuscles, possibly we may get cheesy exudation in this manner. We have often noticed how quickly the lungs become attacked from certain forms of amenorrhœa; of late years also we have had occasion to note how very frequently cases of pulmonary phthisis followed the treatment of uterine catarrh by astringents and cauteries. No doubt some of these cases have a scrofulous groundwork at the beginning; if so, all the more important that the treatment should be constitutional and not local. The scrofulous element is less dangerous acting as a uterine lymphangitis than as a tubercular attack of the lungs, and there is no doubt but that there is danger of metastasis from such treatment. Perhaps it is only fair to say that such treatment is likely to convert a mild form of lymphangitis into an intractable one, and that such intractable catarrh tends to break down the nervous system, impair the digestion, and bring on such debility and blood degradation as paves the way to a phthisis. I fear untold harm is being done by such pernicious treatment of our cases of uterine lymphangitis and chronic catarrh. Then if we are not greatly mistaken, the indiscriminate use of iron in large doses for amenorrhœa and chlorosis has only tended to aggravate the difficulties for which it has been given, and all the more certainly to bring on tubercular complications. So strong are our convictions of a need of reformation here, that I have deemed it proper to devote a few pages to an analysis of the

leading remedies which experience has shown to possess a curative value in this class of cases.

Alumina.—The anæmic state to which Alumina so well corresponds, makes it a remedy suitable for chlorosis, and other conditions, where the menstrual function is deranged in a way to threaten pulmonary complications. The menses delay or are absent, color pale, quantity very scanty; leucorrhœa: acrid, profuse, and light colored; *usually alleviated by cold washing.* There are *throbbing pains in the vagina upon the left side; stitches in the vulva upon the left side, extending by sympathy into the chest.* If the lungs become implicated, the cough is *dry and hacking;* worse from talking or singing, often causing pain in *the right temple or on top of the head.* There is an oppressive pain which is worse at night; often stitches in the *chest from right to left (Lycopod.), in the afternoon*—hoarseness or aphonia, and if anything is expectorated, feels as if *torn away and after tedious coughing.* Alumina patients are apt to *wake with palpitation of the heart*—often have to *strain a great deal in voiding urine;* pass it *best when at stool;* sometimes contrariwise, cannot cough without involuntary urination; possibly have pain in the back as if a *hot iron* were being run through it; agrees with thin dry people and women greatly prostrated by menstruating. Appetite is perverted, wanting *chalk, charcoal, cloves, tea-grounds or some indigestible and unnatural substance.* Aggravations on *alternate days;* after dinner, when in out-of-door cold air, also from using wine, vinegar, salt and pepper.

Apium virus.—Will be found an important remedy when the morbid expression commences in the right ovary and develops lung symptoms.

The right ovary is swollen, painful, with pains passing down the thigh, or with soreness in the upper portion of left lung, attended with a cough. The pain may extend up to the ribs on the right side from the ovary. There is often a numb feeling in the side or down the thigh; the urine is apt to be scanty; the stool scanty and difficult, or possibly a diarrhœa of a watery character and foul smelling.

Accompanying symptoms are: menorrhagia with faintness; suppression of the menses; amenorrhœa; dysmenorrhœa; leucorrhœa which is profuse, acrid and green.

Calcareea carb.—Those who have been broken down by *frequent and too profuse menstruation*, or by *frequent miscarriages*, or too rapid child-bearing, will often be benefited by Calcareea carb. Patients are easily out of breath on going up stairs, have to sit down, they are so much fatigued and out of breath; they *catch cold easily*; have *damp feet*; *do not sleep much after 3 A.M.*; are often troubled with watery whitish diarrhœa; a leucorrhœa like milk; cervical glands swell; skin is flabby and soft; pains are aggravated by the *slightest touch or noise*; cough is dry at first with profuse salty sputum later. The later symptoms with advancing phthisis will be found under the heading of Calc. carb. in a subsequent chapter.

Guernsey gives the symptom, "least excitement causes the menses to return." Marcy and Hunt, "albuminous leucorrhœa, from the cervical canal, with great lassitude, debility, sinking, and trembling at the pit of the stomach, and burning pains in cervical canal." Dunham says: "The menses occur too early and are too copious often in incipient phthisis." Also that the leucorrhœa is apt to be "worse before the menses."

Conium mac.—The action of Conium upon the glandular system, and upon the genitive system of woman, suggests its adaptability to morbid states which have a tubercular tendency. The symptom, pain shooting into the left chest when dysmenorrhœa exists, shows a tendency of the lungs to sympathize with uterine troubles. We have inflammations of the ovaries and mammæ, enlargement of the ovaries and nodes in the breasts amenable to the action of Conium. Mammæ are sensitive before menstruation. Then again mammæ shrink away while the sexual appetite is active. Pains in the uterus are stinging in the neck and aching in the fundus. Stitches in the vulva is another symptom of Conium. Harley recommends it for exhaustion of the sexual organs. It is adapted to scrofulous persons of a rigid fibre. Hughes gives the symptom, "hacking, almost continual, cough; worse at night, when lying down." Hering, "hard cough, excited by itching or tickling in throat and chest, also bloody sputa, purulent sputa, sputa of putrid taste and smell. A remedy for single women along in years and light-haired persons."

It would seem to be best indicated for such cases as tend to atrophy or indurations of the ovaries or mammæ, consequently showing a degree of arrest of the reproductive functions, and for such as have dysmenorrhœa, with pains in the lungs, or hemoptysis. Also to a spasmodic cough which is worse evenings and when lying down. The cough is provoked by tickling or itching in the chest or throat.

Ferrum met.—I am sure that the use of iron in large doses often excites the vessels of the lungs to tubercular activity. I have personally observed the fact under circumstances not admitting of doubt—and if large doses of iron will occasion the exudation of tubercle, why may not the infinitesimal arrest the morbid activity which develops tubercle? I think we might find the use of Ferrum in the 30th attenuation upward a very valuable remedy in certain cases of phthisis. I do not think it is worth anything below that any more than Sulphur, and I have seen astonishing results from the 100 m. of Sulphur when the 30th had apparently no effect.

For hemoptysis from suppressed menses I think we have no better remedy, it being understood always that the similitum is the remedy *par excellence*. In Ferrum hemoptysis the blood is usually bright colored, readily coagulates, and not unfrequently it is accompanied with *interscapular pains*; sometimes there are flying pains in the chest; pulse is rapid, breath short, and hands tremble; countenance either pale, greenish-pale, or pale with spots; the sputum in advanced cases of lung trouble is copious, putrid and purulent, or greenish and frothy with purulent globules intermixed. Patient raises most in the morning and when moving about; is troubled to raise at night, unless she *sits up in bed*. Guernsey gives the symptoms: "Weakly persons, with fiery-red face." "Least motion or exertion produces a red, flushed face." "Anæmia, with pale face and lips, with great debility." "Face becomes suddenly fiery-red, with vertigo; ringing in the ears; great palpitation of the heart and dyspnœa." "Vomiting of food, with fiery-red face; vomiting of ingesta after every cough." "Previous to menses, has stinging headache, ringing in the ears, and discharges of long pieces of mucus from the uterus." "Leucor-

rhœa like watery milk, smarting and corroding the parts when first appearing." "Menorrhagia in weakly persons, with fiery-red face. It occurs too frequently, is too profuse, and lasts too long." "The menses intermit two or three days, and then return, the blood being very pale." "Hemoptysis, and spitting of blood" are mentioned by both Guernsey and Hering. Lippe speaks of a "general hemorrhagic tendency." The temperament and concomitant symptoms corresponding to Calc. carb. and Ferrum it will be seen are very unlike, though the excessive menstrual flow is quite alike.

Iodium.—From its influence upon the glands, both large and small, we might naturally suppose that Iodium would find a place in the treatment of ovarian troubles and also in diseased lymphatics, whereby the products of nutrition are limited. Admitting that tubercular products are the result of a lymphangitis as some seem to think, it is no strange move of the morbid force acting upon the glands of the genital system of a woman, to set up also a morbid seat upon the mucous glands of the respiratory tract. Iodium seems called for in persons of low cachectic condition of the system; such as arises chiefly from scrofula. Persons incline to emaciate, even while eating well. The mammæ dwindle in particular, are sensitive and sore. Women of this habit either menstruate excessively or not at all. If amenorrhœa exists they are very apt to show tubercular troubles of the lungs in a short time. The pulse is rapid, and there are other indications of pulmonary troubles, such as out of breath from little exercise, and an unexplainable weakness and languor is felt.

Further uterine symptoms are, acrid leucorrhœa, more pronounced just after the menses, so acrid as to perforate the linen. The right ovary is more often the seat of trouble. Iodium patients are usually very restless and want constantly to change their position (as in Rhus). Troubled also with canine hunger, eating very frequently. Their hunger may alternate with loss of appetite.

Iodium patients are liable to pulmonary hemorrhages and congestions. Have the sensation of weakness in the chest, as in Stannum, but less marked; also sharp, quick, piercing pains.

Cough more frequently a dry morning cough, with tickling in the larynx or burning in the thorax. Expectoration saltish, or sourish in taste—gray or white in color. Also large quantities of mucus streaked with blood have been observed. Voice is hoarse and larynx sore.

Guernsey speaks of empty eructations and a saltish taste in the mouth. Hughes speaks of its use in constant inclination to cough from tickling in the trachea and under the sternum, with emaciation and wasting fever, rapid pulse and diarrhœa.

Lycopodium.—The action of *Lycopodium* upon the ovaries, especially upon the right, has for a long time been well understood. It has been gaining clinical importance recently in the treatment of consumption. The two facts suggest that we are likely to find cases where it will be of great service when lung troubles seem to have arisen from menstrual derangements. The flatulency affecting the stomach and bowels; the urinary sediments; transverse character of pains or affections affecting the upper right and lower left sides, are often accompaniments pointing to *Lycopodium*. The leucorrhœa, if present, is usually excoriating, bowels constipated. Patients are subject to sharp, cutting pains in the limbs, are sensitive to cold air, and are apt to emaciate, especially in the upper part of the body. The cough often seems to come from the *stomach* which is usually a sympathetic point; appetite is poor, or stomach fills up *quickly* if one attempts to eat; pyrosis or burning at the pit frequently exists as a complication. Expectoration is of a grayish-yellow or greenish-yellow and purulent color, tasting saltish. Cough worse evenings, or night and morning.

"A woman of lymphatic temperament has for a long time suffered from a cough. Symptoms: cough getting worse, aggravations morning and night, expectoration copious, yellowish-green, purulent and of salty taste; occasional stitching pain in the chest; very weak; night-sweats; looks more and more miserable every day; little appetite; burning at the stomach; bowels constipated; moving every 3 or 4 days; *excoriating fluor albus*; cannot bear a current of air; shifting rheumatic pains; had taken Nat. mur. and Calc. Gave *Lycop.*³⁰ every day, then every two days; relief after the first dose, then improvement

in the cough, disappearance of the night-sweats, gradual lessening and eventual cure of leucorrhœa. Discharged cured in eight weeks."—KRÜSSLER, in *Allg. Hom. Zeitung*, xxix., 122.

Dunham mentions the symptoms: "Menses too profuse, anticipate a little; preceded by flatulent distention of the abdomen; great weariness of the legs; chill and heat at night; ill-humor and disposition to weep. During the menses, acid taste, headache, severe backache; swelling of the feet, nausea and a kind of faintness. Leucorrhœa in spells; of a blood-red color."

Guernsey mentions "cutting pains across the body from right to left."

Murex purp.—With the genital symptoms of Murex we have pain going into the lungs, which indicates a strong sympathy. It corresponds to that depression which often accompanies uterine diseases occurring in one naturally given to cheerfulness and elasticity of spirits. The most noticeable symptoms are, strong sexual desire which is greatly intensified by touch of the genitalia; pain in the right side of the uterus going into the abdomen or thorax (pain often crosses the body and ascends to left mamma); pain in the uterus as if cut by a sharp instrument; throbbings in the uterus; menses, after flowing a few days, stop and reappear after twelve hours.

Concomitant symptoms are, thick and greenish or watery leucorrhœa; urine has an odor like valerian; great lassitude and feebleness in the body and limbs as well as the mind; "all gone" feeling in the pit of the stomach; patient feels that she has a womb, giving her great discomfort. It is well known that many of our consumptives are given to strong amatory desires; in such cases it would be well to consult Murex.

Pulsatilla.—There is a class of cases with blood-spitting or pulmonary hemorrhage and severe coughs, which the physician frequently meets with, arising from menstrual troubles, liable to end in the gravest results to the lung-tissue, which call for Pulsatilla. The mild tearful disposition; peevishness; flying pains; light complexion and blue eyes; the *chilliness* even in a warm room or whenever the *bed-clothes* are stirred, and yet wanting the out-door air; the inclination to yawn; bitter taste in the mouth after drink or food; *thirstlessness*, or thirst for ale

and spirits; aversion to *milk* and *fat food*; nightly aggravations; beginning of trouble after a menstrual excitement or when the menses have been *suppressed*; perhaps before they appear, are sufficiently indicative. Hysterical symptoms; oppression of the chest when walking up hill or going up stairs; irritation at the pit of the stomach which *causes coughing*, perhaps vomiting, are frequent accompaniments. The blood, if we have blood-spitting, is dark and usually coagulated. Hering recommends Pulsatilla in phthisis florida occurring in chlorotic girls, even when in the suppurative stage of tubercle.

"In one case Pulsatilla in repeated doses, cured a cough with expectoration of blood, which had existed for three months; the cough and blood-spitting having made their appearance after the cessation of the menstrual flow, and had not yielded to any other remedy. The expectorated blood was mostly dark, in coagula, mainly at night, the cough was tormenting and constant all through the night, making sleep impossible, with dyspnœa and stitches in the left side of the chest; feet always cold. While using Pulsatilla both hands became covered with herpes which disappeared again after several months."—KNORRE, in *Allg. Hom. Zeitung*, v. 310.

Dunham sums up the leading uterine symptoms thus: "In the hypogastric zone, drawing, pressing or constricting pains, like labor pains, converging toward the pudenda. Pains *relieved by crouching* forward. They come, generally, just before the menstrual period, are attended by a feeling of weight, like a stone, in the hypogastrium, and accompanied by chilliness, stretching and yawning. The menses are delayed, difficult and scanty, or even fail altogether. Stomach-ache and faintings; aggravation in a warm room and by much exercise, and better in the open air. Leucorrhœa of a thick mucus resembling cream. Sometimes acrid, producing burning pain, sometimes bland, most profuse after menstruation."

Many aggravations of Pulsatilla are during menstruation. "Morning cough."—FINCKE.

Sepia.—Dr. Hitchman has reported a case cured by Sepia of much interest.

Lady was æt. 47, and a mother of several children; had been

confined to her bed some weeks, and for a long time her periodical secretion had not appeared until six weeks previous to the doctor's visit, when she had a flooding period of five weeks, which, however, was arrested at time of being called. "On investigation found she had felt a pain in the left side, under the false ribs toward the back, of a cutting, digging nature; had a cough; no appetite, and was very weak and badly emaciated; suffered much with thirst and when she fell asleep perspired profusely. Subsequent explorations revealed a tumor tending to point at the spot where her pains had existed so long, and physical signs were that of air in the cavity and gurgling rales when coughing; at the end of ten days from first visit pure pus was expectorated and afterward the tumor was less pronounced. Various remedies were tried with only partial success until into March; China, Kali carb., Lycopodium, Stannum, Pulsatilla among them." A few doses of Sepia at last cured the case almost magically the doctor says. It is not quite clear that tubercle played any part in this case, although the doctor speaks of a decided tubercular diathesis induced largely, as he thought, by mercury and other drugs, but there is no doubt about the pulmonary abscess, and the great danger to his patient from such abscess. The lady's courses became well established as her recovery was completed. The doctor mentions the symptom of *cutting, bearing down pains* in the abdomen extending to the thighs as connected with her flooding, which is the key-note to Sepia in this case.

"On the sexual organs of women Sepia acts very distinctly. Along with cutting pains in the abdomen, a pressure is felt on the uterus downward, as if everything would fall out. The menses come too early (reverse of Pulsatilla), but are scanty. They are preceded by violent aching in the abdomen, causing even faintness, and by chilliness and shuddering. During menses drawing pains, palpitation and dyspnœa, toothache, headache and nosebleed. Frequent stitches in the vagina in paroxysms, with or without a watery yet lavish leucorrhœa. Leucorrhœa rarely acrid. Sepia produces (and cures) a dry fatigueing cough, provoked by a sensation in the region of the stomach as if cough come from there, or from the abdomen.

Again, it has a cough with copious, saltish expectoration, white or greyish-yellow. Stitches, faintness, nausea are accessory." —DUNHAM.

We have hardly more than indicated the methods of study in this class of cases, not attempting in any sense to present a complete list of remedies which will be indicated, nor even a majority of such as will suggest themselves to any one as likely to be needed. Kreosotum, a remedy resembling in many ways Pulsatilla in its action upon the female organism, Conium, Iodium and Sulphur are remedies likely to be indicated as often as most of those receiving more extended notice, but their indications are not difficult to be found in our *Materia Medica* when investigation is once directed in the right direction. Sulphur especially is a remedy to consult for many derangements of the female sexual system with a tendency to lead up into phthisical troubles. A few leading indications from Dunham will be a fitting close. "Menstruation appears to come too soon, and to be increased in quantity. Dry evening cough, colic, toothache and abdominal cramps often precede. Menstruation is likewise delayed or suspended, and this symptom, if accompanied by the night restlessness, constipation and other symptoms characteristic of Sulphur, affords a very valuable indication in practice. I have often used it successfully where menstruation was suppressed, whether by cold during a previous period, or by unknown causes and where Pulsatilla had been given without effect. I think it more frequently indicated in amenorrhœa than Pulsatilla."

CHAPTER XII.

HEMOPTYSIS: PULMONARY HEMORRHAGE.

Many cases of consumption come to us with the antecedent of pulmonary hemorrhage; undoubtedly in many of these cases tubercle may be the cause of the hemorrhage, but probably there are exceptions to this. Engorgement or congestion may exist and the pressure upon the walls be too great, when

a hemoptysis will follow, no tubercle being present. But the congestion and subsequent inflammatory action may favor the exudation of tubercle, especially if there be a predisposition. Prof. Watson says: "The complaint of which hemoptysis is by far the most frequently symptomatic, is tubercular phthisis. There are many persons in whom the first attack precedes even for years the primary symptom of unequivocal phthisis; there are others in whom the first attack of hemoptysis is immediately followed by all the signs which announce the presence of tubercle in the lungs. Many again do not spit blood until the tubercles have acquired considerable development and the phthisical symptoms have been for some time clearly marked." Audral says, of the persons whom he had known to die of phthisis, one in six never spit blood at all; three in six did not spit blood until the existence of tubercles in the lungs was already made certain by unequivocal symptoms; in the other two-sixths, the hemorrhage preceded the other symptoms of tubercular disease and seemed to mark the period of its commencement. This is a very large per cent., only one in six escape by this author's observation. Our observation does not give so high a per cent. however, but large enough to attach the gravest consequences to a hemoptysis; and yet we have learned to avoid usually fatal terminations following hemoptysis. M. Louis gives the ratio as four to six. As far back as the days of Cullen it was held that the spitting of blood was often the cause of pulmonary consumption. The significance of hemoptysis as bearing upon phthisis pulmonalis is spoken of in the following manner by Thomas Watson in his *London Lectures*: "The occurrence of hemoptysis, considered in reference to the probable duration of life in those who are subjects of it is of melancholy omen; if from any given number of persons who have been known to spit blood we subtract those in whom that symptom was connected with irregularity in the uterine functions" (and we need not subtract more than a fraction of these), "there will remain but few in whom the hemoptysis did not depend upon disease incurable and progressive in its nature, of the lungs or of the heart; and if we further subtract those persons in whom the

hemorrhage was symptomatic of cardiac disease, there will be very few indeed left in whose lungs the existence of tubercles may not be confidently predicted."

TREATMENT OF HEMOPTYSIS.

The management of these cases is very important; for if the lung is left obstructed here, the seat of extravasation is likely to become the seat of tubercular deposit and a vomica; in cases preceding tubercularization with much arterial excitement, I have found *Aconite* a very serviceable remedy, especially if patient used wine or had been exposed to cold dry air; *Veratrum viride* for removing congestions of the lungs, especially if we have heart complications, ranks very high. *Elaps corallinus* is also an excellent remedy; *Plumbum aceticum* is another. Of course the totality of symptoms must guide in this class of cases as everywhere else. Then upon *Phosphorus*, *Lycopodium*, *Silicea* and *Sulphur*, I have largely placed my dependence for the removal of later dangers from hemoptysis. I will report a case showing the results of this treatment.

Anastasius Nicholas, of Greek extraction, æt. about 40, had been subject to slight hemoptysis for several years; was small of stature, dark complexion, somewhat flattened antero-posteriorly about the thorax, and had but little energy physically. Was taken with a hemoptysis in the fall of 1870, while in New York; case was very severe; as soon as patient could be carried he went to his home in Vermont, where he was again taken almost as soon as he got home, and we were called; found him looking pale, covered with blood, and in great apprehension; gave reply to questions only by motions very cautiously made; blood was dark; pulse not accelerated, but rather slower than natural. Gave him *Veratrum viride*; no very active bleeding followed, but he had the taste of blood in his mouth, and a lacerated feeling about the heart; spitting up occasionally a little blood with indications and fear on patient's part and my own that bleeding would return. Gave *Elaps corallinus* in place of *Veratrum*; all tendencies to hemorrhage were controlled in the next twenty-four hours, and no bleeding has ever followed so far as we know; but we had inflammation of the lung to control with *Phosphorus*, and later

purulent expectoration and hectic fever to subdue with *Lycopodium*. The case for weeks seemed one lingering along as tubercular phthisis, and we actually had a cavity of considerable size open up in the right lung in the region of the third rib. We had as symptoms for the use of *Lycopodium*, hoarseness; feeble, husky voice, with irritation in the trachea; cough more loose in the day, and tightening up at night; sputum dirty, grayish-yellow and purulent; could not lie as well upon the left side, upper right side affected; flushes of heat toward evening, and sour night sweats. Patient was apparently well in six months, and is still living.

Aconite.—The power which Aconite is known to possess over the arterial circulation, leads us to think of it in our cases of active hemoptysis; and its influence upon the *par vagum*, the principal regulator upon the heart's action, as well as modifier of the lung's movements, certainly does entitle the remedy to a rank of the very highest order for hemoptysis, especially when it results from over-distention and excitement of the arterioles, or the heart's disturbance; and in these points I think it will be admirably supported by Cactus. The blood is of a *bright red* color, foamy or filled with air-bubbles usually; comes up *easily* from hemming or *hawking*, sometimes with a gush. There is much *excitement* and *anxiety*—often apprehension of death. The pulse is *quick*; there are *stitches* in the chest and *palpitation* among the accompanying symptoms. The hemoptysis is often brought on from using stimulants; *from* exposure to cold, dry air and northwest winds.

“Man, æt. 35, has suffered for several years from cough, with scanty expectoration of mucus, frequently raising blood upon even slightly exerting himself; loss of flesh; has had for one week profuse hemoptysis; allopathic treatment with a bleeding; unsuccessful.

Symptoms.—So weak that he can hardly speak or hold himself up; paroxysms of coughing with raising of blood, come on often; about every two hours; he loses from one to two tea-cups full of *bright red*, foamy blood, preceded by the usual symptoms; the face is pallid, surface of the body cool, pulse small, frequent, hard, from 100 to 110; stitches and feeling of

tension throughout the chest; breathing short; exhaled air hot; no appetite; much thirst; bowels normal; no sleep at night. Gave Aconite²⁴, one drop every two hours. Oct. 20th, he feels better; the cough is better; has had no paroxysms since yesterday; expectoration still mixed with a little dark blood; feels stronger, freer in the chest; no more stitching pain; pulse fuller, soft, 80; sleeps. Gave Aconite³, every four hours. Oct. 21st, continued improvement; no trace of blood. Aconite⁶, one dose each day. On the 30th well; the chronic cough removed by a few doses of Sulphur."—HICHELHEIM, *Hygea*, VII, p. 136.

Arnica.—Arnica is especially adapted to hemorrhages of the lungs following mechanical injuries. The blood may be either black or of a bright red color; *frothy* blood mixed with *mucus* and *coagula*, is a form which Arnica sometimes controls. At times the *stomach* is disturbed, which seems to come from an irritation and tickling in the right lung. There is a periodical *flushing* of heat which increases the action of the heart; raw feeling in the chest; sore feeling when coughing.

"A man, æt. 62, of sanguine-bilious temperament, cured of the itch in his twentieth year with Sulphur. At no previous time suffering from any chest trouble, was suddenly taken with hemoptysis. On the day before, he had taken half a bottle of wine. Symptoms, during the last half hour: he has raised bright foamy blood (Aconite) mixed with clots and mucus, accompanied with moderate vomiting, which seems to be caused by an irritating tickling in the right lung, near the insertion of the right bronchus into the trachea. He can breathe deep; there is a periodical increase of heat and rush of blood into the chest, accompanied by increased action of the heart; the pulse is small, contracted, slow. The countenance looks pale; hands and feet are cold; occasional attacks of faintness. Prescribed Arnica⁴; repeated on the second day. Soon after taking the first dose all the symptoms disappeared, and he was discharged cured on the third day."—TRINKS in *Annalen der hom. Klinik*, I, 286. HEMPEL and ARNDT'S, *Mat. Med.*, Vol. I, p. 441.

Belladonna.—The influence of Belladonna upon the blood-

vessels immediately arising from the great thoracic arch, would naturally lead one to think that it would have a decided influence upon the circulation going on in the lungs; it corresponds to a *flushed* face, *excited carotids*, irritation of the *larynx* or tickling in the *trachea*, pressure upon the *chest* above the epigastrium. Sometimes nausea which *rises* up into the throat. Perhaps burning heat in the chest, or heat beginning in the *abdomen* and rising suddenly up into the lungs and passing as *suddenly away*. Sticking pains may be felt in various parts of the chest. Sometimes there is the *taste* of blood in the mouth as in Hamamelis and Elaps. Skin is hot and considerable hyperæsthesia in general.

"A girl, æt. 19, blooming, hearty, solid, was taken with a hemorrhage from the lungs after experiencing aches in the chest and hoarseness. Symptoms: sensation of pressure in the chest; anxiousness with simultaneous feeling of *ascending* warmth, greatly increased *redness* of the face, *burning* hot cheeks and forehead; tickling in the trachea, and expectoration of clear blood to the amount of a teacupful; cold hands and feet, small irregular, rapid pulse. Gave Belladonna³⁰; after thirty minutes quiet sleep, very little hacking, and that without expectoration; relapse on the ninth day, met at once by Belladonna, and again five days later; to remove this tendency Natrum mur., Sulphur and Lycopodium were used. When I saw her four years later she was perfectly well."—THORER, *Arch.*, XIX, 3, 114.

Cactus grand.—Cactus is indicated for hemoptysis with marked arterial excitement, though less than with Aconite, and when the heart is implicated. A *squeezing, constrictive* pain about the heart or scrobiculus is often felt; attacks of anxiety and threatened suffocation; also sharp, wandering pains about the scapular region. Congestion of the chest which prevents lying down is not uncommon. Beating of the abdominal aorta may be felt. A sense as if an *iron band* prevented the normal motions of the chest may be found present. Spasmodic cough with copious mucus expectoration, or a cough with thick yellow sputa like boiled starch; such are the chief indications for using Cactus; all the more strengthened if there

should be a rheumatic complication with our hemoptysis. The palpitation of the heart so common where Cactus is indicated is worse by lying on the *left side*. Cactus patients are frequently spare, suffering from what is often called nervous consumption.

Cinchona officinalis.—Cinchona seems well adapted to such persons as suffer from anæmia and passive congestions, to hemoptysis which shows a periodical tendency of returning every other day, or follows from loss of blood; also to patients who use alcoholics. "Singing in the *ears* and *faint spells*," Hering gives as an indication; "*rush* of blood to the chest and head with excitement of the carotids" (Belladonna) is also given as indicating the use of Cinchona. "Craving of *sour* things in connection with hemorrhage," Hering gives as an accompanying symptom. Patients want the head high; are subject to sudden prostration; troubled with stitches under the sternum and in left chest, which are worse during movements and deep inspirations (Bryonia), and also from *slight* touch. Cinchona has a clinical record for curing suppuration of the lungs following hemoptysis, also for curing the phthisis of drunkards.

"A woman, æt. 40, has been nursing for six months her tenth child. She had formerly been perfectly well; never had lung trouble. Has had cough with expectoration of blood for last two weeks. Symptoms: the woman seems strong, but always looks thin and miserable; nearly constant dry, hacking cough, with some pain in the chest every morning half an hour after rising, with constant tickling in the throat and some oppression of the chest; expectoration of bright red blood, about four ounces; with it great exhaustion; cannot stir; pulse small, thread-like, rapid, 100; appetite poor; bowels constipated for three days; mind apprehensive. Prescribed immediate weaning of the child, and two doses each day of China¹². After the third dose the cough ceased, and she was well after receiving twelve doses."—HICHELHEIM, in *Hygea*, VII, 142.

Digitalis.—Digitalis is often indicated in hemoptysis connected with tubercular infiltration and diseases of the heart. Distended veins, especially about the head; pale, livid face; coldness of the skin, with cold sweat and irregular pulse, are

the usual accompaniments. Palpitation, or disturbance of the heart's action is also very common.

It has been used successfully for pulmonary hemorrhage preceding menstruation, when pains in the chest, back and thighs have been associated. Heart disturbances usually accompany *Digitalis* symptoms.

Elaps corallinus.—Dr. Chargé speaks highly of *Elaps corallinus* in hemoptysis, and we have found it a very excellent remedy ourselves. The indications are expectoration of dark venous blood, almost black, though we have seen its beneficial effects in cases where the blood was not so dark; there is the *taste* of blood in the mouth (*Hamamelis*) and a feeling of *laceration* in the region of the heart. It would seem to be best adapted to the venous variety of hemoptysis as is *Hamamelis* and *Veratrum viride*. It seems to impress the heart with its influence somewhat as does *Cactus*, though *Cactus* has the squeezing sensation rather than the lacerated.

Ferrum.—Has hemoptysis with *bright colored* blood (*Aconite*, *Cactus*, *Ledum*) and inter-scapular pains with slight cough. Patient *has to sit up*, and *feels better when walking* slowly about, though he feels too weak to keep erect. Is indicated when hemorrhage of the lungs follows arrest of the menses, or is connected with the debility that follows onanism; also when following from removal of supporting walls to vessels where cavities exist, when the color is *bright red*.

Hering mentions the symptoms, "feeling of *soreness* below the clavicle and under the left nipple."

Raue says: "Quick motion and talking bring on cough; there is pain between the shoulders; face has a yellowish tint; sleep is poor at night, and there is frequent palpitation of the heart."

Hamamelis.—*Hamamelis* has proved to have blood-staying action, upon the vessels of the lungs as well as those of the uterus and intestines, has arrested cases of hemoptysis occurring in connection with a tickling cough and where there was the taste of *blood* or Sulphur in the mouth. Tightness of the chest and a difficulty in keeping the recumbent posture (*Ferrum*, *Cinchona*) have been accompanying symptoms. Some-

times frontal headache with a sense of constriction in the chest, the sense of constriction being increased by taking a *long breath*. Dr. W. E. Payne cured a case where the blood came *into the mouth without any effort*; a teaspoonful or so every two minutes; it seemed to issue in a *warm current* from below the right clavicle as patient represented the sensation; there was also the sensation of a *hard body* in that region; blood was of a venous character.

Ipecacuanha.—The hemastatic properties of Ipecacuanha have been known for a long time. It would seem to correspond to both the inflammatory and spasmodic element. The hemorrhage to which it seems to be best adapted is that which is aggravated by the *least motion* (Bryonia). The blood is of a light red color (Aconite, Ferrum, Ledum), nausea frequently being an associated symptom. Sometimes one *hand is cold* and the other *hot*. Morning *expectorations* of light red blood and mucus are among the clinical verifications, and often *vomiting* or *retching* has been associated.

Kreosotum.—Its action seems to be upon the vegetative system of nerves and the venous vessels of the circulatory system, corresponding to a low grade of vitality, with a tendency of the secretions to rapid chemical degradation. *Corrosiveness* and *fetor* are likely to be characteristic of all glandular exudations to which Kreosote is applicable, and *burning heat*, a sensation apt to be felt at seat of disease. Complexion livid, possibly oedema of the feet and puffiness about the face; irritable in disposition. The cough is whistling and dry, occurring more often *in bed in the evening*, accompanied with a *crawling feeling below the larynx* or in the upper bronchii. The hemoptysis has usually been *periodical*, with pus-like sputa where our clinical records are of most value. For expectoration of black coagula it has also proved a remedy. Another form is blood-spitting, with severe pains in chest; with *afternoon fever* and *morning sweat*. It may be thought of in hemorrhages connected with abscesses secreting a foul purulent matter, where there is *burning* at the seat of the vomicae, or a *crawling feeling* in the upper respiratory tract.

“A tailor suffered from periodical hemoptysis; was fever-

ish; could only lie on one side; had aches in the chest; yellowish-green purulent expectoration, and in fact every evidence of phthisis. For four successive days he received one dose per diem of Kreosotum, four drops on sugar. The bleeding ceased after the first dose and patient got well."—*Arch.*, XVI, 2, 169.

Ledum.—Many cases of hemoptysis which have called for Ledum, have occurred from troubles of the heart, as in Cactus, which it supports very well. Hemoptysis, alternating with rheumatism, finds a remedy not infrequently in Ledum. Congestion of the lungs, stitches in the chest, and soreness under the sternum are frequent accompaniments. *Palpitation* and *pressure at left edge of the sternum* is another symptom. Hemorrhage at *midnight* and in the *morning*, occurring in connection with a *purulent fetid sputum* has been found amenable to Ledum, the blood being bright red and foamy. A *beating headache* often accompanies or precedes hemoptysis. Hemoptysis is a pathogenetic symptom of Ledum, and Noack and Trink say it has a powerful action upon the lungs. Eruptions and tubercles on the face, and herpes on the body, which have been occasioned by its use, would indicate a very decided action upon the mucous membranes certainly. Then, we have small, red, constantly *itching pimples* on the chest with *biting itching*, from the provings.

Ledum patients have *hot hands* and *feet*, as in Sulphur, particularly in the evening; they cannot bear the warmth of the bed for the heat of the limbs. Heat of the body has been found troublesome in patients afflicted with hemoptysis. Another symptom is, long-continued *warm sweat on the hands and feet*.

"A young cachectic woman had cough with expectoration of blood. Symptoms: the attack which had formerly occurred on various occasions and had usually been cured under allopathic management in six to twelve weeks, came on from a violent excitement during catamenia. Very oppressed; rapid breathing; chest feeling as if pressed together; worse from motion or speaking; hard, hollow cough, jarring the chest and head, with expectoration of large amounts of clear, *bright red*

blood, so that she had lost more than a pint. Terrible beating headache; bloated face, now congested, then pallid. Loud noises before the ears, with hardness of hearing; tickling in the trachea; painful soreness below the sternum; feeling of fulness in the upper abdomen; constipation; œdema of legs and feet; annoying drawing pains in the extremities whilst lying quiet; feeling of *heat* all through the body, alternating with moderate *perspiration*; quick, full pulse; general lassitude. Gave Aconite, one dose. After nine hours *Ledum pal.* Bleeding ceased on the following day, and in three more days the patient was performing her usual duties."—VEIDEL in *Arch.* XII, 2, 145.

"A young man was attacked with stitching pain in the right hip; later, the knee joints and joints of the feet began to swell; some months subsequently and when the rheumatism had subsided, he was attacked with a fit of coughing followed by hemoptysis. The cough continued for weeks with an expectoration of thick, greenish, foul and fetid sputum. At this time there were evidences of a cavity in the left sub-clavicular region. Various remedies were tried, and the hemoptysis occurred the second time. Patient sank rapidly with signs of a galloping phthisis. Four globules of *Ledum*³⁰, given dry on the tongue. Prompt improvement followed, which was further forwarded by giving *Ledum*²⁰⁰."—DR. STENS, SR. by DR. HOYNE, in *American Homœopath.*

Lycopodium.—*Lycopodium* like Sulphur seems to have a marked capability for removing capillary congestion and a condition of overdistention in the arterioles. The cases in which we have had experience were marked with a very decided febrile action and with an afternoon aggravation. The fever has usually had the accompaniment of *flushing* heat; sometimes there has been the sense of continuous pressure upon the chest very much like that of Phosphorus, which it further resembles in that patients are worse by lying on the left side.

"Patient, æt. 40, has been exposed to night air for years; suddenly roused from an afternoon nap by copious spitting of blood; checked by astringents after the loss of a half pint of

blood. On July 20th, called and found him feverish, restless and weak. Gave Aconite² every two hours; was called again in the evening, he having raised about a pint of blood; the fever was much *more severe* and patient quite weak. Millefolium soon arrested the hemorrhage. Aconite and Millefolium then in alternation; later China³ every two hours. July 21st, on examination the upper portion of both lungs disclosed a dullness on percussion with bronchial respiration and mucous rales; dullness mostly on left side, but more soreness on right side; constant hacking cough with bloody sputa. Ipecacuanha every two hours; frequent change of remedies with alarming symptoms steadily increasing. During September gave Arnica, Arsenicum, Kali c. and Lycopodium without relief. Oct. 1st, Calc. phos. by advice of counsel; prognosis very unfavorable; appetite poor, greatly emaciated; bright, glassy eyes; red spots on cheeks; severe hacking cough; profuse night sweats; worse at 4 P.M. Lycopodium given again with rapid improvement, which was continuous."—A. M. CUSHING.

Phosphorus.—Dr. Holcombe gives us from his provings of Phosphorus, "sensation of *heat* in the lungs; disposition to take *deep inspirations with discomfort in doing so*; shooting pains in the *right side of the chest*; severe pain in the *posterior part of the left lung*, aggravated sometimes by inspiration and sometimes not; tickling cough, fugitive thoracic pains." If the long narrow stool be present, it is an important characteristic. Wanting cold food, particularly milk, is characteristic. It has a fine clinical record for controlling hemoptysis coming on from tubercularization of the lungs; is best adapted to tall, slender and rapidly growing persons; the florid complexion and attenuated muscular development give the best type for Phosphorus. In cases of bleeding from an enfeebled circulation, as in fatty *degeneration* of the heart, Phosphorus again becomes indicated. A valuable symptom is *pressure upon the chest when coughing, or sticking pains at the epigastrium*, creating a desire to *press the hand there for relief*. The color of the blood is *red* as in Aconite, Cactus, Ferrum, and Ledum. The febrile symptoms are marked, and the nervous system much disturbed.

Ebullitions and congestions are marked in the provings of Phosphorus. Raue recommends it for profuse hemorrhages pouring out freely and thin, ceasing for a time. We have often given it for blood-spitting in phthisical patients of the florid complexion and of an excitable temperament, with satisfactory results. In one case we remember patient preferred cold food, and had a relish for cold milk in particular. Sudden general weakness is very characteristic of Phosphorus. The rough, raw, scraped sensation in the throat conjoined with similar sensations in the trachea and chest are emphasized by Dunham, as well as the stitches in the left side of the throat, going toward the ear and up to vertex. Hering gives, "cannot talk without pain in larynx." Lippe, "trembling of the whole body in coughing." Raue gives, "profuse hemorrhages, pouring out freely, then ceasing for some time."

Phosphoric acid.—This remedy has much analogy to Phosphorus which we have just been considering; the same nervous irritability and congestions in the chest as indicated by the violent pain and oppression; the tickling sensation extending down to the epigastrium has other correspondence. Stomach symptoms are very common even to dyspepsia. Hering gives, "spasmodic tickling cough with expectoration of dark blood in the morning," but we incline to think the hemoptysis will usually be florid as in Phosphorus. It also has much correspondence to Cinchona and quite a little to Ferrum, both of which have the symptom of florid blood. There is also a weak feeling in the chest as in Stannum. The restlessness resembles *Rhus tox.* Weakness, restlessness, heat, but not averse to being covered as in *Secale*, tendency to faint after meals, from loss of blood and from emotions, added to the constitutional symptoms, will usually be a safe guide. The hemoptysis of onanists very frequently calls for Phosphoric acid.

"H., æt. 20, has for years been troubled with cough followed by spitting of blood, with violent pains in lungs and dyspepsia; no improvement after three months of allopathic treatment. Symptoms: a large amount of bright red foamy blood is expectorated after previous hawking, accompanied with a sensation of fulness, great internal restlessness so that he does not know what

to do with himself and with tickling cough; there are also stitches in the chest, especially when taking breath, drawing pains in the small of the back, loss of appetite, constipation and great pallor of face. Aconite² and later Arnica⁶ produced merely a temporary improvement; the bleeding ceased entirely after Phosphoric acid³."—HEFFENDAHL in *Allg. Hom. Zeitg.*, IX, 24 J.

Plumbum aceticum.—We have hemoptysis mentioned by Sund, and suppuration of the lungs by Richt, from Plumbum ac. Hering mentions a cough with expectoration of blood or pus after hemorrhage from the lungs; cough worse lying on the back and after getting out of bed in the morning; also recommends it for a dry, hacking cough in tubercular constitutions, with pressive pains in the sciatic nerve. Constipation or diarrhoea are frequently present, more often constipation, with great inertia of the bowels. The sheep-dung stool is quite characteristic of Plumbum. The febrile symptoms are internal chill with external heat; heat with thirst, anxiety, redness of the face and sleepiness.

Schlecher (*Allg. Hom. Zeitg.*) relates the case of a woman who presented all the physical signs of advanced consumption with the following symptoms: "Great emaciation, fever with nightly exacerbations, prostration, diarrhoea, good appetite, cachectic appearance, hectic flush, constant cough day and night, copious expectoration of chunks of greenish pus streaked with blood, sharp pains in the side. Bryonia only relieved the pain in the side; four doses daily of Plumbum ac. restored the patient to a fair degree of comfort."—Hempel and Arndt's *Materia Medica*.

"A man, æt. 70, of a slender make, was attacked with a violent cough, discharge of a quantity of bright red, frothy blood, coldness of the extremities, chilliness followed by heat; irritated, hard, accelerated pulse, constipation, thirst; palpitation of the heart, undulating feeling of malaise and warmth in the chest, embarrassed feeling about the head. The patient was promptly cured with a few doses of the acetate of lead."—Hempel and Arndt's *Materia Medica*.

Rhus toxicodendron.—Like Arnica, Rhus tox. seems to

have a power to restore the tone of tissues strained or overworked. The cases of hemoptysis where it has proved most serviceable, are those which have followed strains, and overexertion of the chest organs from blowing upon wind instruments. The blood is florid in color and is apt to be renewed from the least *mental excitement*.—Usually a *pain in the lower chest* is felt in connection with the hemoptysis; there is a variety of hemoptysis associated with a *tearing cough and purulent expectoration* where clotted brown blood has come up from the bronchii; the cough is worse from evening to midnight, beginning perhaps at about 7 o'clock, the periodical febrile period of *Rhus toxicodendron*. Soreness and stiffness of the muscles, especially of the nape; restlessness, relish for *cold milk* as in *Phosphorus*, are frequent accompaniments. Burt gives, "bloody sputa raised with great difficulty, with high fever." "Worse at night, particularly after midnight," Guernsey. Dunham emphasizes, "constriction of the chest; short, anxious respiration; stitching pains in the sides and the hypostatic congestion."

Sanguinaria Canadensis.—This remedy resembles more closely than almost any other the active inflammatory symptoms attending tuberculosis of the lungs; and it has been used with success in arresting hemoptysis occurring from tubercular irritation. *Flushes of heat, soreness and burning in the lungs, stitches in the chest going to right shoulder blade, nausea or tickling at the stomach which causes coughing, flying heat from the head to the stomach, quick, small pulse* and palpitation of the heart are guiding symptoms. Passages of *flatus connected with the cough* or disturbance of the stomach would support the other symptoms and strengthen our reasons for selecting *Sanguinaria*. Circumscribed redness of the cheeks in the afternoon, fever from 2 to 3 P. M. daily, is very suggestive of the blood-root. It is more often called for when hemoptysis sets in during the progress of phthisis pulmonalis.

Secale cornutum.—Guernsey recommends *Secale* for passive hemorrhages in scrawny cachectic subjects; in conditions where the corpuscles have a tendency to break down lacking fibrin; especially, for weakness attending, which does not come on from previous loss of fluids. (Opposite of *Cinchona*.)

The hemorrhage to which Ergot corresponds, gets worse *from motion* (Ipecacuanha, Bryonia), its special action is upon the uterus, but it has proved of service in both hematamesis and hemoptysis. It has a very decided action upon the spinal system of nerves, in consequence of which we often get loss of muscular action; exhaustion may be accompanied with *sinking spells more often at about 3 o'clock A.M.* Patients *dislike* to be covered even when the skin feels very cold; pulse, thread-like and small.

Sepia.—Mrs. W., æt. 50, of a sanguine-nervous temperament, tall and spare, of scrofulous habit. A son and daughter have died of pulmonary consumption, and scrofula shows in her grandchildren. Taken with hemoptysis. Local physician refused to take charge of the case for the reason that he considered it a case of consumption. We found her much prostrated with pain in the forehead, dyspnœa, slow pulse and cold extremities. Learned that extremities had been inclined to be cold for weeks; urine *very offensive*; thick and dark; a sediment in commode of a clay-colored substance. From the slowness of the pulse and imperfect circulation we were inclined to think there was a rheumatic complication, although there was no pain except in the head. Gave Sulphur³⁰, followed by Benzoic acid; soreness and slight swelling of ankle joints in the course of three days, with relief of head and chest symptoms. Urine still of the same character; much prostrated by fever and a want of natural warmth of the body; so weak she has to be lifted from the bed; a hacking cough, which is worse from lying on the left side (Phosphorus); brownish spots about the bridge of the nose; forehead and face look as if inclined to freckle. Sepia²⁰⁰ cured the case, so that she remained well for a few years, though we think she died later with consumption.

Stannum.—Stannum has been given for hemoptysis where there was copious expectoration and the feeling of *excessive weakness* in the chest, so characteristic of the drug. There has been an oppressed feeling aggravated when *lying down* in the evening and also from *motion*. Soreness and stitches in the chest are noticeable symptoms. The fever is more marked

from 4 to 5 P.M., as in Lycopodium; that is, in the hands (Ledum, Sanguinaria, Sulphur), especially in the evening; and then we have anxious heat as if perspiration was about to occur. The feeling of *weakness* is often felt also at the pit of the stomach; *all gone* feeling it is called. The symptoms of Stannum frequently increase and decrease in a sort of crescendo diminuendo.

A few additional remedies we have found to be of service in hemoptysis, among which are Carbo veg., Veratrum vir. and Sulphur. The well-known hemastatic powers of Carbo veg. in epistaxis have led me to try it also in hemorrhage from the lungs, and we fancy with very good results. In one case where it was tried there was a sense of *constriction* accompanied with *burning*. (Sanguinaria.)

We have given Sulphur more frequently as a support to Cactus, Phosphorus or some other remedy, than alone; and yet it is not lacking in power to control capillary congestions and excitements, out of which a hemoptysis often arises. It proves curative to an expectoration of *dark blood* with *stitches in the chest*, particularly extending to *left scapular*. (Right, Sanguinaria.) There is a feeling of weakness in the chest, but not so pronounced as in Stannum. *Heat* in the *vertex* and *hot palms* and *soles* are other indications. In conclusion, let me add, that there are many other remedies which will be found to be adapted to our cases of hemoptysis. The similimum of the whole case is the remedy of all others to take precedence. Veratrum vir. has been used by us somewhat empirically in cases of hemoptysis, but is of too much suggestive value to be here omitted. No remedy has a more profound action upon those nerves which supply the capillary vessels of the lungs, if we may judge from the intense congestion it is able to produce. Acting upon this fact, we have given the remedy, and to our satisfaction. The *burning* pain in the region of the *heart*, *faint feeling* at the stomach, accompanied with *nausea* and the slow *intermitting pulse*, may be taken as good indications when they exist. The space we have taken to present the leading remedies for hemoptysis, will need no apology when we remember how many cases of phthisis pulmonalis come to us beginning with a hemorrhage from the lungs.

CHAPTER XIII.

CATARRHAL PHTHISIS.

The importance attached to bronchial inflammations by German and French physicians, gives special prominence to catarrhal affections as bearing upon phthisis pulmonalis. If mucous casts block the alveoli, or more exactly, catarrhal mucous cells and fibro-plastic nuclei mix together and fill the alveoli, giving us the condensation which so often ends fatally in the form of a phthisis, how very carefully should we watch our catarrhal affections. There can be no doubt about hypertrophy of the mucous membranes following a protracted inflammation. That pressure upon the vessels in consequence of the hyperplasia, may to a large extent cut off nutrition; that even the inflammation may extend to the fibrous structure thickening the parent tissue, is not difficult to see. Lastly, that from such a beginning all the graver evils attending caseous degeneration and tubercle may follow.

We accept, then, the statement of that class of pathologists who believe that quite a per cent. of our chronic catarrhs finally terminate in caseous exudation and end in destructive wastes of the tubercular passages and the lung tissue proper, as a final result. Some die of chronic laryngitis before progressive disintegration reaches lung tissue; others of bronchial ulcerations and dilatations, which become pus receptacles. The disease is comparatively slow, and, as a rule, not primarily of the tubercular diathesis, and is much more amenable to remedies; indeed, should almost without exception be arrested short of a fatal termination, if attended to in season.

The greater the tendency to tubercle, however, the greater our difficulties. For the mucous membrane as well as the parenchymatous structure of the lungs is liable to tubercular exudation, though perhaps not *as* liable. In the progress of a catarrhal consumption, we have ulcers disintegrating portions of the larynx; trachea, bronchi, and, as a rule, the lungs will become implicated, revealing caseous products and cavities as a later accompaniment; the last appearing after the vital

forces are pretty nearly undermined. The pressure that follows from the hypertrophied mucous membranes prevents free ingress of air to the air-cells in the apices, and they load down with the cheesy deposit, carrying disease also to the parent tissue. Catarrh may be found wherever the mucous membrane is found, and we may find it changing its seat of action from one locality to another, just as we see rheumatism and many of the skin diseases shifting from one locality to another; always, however, adhering to the same kind of structure.

Skin diseases, especially, tend to migrate to the mucous membranes, and are often the real cause of a catarrh itself. And then, again, the appearance of certain skin diseases are an indication that a diathesis exists, which may become the soil out of which tubercle sprouts. Such condition warns of danger and demands proper remedial measures.

A catarrh of the stomach may be the leading step to defective nutrition and imperfect assimilation, favoring the later step of arrest in vitalization and lead to tubercular exudation. The study of these points will lead to better treatment of our cases.

Properly indicated remedies such as *Argentum*, *Calcarea carb.*, *Calcarea phosph.*, *Carb. veg.*, *Natrum sul.*, or *mur.*, *Lycopodium*, *Nux vom.*, and *Sulphur*, should be early administered. Catarrhal affections of the vaginal passages and uterine cavity, again, are the sources from which are transplanted nasal and tracheo-bronchial catarrhs, which later may end in caseous exudation in the apices. We have seen two such cases die in a colleague's hands within a year. By no means should these be neglected.

Again, too severe condemnation cannot be made of the practice of using such local measures as tend to suppress the local expression when upon the utero-vaginal membranes, sending it to more vital localities in the organic scale.

Alumina, *Calcarea carb.*, *Kali carb.*, *Kreosotum*, *Lachesis*, *Lycopodium*, *Pulsatilla*, *Sepia*, *Sulphur* and *Thuja*, are agents at hand, together with others, which if carefully selected will eradicate all danger from this source. Some of these remedies we have noticed in considerable detail in previous pages of this work.

Returning to the respiratory organs, we may begin with a nasal catarrh, where we find more frequently the anterior nares, and the irregular cavities called the nasal fossæ, into which they lead, the starting point.

The mucous membrane is here most exposed; perhaps the posterior nares at this step become involved. Traveling downward we have pharyngeal complications, and from the naso-pharyngeal we have chronic laryngitis, and then tracheo-bronchial affections, all growing out of the primary seat of the disease by continuity of similar structure. We do not say that this is always the case, for a catarrh coming on from retrocession of any skin disease, or from a metastasis from the uterus or alimentary canal, may seize upon any of these points, and there develop the force of its morbid action. Right here let it be remarked that the nasal douche is often responsible for a catarrh of the bronchi, because the remedies only suppress and do not cure. As so many cases of consumption have a beginning in catarrhs, or are allied with catarrhs, we feel justified in giving in this place a comprehensive digest of treatment, with clinical cases to verify. A complete treatise upon consumption should in our judgment include to some extent the treatment of catarrh and pneumonitis, as well as hemoptysis. The law of metastasis is well illustrated as well as a clinical indication made by the following case from Knorre.

"A girl, æt. 18, was afflicted every winter with a moist eruption upon both hips; when it disappeared she had catarrhal inflammation of the septum and alæ on the inside; discharge of a thinish mucus which was acrid, excoriating the upper lip and obstructing the nostrils. Scabs were apt to be yellowish-hued. There was a *burning sensation* aggravated by *sneezing* or *blowing* the nose and by *touching* it; was worse also in the morning. Patient had a pale, sallow countenance; was cured by Magnesia mur.⁴"

To this I will add a case of my own cured by Acidum nitr. A Mr. Kendall was troubled with an eruption about the anus which seemed to belong to the family of eczema. It annoyed him exceedingly from itching; there was an exfoliation of thin scales and a moist serous exudation. When the humor

disappeared a hoarse bronchial attack came on attended by a violent cough, mostly dry, accompanied with sharp, *sticking* pains in the throat-pit. At times hoarseness amounted almost to aphonia. Acidum nitr.³ cured the whole difficulty in a little while, the eczema not returning. I remember a fine record in treating a case of the catarrhal variety of phthisis with caseous exudation into the apices made with Causticum²⁰⁰. Patient was an elderly lady approaching 60 years. Countenance was a pale earthy, or dull chalky color. Had been troubled a long time with a cough and general catarrhal symptoms; voice was nasal and husky; flesh was soft and flabby; easily put out of breath from exercise, and but little muscular endurance. Patient was attacked with a severe cold which so prostrated her that she went to bed with considerable fever, followed by an intense aggravation of all the tracheal and thoracic symptoms; muco-purulent expectoration followed, of a very heavy character and only a shade more yellow than cream, appearing to the eye somewhat as cream does, only a little more dense; indeed, it was very firm and compact. The sputum was very abundant and came up in detached masses after severe coughing spells. Throat and chest were sore when coughing. Patient was sad and of complaining mood, almost beside herself; said she would drown herself, for she would not spit herself to death; very much out of humor; easily vexed and irritable. She recovered from her acute attack in two weeks with Causticum, and even advanced far beyond her previous condition.

I am fully assured that this case had a complication of tubercle or caseous exudation. Patient died three or four years later with consumption in the hands of another. It is now my opinion that Causticum could have been made to do much more for the case by using the higher attenuations at long intervals. As it was, I got my patient off my hands in a fairly creditable manner, and when three years later she came to want a physician, she went to another party to show her gratitude, and easily got her passport without being obliged to take herself off at her own hands.

Catarrhal consumption may be divided into three stages:

First, catarrhal, with thickening of the mucous membrane and pressure upon air-cells and subjacent tissue; second, with caseous exudation as a complication, and third, with softening and disintegration of caseous matter carrying down surrounding tissue. These different stages should be carefully studied and promptly met with appropriate treatment. The first is easily cured, the last is very difficult.

THERAPEUTICAL INDICATIONS AND CLINICAL VERIFICATIONS.

Alumina.—Well adapted to catarrhs engrafted upon an anæmic state of the system and with constipation associated. Such persons often have perverted tastes, wanting charcoal, chalk, cloves, or other indigestible things. Perhaps they have been afflicted with tetter or other variety of skin disease. The catarrh often begins in the ears where there is to be found ulceration of the mucous membranes. Scurfs are perhaps found in the nose, the septum is swollen, the root of the nose tender; redness about the nose is a frequent accompaniment. As the catarrh progresses downward we have huskiness of the voice, mucus accumulates in the throat, dropping down from the posterior nares, or a tough secretion is thrown out from the laryngeal follicles difficult to be raised because of its adherence. The cough is aggravated by talking or singing, by eating such things as pepper, salt and vinegar, and by cold air; cough worse in the morning. Catarrh apt to be worse on alternate days. Alumina patients take cold on the slightest exposure (Hep. Calc.), though they feel better in the open air. They cough a *long* time before they are able to raise; sometimes a sensation as if a loose piece of skin were in the trachea.

CLINICAL.—“Miss L. P., æt. 17, dark complexion, excitable temperament and of a phthisical family, had cough for three weeks, particularly violent in *the morning*, raises a *little after coughing a long time*, has also a cough in the evening.

Alumina^{1m}, two doses cured.”—C. WESSELHÆFT.

“A lady, æt. 33, had for fourteen years a peculiar cough from an irritation in the throat as of a *loose piece of skin*; *difficult expectoration* of putrid-tasting mucus; shooting pains in

the spleen. Symptoms aggravated by *cold air out of doors*, and from getting tired by talking; she is better in warm air; pepper, wine, salt and vinegar set her to coughing; cannot lie on the *right side* on account of her cough; riding gives her pain in the chest.

Alumina²⁰⁰ cured her after trying other remedies to no purpose."—BENNINGHAUSEN.

Mr. S. W., æt. 37, of a spare habit, dark complexion, active, amiable, has to exert his voice every day in teaching music; has had a constant cough now more than three years; two attacks of lung fever in the time; talking and singing makes him cough, but has a more decided aggravation at *about 6 o'clock in the morning*. Coughs *severely for a long time when a little sputum is thrown off*; coughs some at night; is short of breath when walking; is hoarse and feels a tension about the upper part of the chest.

Cured by Alumina²⁰⁰.

Ammonium muriaticum.—Is applicable where one has to clear the throat frequently, expectorating a little dense mucus which leaves a roughness and sore feeling *behind the uvula*, to a violent cough in the evening, causing *the mouth to fill with water*. Hemoptysis accompanied with *itching* in the larynx. Pressure and stitches in chest as if a *morsel of food had lodged behind the sternum*. *Burnings* are felt in *small spots* in the chest. Cough is dry and tickling, annoying both night and day.

Antimonium crudum.—Epigastric and abdominal symptoms are usually associated with the pulmonary in Antimonium crudum. Cough is accompanied with *gagging* or seems to come from the *abdomen*. *Diarrhœa* is a frequent accompaniment. The voice is rough, feeble, talks or sings in a low and weak tone. Perhaps loses the voice *on becoming heated*; coughs *worse on looking at the fire* and in the *hot sun*, on coming into a *warm room from the cold air*. Cough is *convulsive*, the first turn being the most violent; raises a viscid thin phlegm deep out of the chest in the morning; cough *shakes the whole body*, with involuntary micturition. A symptom of importance if present is violent *itching of the chest with pimply eruptions*, or fine red dots as if a rash were appearing.

E. J. B., æt. 35, works as a stone-cutter; of a lymphatic temperament; has been coughing for several months; has become badly emaciated because of a protracted diarrhœa of a watery undigested character associated with his cough; often *gags* and *vomits* when he coughs; stomach weak and tender to pressure and a great deal of pyrosis; tongue coated white; coughs by fits, the first *turn being the most violent*; is low-spirited and almost despairs of being cured of his pulmonary troubles.

Gave Antimonium crudum⁶; soon was much improved and made a good recovery; died a few years later of hydrothorax, the result of some trouble of the heart. At the time of our treatment of the lung and stomach troubles, patient had every appearance of dying in a short time with phthisis; he was of a decidedly scrofulous habit.—G. N. B.

Arsenicum iodatum.—Is adapted to catarrhs developing in malarial localities and in scrofulous constitutions, where we have enlarged glands and tonsils, puffy lids, a pale face—the hydrogenoid type of constitution as Grauvogl terms it; where there is weak stomach and defective assimilation, oftentimes the leading step to tubercular deposit. There are apt to be *burning sensations* in the *nostrils* and *throat*; patients feel the cold and are inclined to chilliness same as in Arsenicum cases. From its power to clear the glands from accumulations of hydro-carbonaceous matter and arrest hyperplasia, it would seem to be a good remedy for such forms of catarrh as often end in condensation of the apices; possibly may be depended upon to remove the caseous exudation itself. It is a remedy not as yet well tested, but deserves our study and a trial where indications seem to warrant.

“H. B., boy, æt. 16, dark hair and complexion, fleshy, but small for his age, had suffered with catarrh for four years; eyelids puffy; had always lived in malarial region and suffered with chills every year; nasal catarrh attended with a *jelly-like discharge*, though sometimes with a copious *watery discharge*, more often in the *morning* or after *meals*; the fauces were in a state of subacute inflammation and the tonsils enlarged. Iodide of arsenic in the 3d trit. cured the case.”—MORSE.

There is much agreement in this remedy to Kali hydrojodicum with which it may be compared.

Bromium.—Bromium seems to act very decidedly upon the respiratory passages, and especially upon the larynx. It seems also to be well adapted to affections which begin in the bronchi and *travel up* to the *larynx*, the *focal centre of the action of Bromium*. Sharp pains in the thorax in cases of phthisis which have an *ascending direction* suggest Bromium. Its action upon the *right* lung is more pronounced, and it has been found a valuable remedy in hepatization of the lower lobes, the right more especially. Some pains about the clavicle lead us to suspect that it will be found a good remedy in catarrh with threatening of cheesy exudation into the apices, more especially of the left lung. Such pains as tearing in left clavicle; pressure below the left clavicle; cannot lie upon the left side (Phos., Lycop.); paralytic drawing pain through left chest toward the scapula and into left arm; sensation of weakness and exhaustion in the chest. The more marked action of Bromium upon the right lung in general, and the apices of the left in particular, would indicate that the remedy acted obliquely through the thorax and upward to the larynx. Respirations are short and cough paroxysmal; also cough is long-continued; sounds loose, but *little* or no expectoration; cough is aggravated by *exercise* and on entering a *warm room*; voice husky, hoarse, may have aphonia; deep, forcible respirations become necessary at times; cough excited by deep inspiration; scraping and rawness in larynx, and by tickling in larynx; larynx painful to touch.

“A robust, blooming young man, æt. 20, took a violent cold. For six weeks was not able to speak loud; absolute aphonia in the morning, but can talk in a whisper after expectorating under long-continued coughing (Alum.) a little phlegm. There is present a frequent and exhausting cough, with expectoration of white, whitish-yellow or yellow matter slightly soluble in water; during the last few days expectoration of clear, dark, coagulated blood; constant feeling of soreness in the region of the hyoid bone. Cough is aggravated by inhaling dust or cold air. Cured in a short time by Bromium³, three times per day.”

Calcareo carbonica.—Ranks very high among our reme-

dies for curing chronic catarrh, especially catarrhs engrafted upon the scrofulous type of constitution with tubercular tendencies. Faults of second assimilation belong to this class of patients to which Calcareo c. has long proved so effective. Such persons are very susceptible to external influences, such as *currents of air, cold* (Alumina), *heat, noise and excitement*. The least cold seems to go *through and through*, one is so sensitive. The flesh is soft, the body inclined to *fleshiness*; the glands to *enlargement*. Patients perspire *easily*, especially *on the head* (Sil.), and on the feet, which are often so damp as to wet the stockings. May sweat on the limbs from the least exercise and on first going to bed. Patients complain of dryness of the throat and of a *tough secretion hard to be detached*, not abundant or stringy as in Kali bichromicum. Feels as if *feather down* was in the throat, which provokes a cough. Cough often *shakes the head* and may provoke vomiting because of the adhesiveness of the mucus; cough usually dry at first, especially at night, terminating with a profuse saltish expectoration or possibly a sputum with a sweetish taste. Chronic and painful hoarseness is often associated with the catarrh to which Calcareo c. is so well adapted. Patients are easily out of breath, especially on going up-stairs; dislike the morning air and shudder as *twilight approaches*; milk *disagrees*, while there is a craving for *eggs*, as in Pulsatilla. Sometimes there is a swelling over the pit of the stomach, size of a saucer; feet feel as if one had on *damp stockings*; are slow to *become warm in bed*. Patients inclined to dizziness in the head and wakefulness after 3 o'clock A.M. In the chest we have uneasiness and aching pains, sometimes *stitches*, but they are *not worse from breathing*, as with Bryonia. There is also an oppression which is *relieved by throwing the shoulders back*. A very important symptom is *soreness of the chest*, and *particularly under the clavicles*, felt both at *respiration* and from *pressure given by the hand*. This tenderness to the touch gives a suspiciousness of cheesy exudation when found associated with catarrh, and this symptom of Calcareo c. gives us a leading indication for its use. If we have too early and copious menstruation associated with our catarrh, or catarrh with condensation of the apices, with any

corroborating symptoms, it would be a strong hint for its use. Then, again, if we should have the diarrhœa so characteristic of *Calcareo c.*, *thin, white, undigested* in character, *sour of smell*, aggravated by *milk* and attended with a *faint feeling*, and followed by *great lassitude*, we would have our picture complete; but we will rarely get more than a part of our *Calcareo* symptoms in any one case; nor need we, to be sure of benefiting our patient.

"Mrs. T., æt. about 53, a widow, of the sanguine nervous temperament, has had sixteen children, nine dead; has had a bronchial disease of five year's standing; began with catarrh in the head which traveled down; severe anorexia; lives mostly on milk and takes barely enough to support life; is too feeble to be up; has rheumatic complication added to her bronchial consumption, which increases her wretchedness. She is chilly on the back if she attempts to rise; throat is sore in the evening with subsequent fever without thirst; suffers with most *intense heat* and shortness of breath; heat comes with distressing flushes; is sleepless; coughs severely. *Calcareo c.*²⁰⁰ cured."—J. H. P. FROST.

"A laborer, æt. 38, intemperate, many years afflicted with a cough, expectorating mucus and pus; *perspires freely* during the night; countenance haggard and worn; chest covered with pustules for which Sulphur was given producing much aggravation of cough and expectoration, while eruption also came out over the body generally. Prescribed *Calc. c.* with immediate abatement of pulmonary symptoms, and patient went to work a year later cured of both cough and the eruption."—HITCHMAN.

Dr. H. N. Guernsey says in cases where "abscesses form in the lungs of young persons who are threatened with consumption," he gives *Calcareo carb.*^{1m} after the pus is discharged and a complete cure is the result; the expectoration has often a putrid odor."

"A man, æt. 46, slender, cachectic, when a child troubled with tinea capitis, guilty of sexual excesses; after taking cold six months since, dry cough, physical signs pointing to tuberculosis; prominent symptoms are vertigo when going up

stairs; dizziness and trembling before breakfast, headache; throbbing in the centre of the brain; nostrils plugged up with yellow fetid scabs; swelling of the tonsils with constrictive sensation when swallowing; dislike of his accustomed pipe; sensitive condition of stomach and weakened digestion; natural stool every four or five days; scanty, blood-red urine; tickling as from a *feather* in the *throat* which makes him hack during the day, but causes such violent dry cough in the night that it brings on violent beating of the heart and arteries; at times he vomits after it, has difficulty of breathing and upon deep inspiration violent stitches in the chest; uneasiness about the heart; swelling of the *cervical* glands; pain in the small of the back; constant and marked chilliness with great thirst; great exhaustion, lassitude and sleepiness during the day; at night profuse sweat on the chest which weakens him extremely; with it an unusual general prostration and apprehension concerning the state of his health.

Prescribed Calc. carb.³⁰; after a week, symptoms of improvement, mind more cheerful, disappearance of sweats, tendency to cough decreased and the cough became less dry; he continued to improve until he considered himself well."—Translated by DR. ARNDT.

Carbo vegetabilis.—The effect which Carbo veg. has upon the respiratory tract as well as the digestive organs and lymphatic glands gives to it a wide range of applicability to our pulmonary affections. It has a catarrhal range, assimilative range, a hemastatic power, and is a powerful eliminator of effete matters, and has also an antiseptic influence, hence may be adapted to recent and old catarrhs, bronchiectasis, hemoptysis and to cheesy decompositions when passing into a putrescent state.

Indications: itching in the throat, hoarseness, rawness in the larynx; worse evenings; *morning aphonia in damp cool weather*; chronic hoarseness aggravated by wet weather, especially *wet evening air, and by talking*; voice fails unless there is *much exertion made to speak*. Breath is short, with cold hands and feet; desires to be *fanned* and *calls for more air*; the body has *hot flashes passing over it when coughing*; cough is violent

by spells with a profuse expectoration as in bronchiectasis: cough again is hollow and spasmodic; worse in the evening or before midnight; dry and painful, or attended, it may be, with purulent, offensive slimy sputum. At times one feels as if cough was caused by *vapors of sulphur*; has a choking sensation which is relieved by motion; cough sometimes causes stitching pain in the head; is worse on going into a *cold place from a warm room*; from *walking in the cold air*, from *lying down*, from *eating cold food and drinking cold drinks*; sputum often tastes sour or saltish; is of an unpleasant odor; sputum of different shades; whitish and tenacious, with a good per cent. watery, brownish, bloody, yellow-green purulent; in the lungs a heat as of *glowing coals* is set up.

Other and grave symptoms more properly given in another place.

"A lady caught cold fourteen days ago, has coughed for a week; coughs worse by day and in the *open air* and *during supper*; cough is continuous, dry and hard, with *soreness of the chest* and *heat of the body when coughing*; sensation at night as if there was mucus in the *throat choking her when she coughs*; the choking is relieved when *sitting up* or on *moving*. There is *itching in the throat, extending into the chest*, which is worse when coughing. Carbo veg. cured the case."—E. W. BERRIDGE.

Kali carbonicum.—Suitable to anæmic and hydræmic constitutions. *Puffiness of the eyelids* and *stitches* are among the characteristic symptoms. There is mucus in the *fauces which is only removed by constant hawking*. Cough is worse about *three o'clock in the morning*. Eating and drinking aggravates the cough. Is troubled about lying *upon the left side*. Heart symptoms apt to complicate the pulmonary symptoms.

"Miss G. P., fair blonde, æt. 20; much mucus in fauces which she is constantly obliged to remove by hawking; *sharp stitches in the eye* while reading or sewing. Kali carb., three doses daily, relieved the tedious affection very soon."—C. WESSELHOEFT.

Kali hydrojodicum.—The iodides of potash and arsenicum both seem to be attracting considerable attention as curative agents in catarrhs. The action of iodine as well as potassa

upon the respiratory tract would lead us to expect these results gained at the bedside of our patients. The specific action also which Kali hyd. has to certain cachexias, such as scrofula and syphilis, adds to its pledge of usefulness in many cases which we shall meet in our practice. It may have more power to arrest the progress of syphilis than scrofula, more efficiency in removing the exudative product known as gum-mata than tubercle, but that it has an applicability to both constitutional states is admitted, and warrants us in testing the remedy much more thoroughly than has yet been done. And especially, in the potentized form, for acute catarrh and secondary pneumonia as well as catarrh, with cheesy exudation and with syphilis. Among the indications for its use will be found the following symptoms: catarrhal voice; hoarseness with pain in chest; *oppression of breathing, with pain in both eyes*; sometimes *eyelids are swollen*; awakens with a *choking sensation*; can scarcely breathe; œdema of the larynx; rough feeling in the trachea, compelling hemming and hawking; cough, with dry hawking; and later, expectoration of copious green sputum; abundant expectoration of white *froth, resembling soap-suds*; *stitches from sternum through to the back* (Kali bich.), *or deep in the chest while walking*; purulent sputum with exhausting night sweats; loose stools; œdema pulmonum accompanied with morbus Brightii. Morbus Brightii, Bennett says, frequently follows arrest of the degradation of tubercle in the lungs.

"A. D. In consequence of a neglected cold, pneumonia followed with hepatization of right lung. Bryonia, Sulphur, Phosphorus, Rhus tox. and Bromium were tried to no purpose, when Kali hyd. was given and followed by rapid curative progress. The most striking symptom being *abundant expectoration of white froth, resembling soap-suds*."—W. E. PAYNE.

"P. R. P. After an attack of diphtheria had the following symptoms: pale face; sunken eyes surrounded by blue rings; expressionless countenance; *œdema of the eyelids*; *deep hollow cough with whitish expectoration*; great prostration; tearing pains in the limbs; loss of appetite; swelling of glands about the neck; constant thirst; copious micturition; sleeplessness;

nightly aggravations. Pronounced hopeless by attending physicians. Cured by Kali hyd."—DR. D. F. HUNT.

Lycopodium.—A very efficient remedy in controlling affections of the mucous membranes. It corresponds rather to the dry form of catarrh than the fluent. To persons inclined to emaciation and a weak peripheral circulation, it stands almost foremost among all our remedies. The emaciation is more noticeable in *the upper portions of the body*; cold feet and hands are among the more noticeable symptoms belonging to Lycopodium. The stomach and alimentary tract usually present important symptoms if Lycopodium be the remedy, flatulency being the most important. Patients sit down to their meals thinking they can *eat heartily*, but are quickly filled; feel full and pressed at the stomach; food is apt to sour. Besides eructations we have pressure in abdomen from flatus. Cough is dry, seeming to come *from the stomach*; is apt to be worse about 4 o'clock P.M. or a little later; is usually induced by a tickling sensation in *the larynx*; by lying *upon the left side* (Phos., Sepia); by *eating and drinking cold things* (Carbo veg.); by *being in the wind*, and from the air of a warm room; voice is hoarse, husky and feeble, with the sense of dryness in the trachea; the kidneys are another foci of expression, and we have *brick-dust* deposit in the urine. Among the chest symptoms we find continuous *pressure* and a *raw feeling internally*; *stitches in the left side during inspiration*. It has proved curative in cases of neglected pneumonia when purulent expectoration has followed hepatization, and in catarrhs which have continued until complicated with cheesy exudation into the apices.

Dr. Pope says, "Few remedies are so valuable in pulmonary phthisis as this when persistently used."

"A boy, æt. 14; thin and weak; but little muscular development; mind active and of a sensitive nature; mother died of consumption; has a hard, dry cough which is making him so feeble he can but with difficulty stand; coughs all day and night, even when asleep; very violently in the morning; respirations very rapid and a quick pulse; voracious appetite. Lycopodium²⁰⁰ cured."—P. P. WELLS.

"A girl, æt. 15; has always been delicate; had pleurisy three

years ago; has also had sores on legs; healed now and since has been worse; father and one sister died of consumption; has pains shooting *into right hypochondrium of long standing*; has a cough and raises a yellow sputum; pains shoot from upper *middle chest to back when coughing*; short shiverings; likes to be near the fire; faint when undressing; clammy sweat and feeling of coldness; worse 4 and 5 P.M.; *fan-like motion of ali when feeling worst*. Cured by *Lycopodium*.—BERRIDGE.

Mercurius corrosivus.—This and the proto-iodide are the forms of Mercury which we have used chiefly in plastic exudations. *Mercurius cor.* has a powerful influence in controlling albuminous exudations and glandular engorgements. It, with *Apium vir.*, is our remedy in *morbus Brightii*. In catarrhs, nasal, bronchial, intestinal and uterine, we have found no remedy more frequently of service. The complications of pulmonary affections with *albumen urea*, so common in phthisis, will be better controlled by *Mercurius cor.* when the chronic stage is reached than any other remedy so far as our experience goes. But we have always given the 200th dilution. The secretions of the mucous glands which indicate *Mercurius* are usually corrosive; patients are worse in *damp weather*; at night, especially in *cold, damp night air*. Their symptoms are aggravated by both *cold* and *warm* air, especially from *getting warm in bed*. Patients are also inclined to *perspire*; sweat *starts out from the least exercise* or from pain; the *sweating not affording any relief*; the head often *feels as if it would burst* or was growing larger.

Patient is *hot and cold in alternation*; salivary glands become fluent; gums *have a whitish line running along the middle*; breath fetid; parotids tender; perspiration often sour (*Lycopodium*), comes out all over and *suddenly*, while *Calcarea* is more about the head and feet, as is also *Silicea*, both coming out more moderately. The cough is violent, often prevents one *from speaking*; at least every attempt to speak *provokes a violent cough*; head snaps; sometimes coughs till vomiting sets in; there is tightness across the chest; stitches in the chest, mostly in the lower right lobe.

Mrs. I., æt. 37, sanguine temperament, subject to severe

attacks of catarrh, most troublesome in the spring; coughs worse in the evening, in cold, damp weather and after getting warm in bed; breaks out suddenly into a drenching perspiration from slight exercise; is easily out of breath from walking; cough is provoked by any attempt to talk; is exceedingly harassing, so much so that a drenching perspiration follows the more prolonged attacks; troubled to hold her urine when coughing. Merc.²⁰⁰ cured promptly and permanently.

"B. R., æt. 8, of scrofulous diathesis, light complexion, had ozæna for ten months; much emaciated; swelling and redness of the nose; nose stopped up; scabs in nostrils; loss of smell and taste; discharge from nose like glue; tonsils large; all the symptoms are worse in the open air, especially damp, cold air; is worse also at night. Gave Merc. cor. with a rapid recovery."—DR. D. F. HUNT.

Mercurius proto-iodide.—This remedy seems to combine the properties of Iodine and Mercury. It is applicable to certain phthisical cases which have a catarrhal and scrofulous origin. The same power which Mercury has shown in arresting albuminous deposits is exhibited in arresting the vascular congestion so favorable to cheesy exudation. We have used it more frequently perhaps, for catarrh of the nasal passages, where the conjunctiva has sympathized, or even where there have been ulcers upon the cornea. The septum has been thickened, with soreness of the alæ which are inclined to be covered with crusts; plugs are discharged from the nose which are tinged with blood; as the disease progresses downward the tonsils become inflamed and enlarged; then the larynx and trachea are attacked; at this time we have hoarseness and loss of voice; next a cough which is *loose, rattling, with the bronchi loaded with mucus* as the catarrh travels onward, and the sputum becomes copious and yellow. Patient is sensitive to *cold damp weather* as in Mercury, and also worse in the spring. There is a tendency to *empty deglutition*; hawking to clear the throat of a lump; perhaps gags while trying to clear the throat; appetite is variable with weak empty feeling at the stomach; sweats *easily and suddenly* as in Mercurius.

In some cases when the throat, nasal and eye symptoms of

a grave character have developed in constitutions where consumption was hereditary, I have witnessed the best of effects from this remedy.

B. E., æt. 5, dark hair and black eyes; mother died of tubercular phthisis; has been troubled with nasal catarrh for two years; thick, hard plugs form in the nostrils, which so block the passages that he has to breathe through the mouth; scales come off with the plugs, leaving the mucous membrane sore where pus-globules are seen on ulcerated surfaces. The voice has a thick, broken sound with much of the nasal twang. Tonsils are enlarged and respirations increased; snoring at night in sleep; coughs at night and raises a quantity of mucus which comes up easily; bridge of the nose swollen, the conjunctiva apt to be red, especially if case is aggravated by a cold. Vessels of the inner canthus of right side often throwing out distended and reddened lines to the border of cornea where an ulcer appears; upper lip swells and glands of the neck are also inclined to swell.

Mercurius proto-iodide²⁰⁰ cured.—G. N. B.

Nitric acid.—So generally has mercury been used for many years, the constitutions of a large per cent. of our people have been injured either directly, or from the condition the germ has been found in, at the time the organic type has been propagated. This multiplies diseases both of the throat and lungs to which Nitric acid becomes appropriate. Besides we have troubles of the throat which simulate a catarrh, but have syphilitic complications.

Such cases especially call for the use of Nitric acid. Both the syphilitic and mercurial dyscrasia favor the production of tubercle in that they degrade the blood and sap the vital forces. We have met with several cases of phthisis which were developed out of syphilitic inoculation and mercury used to control it. We do not say but that syphilitic products are different from tubercle pathologically, but we do say that we have seen syphilization and mercurialization end in a caseous exudation and cavities in the pulmonary tissue, which we believe would not have occurred only for such syphilization and mercurialization. There are also cases coming to us purely

catarrhal, to which Nitric acid is appropriate. Some of the indications are coughing up a *bitter or sour tasting sputum* in the *morning*, followed by *greenish-white casts* as if from the air-cells; it is very common to have soreness of the larynx; a very important symptom, when present, is a *sticking* sensation *behind the sternum*, as if a *sliver* were caught there; a *strong ammoniacal odor to the urine* is often present in Nitric acid cases; sometimes gastric troubles, such as nausea, *which is better by riding in a carriage*; itching and eruptions at the anus are often met with also.

"A patient, æt. 34, sandy complexion, blue eyes and excitable, of a scrofulous habit, intemperate, dissolute; been under treatment for syphilis; called on me for ozæna; has an offensive yellow discharge from the nose; redness of the nose and excessive sensitiveness to the touch; deep ulceration of the nasal mucous membrane and of the soft parts; loss of portions of the septum. Redness in the posterior throat, which is covered with a dirty green slime and ulcerated in spots; sticking pains in the nose and throat; *sticking* in the sternum; great weakness; restless at night; peevish, irritable, despondent; is troubled with constipation. Cured by Acidum nitr.³."—DR. ARNDT.

"Mr. L., æt. 30, dark hair, light complexion, hardy constitution, applied to me for treatment of an obstinate catarrh; a year ago contracted a specific ulcer which after a time healed, but was followed by constitutional symptoms, painless swelling and induration of the glands, ulceration of the tonsils; the discharge from the nose was fetid, salty in taste and frequently copious; upper portion of the nasal fossæ and post-nasal cavity most affected; mouth aphthous. Nitric acid cured in the 2d dil."—MORSE.

Mrs. C. E. H., æt. 45, slender and delicate, with brown hair, blue eyes and sallow complexion, inclined to diarrhœa, to *eruptions about the outlets of the body*; excoriating leucorrhœa; ulceration in the mouth, particularly about the palate and fauces, extending even to the pharynx. The throat symptoms usually most pronounced. Nose a little sore, often discharging a corrosive yellowish matter. Green casts discharged from the

nose usually in the morning. Sometimes patient is troubled about getting *choked at the table* from *bits of meat*; throat is tender to touch, with raw feeling on swallowing; *prickings behind the sternum* as if a sliver was there. Coughs a good deal; cough mostly dry; voice gets weak from talking. Slight dullness of the apices and flattening of supra-scapular spaces. Patient is making her menstrual climaxis. Mother died at this period of her life from phthisis. The above case was successfully managed with Nitric acid supported by Lachesis.—G. N. B.

Stannum.—No remedy ranks higher for controlling old bronchial inflammations that have run on till the tubes have become thickened and narrowed in places and dilated in others. The old-fashioned consumption which ran on for many years till bronchiectasis with purulent and chemically degraded matters, poured from these pockets, has been more often cured by Stannum than any other remedy that we know of. It is also an efficient remedy when we have complications of the caseous degeneration into the apices. It does not correspond to that high grade of febrile excitement which usually attends Phosphorus and Sulphur cases, though we may have the pulse run up very high. *Weakness of the chest* is the most important and universal symptom; tires out from the cough, and by talking, *in the chest*. Sometimes feels like *dropping down almost helplessly into the chair*. The second most noticeable symptom is, the very *large amount* secreted by the mucous membranes to be expectorated. The sputum is yellowish or yellowish-green with much glairy mucus holding the yellow part in its meshes; or it may be chiefly of the yellow cast and in heavy, distinct mouthfuls. At times we have a dry cough of a hacking, teasing nature which Stannum will cure. Patient coughs mostly in the evening after lying down. Stannum sputum usually has a *sweetish taste*; sometimes it has a saltish taste. The cough is worse from *lying on the right side* (reverse of Phos. and Lycop.); profuse sweats attend our graver cases, the sweat smelling mouldy or musty, and appearing on the neck more than elsewhere; fever apt to appear in the afternoon from 4 to 5 P.M. (Lycop.); chill at 10 A.M. (Natr. mur.);

hands burn when *fever is on*. Many of the symptoms gradually *increase* and *decrease*. We give a few typical cases, some of which it is more than probable had tubercular complications but the physical diagnostic symptoms are not given.

"M., æt. 36, has suffered since spring from catarrh and lung trouble. On August 4th, I found the following symptoms, which had existed for a month: his teeth seem loose and too long; much phlegm in the throat; morning and night a scratching sensation in the throat; roughness in the throat; cough provoked by tickling; cough with *greenish* expectoration of disagreeable *sweetish* taste; worse in the evening; hoarseness; in the evening oppression in the chest, with anxious apprehension; asthma; cannot get breath when making a slight motion, and he is often obliged to unbutton and open his vest to get a chance to breathe; stool greenish and scanty; great burning of hands and feet; lassitude of the entire body; very weary and sleepy; profuse sweat every morning after 4 o'clock; emaciation; the patient is indisposed to talk; takes no comfort in anything and is discouraged. Cured permanently in three weeks by Stannum³."—SCHRETER, in *Ann. I*, 150.

"M., æt. 37, has been sick for two years; hereditary consumptive habit; unsuccessful allopathic treatment. Symptoms: patient very pale and emaciated; breathed short and quick; coughed often; dry, or followed by copious *greenish-yellow, sweet expectoration*, especially morning and night; *stitching headache, especially in the forehead; worst after coughing*; appetite increased, with subsequent pressure in the stomach and scanty stools; heaviness and coldness of hands and feet, with slight œdema; in the evening flushes of heat and thirst. Cured by Stannum¹⁸ in repeated doses."—SCHUBERT, in *Prakt. Beitr.*, I, 119.

"H., tall, thin, of consumptive habit; æt. 50. Ten years ago had endocarditis and pleuritis. Was taken sick again a few weeks ago. Symptoms: lassitude; pain in every limb; constant irritation to cough; repeated shivering during the day, and profuse perspiration early in the morning in bed; is now confined to his bed; cough uninterrupted; constant; expectoration of *astonishing quantities of tasteless, white mucus*; un-

quenchable thirst; great desire for sour milk; allopathic treatment unsuccessful. Stannum⁶, followed by aggravation then cure."—GROSS, in *Arch.* XVIII, 2, 61.

"A stout, thickset man, æt. 54, was taken with prurigo, and in consequence of the continued scratching had eventually an ulcer on the leg, probably result of heroic treatment. Including of course the due amount of anointing him with salves, his condition became thoroughly broken down, and he suffered from digestive troubles, jaundice, asthma, etc. At last cough set in, with tickling in the throat; loss of appetite; fever; drenching night sweats. Deglutition of fluids became more and more difficult, causing suffocative paroxysms with violent coughing; expectoration increased in quantity; at first slimy, then pus-like, *averaging daily more than a pound*; hoarseness; emaciation; the epiglottis covered with pus; margins ulcerated; death was expected hourly. Stannum⁶, one dose, was followed by a night's good sleep, the first in two years. Visible improvement during the next few days, and complete cure in a few weeks."—CLOTAR MUELLER, in *Pr. M. S.*, VII, 2.

For a more exhaustive discussion of the treatment of catarrh, the reader is referred to our work upon "Catarrh of the Nasal and Respiratory Organs."

CHAPTER XIV.

PNEUMONIA.

We think a careful distinction should be kept between pulmonary phthisis and pneumonia proper. But it is equally important that we recognize the fact that the deposits of pneumonia may become transformed into cheesy products which are likely to break down the lungs and open up cavities; that the presence of undissolved and unabsorbed products so deposited are a source of irritation keeping up a sort of chronic inflammation which favors the tubercular deposit or cheesy exudation. This continued pneumonitis is a menace, especially to all persons with any predisposition to phthisis or even

persons of a low vitality, if not of itself a cause sufficient in all particulars to bring about tubercular deposit and the fatal consequences following. Perhaps this is more fully manifested in interstitial pneumonia or where chronic inflammations follow infarctions and blood extravasations. The clinical record given in this chapter presents cases for the most part coming from croupous and lobular pneumonia of rather recent origin.

Pneumonia is treated of under the terms catarrhal pneumonia, croupous pneumonia and interstitial pneumonia. In catarrhal pneumonia we have a bronchitis extending to the alveoli and from there to the parenchyma; it is what has often been termed lobular pneumonia, because it affects the lung in a more limited way than fibrous or croupous pneumonia. It may diffuse itself all over the lungs in the form of isolated infiltrations; it is a disease especially of young children and of old age; yet it occurs at other periods of life. The physical diagnosis is not easily made out from the fact that there are apt to be pervious alveoli so near the occluded cells that we get resonance too well marked to be able to decide on condensation. We judge more from the sounds indicating a capillary bronchitis, from the retraction of the lower ribs during inspiration and from the absence also of critical periods and fluctuations which usually attend other varieties of inflammation of the lungs. The condensation proceeds slowly and from below upward usually. It is important that the alveoli be cleared and all condensation be removed before discharging such patients or we may have as the sequel, pulmonary phthisis.

Croupal Pneumonia or Fibrous Pneumonia. — This disease is what most authors usually mean in speaking of pneumonia. It more often attacks the right side and begins in the lower lobe; the inflammation probably begins in the minute bronchioles and the alveoli at the same time, throwing out a fibrous exudation upon the mucous surfaces. By this means we get the vesicular murmur so characteristic of the disease. As the inflammation extends, the alveoli become blocked and the parenchymatous tissue is attacked, occasioning the conden-

sation known as hepatization. We have resolution by absorption of the adventitious products, or there remains a permanent condensation which later may take on tubercular complications. The case also ends more rarely by purulent or gangrenous degeneration called the third stage belonging to the acute attack. This form of pneumonia usually sets in with a severe chill followed by intense fever; the pulse runs up to 100 or more, the temperature to 104 or 105 in the evening, dropping from one to two degrees in the morning. Respirations increase from twenty to forty or more per minute; this would indicate an active pneumonia. The dangers arising from this form of pneumonia cannot better be stated than by inserting what Rokitanski has written. In speaking upon tubercle as it affects the lungs he makes two classes of cases; one class derived from "*interstitial tubercular granulations*," which is the millet-seed variety, and deposited, as he says, in the interstitial cellular tissue between the smaller lobules and the air-cells; and the "*infiltrated tubercle*," which, he says, is a deposit made in the air-cells themselves. The infiltrated tubercular invasion of the lungs he makes to come from croupous pneumonia. This is his language: "It (infiltrated tubercle) results from a croupous pneumonia of various extent, which deposits its products, and these, under the influence of tuberculous dyscrasia, become discolored and changed into yellow tubercle, instead of being absorbed or changed into pus. Hence *tubercular infiltration* is a hepatization formed by a tuberculous exudation, the pneumonic, originally red and granular structure of which gradually becomes paler and grayish-red, with a tinge of yellow; it is then dry and fragile, but finally it becomes yellow, moister, of fatty cheesy consistence, and breaks down sooner or later into tubercular pus."

Raue, after speaking of the usual course of pneumonia, says, "or the hepatization changes into tubercular infiltration which is especially the case when the seat of inflammation is in the *upper region of the lungs*. In such cases the fever does not leave altogether, but shows an aggravation every night; cough, dyspnœa and dull percussion sound of hepatization continue, while auscultation reveals bronchial breathing and bronco-

phony." It is not always the case that this fever and cough keep up; patient recovers from all apparent inflammatory action, but there is left a hepatized lung. After a time this hepatized lung breaks down and we have abscesses of the lungs; but before this, more frequently there is associated with hepatization tubercular exudation provoked by the irritation and chronic inflammation which this hepatization causes. More often, perhaps, pneumonia has been developed in persons previously predisposed to tuberculosis, and it has been a provoking cause of tubercular exudation and the subsequent breaking down of the lungs by abscesses. Pathological anatomy reveals not unfrequently traces of pneumonia, and the ravages of tubercle in the same lung and set up together. These facts urge upon the profession the necessity of thoroughly mastering their cases of pneumonia, especially should those with tubercular tendency be watched. We have observed where persons were subjected to repeated attacks of pneumonia that they usually died of consumption in the end. It may be a question if this inflammatory diathesis is not closely allied to the tubercular diathesis. Excess of fibrin in the blood is found in each class of these cases. Certain it is, that pneumonia only partially arrested, is the beginning of a retrograde action which but too often ends in consumption; old hepatizations become burrowing places for fatal abscesses and gangrenous degredations; constricted capillaries, the seat of imperfect circulation, and later, the place of cheesy deposit and tubercle.

Here will be a class of cases where *Lycopodium*, *Phosphorus*, *Sanguinaria*, *Silicea*, *Stannum* and *Sulphur* will find an applicability. The means at a homœopathic physicians hands are somewhat illustrated in a few cases we will give, taken from our note book and from journals.

A Miss Green, æt. 13, of a nervous sanguine temperament, was attacked with pneumonia in the apex of the right lung, which became infiltrated through the entire upper lobe. Patient had been attended about eight weeks by two allopathic physicians, and case had reached the condition of hopelessness in their opinion as stated to us by friends. "Galloping consumption" was the diagnosis. We found patient troubled

with severe dyspnœa; had to have the windows up; could only breathe by being elevated to an angle of 45 degrees, and had to lie turned upon the *right* side; respirations 60 per minute and pulse, 160; dry, hot skin, and a constantly annoying, dry, hacking cough; more severe in the morning and evening. Gave patient a dose of Sulphur^{20m}, Fincke, and put her upon Phosphorus²⁰⁰. Slight abatement of fever and cough in twenty-four hours. Treatment continued with signs of expectoration at the end of thirty-six hours. Very free mucopurulent expectoration in sixty hours, continuing till apex of lung was cleared. Lung in clearing up showed signs by physical examination of being badly riddled, but healed kindly in two or three months, and patient was fully well in six months. The only other remedy given was Pulsatilla, for some symptoms connected with puberty. We are very positive that in this case there was *caseous* infiltration. The apex of the lung was the principal seat of deposit, and the case at the time of our visit was one which very properly should be called acute phthisis, though beginning, as we suppose, with croupous pneumonia.—G. N. B.

A Mrs. Seymour was attacked with croupous pneumonia at the age of 50. She was of a nervous bilious temperament, dark hair and eyes, and quite spare; had been treated a week by a homœopathic physician who had relied on Bryonia and Tartar emetic. Found her with a dry, harassing cough, hardly expectorating at all, with a sense of tightness across the chest; countenance livid; eyes glassy and dull in appearance; conjunctiva yellow, with a marked yellowish tinge all over the face; urine brown and somewhat scanty; vital forces nearly overwhelmed; patient *cachectic and anæmic*. Gave Sulphur²⁰⁰, and put her on Phosphorus. Patient made a good recovery. This was an unusually severe case of pneumonia, occurring in a weak constitution. A very dangerous case but was hardly one of tubercular complication, yet likely to end so unless anticipated by a fatal termination.—G. N. B.

A gentleman of a sanguine temperament taken with a pneumonia which did not yield kindly to the usual remedies, presented on the tenth day the following symptoms: *high fever*,

dry cough and circumscribed *red cheeks*, almost livid; muttering delirium and dyspnoea; pulse easily compressed. Gave Sanguinaria with curative results. Patient was of a phthisical family.—G. N. B.

A young man, æt. 20, of a bilious temperament, had an attack of pneumonitis ending in chronic pneumonia; was treated five months, having two homœopathic physicians from whom he took many things. When coming into our hands we found dulness in upper right lobe and bronchial murmurs. He was harassed with a *dry cough, aggravated by going into the open air*; inclined to *press on the chest* when coughing, and to *bend over*; pulse 130; respirations 35 to 45 per minute, with night sweats. Our prognosis was unfavorable, but gave him a dose of Sulphur^{20m}, followed with Phosphorus²⁰⁰, night and morning. Sulphur again in a week and continued Phosphorus. Lungs cleared up rapidly and cough passed away in six weeks, leaving patient entirely well and free from all dulness on percussion. In this case there was infiltrated tubercle beyond doubt.—G. N. B.

E. C., æt. 25, of nervous lymphatic temperament, suffering from intractable pneumonia, resolution not being accomplished at the fourteenth day. At this time the symptoms were: sunken eyes; *sallow complexion*; cough mostly *dry* and very *fatiguing*, causing *pain in the stomach* and seeming to *start from the epigastrium*; much dyspnoea and something of the *fan-like motion of alae nasi*; *evening aggravations*. Gave Lycopodium²⁰⁰. Patient made subsequent improvement to recovery.—G. N. B.

“A woman, æt. 60, had pneumonia (right side) three years ago; later an acute bronchial catarrh aggravated by acute gastritis. Symptoms: cough which gives her no rest at night; patient is obliged to sit up in bed and cough all night; usually dry; often as convulsive and continuous as whooping cough, with pains in both hypochondria and right thorax above the liver; during the cough *stitches*, so that the patient is obliged to make hard *pressure* upon the chest with both hands, and soreness of the pit of the stomach to touch, with oppression of the chest; pressure and fulness in the right side of the chest;

after protracted coughing the entire *abdomen* is sore; coughs day and night; in the morning the patient raises thick, heavy, purulent matter; she is exhausted, emaciated; has no appetite whatever; the cough is increased by *talking* and *cold* air; no fever. Gave Phosphorus³⁰. Four doses completely removed the symptoms. Later, if she coughed at all, there was an entire absence of purulent matter or blood."—KNORRE, *Allg. Hom. Zeitg.*, XIX, 288.

Dr. Lorbacher reports a case of interest, where there was a complication of cheesy pneumonia and infiltrated tubercle.

"American, æt. 19, of tall stature, with decided predisposition to phthisis. Patient took cold in January and came to us in April. Physical examination showed the upper right lobe obstructed over a large space; there was marked dyspnoea on walking, and especially from ascending stairs, accompanied with lancinating pains; recently an evening fever had set in, followed by profuse night sweats; bowels were loose; appetite poor, with steady loss of flesh; cough chiefly of a dry character, excepting in the *morning*, when there was a *copious* expectoration of a greenish-yellow matter; chest symptoms aggravated in *open air*, and sputa frequently had a tinge of *blood*. Phosphorus³⁰, dose every other evening for two months effected a cure."

Another typical case from our own note-book is that of Charlie Boynton, æt. 4; light complexion; soft fibre; blue eyes and of scrofulous predisposition; was attacked with inflammation of the lungs, in February, 1868. Family physician called and managed the case till he was baffled, and told friends there was no hope, as the boy was dying of quick consumption. Found patient terribly emaciated, with a high fever, small, quick pulse, and constantly harassed with a dry cough exceedingly bad to bear; chest, upon the right of the median line badly flattened and contracted, so as to give a concave appearance, the centre of depression being at the middle of the sixth rib; patient was weak and *irritable*, *crying out* and complaining at almost every attempt at coughing; considerable space over right lung was dull on percussion; patient had to lie bent upon the right side; cough harasses him all day,

rather worse early in the morning. The pneumonitis was in lower lobe in this case, but probably we had infiltrated tubercle. A few doses of Bryonia, followed with Phosphorus³⁰ and continued three weeks at diminishing intervals, brought about decided improvement; and Phosphorus²⁰⁰ continued, a dose once in two days for three months, brought the child completely out of all this trouble; flattening and curving of the chest, all dulness and the cough entirely disappearing, while flesh and advance in growth took the place of extreme emaciation. There was never any great amount of sputum expectorated; everything obstructing the free action of the lung being carried away by absorption.—G. N. B.

"A furniture maker, æt. 35, of well-defined tuberculous diathesis has had yearly attacks of pneumonia under the care of a "regular" physician. From the last attack he did not rally. Symptoms: the throat was raw, hoarse and dry; the chest felt to him as if filled with pus; the cough was very exhausting, causing him to tremble all over; the violent stitching pain in the chest had left him, but there was much general irritation throughout the chest; the yellow, pus-like expectoration tasted salty and was most copious in the morning and evening; the eyes were unsteady and he could hardly speak a word without being interrupted by short, harrassing hacking; constant chilliness, especially toward evening, interrupted by flashes of heat; at times he complained of tearing and stitching pain all through the chest; again the pain seemed beating, or the whole chest seemed raw and greatly oppressed; he had night sweats and tumbled all night on his couch of shavings. After having been treated by the "regular" attendant he received Phosphorus³⁰; on the third day he was more comfortable; on the fourth he had some sleep; after a week the hoarseness and nightly fever disappeared; his voice became stronger and he improved gradually and sufficiently to again perform his accustomed labor."—*Hempel and Arndt's Materia Medica*, from Bethon in *Annal. d. Hom. Klinik.*, 1, 340.

Frank Nixon, æt. 22, tall, pale, of lymphatic temperament, prominent shoulders and flattened chest; family scrofulous and had a brother die with pulmonary phthisis a year ago.

Had an attack of croupous pneumonia in May; attack was upon the left lung, involving both the apex and middle lobe.

Case was treated by the dominant school till abandoned as hopeless. At our first visit we found patient lying upon the back, with sunken eyes, and looking dark about the lids; eyes lustreless, pulse 140, respiration 35 per minute; perspiration was standing on face and the whole body was drenched; perspired upon the slightest exercise; the feet were swollen, no appetite and little thirst. Accompanying these symptoms, a violent, racking cough, worse at night, and worse from lying upon either side; expectoration of large quantities of glairy mucus intermingled with a reddish-yellow, or brownish-colored sputa of putrid odor. Gave *Mercurius*²⁰⁰. Next day perspiration less and cough is less exhausting; continued *Mercurius*; third day, drenching perspiration nearly gone; urine heavily loaded with brick-dust deposit. Gave *Lycopodium*²⁰⁰, and kept patient upon it until his recovery was completed, supported occasionally with a dose of *Cinchona*³⁰. The reason for giving the *Cinchona* being debility from the long drains occasioned by excessive sweating and copious expectoration. Patient discharged in eight weeks free from any indications of condensation in the lung tissue, and had gained his usual weight of 180 pounds. His mother at this date is suffering from an ovarian tumor upon the right side, and we have just cured a younger sister of amenorrhœa from anæmia.—G. N. B.

The cases given in the clinical report show what can be done with croupous pneumonia when attacking scrofulous and phthisical constitutions when remedies are well chosen. There can be no doubt but that tubercular infiltration was fairly set up in a portion of these cases, and they are all of a sufficiently grave character to be worthy of study. For the usual treatment of this disease, in its more acute stage, the reader is referred to accredited text-books upon pneumonia.

Interstitial Pneumonia.—Rokitanski in speaking of this disease remarks that as a rule it is not correctly described in works upon pathological anatomy, as it is usually regarded as a chronic form of croupous pneumonia, whereas the true seat of the inflammation is the interstitial cellular tissue. Possibly

the walls of the air-cells may become affected by the extension of the inflammation so as to involve them, when we would have a complication of the croupal form added to the interstitial pneumonia.

Interstitial pneumonia is always chronic in its character, or almost always at least; it commences as an inflammation in the cellular element, situated in the interstices between the lobules and the smaller groups of the air-cells, and the inflammation throws out an albuminous product which becomes organized and coalesces with the interstitial cellular tissue, so as to form a dense cellulo-fibrous substance which obliterates the air-cells by compression. This is so analagous to the process of tubercularization, as described by Bennett, that one can well conceive that the ground, by such an inflammation, is prepared for the sowing of tubercle. Its most common seat is the apices of the lungs, as is the case with caseous exudation. The above quoted authority regards that it more commonly arises out of the reactive inflammation which sets in around apoplectic effusions into the lungs, lacerations of the lungs, and pulmonic abscesses; and to this he adds tuberculous cavities and gangrenous destruction. Interstitial pneumonia then prepares the way for tubercular occupation of the lungs, and also favors the extension of tubercular infiltration when once set up at any point in the lungs. The importance of recognizing this fact is very material, though often difficult. It will be conceded that we have most ample means at our hands for controlling pneumonic inflammations. If our cases of hemoptysis have been well managed, we shall avoid many cases of interstitial pneumonia, and to the treatment of hemoptysis we have devoted an entire chapter. But having a case of interstitial pneumonia to deal with, we shall be obliged to study for indications with great care as in the treatment of other difficult diseases. Bryonia, Iodine, Iodide of mercury, Lycopodium, Mercurius corrosivus, Myrtus communis, Phosphorus and Sulphur we mention as the more probable remedies where the homœopathic correspondence will be found. These can be studied in detail, as well as the special chest symptoms, in *Hering's Condensed Materia Medica*, *Raue's Pathology and*

Therapeutical Hints, and for the most part in subsequent chapters of this work.

CHAPTER XV.

COMPLICATIONS IN PHTHISIS.

Pharyngeal Complications.—In granular pharyngitis we have the caseous deposit, not very dissimilar from the caseous deposit in phthisis; also the calcareous deposit the same as is found in the tuberculated lung. Drs. Sappey and Robin report the histological changes to be thus: "The tubules of the follicles were found considerably enlarged, both as regards the diameter of their cavity and the thickness of their walls. In the follicles which were most hypertrophied and indurated, small calcareous concretions were discovered, composed principally of the carbonate of lime; in some of the glands these were numerous and packed together so closely as to present when detached, a crystalline appearance, owing to their surfaces having been moulded into polyhedral faceted figures. The diseased glands appeared to be less vascular than in the healthy pharynx; the cheesy secretion appeared to consist of the *debris* of epithelial cells, of molecules and oil globules." The similarity to the histology of tubercle in the lung is sufficiently noticeable.

Dr. Green thinks phthisis may take its origin in granular pharyngitis, while Dr. McKenzie thinks not, but gives the results of observations made by Frankel in a case of actual phthisis with tubercular ulcers in the lateral walls of the pharynx, on the roof of the mouth, extending to the nasal portion of the posterior wall of the pharynx, and on to the velum palati; but these are said to cease abruptly at the opening of the œsophagus. It is said the base of the ulcers were found to be occupied by a thick infiltration of what appeared to be round cells, extending deeply into the sub-mucous tissue, often even as far as muscular tissue. The round cells also infiltrated the connective tissue of the glands but did not invade the special

gland cells, which usually appeared to be in a state of fatty degeneration. He further says, they have a tendency to become cheesy. Both lungs exhibited cheesy broncho-pneumonia and gray nodules. A cavity was also found in the left lung. Tubercles were found in the pleura, liver and spleen, and tuberculous ulcers in the intestines. We do not attempt to settle the difference in opinion between these two gentlemen. Dr. McKenzie adds, "Tuberculosis of the pharynx appears to have been generally confounded with syphilis, and to this fact the comparatively scanty amount of clinical observations is probably due." "The lenticular ulcers of pharyngeal phthisis, with the development of gray nodules in their neighborhood," he makes very characteristic of tubercle.

Tubercular Affections of the Larynx.—The cause of tubercular deposit in the larynx is not as yet fully settled by the medical profession; some insisting that it is the poison of the sputum coming from tuberculated lungs (auto-infectious), while others think it to be in the main the same cause which occasions tubercle of the lungs. Heinze has given us an exhaustive monograph which leaves little more to be said upon questions of etiology and pathology. From the fact that tubercle is occasionally found in the lungs, if found in the larynx, and with indications of being an older deposit in the lungs, the inference is that it spreads to the larynx as the disease progresses in the lungs, and as the development of the cachexia goes on. It is a fact that the lungs will usually be found infiltrated if we have tubercle of the larynx. McKenzie makes the broad statement that "In the case of adults, at least, tubercle is rarely, if ever, found in any organ or tissue of the body, unless it has been previously deposited in the lungs." Men are more often affected than women, and the vigorous period of man's life, from twenty to forty, is the time at which the disease is most common. This may suggest the influence of catarrhal attacks in multiplying these cases. It may also suggest questions pertaining to the virile powers of man.

Louis, who maintained that the pulmonary sputa was the chief cause of tubercle in the larynx, was compelled to admit that the ulceration bore no relation to the irritative quality of

the expectorated matter. The fact also that the ulcers are scattered about in the laryngeal mucous membrane goes to disprove the theory that the sputum is the sole cause of the ulcers. It is pretty safe to say that anything which tends to produce weakness or chronic inflammatory action in the larynx, tends to bring on a condition favorable for a tubercular attack, if the scrofulous cachexia exists.

Many persons date a laryngeal phthisis to a severe attack of catarrh; others to overwork of the vocal organs. Heinze thinks tubercular infiltration of the larynx occurs in about one-half the cases of phthisis pulmonalis. The parts affected are the ary-epiglottic folds, the epiglottis, the ventricular bands and the vocal cords; the first two being more often affected it is thought, and more extensively thickened by the deposit. Chronic œdema almost always attends the tubercular deposit. Thickening always attends, and ulceration on the cadaver has been found in about one-fifth of the cases examined. The epithelium does not seem to be much affected till ulceration takes place. "The deposit," says McKenzie, "consists of tubercles which are made up of more or less circumscribed collections of cells of various shapes and sizes, having a somewhat concentric arrangement upon a scaffold of lymphoid reticulum. The tubercles, some very small and some as large as a millet-seed, have frequently in their centre a giant cell, around which are lymphoid cells, and some few larger cells with nuclei of high refractory power. The tubercular deposit is found both in the mucosa and the sub-mucosa, but always above the layer containing the mucous glands."

This goes to prove that miliary tubercle is usually associated with caseous degeneration of the lungs. Ulceration is the common sequel of tubercular deposit in the mucous membrane of the larynx, provided the patient lives long enough. Sometimes the tubercular deposit begins in the glands, the round cells deposited in the interstices between the acini gradually crowding upon the *membrana propria* and leading to the destruction of acinous structure, so that a capsule which ordinarily would contain thirty acini, perhaps is found to hold no more than half a dozen. At last the capsule is destroyed and

there only remain isolated portions of degenerate gland structure. The ducts have a greater power of resistance and may be found intact. The blood-vessels, including the capillaries, have the same power of resistance. This is the ordinary course of the ulcer.

Tubercle is very seldom detected in the muscular structure, but Heinze found among his many autopsies two cases where they were present, and Frankel found fatty degeneration of the contractile tissue and corpuscles in muscular structure. To sum up: the semi-solid pyriform swellings of the ary-epiglottic folds are the most characteristic lesion to be found, and may be regarded as almost conclusive if found. Yet there may be tubercle and not so well-defined a thickening exist. If doubt is felt, an auscultation of the thoracic walls may settle the point, for if tubercle be found in the lungs, the probabilities of tubercle in the larynx would be very great. If auscultation gives negative results, the sputa should be examined to see if any elastic lung tissue is expectorated.

The diseases with which it may possibly be confounded are chronic œdema, chronic laryngitis and syphilis of the larynx.

If chronic laryngitis, the swelling is usually less than if tubercle be present, but there is more hyperæmia; in œdema the transparency is more apparent from the excess of fluids; yet in the later stages this is of less importance as a differentiating symptom, for the reason that œdema often exists there as the result of tubercle. In syphilis there is less regularity of the hypertrophied tissue, and the ulcers are larger in size and more solitary. They commonly surround a red, inflamed ring—more often two are upon one side. In phthisis, the ulcers are small, numerous, scattered, and a pale ground-work is seen where they are sown. The hyperplasia is more uniform, is smooth and even. If syphilis assails the epiglottis, for instance, the free edge and upper surface is usually the place attacked, while tubercle is more frequently found on the under surface.

Ulceration of the arytenoid cartilages from syphilis is very rare, while from tubercle it is most frequent. Both diseases may attack the vocal cords, but syphilis usually attacks but

one cord, while phthisis will be likely to attack both. Again the extent of tissue broken down is likely to be much more from a syphilitic ulcer than from an ulceration following a tubercular deposit.

If phthisis and syphilis be conjoined, of course obscurity and doubt must increase.

The known effects of Bromine, Causticum, Iodine, Kali bichromicum, Kali hydrojodicum, Lachesis, Mercury and Nitric acid, suggest them as remedies to be consulted in this complication, either as adjunctive to some constitutional remedy, or as likely to be the agent meeting the entire similimum.

That tubercular affections of the throat have often been overlooked upon the presumption that syphilis was present, is more than probable.

That we have syphilis complicating many cases of pulmonary and laryngeal phthisis, admits of no doubt. To analyze and so separate these factors so as to give proper value to each dyscrasia is exceedingly important. It is now well known that we have syphilis pulmonalis as well as laryngeal syphilis.

The work of disintegration in syphilis in both places goes on more slowly and with less acute constitutional symptoms. The febrile excitement and the rapidity of tubercular degeneration as compared with the progress of syphilization is important in diagnosing our cases; and our treatment will be modified as we decide upon the presence of the one or the other or both dyscrasias.

Intestinal Complications.—We have tubercles sown in the mucous membranes of both the large and small intestines, more particularly about the ileum. The glands here often become so studded with tubercular deposit that the membrane becomes a thickened mass, greatly narrowing the caliber of the tubes. Sometimes the inflammation will, by its action upon the muscular and serous structures, produce such contraction as to almost amount to a stenosis. More frequently the tubercles are found to attack the aggregated glands than otherwise; but you may see here and there a solitary yellow tumor not larger than a hemp-seed projecting from the mucous surface, not involving to any great extent the bowels, but yet showing

that this is proper soil for the lodgment of such seed. As ulceration goes on, you will see a ragged border around the ulcerating centres, where glands are being broken down. Louis found tubercle in the intestines in a larger part of the fatal cases inspected, dying from pulmonary phthisis. It is usually regarded that tubercle in the intestines is secondary to its deposit in the lungs. I am not sure but there may be exceptions. The diarrhœa attending ulceration of the intestinal tract in these cases greatly tends to exhaust our patients. Tubercle in the intestines must also greatly impair the nutritive functions. We know of no better remedies in these cases than *Calcareo carbonica*, *Calcareo phosphorica*, *Silicea* and *Sulphur*, though the characteristic indications must be followed. We have seen really very wonderful effects from *Calcareo carbonica*, and make a clinical point for its use. What the nosode *Tuberculinum* may be able to do, we are not able to say; but it is well to remember that we have a similar preparation of the carbonate and phosphate of lime. The stomach also is apt to become enlarged and thinned out in its walls in the progress of a phthisis. I do not know as this indicates anything more than a wasting of tissue as occurs through the general system, and weakness of the muscular structure. But the fatty degeneration of the liver found so often must have a significance. Some regard the fatty degeneration almost peculiar to this disease. The gland enlarges and becomes full of adipose matter; the whole gland loses its natural color and becomes pale and soft in consistence. This indicates a change in transformations, or arrest of fatty matter in course of destination for fulfilling some important function in the animal economy. I suggest whether these may not be the cases where *Phosphorus* is found to act so favorably.

The generally accepted theory that the bile and pancreatic fluid are the chief solvents of amylaceous matters, may lead most to think that partial arrest of the functions of the liver and pancreas growing out of a general debility following the progress of a phthisis, is sufficient to explain this fatty degeneration. But we have debility in anæmia, in continued fevers, and in many other diseases without this fatty degeneration.

I think we will have to look further for the cause of this complication.

Whether this presents an abortive attempt of nature to set up a curative process we do not pretend to say.

The need of fat to make blood-corpuscles has led most physicians to giving oils and amylaceous food to consumptive patients.

CHAPTER XVI.

REGIMEN, CLIMATE AND SURGICAL DRAINAGE.

Before entering upon the analysis of remedies found in the *Materia Medica* there are some therapeutical adjuncts to which it may be profitable to give attention; among these are clothing, food, climate and surgical drainage.

We have laid great stress upon thorough removal of extraneous matters from the system, such as the carbon and nitrogen products, and indeed, every other component of the excreta. We have spoken of the importance of filling the lungs at the time of inspiration if we would avoid mechanical blocking up of the air-cells, and obstructions in unused portions of the lungs, and have said that the oxygen received is indispensable to the work of transformation perpetually going on in the system.

It is not saying too much when we affirm that a compressed lung is a perpetual menace upon life.

How many dress so as to give absolute freedom to the lungs, especially of the fair sex? Pressure could hardly be applied to better advantage than by forcing up from below after the manner of the corset. There is not space enough left in the thoracic cavities to expand the whole of the lungs; the pressure will be most effective at the apices, and it is just here where we most frequently find tubercle. Not only should pressure be taken off, but the muscles which lift the thoracic walls should be educated and developed, so that by their contractile energy the walls will be kept off from the lungs them-

selves. All curvatures of the spine, all contractions of the chest should be promptly attended to, as having a tendency to impair the respiratory function by compression. Systematic and trained muscular movements, also systematic thorough inflation of the lungs cannot be too strongly urged upon those having any tubercular tendencies, always to be used according to the power of endurance. Then surgical appliances, such as the plaster of Paris splint, or felt jacket may be necessary adjuncts if we have curvatures to overcome. Such cases will be benefited by constitutional remedies, such as Calcareo and Silicea; the diet also should be nutritious and easy of digestion. Not only should the clothing about the chest and stomach not compress the central vital organs, but it should be of good non-conducting material, so as to avoid congestions and colds. Besides proper protection to the chest, there needs to be great care of the feet; they must not be allowed to become damp and cold; silk or woollen hose are the best. Frequent bathing in pretty warm water and rubbing dry will keep the skin in good condition; and let me emphasize this as important both as an eliminating process and for purposes of equalizing the circulation and controlling the febrile action. Some have advised the use of cold water, thinking to prevent cold feet, and also to avoid susceptibility of taking cold; it may be used after the hot bath if only for a moment and friction be at once applied to bring about thorough reaction. There must be much caution or nervous shock and congestions will follow, which will more than counterbalance the good, but the foot-bath and a free use of the bath about all the *sweat-glands*, such as are located in the axilla and groin, with towel rubbing, are valuable adjuncts to all kinds of treatment. The bath and protection by suitable clothing, in no case must be overlooked; non-conductors, such as silks and wools being best next the skin. Application of water at the temperature of 50° to the skin, especially about the neck and chest, applied with the half-squeezed sponge, and only for the moment, followed with free friction we think tends to obviate colds. It can so be applied every day if care is used. Reaction with a fine glow upon the skin is the test of benefit and skill in applying the bath.

Food.—Milk, sugar, cream, fats of different kinds and malt, we have found beneficial in the management of our cases of phthisis. The fattening properties of milk and sugar are very well known. When we have found the stomach too weak to digest milk or cream we have added a little choice brandy to whip up its action.

We have for years been able to heal up a bone ulcer by giving the carbonate or phosphate of lime in our dilutions, putting patients upon a spoonful of brandy added to half a pint of milk, three times a day. The red corpuscles rapidly increase and a cure is almost sure to follow. We have come to attribute something of our success to the brandy and milk. If chronic ulcers of the bone can be so rapidly repaired in this way, why may we not hope to benefit our cases of phthisis in a similar way.

Scrofula is usually behind both of these diseases.

The more cream the milk has the better, if the digestive functions will appropriate it. Cream can often be taken when no other kind of fatty foods can be tolerated; cream and sugar, to which may be added a little wine or brandy, or a few drops of muriatic acid, if better relished. Some have advised whey; it is a good carbon hydrate. We have given our patients boiled fat pork, appetizing it with a little vinegar or lemon juice, when they could take it. We have had patients who really craved fat pork and would eat it with avidity. This appetite has only shown itself after long fasting and inertia of the stomach, and when energetic reaction was setting in. Notably was the case of Miss T. of this class (reported under Tuberculinum) after taking Tuberculinum.

We urge upon our patients also, to use malt as freely as the stomach will tolerate, taking it with meals or just before. Trommer's Extract has been our favorite brand. If patient dislikes it, we recommend thinning it with a little beer or pale ale, or better still with milk, if milk can be tolerated.

The fat of corned beef, or fat trimmed from a nice steak can be often utilized. We think these fats not inferior to cod-liver oil and they are usually more palatable.

Milk ranks first as a food, so far as our experience goes, in

all albuminoid diseases. We use it in albuminuria, finding it almost indispensable. Milk and farinaceous foods, like rice, oat-meal and the different preparations of wheat, are not as likely to cause febrile excitement as meats. The patent-process flour, possessing more of the phosphates and silicates, we think the best of our brands of wheat, Graham flour as it usually comes from the mills being too coarse. The outside of the kernel could more largely be used with great advantage if we could have it finely ground.

Sweet apples, strawberries, raspberries, blackberries and peaches, may be freely used with farinaceous and fatty foods.

After all, many will decide to give cod-liver oil. A good way to cover the taste is to add a few drops of Sulphuric ether, and what is more important, it is thought to excite the action of the pancreas upon which the digestion of fats so largely depends.

In favor of the oil, statistics show that deaths from consumption have fallen off some six per cent. since its introduction into practice.

C. B. Williams, of the Consumptive Hospital at Brompton, London, in his Lumleian Lectures observes that, "The experience of Louis and Laennec gave an average of two year's life in phthisis after it was decidedly developed; but that since cod-liver oil was introduced he infers from 7,000 cases, that the average duration of life has been four years." Some will raise the question if this improvement would not naturally follow the dropping of heroic treatment. In other words, if the disease, let alone to nature, would not give about the same statistics of diminished mortality.

Whether oil is purely a nutrient or has minute quantities of medicinal agents in solution, to add to its value as an article for consumptives, has not been absolutely settled. It is pretty certain, however, that it *is a nutrient*.

Dr. Williams says: "I have no hesitation in stating my conviction that this agent has done more for the consumptive than *all other means*." Dr. W. has had in his charge many thousand cases.

There is a growing tendency to place fat at the bottom of all molecular action in cell-growth.

Dr. Chambers, speaking of cod-liver oil, remarks, that it is "a typical aliment, representing what is the fittest of all known substances to supply the deficiency that constitutes the disease. Oleaginous substance is what is furnished by nature for all primary growth, and nutrition of all the higher tissues of all animal bodies; so that in administering it we are wisely imitating the wisest teacher of medicine—mother Nature."

We may properly inquire at this point, what is the significance of fatty degeneration found in connection with tuberculosis of the lungs?

Is it an imperfect effort of nature to repair herself from the conversion of glucose into fat?

Doubting if we are able to prove exactly what Dr. Chambers says, or if we are fully competent from present data to answer the questions raised, we may accept as pretty well proven, that fat has something of an ameliorating influence in a majority of cases of tubercular phthisis.

If cod-liver oil is used, we should be very careful to select a good article; many now use the emulsion. The oil should be condemned as unfit for use, if in the least rancid; dark-colored oils are almost always impure; pale or white oils are the only ones to be accepted; these should be kept in a cool place, well corked, and not exposed to the light; when taken, a few drops of Sulphuric ether may be added. The best time to take it is about half or three-fourths of an hour after meals; it will then pass more quickly from the stomach, as the food will at that time be moving downward. For myself I am not convinced that cod-liver oil is better than other fats, which are more palatable.

Cream has been successfully used in improving the flesh of greatly emaciated children when emaciation has been caused by defects of nutrition, and also from waste of protracted diseases, and we have been using it for years with good results for our consumptive patients in place of cod-liver oil, supporting it with other fats and malt. In some instances when we have had patients suffering from feeble assimilative powers and great debility, we have directed that they be well anointed with oil twice a day, aiding by absorption through the skin to

keep up the motor energy of the system; and more can be done in this way than one thinks. The oil should be well rubbed in, aided by heat.

The value of malt consists in having a large per cent. of sugar and dextrine combined with fatty substances, a small per cent. of albuminoids and phosphates, making it adapted to weak digestion and the conditions of anæmia.

Much has been said lately about the carbon hydrates in the management of consumptive cases, and as supplying both motor energy and the constituents of blood globules, we conclude the opinion of the profession fairly sets that way.

The questions supposed to be settled as to the uses of carbon foods and nitrogen foods is likely to undergo a revision. The acceptance of the doctrine of conservation of energy, requires also the acceptance of the doctrine that force is transmitted from one form into another, and that the forms of force bear a fixed and quantitative relation to each other. From the carbons, we assimilate, come the chief manifestations of force in muscle, gland, and nerve.

The functions of muscles, glands and nerves are largely to distribute force obtained from these carbons, and in doing this such force is often transmuted; and so long as these carbons are supplied but little waste is felt in any of these tissues. Hence it is fair to conclude that such carbons are the feeders of these tissues, and that starvation will follow if they are withheld. It appears also that whatever carbonaceous food is not wanted for present use, is stored within the body, and chiefly in the form of fat. A trifle of this, it is true, is produced from the splitting of albuminous matter, which undergoes transformation. Failure of ability to dissolve amylaceous foods, and transmute them into fat cells, is one trouble with consumptives, making necessary the use of fats in increased quantities. Emulsifying these fats, aids in their absorption.

It is worthy of note that several remedies known to act upon the liver and internal glandular system have the symptoms of aversion to sugar or fats. Arsenicum has aversion to butter, but desire for milk and lard. Calcarea carb. has aversion to meat and nausea after milk. Calcarea phos. has colic

from eating ice-cream. Causticum has aversion to sweet things. Ferrum has aversion to meat, which disagrees; after fat food bitter eructations. Hepar s. c. has aversion to fat. Lycopodium, desire for sweets; constant sense of fermentation; constant sense of satiety. Mercurius, aversion to greasy food; desire for sweets, but they disagree. Natrum sulphuricum, farinaceous food causes diarrhœa. Nitric acid has longing for fats, but fat food causes nausea and acidity; milk disagrees. Phosphorus, aversion to meat and sweet things; wants ice-cream. Pulsatilla, aversion to fat food and to milk. Sanguinaria, sugar tastes bitter; sweet things aggravate and cause burning. Sepia, diarrhœa after drinking milk; *particular aversion* to meat.

Sulphur, aversion to meat, milk disagrees; desire for sweet things; a good remedy when sugar disagrees. Thuja, oily or greasy substance in stool. Zincum, aversion to sweet things and to meat. These are the remedies which have gained the foremost place in our clinical reports upon phthisis. The symptoms we have given indicate the use of the remedies for troubles where fat is not assimilated, and where sugar is not readily transmuted into fat. The subject as brought forward here is tentative and will bear further study. The function of the pancreas being that of emulsifying fats and preparing them for assimilation, it would be well to ascertain what remedies have a special action upon this gland. Recent investigations seem to prove that Sulphuric ether and Sulphur are foremost among these. The function of the liver being largely that of converting sugar and starch into fats, it is well to study the importance of keeping this organ in a healthy condition. I need not mention particularly other organs connected with nutrition.

Climate.—The importance of fresh air, combined with regular exercise out of doors, is of great importance in improving the circulation and assisting in the elimination of morbid products. The muscles are strengthened, the heart's action is more vigorous, and the nervous system is toned up.

To facilitate this a choice of climate is of very considerable consequence.

Elevated climatic stations where there will be snow for

several months in the year, have the advantage of supplying an atmosphere free of dust and also a thinner air. Torpid constitutions and those troubled with a slow digestion, are often benefited by such an atmosphere; but persons who suffer from stimulation, have quick pulse, redness of face and dyspnoea, should not go to such a climate; nor should blood-spitting patients, nor those troubled with laryngeal affections. Persons who go to Colorado and other high altitudes, are apt to delay their visit too long. They should go in the earliest stage of the disease in order to be benefited. A warm, moist climate, such as we find in Alabama, Florida, and the small islands of the tropics, agrees with a larger number of consumptives, though such a climate is too relaxing for some. If one has a bad digestion and is subject to diarrhoeas, he is not likely to be benefited. By going inland upon plateaus with higher elevation, possibly such may be able to get something of the equability of the climate, and escape enteric and stomachic troubles also.

The city of Mobile and its surroundings offers as favorable advantages as any we know of in this regard. The atmosphere is free from malaria, the soil is sandy, and at no great distance away are to be found elevated plateaus which carry one beyond the fog and dampness, if this become too depressing. The mean temperature is very favorable for avoiding pneumonic congestions and inflammations, and such complications are usually those the patient and physician most fear. Only twice in the years between 1869 and 1880 did the thermometer register on any day in the months of December, January and February as low as 20° , and that only in the night. The extremes were from 80° to 20° . In the majority of the years the mercury only ran down to 28° . March and April are always pleasant months in this vicinity. This enables the patient to spend much of his time in the open air.

Six miles from the city there is elevated ground, pure water, beautiful scenery with balmy breezes blowing from the gulf, all favorable to the repair of diseased lungs. If the air is ever too damp here, the cars will carry one in two hours to the pine hills, wholly beyond any depressing influence of this kind.

Such being the topography of the country, one may spend most of his time in the city, sure of a safe retreat near at hand, if at any time he has need.

As a rule we ought never to send our patients away from home when the febrile symptoms are active and all indications show the disease making steady progress. Patients are often sent away who should be in bed half of the time, receiving treatment to allay actively progressing movements of the disease, and when better, may be sent away if thought best; but sending people away from home to die, is not complimentary to the physician, while to the patient it is a cruelty.

The remarkable cures reported from persons camping out in the Adirondack region within the past two years, only proves the importance of securing good air, and exercising in it. A better elimination of effete products is thereby obtained, and consequently a better digestion. This can be secured in almost any dry northern woodland with variegated scenery, by selecting a sheltering crag.

Camping out in the Alabama woods would be less rigorous in winter, and prove to a majority, we think, a better success. Acclimation, however, is a great point, and hardening where it can be accomplished is a part of the cure. *The air, the air* should be the first part of the prescription to every consumptive patient; and to secure its entrance into all the air-cells, we should order the use of the respirator or other pneumatic apparatus in a systematic manner.

In all tables of statistics yet published where the mortality of phthisis has been the subject, there has been an invariable increase of fatality, and numbers where the habits have been sedentary and of in-door life. No matter what the climate, out-of-door life is beyond dispute beneficial to persons with pulmonary tendencies. Agricultural pursuits are much to be preferred to work behind the counter or in a dusty shop. A quiet, easy life, as the country gentleman might follow, would, to our mind, be representative in character. Riding, hunting and fishing, and other sports followed out-of-doors, give the proper stimulus to the muscles, quicken the digestion, and help to thorough breathing. If the lungs are broken down,

then exercise will have to be passive, such as one gets from riding in an open carriage, being rowed in a boat, or from swinging in a hammock.

One may lie for hours basking in the sun and fanned by the cool air, to advantage. Sun-baths and air are not only enjoyable, but indispensable. We must remember the skin has a wonderful eliminating power. "The poison of a rabid dog, a snake bite, and other infectious poisons," says an eastern physician, "may be wholly eliminated from the system by baths at 130° to 150° Fahrenheit; and vaccine matter does not take if excessive perspiration follow soon after the inoculation." The value of thorough breathing and exhalation from the skin cannot be overestimated.

Summing up what may be said of climate: a sunny, dry, cool and stimulating climate is undoubtedly the best, not too cold nor too hot, nor is a high altitude to be chosen except for sluggish natures needing a constant stimulus. Northern New York, the shores of Lake Michigan or Colorado in summer, Santa Barbara, Alabama or Florida in winter, for such as are able to bear the expenses of a migratory life, would seem to meet the climatic requirements, as well as may be done in the Western continent. I have been persuaded that the equability of temperature along the eastern shores of Lake Michigan offers some advantages to the consumptive invalid, but the locality has the objection of being malarious till you reach the upper portions of the lower peninsula.

The western shore from Chicago to Milwaukee has a dryer atmosphere, a sandy soil free from malaria, and statistical health tables place the locality in the front rank for sanitary resort. A sanitarium for consumptives at Waukegan on the west side, and at Petosky on the east side of Lake Michigan would be well located. Minnesota and northern Wisconsin are favorable localities.

Hot Baths.—There is no doubt that free exhalation carries from the system large quantities of poisonous and effete matter. Under the action of a bath at 90° to 100° Fahrenheit, the rheumatic morbid agent is expelled. Some have gone so far as to report the elimination of the virus of rabid animals by a

bath of 135° to 145° after spasms had actually set in. We know that nature sets up the sweating process to remove dead matter from the body. What is the significance of the drenching sweat of the consumptive? I do not suppose that we are to drift tubercle from its lodgment in the lungs by baths at any temperature, but when nature declares her efforts at elimination by the sweating process, it is well to inquire if we may not act upon the hint. Sun-baths are found to be good and to protract life, but I do not know that water-baths of a high temperature have as yet been tried. It is our opinion that they can be made adjuncts to well chosen medication. Drainage of effete and tuberculous matter, either by an opening through the walls, or the emunctories will tend to obviate the very general evil of auto-infection.

Surgical Drainage.—The subject of making openings through the thoracic walls, has been recently discussed on both sides the Atlantic, and tried in a few cases. Professor Mosler, of Griefswald, read a paper before the Society of Naturalists and Physicians, assembled at Wiesbaden on September 23d, 1873, in which he presented the plan of opening into pulmonary cavities and inserting drainage tubes. This plan also included appropriate topical treatment by access to the walls of the cavity through the opening.

Professor William Pepper, of Philadelphia, was engaged upon investigations of a similar character about the same time.

In the *Philadelphia Medical Times* for March 14th, 1874, Prof. Pepper published a paper "On the Local Treatment of Pulmonary Cavities by Injections through the Chest Wall." The *American Journal of the Medical Sciences* for October, 1881, has a paper upon "Opening and Drainage of Cavities in the Lungs," from Drs. Fenger and Hollister, of Chicago, suggestive in its character.

That abscesses may exist in the lungs and recovery take place has been conclusively proved. That cavities may be safely opened into is well agreed upon. If they arise from tubercular deposit it is not agreed whether anything can be gained by drainage through the external walls. Our own experience only extends to opening into a cavity of a scrofulous

nature when there was a slight prominence between the ribs. It was in the case of a young man whose mother died of phthisis. The cavity partook of the nature of an abscess, and purulent matter was expectorated freely, while from the opening large quantities of purulent matter continued to flow for several weeks. The case was saved no doubt because of the superficial character of the abscess.

A good recovery followed, but the chest walls were somewhat contracted. Echinococcus cysts of the lungs are successfully treated by drainage through the walls, as well as empyema. But it has generally been thought that the lung must be so extensively involved in the tuberculous degradation before pus cavities form, and the vital powers so far prostrated that the operation is not warranted save in very exceptional cases, when the lesion is superficially situated, with adhesions of the pleura to the chest walls.

Deep lesions do not always prevent recovery, unless fatal hemorrhage follows. But the more central the wound the more doubtful the recovery of any important lesion. It is plain the abscess must be clearly located before any attempt of this nature can be made; and if adhesion to the walls exists there is much more likelihood of success.

We are prepared to see sentiment setting in favor of this drainage.

Pneumatic Treatment.—The spirometer has gained some attention recently from the profession in the management of phthisis pulmonalis. There is no doubt that the free use of the instrument tends to keep the air-cells open, and may in the earlier stages of phthisis do much to prevent the occupancy of the apices with tuberculous matter. After the deposit has occurred there is less to be expected from its use.

The modification of the Hutchinson spirometer by Prof. Waldenberg, of St. Petersburg, Russia, can be used in a manner to increase the power of both inspiration and expiration, and is the best instrument we have.

Certain arm and shoulder movements facilitate the expansive capacity of the lungs, and may be practiced somewhat upon the principles of the Swedish movement cure, always

taking great care not to prolong exercise beyond healthy reaction.

CHAPTER XVII.

ACUTE PHTHISIS.

We prefer Niemeyer's classification upon this variety of phthisis, and would not confound the disease with rapid degeneration and softening of the caseous exudation, which sometimes occurs in connection with pneumonia and is often termed "galloping consumption." In a large per cent. of acute cases of phthisis, however, the disease occurs where the lungs have old caseous deposits. From this fact the question has naturally arisen, whether this acute phthisis does not come of some pernicious effect which the cheesy deposit exercises upon the blood; but it is not confined to this class of crippled constitutions wholly, and must arise also from other and unknown causes. The tubercular deposit is always of the miliary kind, and nearly always exists in a state of crudity. The lungs will be found studded from apex to base with these millet-seed sized granules; often the pleura and other organs also becoming involved. As the lungs may be studded with these granules without producing any perceptible dulness, the diagnosis is not always easy to make out. It may be confounded with pneumonitis, pleuritis, capillary bronchitis, typhus fever, intermittent or typhoid fevers, as well as certain diseases of the heart. There are, however, differential points usually, which, if carefully studied, will enable one to come to pretty definite conclusions. The dyspnœa, the high grade of temperature and rapid pulse, are important; the family history and diathesis are also very important. The prognosis is unfavorable; nevertheless the prompt administration of the true homœopathic remedy should be tried. We may possibly see better results than expected. The *Apium virus*, I believe the best remedy we have. In *Ferrum*, *Calcarea phosphorica*, *Iodine*, *Phosphorus*, *Sulphur*, *Zincum*, may sometimes be found a better

similimum, and if so no one will hesitate about giving them a trial. Most writers speak of the disease as beyond the reach of all medication. We do not think the homœopath is to look upon any disease in its inception as outside the limits of possible relief. Upon the theory that in acute miliary tuberculosis we have an acute lymphangitis, we put forward in part *Apium virus* as a probable remedy. The frequency of respirations as well as the pulse, when compared with the grade of fever, seems to have some analogy of symptoms. Raue brings forward *Arsenicum*, *Gelsemium* and *Lachesis*, in addition to those mentioned; and in the advanced stage *Ammonium carb.* is suggested, but no indications are given.

Drs. Wood and Formad, in making experiments upon rabbits by inoculating them with the membranous exudation of diphtheria, found that tubercular deposit followed. What the significance of this fact may be we are hardly prepared to say. The two diseases seem to be of the class presenting the condition of hyperfibrinosis. It looks a little as if there were an element of propagation here, that fibroid degeneration passed over into tubercle, and that the lungs were the seat of the morbid product in the rabbit. If it should be determined that acute tuberculosis is essentially an active and possibly infective lymphangitis, it would support by analogy and on theoretical grounds the indications of *Apium virus*.

CHAPTER XVIII.

CHRONIC TUBERCULAR PHTHISIS.

By this term we mean those cases of consumption which run their course in the ordinary way: first, in deposit of caseous exudation or by tubercular infiltration; second, in the softening of tubercle and the breaking down of both tubercle and the surrounding tissues; third, in resolution and recovery by expectoration, with cicatrization of the walls of cavities, and possibly by crystallization and encysting of tubercle, or death from exhaustion and the poisonous influence of purulent mat-

ter in the circulation. These cases may come to us from all the sources discussed in previous chapters and possibly from still other sources.

We have at this juncture albuminous matter either in the air-cells and mucous membrane, or in the walls outside of the vascular vessels, or both, undergoing the cheesy or fatty transformation, probably with tendencies also to the production of earthy phosphates. Often the surrounding structure becomes inflamed and the inflammatory action in the parenchymatous structure, is going on as a limited pneumonia where fresh tubercle may be depositing.

The apex of the lung is usually the point first attacked and will be more completely and heavily loaded down with tubercle, though frequently considerable extension of the disease to other parts of the lung will be found, and cases are not wanting in which a greater portion of both lungs has been loaded with this exudation.

As one lung is primarily affected, and as there are primary seats of exudation in the same lung, we will find often all stages of advance in the same person, perhaps in the same lung. It is no more nor less than an ulcerative process with the purulent matters burrowing in the lungs. At this stage the bronchi often become loaded down with purulent matter from their terminal ends by coughing, and the case may be complicated by auto-infection. The cavities may be isolated or their may be several communicating with one another. They vary much in size, from that of a hazel-nut, or even smaller, to cavities occupying large portions of the lung.

Recent cavities are irregular, with rough and jagged walls; later the fibrous tissue is fully dissected out, leaving only the more indestructible parts, such as blood-vessels, bronchi and indurated fibrous tissue; very old cavities are usually lined with a smooth membrane. The contents of cavities may be quite different, showing the changes purulent matter undergoes from the influence of air and the progress of chemical degradation. Associated with these cavities we not only have tubercle in advancing stages in other portions of the lung, but possibly

we may find portions of the lung where the disease is retrograding.

We may also have pleuritis, and the adhesions may be very thick and firm; we may have pneumonitis, bronchitis and emphysema, even collapse of the lung, subjects which have been fully discussed in previous chapters.

Errors and Inadequacy of Phthisical Therapeutics.—It is astonishing to witness the mental obtuseness which follows a training in dogmatic systems of thinking. One would think that so great a vitalist as Dr. James Henry Bennett would never be guilty of comparing therapeutical action to manuring a field, but here are the doctor's own words: "In phthisis observation shows that it is judicious to increase the usual amount of fat given into the system, and observation seems to show that it is equally right to increase the amount of phosphates. Phosphorus is only contained in limited amount in our food, although it exists in so large a proportion in our system; its administration in a disease of debility may therefore be compared to manuring an exhausted field. If corn is grown in succession in the same soil the crop at last fails for want of phosphate of lime, which is necessary to form the grain. It is in this sense that I give the preparations of phosphorus." Could there be a statement more utterly short of indicating true therapeutical action? If the vital powers have so far succumbed as to be unable to appropriate the organic phosphates found in food, what shall we say of a man's intellect which conceives that the crude mineral phosphates can be shoveled into his patient's stomach to advantage? Phosphorus indeed may be a therapeutic agent, but only by virtue of the power it has to provoke the vital forces into movements which shall enable transmutation to go forward among molecules which can thus be made to build and repair structure; only by substituting a healthy vital action for a morbid action; only by arresting the progress of retrograde metamorphosis, or degrading chemical action can forward vital movements take place. Thus the defective elements in old school therapeutical management of phthisis is shown upon the very threshold of the discussion. This Dr. Bennett who has written

a work on consumption and offers his own case as a specimen which he claims to be exceptionally well managed, says: "I have avoided as much as possible the circumstantial enumeration of local symptoms, which are much the same in all cases, as also the details of treatment. Each case is intended to illustrate a pathological type or a social phase of pulmonary consumption." Now, most likely just that circumstantial enumeration of symptoms must tell us the remedy adapted to the case; as each case must be thoroughly individualized in its symptomatology, which expresses the sensorial and most important side, to add to the pathological side, to meet the demands of homœopathy, we see how much more completely homœopathy grasps the subject. As every case is individual, so we need to know in what that individuality consists and find its correspondence in therapeutical agents. So eminent a physician as Prof. Austin Flint has little to offer but hygienic treatment, such as consists in change of occupation and good air. It is to be hoped that we are entering upon a new era in the treatment of this terribly fatal disease.

CHAPTER XIX.

APIUM VIRUS.

Lungs and Thorax.—Soreness in the upper part of the chest; pains are usually in the left thoracic region and opposite the middle of the sternum (this suggests sympathy with the heart).

Cough.—Cough provoked by constrictive feeling in the throat and by pressure at the sternum. Irritation to cough in the supra-sternal fossa. Cough dry, with gagging; with painful concussion of the head. Little or no expectoration.

Aggravations.—After sleeping (Lach.), by lying on left side (Lyc., Phos.); by recumbent posture.

Accompaniments.—Among the throat symptoms we have hoarseness and congestions of the mucous membranes; speaking is painful; feels as if wearied in the larynx. The breathing

is hurried and difficult, worse from motion, worse in a warm room. Patients have a pale, sickly look; pale and sallow; burning cheeks with cold feet; red face, hot and swollen; œdema about the eyes (Kali c.); swollen lips; and lymph glands, small and great, inclined to tumefaction.

Pulse is accelerated; may be strong, or may be weak; intermittent, or wiry and frequent; conditions pointing to an inflammatory action of the vessels. Nervous symptoms are trembling, great prostration, tired feeling, restlessness.

Tuberculous patients are always wishing that they could get rested.

The action of Apium virus on the system frequently produces a craving for milk, which relieves.

The power which Apium has to control glandular enlargements and irritations goes to support its claim as a remedy in tuberculosis of the lungs; and we bring it forward confidently expecting that it will take high rank among our remedial agents in the early stage of tubercular affections of the chest organs, as it already has in albuminous exudations in other localities.

That there may be something in this constitutional albuminoid diathesis we quote Dr. Henry Bennett in proof. "Most winters at Mentone, I lose one or more of my consumptive patients from Bright's disease." He further says, when in Paris he found many of his old associates believing in the curability of phthisis, but one and all stated, that many of these cases of arrested consumption had subsequently died of some other form of cachectic disease, and principally of albuminuria. For the cure of albuminuria we regard Apium the most important remedy we have.

For that form of phthisis which declares itself in a general lymphangitis especially do we bring forward Apium virus.

In acute affections of the glands and lymphatics, if we may judge by its provings, it must become a leading remedy.

ARSENICUM ALBUM.

Lungs and Thorax.—The chest symptoms are usually more pronounced upon the right side. We have sharp pains in upper

third of right lung. Burning in the chest; feeling of rawness and soreness. Constriction of the chest. Dr. Gregg offers the symptom, "burning in the upper portion of the right lung, with hemorrhage.

Cough. — Cough dry and fatiguing. Paroxysmal, violent. Sometimes with glairy, frothy, transparent sputum, which later in the disease becomes yellow or grayish-yellow.

Aggravations. — In the morning on rising, or in the evening on lying down (Phos.). After drinking. On going into cold open air. Worse about midnight.

Accompaniments. — Face has the bloodless cachexia, well stamped, as seen in the waxy, gray, pale, earthy and bluish tinges of the skin; the face is also swollen and sometimes flushed; but the former is a rare symptom in tuberculosis, unless in connection with fatty degeneration.

There is much disturbance of the stomach, pains in the region of the liver, and engorgement of the spleen; tenderness with burning sensations are quite typical of Arsenicum.

In the febrile activity we have much shuddering, worse in the open air, with little thirst, or if thirst, it is short, calling for only a little fluid.

The chill is often undeveloped, being more internal, often alternating with flushes of heat; sometimes chilliness comes several times a day, seeming to be of a nervous character, as little heat follows.

Hurried breathing upon moderate exercise, dyspnœa on lying down are accompanying symptoms in tuberculosis. Voice is weak and trembling; feeling of oppression increased by heavy air and stormy weather. For tissue waste with great weakness, and disinclination to muscular movements, Arsenicum has a correspondence.

Like Apium it has a very decided action upon the lymphatics, and in plastic exudations is used to awaken absorbent activity.

Its influence is seen upon the nervous centres, especially of the organic or vegetative system, upon the blood corpuscles and the glands. It seems to increase the power of the system in the production of fat, thus being able to correct certain faults

of assimilation. Whether this has anything to do with the service it renders in consumptive cases, we are unable to say; certain it is, that it is an active agent when used to unload the glands, and when wanted to work an excess of fluids from the system. It is an anti-hydrogenoid.

We will report three or four cases of unequivocal character, where Arsenicum has proved of service, but would advise that it be tried **early** in the disease and **before the tubercular deposit**, as a means to prevent exudation.

Clinical.—CASE 1.—“Mrs. W., æt. 32, of a nervo-bilious temperament, with dark hair and dark eyes, quite slender, had passed two menstrual periods. Was harassed with an irritative cough, and had been for some months; dulness of **right lung** in the apex; had hectic fever. The symptom to which we attached most importance in selecting a remedy was **shuddering without thirst, or full development of the chill**. This occurred two or three times in the twenty-four hours, and was worse when in the open air; her expectoration was but slightly purulent, mostly of a frothy mucus, though portions were yellow and thick; had night sweats of a cold clammy nature. Gave Arsenicum²⁰⁰ with so favorable results that chills were at once arrested and resolution was so rapid that she menstruated in eight weeks; became pregnant and miscarried at the third month; flooding was serious, and went into a rapid decline, dying of phthisis within ten weeks after miscarriage. Her pregnancy shows the extent of curative reaction made by the Arsenicum, and her death the correctness of the diagnosis.”

CASE 2.—“Louis Emmel, æt. 34, weighs 120 pounds; a German, pale, hollow-cheeked, blue eyes; a cigar-maker; has been in this country two years; ailing ever since; is now so weak that he can hardly walk to my office; coughs, particularly after **midnight until morning**; usually gets no sleep after **one o'clock**; after having coughed a while a **disgusting taste of the yellowish-green expectoration** which is quite profuse; aching, distressing pain in the **upper right lung**; the pain is worse when coughing; while coughing extreme **thirst for cold drinks**, particularly cold milk, wishing to drink very often, but not much at a time; perspires profusely after midnight; no appetite; soreness in the

region of the stomach after eating, and sensitive to extreme pressure; bowels at times loose, and then at other times constive. Four weeks ago raised several mouthfuls of blood; half of the upper right lung dull on percussion; respiratory murmur very trifling in lower part of the lung; gurgling, rattling sound under right clavicle as if from a cavity; left lung normal; pulse over 100. Arsenicum^{1m}, Fincke, one dose. Five days later reports great improvement; can sleep until 3 or 4 o'clock; much less thirst and some appetite; perspires very little; improved steadily until the 4th of October or about a month, when he drank three glasses of beer, after which raised sputa streaked with blood; on this day he got Arsenicum^{38m}, Fincke, one dose. Oct. 25, reports expectoration diminished one-half; no perspiration; sleeps until 5 or 6 o'clock; expectoration nearly colorless, and has no taste; no pain in the right lung; weight increased in a short time to 134 pounds; dulness less, and far less rattling in the region of the cavity under the right clavicle; his general improvement is so marked that there is good reason to believe the lung will gradually mend."

—WM. P. WESSELHÆFT.

CASE 3.—"H. T., æt. 28, tall and slender, elongated and narrow chest, subject to sexual excesses, has had a hacking, dry cough for several years. In 1870 had an attack of pneumonitis of which he was thought to be cured, but was left with a hollow-sounding cough, dyspnœa and stitching pain in the chest, followed in a few weeks by a severe hemoptysis. The bleeding was troublesome for a week or so; the cough continued growing more and more severe, attended with hectic fever and much prostration. Aggravation at night, but coughed both night and day; night sweats; pale face with red spots on both cheeks; dryness of throat and mouth; ravenous hunger; tormenting thirst; red urine which scalded at micturition; sometimes long retention of urine; much restlessness day and night; burning in the chest, and shooting pains; expectoration of fetid, dark, greenish solid lumps of matter. Arsenicum album, 3d, 6th and 12th trit. cured the case."—DR. ARNDT.

CASE 4.—"A girl, æt. 24, of graceful form, was taken with raising of blood in the summer of 1857, with well-defined symptoms

of tuberculosis, which increased so much by the spring of 1858, that the patient was confined to her bed and seemed at death's door. She is very much emaciated; coughs a great deal; the sputum is chunky, yellowish-brown and of disagreeable sweetish odor; the left lobe of the lung as far up as the middle of the scapula is studded with tubercles; pulse rapid and small; diarrhœa; has not menstruated for four months. Arsenicum restored her to full comfort, brought on a return of menses and enabled her to discharge the duties of life."—EIDHERR in *Neue Zeitschrift*, IV, 190.

Dr. N. V. Miller uses Ars. iod. for following symptoms: "Soreness in larynx; hoarse, racking cough day and night, with profuse purulent expectoration."

BAPTISIA TINCTORIA.

Lungs and Thorax.—There is a feeling of tightness upon the lungs; hardly able to get a full breath. Right lung more pointedly impressed, often sore.

Cough.—Comes from tickling in the throat; frequently from elongation of the uvula.

Aggravations.—On waking at 3 A.M. (Kali c.), 11 A.M.

Accompaniments.—One awakes with difficulty of breathing; has to have the windows open and get the face to fresh air (Carbo. veg.). We have hoarseness and aphonia; increased secretion of the bronchial tubes and fauces.

Dr. C. C. Smith gives as a key-note for its use for tuberculous patients, "chill every morning at 11 o'clock, and fever each afternoon." Additional symptoms are: chilly over the back while sitting at the fire; feet cold with other extremities hot; awakes at 3 A.M., with flushes of heat as if perspiration would start.

Dr. J. S. Mitchell recommends it for: "Chill in the forenoon or afternoon, followed by heat and perspiration as in ague: general weakness and languor; sometimes loss of hopefulness." Baptisia is adapted to many symptoms which find expression in the tubular passages, and may be used to ameliorate some cases of phthisis, but hardly meets any cachexia.

CALCAREA CARBONICA.

Lungs and Thorax.—Sore pains in the lungs felt more by deep inspirations, and stitches when moving. Stitches in both sides of chest aggravated by leaning forward. Sharp, slow stitches in left side of chest, in a line horizontal with the pit of the stomach. Stitches in the chest from the left to the right side with sense of constriction.

Stitches mostly begin on left side.

Sharp stitches in right thorax, from within outward, not affected by breathing as most Calcarea pains are.

Cough.—The cough is dry, especially at night, often violent, and when expectoration follows, the feeling is as if something had been torn loose. Cough is provoked by air carried down by full inspirations; and by tickling in the throat as from feather-down; also by eating, and playing on the piano.

Aggravations.—Morning and evening.

Accompaniments.—Morning exhaustion; dozing even after getting upon the feet. Intense melancholy. Very forgetful. If patient be a woman still menstruating, menses too early, too profuse, too long lasting.

Face chalky colored, pale, may be bloated or may be thin; if thin skin inclines to shrivel.

Flesh often flabby and soft. Lips swollen. Eyes surrounded with blue rings.

Neck is slender and head seems too heavy for the small size of the muscles.

Derangements of the stomach, such as a sense of weight soon after eating; pressure at the pit, which is distended, eructations which are tasteless or sour; spitting up of food or vomiting of ingesta; rapid loss of flesh (Iodine). Abdomen bloated; mesenteric glands swollen, and various peculiarities in the excreta; such as, hard at first, then thin, offensive and clay-like or chalky stools, with inclination to prolapsus recti.

We have painless morning hoarseness; aphonia, desire for deep inspirations and shortness of breath with vertigo, especially when ascending stairs or going up hill. Stitches in left mamma when coughing. Stitches in Calc. carb. about as

marked as in Kali carb. Dr. Gregg gives: "Pain in the upper half of right lung (Ars.). Cough with purulent sputa, worse in the morning on rising, and in the early evening, with paroxysms during the day, less during the night. Loud breathing through the nose, bleeding from right nostril."

Dr. Fellger gives us the symptom: "Expectoration falls to the bottom in water, with a trail of tough mucus behind like a falling star."

Dr. C. C. Smith: "Whole chest intensely painful to touch."

Calcarea is a very important remedy in arresting tubercular deposits and in keeping them latent after being deposited. It is well adapted to disorders connected with faults of secondary assimilation. With such defects there exists a tendency to hypertrophy of the lymphatic glands, and obstructions in the lymphatic vessels. It is often of more importance to correct a constitutional tendency than to exert one's self to overcome a difficulty which has asserted its full force. Our efforts in the one case may be entirely successful, whereas, in the other we make little headway. It is the constitutional tendency which should always be attended to in these cases, and Calcarea is among our most important constitutional remedies.

Clinical.—CASE 1.—Mary Foster, æt. 4, with blue eyes, large head, and small muscles, does not seem to grow well; eats little and is very nervous. Tires out easily. Upper lip a little swollen, teeth very white. Inclined to diarrhœa, undigested food passing with the excreta. Tendency to curvature of the spine. To look at her seems as if her neck were too small to carry so much head. Flat chest and wing-like shoulders. Gave Calcarea 6th attenuation with a quick response, and advance of nutritive movements which resulted in firm health and in giving general harmony to the structural development in the course of two years.—G. N. B.

CASE 2.—Frank W., a lad æt. 10, blue eyes, light, thin hair, pale, thin face and of a scrofulous disposition. One year previous to my call a periostitis set up in the shaft of the left tibia upon the inner side. Case as presented to me the first time: bone has exfoliated along the whole length of the shaft; ulcer is so deep that not more than one-half of the supporting

structure remains and leg is much bent; ulcer keeps up a continuous discharge which has left little vital resource behind. Patient is not only badly emaciated, but has a hectic fever and a bad cough with dulness in the right apex. Cough is dry and harasses him in the evening; has night sweats. Was given *Calcarea carbonica*⁶, and urged to use milk freely as a diet, to which was added the amount of three tablespoonfuls of brandy every twenty-four hours. Ulcers were fully healed and bone reparation complete within the next twelve months. All traces of lung trouble also passed away and I have never known of subsequent trouble, though case passed from my observation in the course of half a dozen years. We will here add that we have many times succeeded in curing these bone ulcers, commonly called "fever sores," with the use of *Calcarea carbonica*, milk and brandy, and they all remain cured so far as we know.—G. N. B.

CASE 3.—J. Hall, æt. about 14, of a scrofulous lymphatic temperament; mother died of tubercular phthisis four years after case reported convalesced. When consulted found patient with a bad cough and rapid respirations, accompanied with an irritative fever. Percussion showed extensive dulness through apex of left lung and down to fourth rib; fever increased notwithstanding remedies and soon assumed the hectic character. A large cavity, really an abscess, formed, and fortunately was sufficiently anterior and near enough to the surface of the lung to point at the left nipple where it was opened. The abscess communicated with the large bronchus also, as purulent matters were expectorated through the broncho-tracheal passages. It seemed a gallon or more of purulent matter passed away in the next six months through opening at the nipple; purulent expectoration continuing also at the same time from the mouth. Patient took *Calcarea carbonica* and was well fed, and given a little brandy and milk four or five times a day and made a recovery in the course of the year. Cure attributable not a little, probably, to good drainage.—G. N. B.

CASE 4.—Mr. K., a young man, æt. about 21, family decidedly consumptive; slender built, of a waxy, pale complexion, auburn

hair and blue eyes. Troubled with a severe cough of a dry character, worse at night; sometimes stitches in the chest and inclined to diarrhœa of a liquid nature and mixed with indigestible substances; bowels a little prominent and tender. Diagnosis: tubercle in mesenteric glands and parenchyma of the lungs. Gave *Calcareo carbonica*³⁰. General improvement commenced and continued for some time; patient continued his work, which was that of a train express man; gained flesh and strength, though the cough did not altogether disappear; took a fresh cold, quit work and very soon active hectic symptoms set in and patient went to another part of the State to die among friends. The value of the case is in showing that for a season advance of tuberculosis and degradation of tubercle were arrested by *Calcareo*. Termination of the case showed tubercular affection of both the mesenteric glands and the lungs. Whether under better management case could have been pushed to complete curative results is the question to raise. We would now give higher potencies of *Calcareo carbonica* for a similar case and try to obviate aggravations from catarrhal attacks. The value of *Calcareo* in scrofulous swellings is fully admitted and suggests its value in tuberculosis. In faulty assimilation and chronic diarrhœa as well as in colliquative sweats, it covers many symptoms that accompany pulmonary tuberculosis and tuberculosis of the mesenteric glands. In glandular enlargements, scrofulous ulcers and the gravest forms of catarrhs, we have accomplished all we could ask.—G. N. B.

CASE 5.—Mrs. B. of a scrofulous constitution through paternal side; of sanguine nervous temperament, auburn hair and dark eyes. Grandmother, father and two sisters had goitre; one sister died of tubercular phthisis of the lungs, showing no sign of goitre, nor did the present subject; grandmother always troubled with a cough, though she lived to old age; consumption still more common in other branches of father's family; patient had whooping-cough when a child from which she recovered with difficulty and was always subject to a harassing cough of a dry provoking character; after her marriage was somewhat better, but after bearing her second child she showed

evident signs of decline, losing strength and flesh for six weeks with cough, growing steadily worse. At this time she took Arsenicum³⁰, being led to it by peculiar numb sensations in the upper extremities, soreness and pain in apex of right lung, the cough being worse immediately after lying down, accompanied with titillation in the larynx. She soon improved and got on very well till the next spring, when she was taken down again; this time she was tried on her old remedy, but to no purpose, but Calcareo³⁰ did arrest the cough and other symptoms which were as will be seen more conformable to its pathogenesis.

Cough was very dry and harassing morning and evening, especially with tickling as from feather-dust in the throat; if any sputum was thrown off it seemed as if it had to be torn from the larynx; tongue would often protrude from the mouth so violent was the cough, and with such difficulty was anything detached. Calcareo carb. had the effect to finally control the worst of these symptoms and restore patient to her usual health.

The old cough, however, never quite left her for any considerable time, and was always worse from a little exposure. This lady, however, managed to live and raise a family of three children, besides losing two in infancy. When she reached her climaxis she died of a tubercular affection of the left lung. Her three children showed signs at puberty of having enlargement of the thyroid.

Her first born had a prominent thyroid at puberty, arrested by Calcareo and the Iodide of mercury. Later, ozæna, cured by Sepia and Aurum. The younger child, a son, showed struma in childhood, having a fiery redness upon the tip of nose, glandular cervical swellings, enlargement of thyroid at puberty, and loss of teeth before fairly advanced from youth. Calcareo has been an important remedy in keeping back the more pronounced progress of the hereditary cachexia. One member has been benefited by cod-liver oil. Perhaps Iodine would have served well in this family. Iodide of mercury did discuss a thyroid enlargement in the case of a sister of the above-mentioned patient.—G. N. B.

We transcribe the salient points of a case reported by J. P. Geppert, M.D., in the *Medical Advance*, of Dec. 1881.

CASE 6.—During the fore part of June, 1880, was consulted by the mother of patient concerning a case of tubercular phthisis. The patient was a young, single man, *æt.* 22; much emaciated; pulse accelerated, and temperature raised above normal; hectic fever; night sweats; both lungs showing evidence of serious lesion. Case at time was under charge of a prominent old school physician in this city (Cincinnati), and had been for months past.

His prognosis was death within a month, and I have no doubt the prognosis would have proved true had the same treatment been continued. The family history on the mother's side was fair; that on the father's side was exceedingly unfavorable. The parents of the father had been induced to place their son in a mercantile house, and proper precautions had not been taken to prevent the development of consumption, due to confined life, or the breathing of an atmosphere deficient in oxygen. The father died shortly after the birth of the patient (patient being about two years old at the time of father's death) of consumption, leaving three children. The eldest was a daughter who died of consumption during the middle of the year 1878. The second child, a son, is now living, but troubled with a cough. He is reluctant to receive any medical treatment or examination, therefore am not able to speak more definitely concerning him.

Observation teaches us that the last children of individuals affected with such diseases as consumption in their progressive development, should show their hereditary effects strongest. This we see in the case of the sons, and there is no doubt it would have been the case with the daughter, but for her changed environment as compared with the sons. The daughter was very domestic, seldom going from the city and generally remaining in the house, thus favoring the development of such hereditary predisposition.

From this history we see the unfavorable position the patient was in, and would not unreasonably expect such a person to die without special relief by the ordinary therapeutics. During June, the patient was under my care and received principally Phosphorus, 30th centesimal potency. One or two

other remedies were given for special symptoms that presented, but only for a few days. From the bed-ridden condition in which I found the patient, he shortly improved so as to go upon the street, and asked my advice concerning a trip to another state, that he might visit friends and relatives, and secure a change such as that of atmosphere, food and associates. Knowing that the change would be that from a crowded city with abundance of smoke and an atmosphere containing a high percentage of carbon dioxide, like that of Cincinnati, to the advantages possessed by a country habitation, I favored the suggestion and gave him Phos.³⁰, to be taken every second day, with instructions to write me soon after his arrival and with the expectation of continuing the treatment. Like other expectations, however, this one was not realized continuously. Being distant from the patient there was lost that influence which the personal presence of the physician exerts on the patient when the individual is properly adapted to perform the office of healer of the afflicted. The patient passed into the hands of a local celebrity for the treatment of consumption, whose prescriptions contained ounces of *Oleum terebinthinæ*, irritating local applications, and the indulgence of a quantity of fresh drawn blood of animals daily as food. Under this troublesome, disgusting treatment he did not improve, but soon returned to his former low state, and home. It did not take more than two months of such treatment to overcome all the good derived from his short homœopathic treatment.

One Sunday night while at church I was sent for at my office. The message left was for me to call that evening and see the patient, not that I could benefit the patient any, as he would die before morning, but that his distant friends and relatives might feel that all was done that could be done for him. I called and found the patient moaning and suffering greatly. I prescribed for him and promised to return in the morning. The home relatives telegraphed to distant relatives that he was dying. At my second visit I found my patient more comfortable.

From my general observation I was of the opinion that low potencies and alternation would not prevent the patient dying

soon. I had had a number of cases in somewhat better condition die under the administration of low potencies, and departed from my general practice, feeling that a change and trial of the higher potencies could not be injurious, and were they as beneficial as represented, good only could come of the change.

I was, during my first years, only acquainted with the allopathic method of practicing, but circumstances placed me in such a position as to receive my medical education in a homœopathic college. I was therefore a member of the low potency division or class of our school. The much repeated mathematical demonstrations to prove the absence of any quantity of medicines in the higher potencies sufficient to produce therapeutic effect, was early presented to me, and even exerted an influence upon me after the time our relatives in the Northwest threatened destruction to high potency views with the weapons of allopathy, under the title of the Milwaukee Test. I, too, was taken by the efforts on paper to demonstrate that good results were only psychological and not due to the medicine when administered by high potency men. I came into practice a low potency individual, and previous habit and instruction have prepared the lines of least resistance in the direction that leads to the administration of low potencies. Like an imperfect wheel, or one not properly centered, which produces erratic motions while revolving, I may not be able to avoid the errors which my organic development forces me to pursue when active. The mind of man is a growth and requires as much training as any other organism for its proper structure.

This patient was put upon *Calcarea carb.*, and during months it was the only remedy employed. He received at the beginning *Cal. carb.* 30th for some time, then the 200th, afterward the 1000th potency, and the last *Calcarea carb.* administered was Fincke's 107,000 potency. Medicine was given him at long intervals, sometimes only a single dose a week or fortnight. As some other indications than those for *Calc. carb.* presented after a long use of *Calc. carb.*, a few doses were given. The improvement in this case was truly gratifying on the ad-

ministration of the highly potentized remedies. Other equally satisfactory experience I can recall."—J. P. GEPPERT.

CASE 7.—A case from Dr. Arndt presents much interest: "Mrs. E. G., æt. 36, had been given up to die by her family physician. She came of a consumptive family, her mother and her mother's parents having died with the disease. She had always menstruated **very profusely**, and after having produced upon herself, within the course of eight or nine years, no less than seven abortions, her menses assumed the type of recurrent hemorrhages. Her lungs had always been very sensitive; has had more or less cough, at first **dry and hacking**, later loose and hollow. Has had pneumonia twice, making a very tardy recovery each time.

"At present was convalescing from a third and severe attack of pneumonia, when some imprudence on her part brought about an unfavorable change, and she failed so rapidly that her case seemed hopeless.

"Symptoms: constant hollow, loose cough; **extreme sensitiveness** of the lungs to cold air, and to a jar; profuse and general perspiration at night, of a sour smell. **Extreme emaciation**; constipation alternating with **watery diarrhœa**; **great despondency**; constant **passive hemorrhage** from the uterus of dark, foul blood.

"*Calcarea carbonica*³⁰ was the first and only remedy prescribed. Under its use she not only made a good recovery from this attack, but regained by its long-continued use a surprising degree of general health."—H. R. ARNDT, M.D.

CASE 8.—"Mrs. F. H. A., æt. 23, tall, large, of fair complexion and of lymphatic temperament, mother of one child, herself the only child of a mother who died of phthisis at the age of twenty-seven years. Mrs. A., when a child, was very sensitive to changes of weather, and spending the greater part of her childhood in travel and in boarding-houses, suffered frequently from colds, with dry, hacking cough and hoarseness. At the age of twelve years she went to live in one of the Southern States. Commenced to menstruate at the age of thirteen; menses fairly regular, normal, but quite profuse. When fifteen years old she suffered from a milky, copious leucorrhœa, accompanied with great weariness. Soon after, her appetite be-

came fitful, and, eventually, she was placed under medical treatment for dyspepsia and a chronic diarrhœa characterized by very frequent, watery stools of foul odor, with marked prostration and general emaciation. At the age of nineteen she commenced to improve, and when she married, some two or three years later, she had become a large, finely-formed woman, seemingly in the enjoyment of excellent health. She bore one child; labor was normal; recovery somewhat retarded on account of her husband's failure in business. While nursing her child, she experienced great exhaustion; considerable nervousness, dull frontal headache, palpitation of the heart, a tendency to cold, clammy perspiration, flying, stitching pains and feeling of weakness in the upper chest, hacking cough, without or with scanty expectoration, leucorrhœa, backache and a tendency to moodiness. She improved somewhat after weaning the child, but continued to cough more or less, failed to regain her former cheerfulness, continued to lose flesh, and experienced a complete loss of all sexual desire, bordering, at times, upon aversion. Six months ago she ceased to menstruate.

Condition of the patient at the first examination: she appears gaunt, hollow-eyed, greatly emaciated; she coughs little, but complains of **stitching pains in the upper chest**; loss of appetite; constipation; fluttering of the heart upon the slightest exertion; is weary of life, and but for her love of husband and child would welcome death. **Constant coldness and dampness of the feet**; tongue covered with a thick, white, pasty coating; bad taste in the mouth; full, heavy, stupid feeling in the head, particularly in the morning; pulse 90. Examination of the chest revealed a remarkable degree of emaciation, the breasts consisting of elongated, dependent folds of flabby skin, and the intercostal spaces showing like deep, distinct hollows; flatness and narrowness of the chest, with hollowness in the subclavicular region; dulness in the upper chest to percussion; number of inspirations per minute but slightly increased in frequency.

Frankly acknowledging her bad family history, the patient expressed her conviction that her chief troubles were of uterine origin, and that she was absolutely free from tendency to

phthisis. In view of the entire history of the case she received *Calcarea carbonica*³⁰, one dose every three hours. After taking a few doses of the remedy, a violent diarrhœa appeared, possessing all the characteristics of a *Calcarea diarrhœa*. On the third day she menstruated normally.

I heard nothing from the patient until some six weeks later; her husband reported marked changes in his wife's condition; she felt better in many respects; she had commenced to gain flesh; showed some sexual desire and her breasts were rapidly assuming their former plumpness. But she had again passed by her menstrual period. Gave *Calcarea* in the 200th dilution. Again menstruation appeared within a few days.

The result of the prescription may be condensed as follows: menstruation became regular, leucorrhœa disappeared, appetite and digestion became normal, pains in the chest subsided, and with it nearly all former symptoms of lung trouble; coldness and dampness of the feet no longer troubled her; she enjoyed life once more, became pregnant, and in due time gave birth to a pair of healthy children.

The case is remarkable only in two respects: 1. It is an almost typical *Calcarea* case. The remedy was so clearly indicated in the totality of all her symptoms, dating back to the days of her early childhood, that the merest tyro in medicine would have recognized it; 2. The curative effect of the remedy was so remarkable in its promptness, and showed itself so plainly in every part of her organism, that it makes the case worthy of at least passing notice."—H. R. ARNDT.

CALCAREA PHOSPHORICA.

Lungs and Thorax.—Aching pain, with soreness of chest to the touch. Pains on the right side located at the sixth rib; shift to the left side, locating a little higher up. Sore pain about the sternum and clavicle. Contraction of the chest, with difficult breathing.

Cough.—Cough with hoarseness afflicting patient day and night; cough with soreness and dryness of the throat. Cough with yellow expectoration, more in the morning.

Accompaniments.—Face is pale, sallow, yellowish or earthy;

often has a pimply eruption; cold sweat appears on the face and coldness of the body is a prominent symptom (Sil.). Nervous symptoms are: weakness, languor, weariness on going up stairs, has to sit down from exhaustion and shortness of breath. Associated with these symptoms we not unfrequently have diarrhœa and leucorrhœa. Among the anal symptoms itching hemorrhoids, and small furuncles near the anus.

Symptoms of the larynx are: frequent hawking to clear the voice; breathing is short; sighs involuntarily. *Calcareæ phosphorica* has proved a valuable remedy in chest difficulties, associated with fistula in ano. It corresponds pointedly to that class of cases where faults of secondary assimilation exist, and where the dyscrasia has a tendency to involve osseous and dermoid tissues, especially if hemorrhoids exist, and if sinuses form about the outlet of the great cloachus, the indications are strengthened.

It has less of the true albuminoid diathesis than is presented in *Apium*, but in the faulty workings of the functions of the excretory organs, and the separating process that preserves living structures from degradation by associating with the effete, *Calcareæ phosphorica* is an agent of high rank.

It thoroughly meets the diathesis which is the parent of rachitis and tabes mesenterica. There may be presented occasionally doubts as between the use of the phosphate and carbonate of lime, as there are many analogies, and they actually meet a similar dyscrasia. I should think the phosphate usually a better similimum for acute affections of the lungs than the carbonate.

Also to cases arising from an old pneumonia to which caseous degeneration is added, and to guard against such a turn of the disease. We think *Calcareæ phosphorica* in its relations to pulmonary phthisis will hardly be the similimum in so large a number of cases as Sulphur, but will supplement Phosphorus often to great advantage.

It occupies a ground between *Calcareæ carbonica* and Phosphorus. The similarity of action between this drug and *Tuberculinum*, we should expect to be quite marked if not identical; yet from my own observation I should decide they were not identical in curative reaction.

The hypophosphates which have been presented with such claims by certain physicians no doubt owe whatever merit they may have to this agent; but in quite too crude a form to accomplish that which might be with the homœopathically prepared drug carried well up in dilution or trituration.

CARBO VEGETABILIS.

Lungs and Thorax.—Deep stitch in right lung from without inwards; stitches in the upper part of the left side of the chest after coughing; aching in the upper part of the right side of the chest, at times attended with burning as of red hot coals; aching from right apex through to scapula. (Left, Myrtis and Sulph.) Sensation of weakness and fatigue of the chest. Dunham mentions the symptom, "breath is short and chest tired on waking."

Cough.—Cough after the slightest cold; in the morning when rising from bed, or when leaving a warm room and entering a cold one; short cough in the evening; cough causing vomiting and retching in the evening; violent cough with discharge of a quantity of yellowish pus, accompanied by stitches in the left hypochondrium when breathing (right, Kali carb.). Raue gives, "cough in hard spells not ceasing until masses of offensive sputa are expectorated."

Often there is cough accompanied with stitches in the head.

Accompaniments.—Feeling the want of air and need of a fan is quite characteristic.

Raue gives, "nose-bleed in the night; hoarseness in the evening." Hering gives, "hectic fever; exhaustive night sweats; sweat profuse, putrid or sour; sallow complexion and sunken features; vital forces nearly exhausted.

Dr. Berridge gives as characteristic symptoms, "cough worse by day and in the open air; also coughs worse during supper; soreness of the chest and heat of the body when coughing; sensation at night as if choking from mucus in the throat when coughing; the choking alleviated by sitting up or moving; itching in throat extending to chest, worse when coughing."

Noack and Trinks say, "Adapted to persons of excessive sensibility to change of temperature; to cachectic individuals whose

vital powers have become weakened; to gangrene of the lungs; to pulmonary phthisis passing from the stage of inflammation to that of suppuration of the lungs; to incipient tubercular phthisis with tuberculous discharge; to stitches in the chest and short breathing."

Dr. C. C. Smith sends me these guiding symptoms for *Carbo vegetabilis*: "**Frequent and easy epistaxis**, generally worse night or forenoon, followed by **pain over chest and pale face**; **hoarseness each evening at 5 o'clock**."

There have been many statistical tables brought forward to show that laborers in anthracite coal mines have an immunity from tubercular affections of the lungs. Mines in England, France, Belgium, North America and others, have furnished tables tending to show that coal-miners as a class are largely protected from phthisis. Such being the fact there must be a reason for the same. Different theories have been put forward to explain this immunity, such as equability of temperature, the presence of the bromides and iodides in small proportions in the coal, and even the increased pressure of the atmosphere has been adduced as the cause. It is not probable that any of these reasons give any important part of the solution to the question. It is well known that carbon has a power to arrest the processes of transformation going on in what is called the putrefactive fermentation. Presumably the solution of the question will be found to be in some influence upon molecular movements of the microscopical particles inhaled, if such immunity exists. The leading elements out of which albumen is produced (the chief constituent of tubercle) is carbon. Whether there be a law that matter of the same kind upon one plane can be used to arrest degrading transformations upon another plane, is a pertinent question to ask here, and I think we shall answer it in the affirmative. Molecular energy passes from one molecule to another, aiding its movements and transformations when proceeding under organic laws, else how are we to explain the phenomena of like allying with like, also fermentation and catalytic action. I was once called to see a lady with a calcareous impaction of the ileum. We were unable to decide what the tumor was,

but she had a chalky colored diarrhœa, and a few other symptoms which led us to give her the 200th of *Calcareo carbonica*. She soon discharged large quantities of cretaceous matter from the bowels, and the tumor was gone. Be the explanation what it may, there is no doubt that *Carbo vegetabilis* has been of service in some forms of pulmonary phthisis. Dunham speaks of its applicability to cases of suspected slow tuberculosis, depression not preceded by erethism or excitement.

In bronchiectasis, where the cavities are holding fetid and decomposing matters, we should naturally look to *Carbo vegetabilis* to ameliorate the condition.

Some of our physicians speak well of a weak spray of carbolic acid in the first stages of phthisis.

Clinical.—CASE 1.—A young man, æt. 17, who had formerly suffered from herpes, experienced an exhausting cough, with steady, continuous pain in the chest of three or four month's standing. He is obliged to cough long and hard until he raises; expectoration consists of chunks of thick, greenish, fetid, purulent matter; especially copious in the morning; loss of appetite; loathing of meat and salty food, and at times vomiting in the morning; difficulty of breathing when walking; general emaciation and prostration; profuse night sweats. Cured by repeated doses of *Carbo vegetabilis*.—KNORRE, in *Allg. Hom. Zeitg.*, V., 185.

Dr. McLaren reports his trial of Petroleum, which is a carbonaceous product, in phthisis, in the June number of the *Homœopath*, which I transcribe: "During my temporary residence in New England many opportunities were afforded me for the study of pulmonary diseases. My attention was called to the above drug by a very intelligent gentleman from the oil regions of Pennsylvania, who reported several pronounced cases of phthisis in the first stage as having been cured by it. He also informed me that the families of those living in that region very seldom consulted a physician for any throat ailment, as they found prompt relief in the external application of the drug; also diluted as a gargle. From these statements I was led to use it in phthisis, with the following results:

"CASE 2.—This case was one of incipient phthisis; respira-

tion was broncho-vesicular; marked increased vocal resonance; night sweats; dyspnœa; poor appetite; pulse, 112. Having a preference for the sixth dilution, I prescribed Petroleum^{6x}. There was no improvement until the second week. The patient was discharged cured at the end of three months.

"CASE 3.—A young woman, an operative in a cotton cloth manufactory, whose parents and only brother had died of phthisis, consulted me as the last hope. Jerking respiration; coarse bubbling rales; broncophony and whispering broncophony; pronounced cough, with muco-purulent respiration; pulse, 118; dyspnœa severe; almost total loss of appetite. This case seemed hopeless, but I determined to see how much virtue there was in Petroleum. The record of my case does not state what decided my preference for the third potency. Lung exercise, diet and all usual auxiliaries were enjoined. At the end of a week my patient was losing ground. I prescribed the 12x, and continued it for two weeks without any hopeful results. I decided to alternate with Calc. phos.^{3x}, and at the end of a week there was evident amelioration of all the active symptoms. This treatment was continued for four months, and the patient was so much improved as to be able to walk a mile every day. I know of no remedy which so promptly lowers the pulse and at the same time modifies the cough."

CAUSTICUM.

Lungs and Thorax.—Soreness in the chest. Tightness of the chest, must frequently take a long breath. Stitching in sternum at deep inspiration, and when lifting; stitches deep in chest going to back; stitches near the nipple going down toward umbilicus when breathing; stitch during expiration, connected with one in left shoulder-joint.

In the later stages of the disease: loud rales when coughing; shortness of breath when walking in open air.

Cough.—Troublesome, dry; comes on after getting warm when one has been in the cold air. Concussive action of cough causes involuntary passage of urine. Expectoration in the later stages of a heavy creamy consistence, whitish in color.

Aggravations.—In the open air and early in the morning.

Ameliorations.—Cough often relieved by a swallow of cold water.

Accompaniments.—Causticum patients are subject to cold feet; have a tendency to perspire when walking in the open air; have a great deal of internal chilliness; sweating and chilliness frequently alternate. Voice is weak and hoarse; tendency to hacking and scraping of the throat, especially in the morning; rough feeling in throat; also tickling and crawling sensations; breath is short on walking. Complexion sickly and yellowish pale.

Psychological symptoms are: easily vexed; inclination to feel offended; whining and complaining; great nervous irritability; full of apprehensions; absent-mindedness; weakness of memory; and possibly suicidal tendencies; disgusted with the idea of wasting away with consumption.

Dr. Dunham places much stress upon the hoarseness and aphonia: "Hoarseness toward evening with a dry tickling cough; the prover feels a sensation as if he could not cough low enough to start the mucus; rawness and tickling are felt in the throat-pit; patient inclined to backache, especially in the coccyx."

From the well proven affinity that Causticum has to tracheal and laryngeal membranes, its chief value in respiratory affections has been thought to be in aphonia and catarrhal troubles. The laryngeal phthisis, which authors have mentioned as cured by it, has really been considered ulcerative bronchitis, not of the tubercular habit. Although these cases are undoubtedly for the most catarrhal at the beginning, we are not so sure but that we have caseous exudation in the end. We are pretty well convinced that we have had cases of this character; in one case the disease was arrested for two or three years, then tuberculosis carried our patient off in other hands. We should place the chief value of Causticum in cases where an old catarrh was progressing downward upon the lungs. Such is the course of many of our cases of pulmonary consumption. Tubercle does not invade the lung tissue proper for a long time, but the mucous tissue; later caseous exudation in the apices.

Clinical.—CASE 1. A lady past fifty years, subject to a chronic

cough, was prostrated by taking a severe cold; had been afflicted with nasal and bronchial catarrh for many years. Complexion was of a dingy earthy hue; voice altered by obstructions and thickening of nasal passages; voice rather husky; she was impatient and irritable in disposition. Following her acute attack which prostrated her to the bed with considerable fever, was a severe cough of a hollow sounding character accompanied with a heavy white muco-purulent sputum, coming away in heavy masses. Fever partook of a hectic character with night sweats. Patient was easily affected by changes of temperature; could not bear the heat of the fire. Cough was ameliorated by taking a little cold water. Bronchial sounds were heard under the right clavicle. There was dulness at the supra and infra-clavicular spaces. Case was so far benefited by Causticum that patient was up and about her family duties for four years; was then taken down and being attended by an old school physician, we know little further, save that she died with what was called consumption.—G. N. B.

CASE 2. Dr. Berridge mentions a case of catarrh where the cough was worse nights and in a warm room, and better by drinking cold water, cough accompanied with smarting in chest, cured by Causticum.

CASE 3. A good typical case came into our hands in the earlier years of our practice. A lady, æt. 35, had been for some years subject to catarrhal troubles. She was of slender make, pale complexion with a little redness about the nose as if she might have an eruption; scanty menstruation appearing only in the daytime; had complete aphonia which had lasted six weeks. Much shortness of breath, with a hollow dry cough, worse nights and mornings; cough aggravated by breathing cold air, but relieved by drinking cold water. Gave Causticum, voice returned in two weeks, other symptoms mending to correspond. She recovered so as to enjoy her former health. Living at a distance she was not my patient beyond the few weeks required to establish her health sufficiently to return to her family and its duties. She died of consumption five or six years later in allopathic hands.

CONIUM MACULATUM.

Lungs and Thorax.—Patient feels as if chest did not expand enough, so finds it difficult to take full inspirations. Tightness across the chest; short panting breath; pleuritic stitches; rattling in the chest when lying down; sharp thrusts directly through the chest from sternum to spine, while sitting.

Cough.—Short, hacking cough from itching and titillation in the throat. Cough excited by deep inspirations; violent cough with pain in the chest; cough with pain in both sides of the abdomen; nightly cough; cough with yellow expectoration, tasting like bad eggs; purulent expectoration; cough from a dry spot in larynx.

Aggravations.—At night, and when lying down.

Accompaniments.—Pimples upon the chest; sore to the touch; pain in the mammæ; hardness of right mamma; glandular swellings; inclination to perspire during sleep, even of the cold limbs; difficulty of breathing, both when at rest and in motion; vertigo when turning over in recumbent position; complexion pale and sickly; falling out of the hair; diarrhoea with tremulous weakness after every stool; patient easily excited and greatly concerned about little things; nervousness passes off in the open air.

Conium patients are apt to be drowsy in the evening, but sleepless after midnight, and annoyed with frightful dreams. A very common symptom is palpitation of the heart after drinking.

The action of Conium seems to be primarily upon the spinal cord, corpora striata, and the ganglionic nervous system. It is among our best remedies for managing abnormal action in the greater and lesser glands so definitely related to the scrofulous diathesis, which is also the parent of tubercle.

It expresses exhaustion of nervous energy; voluntary muscles are weak and paralyzed; mammary glands waste away.

Conium has obtained high rank as a discutient, and possibly its fluidifying power whereby curdy and cheesy matters are made more ready for the absorbent vessels, explains much of the *modus operandi* of its curative action in our consump-

tive cases. It has been used in both the high and low potencies.

We have had no experience with Conium in the ulcerative stage of phthisis for ourselves; perhaps have not tried it when it would have served; yet it has a fine clinical record dating back to the earliest masters in our school.

It will be found most serviceable to the female constitution, and in such cases as have uterine and mammary complications or enlargements, and irritation of the larger glands.

Clinical.—CASE 1. Miss S. G., æt. 50; rather tall; very slender; muscles so attenuated as to amount almost to atrophy; nervous; at times troubled with insane hallucinations; aversion to men; suspicious of some magnetic influence having been gained over her. Had a brother who committed suicide; a sister who died of pulmonary phthisis beginning with hemoptysis. The mammary glands are shrunken, with active sexual desire; glands sensitive, with occasional stitching pains. Had a hard fibrous tumor removed from the left gland by the sloughing process, some years ago, size of half a butternut, split longitudinally; later hard nodule showed itself in right mammary gland; is subject to a dry, hacking cough, coming on only when lying down. Conium²⁰⁰ has prevented further advance of the tumor, and kept under control the trouble about the lungs, but has not cured the psychological symptoms.—G. N. B.

DIGITALIS PURPUREA.

Lungs and Thorax.—Great weakness of the chest, cannot bear to talk. Feels better lying quiet in a horizontal position.

Cough.—Deep, hollow, spasmodic, excited by a sense of roughness or scraping in the roof of the mouth or trachea. No expectoration in the morning, but small quantities of yellow, jelly-like mucus thrown off with difficulty in the evening. Sometimes expectoration with a little dark blood.

Aggravations.—About midnight or toward morning; from getting heated; also from drinking cold things (Ars.), and by talking and walking in the open air.

Accompaniments.—Chill more internally, beginning with cold

extremities, then spreading over the body, but with face warm. Internal chill with external heat. One hand hot the other cold; sweat on upper part of the body. Violent but not very rapid beating of the heart. Pulse slow when at rest. Hoarseness early in the morning, painful dyspnœa, worse when walking. Great fear about the future, which becomes worse about 6 P.M.

Experiments with digitalis upon animals show that this agent acts powerfully upon the lung tissue, and the autopsical features have a close analogy to the immediate antecedents of tubercular deposition. The lung tissue is denser, especially that of the right lung, as if hepatized, and is of a violet color. The blood-discs are somewhat altered, and the blood loses its power of coagulating when death follows from the effects of digitalis.

This seems to indicate a power of defibrinizing the blood, and if, as we have argued, phthisis is essentially a hyperfibrinosis, it would seem that it might be utilized in the disease.

The heart usually sympathizes strongly with all organic disturbances where Digitalis is indicated.

Noack and Trinks speak of its action being especially on the sympathetic nerve and the cardiac plexus; also of its applicability to persons of a sanguine temperament, with light hair and soft muscles, and to the scrofulous diathesis.

Dr. Beddars testifies that as a general rule when he has all possible evidences of the existence of tubercles in the lungs, he gives small doses of Digitalis, and that it has proved eminently successful.

Frequently among the earlier evidences of tubercular affection of the lungs are blood-discs in the sputum, or hemoptysis.

The peculiar action of Digitalis on the heart, point to it as prominently a remedy in all cases showing this hyperæmic tendency of the pulmonary blood-vessels. We regard the hemorrhagic diathesis when tending to localize upon the lungs, as especially suggesting Digitalis. It is in the period just preceding deposition and that intervening between deposition and softening, that it will probably be found most serviceable, although it may help much to allay the excessive cardiac action which is often so troublesome in the later stages.

In many respects Digitalis is the analogue and support of Phosphorus, which also has the blood-stain in the sputum, the morning aggravation of the cough, and the aggravation from exercise in the open air and from talking.

It is also prominently a remedy in hepatization of the lungs, a condition it is competent to produce proximately, at least, the pathological condition showing the lung to be dense with crepitating tissue. Phosphorus destroys the fibrin also, so that no trace of it can be seen even with the microscope; both these agents will serve us best in the commencement of our affections, particularly when associated with the hemorrhagic diathesis. As a check upon excess of fibrin in the blood, and as a hemastatic, we are not likely to overestimate its value. The more pronounced the cardiac symptoms the more is it likely to serve our patients.

DULCAMARA.

Lungs and Thorax.—Pains in left lung moving in waves; hemoptysis of bright red blood, caused by a cold or a protracted cough, attended by a tickling sensation in the larynx; stitches here and there in the chest; lancinating pain in the middle of the sternum back to the spine when sitting, which goes off on rising; pain in right side of chest, which goes to the back on pressure.

All chest symptoms worse by change from hot to cold.

Cough.—Hoarse, dry, rough and barking cough; panting cough, worse at each deep inspiration; loose cough, with copious expectoration. Sputa; mucus in abundance; blood and mucus; greenish or greenish-yellow mucus.

Aggravations.—By lying down and from warmth of room.

Ameliorations.—By being in the open air.

Accompaniments.—Chill, commencing in the back, not relieved by warmth; diarrhoea; emaciation; offensive night-sweats.

EUPATORIUM PERFOLIATUM.

Lungs and Thorax.—Soreness in chest worse from inspiration; pain and soreness behind the sternum; heart feels as if in too small a place.

Pain through right nipple when breathing.

Deep-seated pain in left side and right shoulder.

Cough.—Precedes chill, sometimes night before.

Rough scraping cough; must support the chest with the hands (Bryonia); loose cough during apyrexia.

Cough is apt to provoke retching, as in Drosera.

Accompaniments.—Chills, usually occurring about 7 A.M., or from 7 to 9 A.M., a bad cough often attending both chill and fever stages; nausea during chill; vomiting of bile at end of chill.

Eupatorium is fairly entitled to a place among our remedies for phthisis pulmonalis based upon a malarial cachexia. Thirst before chill, and nausea when fever sets in are characteristic symptoms.

FERRUM METALLICUM.

Lungs and Thorax.—Flying pains in the chest with palpitations; inter-scapular pains; left lung often feels as if oppressed above or at the nipple, where there is soreness, making breathing difficult.

Pains in apex of lungs embarrassing breathing.

Cough.—Spasmodic, from tickling in trachea; at night must sit up to raise sputa. Sputa; copious, purulent, greenish or frothy; worse morning; or scanty and frothy with streaks of blood.

Slight cough with hemoptysis of bright red color, occurring more frequently in morning, though may occur at night, cough worse from drinking wine or brandy, from use of quinine and from tobacco smoke.

Accompaniments.—The face flushes easily, and veins feel hot; palpitations and dyspnoea. Patient feels better sitting up, though compelled to lie down from a feeling of weakness. It has been found a valuable remedy for hemoptysis following loss of fluids and onanism, also from suppression of the menses. With the heart symptoms we have the bellow's murmur and throbbing of the vessels.

Ferrum fever is more marked in the afternoon and evening; the chill is attended with a hot and red face, with thirst as in hectic fever; sweat profuse and long-lasting.

We are persuaded that iron has been used in tubercular cases in altogether too crude a form. We also believe an imprudent use of iron in cases of ovaritis and menstrual arrest, has resulted in provoking rapid tubercularization of the lungs. This mistake often occurs in treating girls from the age of fourteen to twenty; and yet it would seem from the peculiar action of Ferrum, that if properly used, many of these cases of anæmia and possibly the more acute affections of the ovaries might be successfully treated.

We have personally observed the rapid production of tubercle in the lungs from Ferrum muriaticum when given in overdoses to tubercular patients. If it will produce tubercle it should arrest tubercle when properly prepared and prescribed.

The person on whom our observations were made was of a nervous sanguine temperament, rather tall and spare. She had taken iron some ten days only, when the tubercular dulness had spread over double the space previously occupied, and the heart's action became so excited that there were strong jerky contractions occurring frequently at the time of our examination. Ferrum then would seem to be preeminently adapted to the period of active exudation and with a high grade of arterial excitement; also to a condition of active congestion with tendency to hemoptysis. The peculiar action of Ferrum upon the blood-corpuscles also affords the inference that those molecular changes connected with the transformation of tissue can be modified with Ferrum in a way to benefit our tubercular cases.

Favorable as may be the view we have taken on this subject, it is undeniably true that more harm than good, thus far, has come from the use of this remedy. It remains to be seen if with the advanced dilutions our record shall be improved. We confidently predict that with the use of the thirtieth potency and upward, chosen carefully in accordance with the law of similars, disappointment of reasonable expectation in this very potent remedy, will not follow.

In one chlorotic case we witnessed a remarkable action of Ferrum muriaticum when taken in a little wine. Patient gained color, expectoration decreased, hectic fever subsided,

and strength improved. She died from an attack of pneumonia before cure was completed.

FERRUM IODATUM.

In some cases of extreme emaciation and debility following drains upon the vital forces, we have succeeded wonderfully with the iodide of iron. One case of impotence, in a scrofulous person, whose two brothers and a sister died of consumption, and who himself had reached the stage of advanced marasmus, was cured in my early practice with this remedy prepared freshly by adding a little water to iodine and iron filings, and preserving the preparation by the addition of sugar.

The blood changed color, flesh returned, and the impotence which was so bad that semen was lost daily without erections was cured in a few months. I have little doubt but for the Ferrum iodatum my patient would have died with phthisis pulmonalis in a year or two at longest. In this case and the case improved by muriate of iron, the complexion was not of the florid kind with that of Mrs. Hall where tubercles were so rapidly multiplied under the action of Ferrum muriaticum, nor was there any considerable acceleration of the pulse in either case; complexion of one was a dingy yellow or sallow and the other more of an earthy hue. Our literature does not furnish, so far as I know, clinical experience to the extent of giving Ferrum and its compounds their proper value in the treatment of phthisis pulmonalis.

Clinical.—CASE 1.—“A woman, æt. 48, mother of several children, of sanguine temperament, slender, tall, had three attacks of pneumonia during her childhood and had been treated by bleeding, followed by frequent nose-bleed, spitting of blood, diarrhœa, catarrhal affections. In her thirty-second year disappearance of menses; flat, narrow, lengthened thorax; depression in the subclavicular region; loss of strength, emaciation, chilliness and shiverings in the evenings with subsequent fever and night sweats, cough at first dry, later accompanied with green, purulent expectoration containing little lumps of a cheesy substance; oppression of the chest, likes to lie on her back; tympanitic sound on the sides of the thorax; bronchial

breathing, and near the clavicles vesicular crepitation. Gave Ferrum iodatum (20-30), three to four grains each day, lessening of copious expectoration, no more oppression of the chest, cough less frequent, expectoration only of tracheal mucus, disappearance of the fever symptoms, improved appetite, improved regularity of the bowels, stools greenish-black; she gains strength rapidly and has become cheerful and hopeful; this improvement has taken place in six weeks."—ALTSCHUL, *Pr. Mon. Schriften*, 1, 68.

HEPAR SULPHURIS CALC.

Lungs and Thorax.—Sensation as of drops of hot water in left chest. Spasmodic constriction of the chest after talking. Stitching pain in side of chest towards the back.

Cough.—Cough with constant hoarseness; sensation as if there were a fishbone in the throat. Cough brings on vomiting; coughs when eating (Lach.). Cough barking, wheezing, choking. Expectoration bloody, frothy, with tuberculous products.

Aggravations.—Worse before midnight and in the morning. By cold air coming in contact with any part of the body; hence great dread of undressing. By recumbent position.

Accompaniments.—Chills from the least exposure of the body to the air. Paleness upon the least exertion, followed by burning redness of the face, and heat in the palms of the hands; at this time perspires easily. Stomach is apt to be out of order; longing for sour things.

Dunham gives the symptom of "feeling as of a hard body in the epigastrium, immediately followed by a hemoptysis."

Guernsey: "Person smells sour."

From the known value of Hepar in suppurative actions, as well as its power to correct glandular derangements, it suggests itself in the suppurative or ulcerative stage of tubercular disintegration. The low vitality and extreme sensibility to cold of many of our consumptives, those who come to us bundled heavily to keep out the cold even in pleasant weather, will often be met by Hepar better than by any other remedy. Certainly as an adjunct to some other of our most important remedies it is indispensable.

Dr. H. C. Allen reports a case of protracted catarrh cured by Hepar, where the cough was worse night and morning, and violently aggravated by recumbent posture. Associated with this was the dread of undressing, because of the terrible paroxysms of coughing provoked by change of temperature, impressing the skin. Cough was aggravated by exposing any part of the body to the cold.

IODIUM.

Lungs and Thorax.—Sensation of weakness in the chest. Stitches and burning in the chest after a dry cough. Sharp, quick, piercing pains.

Cough.—Dry morning cough from tickling in the larynx. Cough provoked by constant tickling in the trachea, and under the sternum. Cough with expectoration of large quantities of transparent mucus, often streaked with blood.

Accompaniments.—Unaccountable weakness and loss of breath on going up-stairs; laryngeal cough with diarrhœa, slow fever, night sweats, and emaciation.

This remedy seems especially adapted to that class of patients who emaciate while eating well; indeed, they often have ravenous appetites.

Another class of cases to which Iodium will be found serviceable has goitre in the family, or possibly in themselves, or traces of partially cured goitre. Other conditions indicating its adaptability are: scrofulous persons with low cachectic state of the system; women with dwindling of the mammæ (Con.), or shrinkage of the adipose tissue, mammæ are sore, with uterine disturbances (Conium); women with amenorrhœa, with lung complications.

Hughes says: "It seems capable of doing everything but checking the deposition of fresh tubercle."

Perhaps we could do more with higher attenuations.

Lippe gives "emaciation with good appetite."

If it should be determined that the value of cod-liver oil was owing to the presence of Iodine in solution in infinitesimal doses, such cases as are reported cured by oil, would largely go to the credit of Iodine. It is worth while to collect

data from the cases to which oil proves curative; if of the Iodine type, the probabilities will be very greatly in favor of Iodine being the curative element.

Some have reported benefit from the inhalation of Iodum in tubercular affections of the lungs; it has such a value for scrofula, it would seem as though we should find a class of cases where it will prove a leading remedy. In the early stage of the disease, when emaciation first declares itself, especially if there be a good appetite, and flesh continues to shrink all the same, we should expect Iodum to act beneficially.

Itching in lungs low down, and extending up through the trachea to the nose, and itching of the tip of nose before coughing, are characteristic symptoms. Hering thinks it agrees best with persons with dark hair and eyes. Mentions it for overgrown boys with weak chests. Dr. Muller gives an interesting Iodum case.

Clinical.—CASE 1.—“A lady, æt. 27, was attacked by influenza which was followed by hoarseness, cough, dyspnœa, debility, and emaciation, which steadily progressed. Cough was quite suffocative. Took Phosphorus and Hyoseyamus, but with no improvement. A later and more complete catalogue of symptoms gives us: excessive lassitude and weakness, is hardly able to walk twenty steps; considerable emaciation; dyspnœa from the least exertion; irritability with hot flushes and palpitation; dry heat every afternoon, with thirst and dull feeling in the head; restlessness and insomnia at night; perspiration toward morning; little appetite, gastralgia and constipation. Voice hoarse and weak, without timbre. Constant pressure in the throat, with burning, including larynx, trachea and bronchi; a sensation of rawness which provokes an inclination to hem and cough; sensation of weight and pressure in the chest; a short dry cough day and night, with an exacerbation two or three times daily of severe spasmodic turns, with breathlessness, heat in the face and head, and exhaustion. Sputa tough, scanty and thick, with occasional streaks of blood. Menses scanty, almost absent. Skin dry, pale, of dirty gray color. The superior clavicular region depressed, especially on the right side; feeble and irregular motion of the

thorax when breathing; sound of percussion empty on both apices; on the apex of right lung bronchial respiration, lower down indistinct and slightly vesicular breathing; beat of heart strong; second pulmonary sound increased on the neck; venous murmurs.

"Diagnosis, pulmonary phthisis. Case was now put upon Iodium³ with very decided benefit. Dose, one drop morning and evening. Mercurius sol.³ was given after four weeks, for some symptoms that did not seem to yield, for the evening dose, but we should say with doubtful utility.

"Voice improved, cough decreased, and improvement went on so effectively that the lady was in a condition to become pregnant after four months. Was finally delivered of a child at full term.

"Though not fully cured perhaps, as the clavicular region is still depressed, and she becomes easily fatigued, yet she has no cough, and her voice is clear and flesh fairly good."

KALI BICHROMICUM.

Lungs and Thorax.—Pains from back to sternum or shooting pains from middle of sternum back between shoulder-blades. Sharp pain through apex of left lung to shoulder-blade (Sul.).

Cough.—Wheezing cough, with expectoration of tough stringy mucus, pulling out into threads.

Aggravations.—Worse while undressing (Hepar s. c.), and after eating,

Accompaniments.—Emaciation, night-sweats and quick pulse.

This remedy has great power as a solvent, and acts as a check to plastic exudations in throat and within the respiratory tract, and no doubt is adapted to the management of a certain class of cases of a tubercular character, especially to fleshy people who become tuberculous, or have caseous affection of the glands. It is adapted to light-haired persons who have a tendency to baldness or loss of hair; also to persons subject to chronic catarrhs.

Clinical.—CASE 1.—"Mrs. C., æt. about 28, had taken cold in the early autumn. From repeated exposures came a cough

which rapidly grew worse, accompanied with extreme emaciation; has been a plump woman. Symptoms are: broken feeling in back after walking, eased by sitting bent forward: dragging down feeling in the back and hypogastrium; violent cough, worse in the night, better by lying on the left side, worse on the right side and still worse when lying on the back. Sharp pain through the apex of the left lung to the left shoulder blade (Sul.) and through the base of the right lung to the right shoulder blade; expectoration thick, yellowish, stringy and offensive; coughs always after the least mouthful of food or drink and worse from a change to cold air; great thirst; profuse night-sweat and also day-sweats which are worse about the head; pulse weak, 120 beats per minute and quick. This was not a case of pneumonia; the history, the character of sputa and physical signs were against it, and it was something more than acute bronchitis. I found on examination distinct evidences of a small cavity in the upper part of the left lung, and some tubercular deposit in the lower part of the right lung. Gave her Kali bichromicum, third decimal; patient made rapid progress and to a fair degree of health, though not as strong as formerly. One dose of Phosphorus⁵⁰⁰ (Tafel) was administered before patient was discharged."—H. N. MARTIN.

CASE 2.—Mrs. M. P., æt. 38, rather fleshy and of light complexion, has been coughing for several weeks and from family history fears consumption; she has sharp pains accompanying her cough which begin between the shoulder blades and pass through into the chest: raises a stringy, tough sputum when she expectorates anything, cough being inclined to dryness; coughs worse on going to bed and after eating. Cured by Kali bichromicum³⁰.—G. N. B.

KALI CARBONICUM.

Lungs and Thorax.—Stitching pains, suddenly coming and going; more apt to be in the right side. "Stitching pains in the right side commencing in the back and going through the chest, which are worse at night, when lying down or rising."—H. N. MARTIN.

"Darting stitches in the lungs, and against the sacs of pus

in the lungs; pains coming on, on lying down."—NOACK and TRINKS.

Cough.—Dry, hard, exhausting. Sometimes hard cough with purulent expectoration mixed with blood and thin mucus; or hard, round, white masses fly from the mouth when hawking or coughing.

Aggravations.—By eating warm food, by exercise, by lying on the left side (Phos., Lye.).

Worse about 3 A.M. Trinks says all the symptoms get regularly worse about 3 o'clock in the morning.

Ameliorations.—Cough better after breakfast.

Accompaniments.—Serous sacking of the eyelids.

Raue gives: "Stitching pains in temples, eyes, ears, teeth and different parts of the body. After dinner, nausea, faintishness and sleep; about noon, chilliness; at night, heat." Our own verifications have been in affections of the lower portion of the right lung, where there was dulness on percussion; stitches with a cough mostly dry, but an occasional expectoration of bloody muco-purulent matter; with much difficulty in lying down. In cases of asthma and hydrothorax, we have regarded the symptom of relief upon leaning the elbows upon the knee, as characteristic. Kali carbonicum is adapted to anæmic and dropsical constitutions. The cases of consumption most likely to be benefited by this remedy, are such as have a catarrhal or pneumonic basis, or when asthmatic, cardiac and dropsical symptoms complicate the lung symptoms. It is considered better adapted to that stage of tubercle when the breaking down process has set in; when the cough is still exhausting and dry, and hectic and emaciation are present. It follows Lycopodium to good advantage and is itself often a leader to Carbo vegetabilis, and sometimes to Phosphorus.

It is a remedy to be thought of in complications from emphysema and pleurisy.

Clinical.—CASE 1.—"B. D., a girl æt. 6, had an attack of measles which was followed by a severe cough of a dry character. Stitches and pressing in the chest; breathing short and oppressed; the cough was a short teasing one with two or three paroxysms in rapid succession, usually dry, but with a feeling

as if some tough mucus was moved about in the trachea which could not be raised. Eating and drinking increased the cough. Dulness on percussion in the lower part of the chest, where is also pain. *Kali carbonica*²⁰⁰ cured."—SCHELLING.

Jahr says: "That under the action of *Kali carb.* dyspnœa with violent and irregular beats of the heart disappear, but the latent tubercles remain the same."

O. W. Smith reports the following: "Expectoration of firm white globular masses of the size of a pea, flying from the mouth with considerable force when coughing or hawking; eruption of minute vesicles on the feet with extensive itching. Burning in top of head and soles of feet (*Sul.*). Sweaty paleness; circumscribed red spot on one cheek; gastric derangement with belching tasting like rotten eggs; hungry and faint about 10 A.M. (*Sul.* 11 A.M.); contraction of the heel cords; trembling sensation through the entire body, especially through the pelvic region. The 3d trituration cured where the 200th had failed." (Comparisons with Sulphur are our own.)

KALI HYDROIODICUM.

Lungs and Thorax.—Stitches through the sternum to the back, or deep in the chest while walking.

Cough.—Suffocative cough; cough dry, hawking; later with copious green sputa, or like soap-suds.

Accompaniments.—*Kali hydrojodicum* has many symptoms similar to Iodium. It has been used successfully in pneumonia with extensive hepatization, for purulent expectoration, with exhausting night-sweats and loose stool. As in Iodium, we should regard excessive and rapid emaciation a most important symptom in the selection of *Kali hydrojodicum*.

Clinical.—CASE 1.—"A woman, æt. 30, subject to catarrhal affections, has had for a period of six months a stubborn cough; pain in the chest; weakness, remarkable emaciation; fever, with exacerbation and profuse night-sweat. Physical examination gives unmistakable evidence of the existence of several cavities in the upper lung; breathing is difficult; the tongue red; the hair is falling out. Menstruation has disappeared, and in its place a stubborn leucorrhœa shows itself. The use of *Kali*

hydrojodicum internally, and the inhalation of steam medicated by Iodium, soon brought about a remarkable improvement.

The first favorable change showed itself in a freer respiration, and in the cessation of night-sweats, followed by a lessening of the cough, return of strength, remarkably good appetite, and finally, disappearance of the *fluor albus*, with which the patient had been afflicted on a former occasion, and perfect recovery. After several years she is now in the best of health."—LOBETHAL, in *Allg. Hom. Zeitg.*, XX, 53.

KALI MURIATICUM.

We have no personal experience with this remedy, but find a valuable clinical report which we give:

Clinical.—CASE 1.—“A lady, æt. 35, and married, consulted me for catarrhal phthisis affecting a small space in the upper right lung, with a crackling respiration, audible even to patient when recumbent. Expectoration greenish; dulness on percussion; paleness; emaciation; fever inconsiderable; cough was of some month's standing; patient had taken cod-liver oil *ad nauseam*. Prescribed Kali mur.³⁰, three times a day, and gave her freely a preparation made of one-fourth pound of finely cut suet, simmered in two pints of milk down to one pint, as a substitute for the oil preparation, simmered in hot water to prevent burning; fat rising on cooling to be skimmed off. Patient steadily improved for months, when an aggravation of cough took place which I attributed to my remedy. Gave remedy only every third day subsequently. The green color of sputa soon diminished under treatment, and the crackling sounds in the bronchi. Ten months from commencement of treatment patient's weight was nearly normal and she was steadily gaining. Slight dulness, however, remained. Patient apparently cured excepting this. She went to her friends in another State. She relished her suet and milk well.”—J. C. MORGAN.

LACHESIS.

Lungs and Thorax.—Stitches in the left side of chest, with

dyspnœa and constriction of the chest. Oppressive pain in the chest as if full of wind.

Cough.—Gagging persistent cough from tickling in the throat. Violent and long-continued cough from slight pressure on the larynx. A dry, hacking cough from simply touching the throat. Occasionally a spasmodic cough worse in the evening and at night, with tickling in the throat. The expectoration is scanty and continues blood-streaked, usually scanty and difficult to raise. Patient sometimes coughs in sleep without waking.

Aggravation.—During the day; on falling asleep; from change of temperature; after sleep.

Accompaniments.—Larynx and throat painful when touched and on bending the head backwards; when anything touches the larynx the latter is not only very sensitive, but there is a sense of suffocation felt; patient cannot bear clothing to touch the neck.

A majority of the symptoms are felt upon the left side; this and the aggravation after sleep are very important. The influence of this remedy seems to be very pronounced upon the blood, the pneumogastric nerve and the ganglionic nervous system, and through them upon the respiratory function producing hyperæsthesia of the tissues about the chest. We have again and again proved its power to arrest plastic exudations in the throat when upon the left side; hence we judge it will best serve us in affections of the left lung.

In acute albuminous affections of the kidneys we have also found it a very valuable remedy. It is best adapted to the early stages of tubercular pulmonary diseases, so far as our own experience goes. It seems especially adapted to the female constitution.

Additional accompanying symptoms not mentioned above: Fever worse in the afternoon; stools smell offensive though normal in appearance; throbbing in the anus; itching after sleep.

Clinical.—CASE 1.—Miss McM., æt. 19, of slight build, pale complexion, thin brown hair and decidedly of the nervous temperament, had been in declining health for three years; was now too feeble to ride out except for very short distances; pale face, or ashy color, with blue veins, soft tissue with a generally frail and delicate look. Found her troubled with a severe

cough of rather a dry spasmodic character; worse in the morning and after lying down, especially after having slept; cough was also worse whenever there was a change of weather; from her low state of vitality she was very susceptible to the depressing influences of cold and dampness; cough often seemed to be produced by a tickling sensation in the larynx, though the left lung was the principal seat of the difficulty, where there was soreness, pain and dulness in upper portion; menstruation was quite scanty, pale and delayed about two weeks; some tenderness in the hypogastric region. Patient had been steadily growing weaker for two years and getting worse of her chest troubles till now her case was pronounced incurable and she was put upon cod-liver oil, on which we found her. She got Lachesis²⁰⁰, and was kept upon it till cured and no relapse had occurred ten years later.—G. N. B.

CASE 2.—“Miss Emma B., æt. 26, was the constant nurse of her younger sister, who died January 26th, 1871, of tubercular phthisis; she was not only in the same room day and night with the patient, but during her illness for about six months she slept in the same bed with her; slept with her up to the last night of her sickness. My attention was called to Miss Emma June 9th, 1879; she had been coughing for more than two months; the cough was frequent, dry, short and sharp or harsh in sound; she is tall, of slender form, prominent clavicles and now considerably emaciated; she has light brown hair and blue eyes; there was loss of appetite and strength; great flow of spirits and a constant affirmation that she felt no pain, was not at all sick; pulse 96, small. On the 24th, an examination three times repeated because of her assurances that there was nothing the matter, established the fact beyond all doubt that no air entered the posterior superior half of the left lung, *i. e.*, no respiratory murmurs could be heard in this part of the chest, though well enough heard in the corresponding portion of the right lung; taking into account the family tubercular taint, the constant contact for six months with the sister dying of tuberculosis, the emaciation, loss of strength, frequent pulse, the character of the cough, its persistent continuance, the peculiar disposition of mind, I could not but conclude that there

was tubercular infiltration of the part affected; though there could be no certainty of the truth of this conclusion, the probability to say the least of its correctness is very great. Regarding Lachesis as having more points of resemblance to our case than any other remedy, I dissolved six pellets of the 200th of this remedy in a half tumbler of water and directed patient to take a teaspoonful night and morning for six days; eleven days after the state of the lung was carefully examined and the respiratory sound was heard in that part of the lung where at first examination it was absent; a subsequent re-examination showed that the lung was clear of obstruction."—P. P. WELLS.

The two cases show a left-sided affection and a violent, somewhat spasmodic, cough, dry in character. The impression of Lachesis is very profound upon the nervous system, is productive of plastic exudations and most of the symptoms are left-sided. The cachexia is a blood cachexia with glandular excitement and adventitious loading down with nitro-carbons.

CASE 3.—A young man of phthisicky habit who had pneumonia treated by bleeding, has been failing for six months, is greatly emaciated and has a constant cough. Symptoms: short, superficial hacking cough, very exhausting, sometimes resulting in vomiting; expectoration is very difficult, scanty, either thin, tough mucus or thick, round, small lumps which fly in different directions (Kali carb.); quite often he coughs, hacks and spits all at once without being able to raise anything; he coughs only during the day (characteristic of Lachesis, as is cough during sleep, but he is not conscious of the latter). The cough is aggravated from walking in the open air, also from talking, which seems to cause a sensation of dryness and consequent inclination to cough; worse also after damp weather and eating fish; it often seems as if the cough started in the pit of the stomach, where it tickles and is so painful during a hard coughing spell that he is obliged to press against something (Phos.); during the cough there is an ulcerative pain under the ribs and in the trachea, also accumulation of water in the mouth; shortness of breath, especially after exercising with the arms; stiffness and weakness in the knees when rising; weakness obliges him to stoop when

walking. In the forenoon nausea, loss of appetite. Gave Sepia; the first dose was followed by improvement which continued for three weeks, after the second dose he grew worse; the characteristic symptoms, especially aggravation of the cough after sleep pointed to Lachesis; one hour after taking Lachesis the cough became worse, he expectorated some yellow matter, after that the cough became looser, easier, less frequent; after several doses the symptoms had almost wholly disappeared and eventually he felt well and strong."—HERING in *Archiv.*, XV, 1, 56.

LYCOPodium.

Lungs and Thorax.—Continuous pressure on the chest, raw feeling internally. Paralysis of the lungs. Neglected pneumonia, with continuing hepatization.

Cough.—Dry, day and night, fatiguing; affects stomach and head. Sputa gray or grayish-yellow, more rarely yellow, and tastes saltish.

Aggravations.—From 4 to 8 P.M.; on alternate days; from stretching the arms out; from stooping and lying down; in wind, or in a warm room.

Accompaniments.—Chill from 4 to 8 P.M., with numb hands and feet, icy cold at 7 P.M. Sour vomiting between chill and heat; flushes of heat over the whole body, toward evening; with frequent drinking of small quantities at a time (Ars.); with increased micturition. Sweats from least exertion (Merc.). Heat, with inclination to uncover.

Lycopodium has a powerful influence upon plastic exudations on the right side (reverse of Lachesis). It acts in a most efficient manner to remove excreta through the kidneys, and in a somewhat pronounced manner also through the alimentary tract and skin. As a solvent to albuminoids our observations have been extensive in regard to diphtheroid affections commencing upon the right side; many symptoms travel from right to left. It seems pretty well settled that in pneumonia passing into hepatization, and for the suppurative stage of hepatization, Lycopodium is a decided remedy; and further, evidence tends to show that in tubercular affections allied with pneumonia, and in

cases of hemoptysis followed by purulent expectoration, whether from tubercle or otherwise, *Lycopodium* may be expected to ameliorate the symptoms, and postpone fatality indefinitely. To what extent it shall prove sufficient to eradicate the tubercular diathesis, and remove the tubercle from the lung, may be regarded for the present as an open question; but it certainly is a remedy to be most carefully studied, as many of our fatal cases of pulmonary disease come from old catarrhs and badly managed pneumonias.

In chronic catarrhal affections *Lycopodium* has for a long time held almost the foremost place. Hitchman reports a case of pneumonia supervening upon tubercular deposit, accompanied with pleurisy and serous effusions, cured by *Lycopodium*. "There was diminished resonance and mobility of chest with flattening; tubular breathing and cavernous sounds; pulse intermittent and small; voice weak; cough severe day and night, with profuse expectoration; hectic fever and night sweats accompanied; and the hand on the suffering side cold and emaciated was used to indicate his wants."

Dr. Pope says: "Few medicines are so valuable in pulmonary phthisis as this when persistently used; the cough, gastric irritation, exhaustion and intercurrent attacks of pleurisy, are wonderfully mitigated by it."

Raue verified it in "a case with expectoration of large quantities of pus; cough day and night; hectic fever; circumscribed redness of the cheeks."

Burt recommends it for subacute and gradually advancing chronic cases, and for people with sallow complexion and cold extremities.

Clinical.—CASE 1.—"W. M., a boy, æt. 14, very feeble and always remarkably thin, of very weak muscular development, but of sensitive mind and excellent intellect, whose mother had died of consumption, has the following symptoms; hard dry cough all day and night; coughs also in his sleep; then violent dry cough in the morning; great emaciation; is so feeble that he can hardly stand; no secretion of mucus from the lungs; respiration, and pulsation of heart very rapid; but auscultation and percussion elicit no signs of decided disease of

lungs; appetite voracious. Administered *Lycopodium*²⁰⁰, two doses. Cough was rapidly cured, and boy soon well as usual." —C. WESSELHOEFT.

CASE 2.—Miss Jennie Y., æt. 15, with blue eyes, fair complexion and light hair, very forward in her studies and with quite a genius for music, very nervous and easily excited, has suffered considerable from malarial influences; been troubled with a dry cough more or less for two or three years; was poorly all winter, and finally early in March was taken down with chills, to which was added an aggravating cough and hectic fever. Left lung very sore all over the region above the *mammæ*, so sore that percussion is hardly tolerated; dull sounds show condensation, and the bronchial murmur is quite too distinct; fever was almost continuous, with a perceptible aggravation in the afternoon and evening; chill at 7 P.M. quite regularly with night sweats, which were sour; chill begins on left side of body; thirst during chill and a little before; constipation; no appetite; pulse 120; sometimes vomits a little, which is sour. Patient was treated by myself and by my colleague at times for three months with no improvement, but on the contrary, with a steady loss of strength and flesh; nothing did her any good till *Lycopodium*²⁰⁰ was given, when her chills yielded for the most part, and quite an abatement of the fever followed; she still coughed badly and rallied but slowly until she was given *Tuberculinum*, C. M., Swan, after which she mended rapidly, beginning to eat pork, which she craved, and some vegetables; chicken and lamb were added to her diet also; cream in wine and malt in beer she used freely. As I shall speak of the case again under *Tuberculinum*, I refer the reader to that remedy for the further history of the case.—G. N. B.

These cases with the one I have reported in chapter on hemoptysis, lead us up pretty clearly to the tubercular dyscrasia and tubercular deposit, and shows that there is good reason for believing that *Lycopodium* should be classed among our remedies capable of modifying the course of a phthisis, and indefinitely postponing the suppurative crisis and possibly of radically arresting the course of a caseous exudation having its origin in a scrofulous cachexia.

C. C. Smith writes me that he has found *Lycopodium* "especially useful in dry coughs, day and night, in feeble emaciated boys. Chill every seventh day."

Raue mentions that patient does not like to be covered.

CASE 3.—Mrs. C. H., æt. 27, of a sanguine bilious temperament, was taken with cough and blood-spitting about one year ago while keeping school, but did not leave her work. Coughed violently, raising but very little. Second attack of blood-spitting the following January. Lungs felt sore from coughing. Three months later began to expectorate and has continued to do so till the present time, and now raises very freely a greenish muco-purulent matter with putrid taste. Cough is worse night and morning, though she usually wakes once or twice in the night and coughs. Night-sweats set in soon after second hemoptysis. Menstruated till the 1st of September; has seen nothing since (five months). Chills and fever more marked at that time than before or since. Chill appeared in the afternoon, and fever lasted till late in the evening. Night-sweats of a sour musty odor staining the undergarments yellow. Sweating stage usually the last of the night. Has steadily lost flesh from the first; appetite poor, hardly able to eat at all. Feet and hands cold. Complains that her lung smarts and is sore, more particularly at the third rib upon the left side and midway between the sternum and shoulder-joint; has at times a pain which seems to go back to the shoulder-blade (*Myrtus*, *Sul.*). Percussion reveals dulness over a large part of the left apex, and auscultation gives us broncophony and heavy rales as if from a cavity. Voice also resounds from the chest. Feet bloat in the daytime; hands and feet sometimes numb. Has observed at times a reddish-brown sediment deposited from the urine. Cannot lie upon the left side. Gave *Lycopodium*²⁰⁰, one dose, and put her upon cream and milk a pint a day divided into three parts, to which she adds a teaspoonful of brandy on taking; ordered malt with her food.

Improvement of fever and night-sweats; a trifle better of cough four days later. Repeated the dose. Six days later slightly improving, but says she is sleepy all day, and when she coughs she puts her hand upon the pit of the stomach to relieve the

pain and bad feeling. Always coughs if she turns upon the left side. Gave Phosphorus²⁰⁰, one dose. Patient steadily mended, though very slowly, for two or three weeks, meantime making a visit of a week to her home in the country. Returned, saying she was feeling better generally; was stronger, did not cough as much, but had soreness of the throat on the right side which was aggravated by her cough.

Gave Lycopodium^{10m} (Fincke); continued to improve for one week when she caught cold, and had an inflammatory attack upon the right lung attended with an aggravation of cough, soreness and stitching pains through to shoulder-blade. Gave Bryonia²⁰⁰; cough and pains soon better; continue Bryonia and let her go to her friends in the country. Talked a good deal and from the excitement had another attack of hemoptysis. Sent her Aconite which she took twice a day and returned not appearing the worse for her hemorrhage. Cavity in lung less loaded with purulent secretions as evidenced by the rales and amount expectorated. Dulness yet remaining over the upper third of left lung. Gave Sulphur^{10m}, one dose, being guided thereto by growing dryness of cough, soreness of chest in region of third rib, with a sore feeling seeming to go deep back toward the scapula. Ten days later patient complained of having taken cold and getting a soreness low down in the right chest-walls, or over the superior portions of the liver. Pain stitching in character. Gave Kali carbonica²⁰⁰, a single dose.

Reports better two days later and goes to the country again. Subsequent two months patient took a dose of Lycopodium once a week and continued to mend slowly. This case is under treatment and final result cannot be reported, but there is fair prospect for recovery judging by present symptoms.—G. N. B.

This case is not so valuable as a clinical verification, because of complications seeming to call for other remedies, still the author trusts it is not altogether wanting in suggestiveness. Putting the cases reported under hemoptysis and chronic pneumonia with the above, I think Lycopodium is shown to hold a high rank among remedies which may be successfully relied

on to modify the course of a consumption, and perhaps control the dyscrasia out of which it has developed.

MERCURIUS VIVUS.

Lungs and Thorax.—Stitches in the left chest during inspiration and between inspirations. Stitch in the anterior superior portion of the chest extending through to the back, when coughing.

Cough.—Violent racking cough every other evening; cough with pain in the chest and small of the back. Severe, dry cough, or cough with bloody sputum in tuberculosis. Short dry cough excited by tickling in upper anterior walls of the chest, very fatiguing and hardly allowing one to speak. Violent night cough.

Aggravations.—Night air; dampness.

Accompaniments.—Shortness of breath as if one had inspired smoke; shortness of breath on going up-stairs, and on walking, as if one could not take in sufficient air. Chill more generally in the evening after lying down, not relieved by warmth of the fire; internal chill with heat of the face; heat with sensation of pressing together of the chest, anxious; heat with aversion to uncover.

Often there is an inclination to vomit during coughing. Sometimes we have hoarseness and aphonia.

Mercurius has proved curative in suppuration of the lungs after hemoptysis, in tuberculosis with bloody sputum, also in abscesses following pneumonic hepatization. It is thought to act more decidedly upon the lower portion of the right lung (Hering). Headland affirms that Mercury has the power to deprive the blood of one-third of its fibrin, one-seventh of its albumen, one-third or more of its globules, and at the same time loads it with fatty matter. The tendency of the morbid force of phthisis to transform albumen into fatty matter presents an analogy of action, strengthening, as it would seem, the homœopathic indication. We have often noticed the facility which patients having phthisis pulmonalis had for taking on albuminuria. A few years ago this species of nephritis was considered an incurable disease; now it is known to be amenable

to remedies; especially have *Apium virus* and *Mercurius* proved very efficacious.

Mercurius has a long-time reputation for curing catarrhal affections, especially when induced by cool evening air; also for syphilitic affections which have suggestive analogies in blood-deteriorating influences.

We bring *Mercurius* forward as an ally to *Apium virus*, hoping that it may prove a remedy to abort or arrest the exudative stage of phthisis pulmonalis, in many instances.

We suggest the higher potencies as the ones more likely to be beneficial in incipient phthisis.

Clinical.—CASE 1.—“A childless woman, æt. 36, had pneumonia two years ago; since then, after nursing a hectic husband, she has had all the symptoms of incipient consumption; she has been under allopathic treatment without receiving any benefit. Symptoms: internal soreness in the throat from the cough, with burning in the pharynx; the tonsils and uvula soft; gums red and swollen; swelling of the cervical glands; feeling during deglutition as if a plug were in the throat; hoarseness and roughness of the voice; burning and tickling in the throat; provoking cough; stools hard, in small pieces, pressed together; hæmorrhoids, with occasional hemorrhage, followed by relief. Menstruation has been absent eight weeks. The cough is dry, tickling; slight expectoration of phlegm after three or four coughs, lightest during the day, increased before going to sleep and right after awakening, but hardest in the night between 12 and 2 o'clock. Frequent and difficult respiration, especially when going up-stairs, with stitches below the right floating ribs toward the back, running up as far as the place between the shoulder-blades, aggravated by cough. She cannot lie on the right side; feels best in the morning; flashes of heat alternating with coldness; worse in the afternoon, best when warm and quiet; stubborn. Gave *Merc. sol.*¹, followed by aggravation until the seventh day; then gradual improvement, followed by recovery. Menstruation never returned.”—LOESCHER in *Archiv*, III, 1, 74.

MYRTUS COMMUNIS.

Lungs and Thorax.—Acute pains in the chest and pressing pains in chest. Pains in chest and throat with blood-spitting; also dryness of the throat. Stitches in the left breast, running through to the shoulder-blade, as they often occur in tuberculosis.

Relieves where no other remedy could.

Hepaticization of the left lobe of the lung.

Cough.—Dry hollow cough from tickling in the upper anterior lobes of the lungs, worse in the morning, less tickling in the evening Cough with tightness of the breast.

Pehrson gives the symptom: "Cough with tickling in the chest."

Accompaniments.—Pains in the joints, stomach, chest, and throat. Catarrhal fever with pain in the elbows and knee-joints. Great lassitude during the afternoon hours.

Raue in *Pathology and Diagnostics*, page 183, mentions for indications in pulmonary phthisis: "Stitching pains in the left chest, from the upper portion straight through to the left shoulder-blade, worse from breathing, yawning and coughing."

The myrtle has been introduced to our notice by the German physicians as a valuable remedy in pulmonary phthisis, and from recent observations made by Wahle it is fair to presume it is to take rank among our very best agents, such as Sulphur and Phosphorus. Dr. Hering says if we wish to provide ourselves with the remedy, "Take a bunch of the myrtle as it is everywhere cultivated in pots, put it in a bottle with alcohol, and in a few days the tincture will be ready to form the attenuations." It is said that some of our physicians in Philadelphia have used Myrtus in the 3d dilution with great success.

Dr. C. C. Smith sends the following symptoms: "Stitching pain in left chest from upper portion straight through to scapula, worse on deep breathing, or when coughing," also, "burning pain in left chest, with throbbing, aching and tickling."

Dr. Wm. E. Payne reports in the *Hahnemannian Monthly*, Vol. VI, p. 356, a case of pulmonary tuberculosis in which the symptoms were greatly improved by Myrtus, and gave as leading indications for its use: "Throbbing ache and stitching

pain in the left infra-clavicular region, extending thence through to the shoulder-blade, aggravated by making a deep inspiration. Sensation of burning in left chest."

Most of the above symptoms are from Wahle.

NATRUM MURIATICUM.

Lungs and Thorax.—Sensation and pain in the chest as from tension. Vague pains in the thorax.

Cough.—Cough seems to come from a tickling sensation in the throat, or pit of the stomach. Cough with sputum of bloody mucus; or yellow blood-streaked matter.

Aggravations.—Worse from rapid motion; from deep breathing; from lying down in bed and becoming warm.

Accompaniments.—Weak voice; easily gives out from talking (Stan.); morning accumulations of mucus in the trachea and larynx. Anxious oppressed breathing which is ameliorated by exercising the arms, and going into the open air. Stitches in the sides; bursting pain in the forehead; shocks or beating concussions in the head. Involuntary micturition (Caust., Phosph.). Stitches in the liver. Craving for salt. Chill at 10 A.M. Chlorotic appearance of face; palpitations which are worse from lying upon the left side. Great dryness of the mouth. Patients get worse at seashore.

From our success of late in removing malarial cachexia with Natrum mur., we expect it will be found adapted to a class of pulmonary diseases where the malarial element is an important factor.

NITRIC ACID.

Lungs and Thorax.—Soreness and constriction of the chest. Stitches in right side of chest and in trachea which feels as if a sliver was there. Cramp-like pains in chest. Soreness in chest as if ulcerated.

Cough.—Dry, barking, from tickling in larynx and pit of stomach. Sputum is raised with difficulty; is sour, offensive, bitter, being yellowish and muco-purulent. Greenish-white casts, as if from air-cells.

Aggravations.—In the evening and when lying down.

Accompaniments.—A characteristic sensation is pricking as from splinters; this is often felt in the throat. Loss of breath and speech from weakness (Stannum). Panting during work. Sensation of great weakness felt early in the morning, and sometimes in the afternoon. There is weariness and trembling throughout the body; chilliness on the back upon getting into bed; fugitive flashes of heat, usually in the cheeks or hands, unattended by thirst. Can endure but little covering. Profuse night-sweats.

Pains get worse toward evening, especially the drawing pains. Dr. Dunham gives: Sticking pains in the rectum when coughing. Sometimes patients have extremely strong and offensive urine; these indications will be supported if there are hæmorrhoidal tumors, fissures, or anal eruptions.

It is characteristic of Nitric acid that the pains are not well borne.

In grouping together the symptoms of this remedy we find many analogous to those attending the development and progress of phthisis, particularly that variety of phthisis having its origin in syphilitic or mercurial poison.

There are clinical verifications of its having cured cases where there was purulent expectoration accompanied with rattling in the trachea and nausea.

PHOSPHORUS.

Lungs and Thorax.—The action of Phosphorus is most marked upon the lower and middle lobes of the lungs. Guiding symptoms for its use are: great tightness across the chest. Congestion to the chest worse from any emotion. Burning and piercing soreness in the chest. Pain in chest from coughing relieved by pressure upon the external walls.

Cough.—Dry, tickling, with tightness across the chest. Cough provoked by soreness and tickling in the larynx. Hollow, nervous, spasmodic cough. Harsh, irritating cough, with muco-purulent expectoration, or bloody muco-purulent expectoration, Cough which shakes the whole body. Cough provoked by a sticking sensation in the epigastrium, relieved by pressure. Cough with pain going

from pit of stomach through to spine. Cough with stitches over one eye, with a splitting headache. Cough with hoarseness and aphonia.

Aggravations.—When one enters the room; from strong odors; before a thunder-storm. Worse evening and just before midnight. When going from warm into cold air; from laughing, talking, eating, drinking; from lying on left side or back.

Ameliorations.—After sleeping (reverse Lach.); from lying on right side; from cold drinks.

Accompaniments.—Goneness in region of the stomach; painless diarrhœa, or long narrow difficult stool; puffiness around the eyes; bursting headache occasioned by coughing; apthous patches on roof of mouth or tongue. There is an inclination to yawn; there is a free flow of watery urine when afflicted with pain; perhaps involuntary micturition when coughing. There is often loss of hair in spots. Night-sweats come on during sleep, and are clammy, more upon the head, hands, and feet. Chill without thirst, generally in the evening; chill alternates with heat.

The disposition is irritable; mind over-active, and body prostrated from the least unpleasant impression. The mind is by turns gloomy, mirthful, anxious or indifferent, but excitability is the rule. There is thirst, with a desire for something refreshing, and a great relish for cold milk, ice cream, etc. Phosphorus agrees with the hemorrhagic diathesis, and with blood-spots in the sputum or the discharges from the nose.

We see the feebleness of the nerve-work or structure-controlling power, the brilliancy of the mental faculties, the increased amatory excitement, attended with a steady emaciation, in our Phosphorus type. It agrees with the tall, lean and florid temperament, very different from the chubby, fat and lymphatic temperament of Kali bichromicum, or the petite figure with chalky face, of the Calcarea temperament.

Phosphorus is well adapted to slender or rapidly growing persons, to persons subject to hemoptysis, or to frequent bronchial attacks with great debility; also to those cases of tuberculosis where there is a complication of fatty degeneration of the liver.

Those who believe tubercular diseases to be incurable, and but indifferently amenable to palliation even, will probably continue to doubt whether our cases reported as tubercular phthisis and cured by Phosphorus, were anything worse than cases of obscure pneumonia, after all.

That Phosphorus is best adapted to those cases which most simulate pneumonia, or have tubercular deposit, provoked by old inflammations of the lungs, we are inclined to believe.

Tubercular affections are not uniformly the same in totality, and the concomitants of tubercle are very important factors in selecting a remedy.

The notoriety gained in certain quarters from the use of phosphate of lime and phosphate of soda in phthisis, goes to corroborate the testimony of physicians who report cures from Phosphorus, as Phosphorus is conceded to be the chief modifying agent in such cases; Phosphorus the great nerve-corrector, and lime the nutrient modifier, supplying all the curative elements in the case.

The types of constitution to which the phosphate of lime promises best results are: the nervous, scrofulous and rachitic-scrofulous, as seen in the caries of the bones, and tubercle with hemorrhagic tendencies, and tubercle with pneumonic and pleuritic complications, attended with great mental activity.

Clinical.—CASE 1.—“G. E., æt. 34, machinist, temperate, with no hereditary predisposition to phthisis; took cold four months ago; found evidences of a left-sided pleuritis, with exudative products unabsorbed; patient was emaciated; chest contracted; was without appetite and very weak, with tendency to diarrhoea; profuse night-sweats, and suffering from a continuous cough, worse in the morning, at which time there was copious purulent expectoration. Physical signs point to acquired tuberculosis of the left lung, there being a spot, size of the hand, dull on percussion, with hardly audible murmur, accompanied with bronchial sounds more pronounced, and at another point cavernous rales and tympanitis; fever marked. Patient was put upon Phos. every other evening; in six weeks cough and expectoration had much improved; less dulness, rale more dry.”—LORBACHER.

CASE 2.—“P. S., æt. 31, working in factory; lost father and one brother from tubercular affection of the lungs; suffered for the last four years with occasional hemoptysis; short, dry cough and difficulty of breathing. Consulted me after a profuse hemorrhage. Aconite and Bryonia had been taken. Patient was a small, somewhat emaciated person, with flattened walls of the chest anteriorly; defective expansion during inspiration; dulness on percussion and abnormal murmur; bad dyspnœa on ascending the stairs, and a dry cough through the day and evening; expectoration towards morning, with pus; granules in the mucus, and night-sweats. Gave Phosphorus³⁰, a dose every other evening for one month; then repeated at longer intervals for a year or more; disease three months later had so far improved as to admit of patient attending regularly to his labor. One year later a slight hemoptysis, which was easily controlled, but no progress of tubercular degeneration or deposition.”—DR. LORBACHER.

Dr. Lorbacher like many others has found the more advanced potencies better modifiers than the lower potencies.

Our arrangement of clinical cases is somewhat arbitrary, growing out of our classifying phthisis under different heads. For a more extensive study of clinical cases the reader is referred to our chapter on Caseous Pneumonia, or Pneumonia with Cheesy Exudation.

PSORINUM.

Lungs and Thorax. — Pains in chest coming by fits, with great anxiety. Feeling as if there were an ulcer under sternum. Pain in the right hypochondrium when coughing. Chest inflates only with much exertion.

Cough.—Dry cough, with shortness of breath, provoked by a tickling in the trachea; coughs a long time before beginning to expectorate (Alum.). Sputa of green mucus.

Aggravations.—From talking and from drinking.

Accompaniments. — Sensation as if the throat were constricted, and has to cough to relieve the sensation. Dyspnœa, which is better in a recumbent posture, and worse from sitting up, and when the arms are brought near the body. Pain in right side

worse from coughing; palpitation of the heart. Bodily excretions and exhalations have an offensive odor. Profuse sweats, and sweats from the least exertion at night, with great weakness. Feels restless before a thunder-storm. Bloody discharges from the rectum. Breath offensive; odor like rotten eggs; flatulence passing the bowels which smells like sulphur.

Clinical. — CASE 1. — “Mrs. C. R., æt. 46, emaciated, hectic, exhausted; cough loose, racking, spasmodic; expectoration copious, offensive, bloody, chiefly at night; violent, craving hunger, and sinking, gone sensation; craves hearty food, coffee, acids; distress and unrest from flatus; constipation; copious, offensive leucorrhœa; pressure in vertex.

“Fine gold-like threads before eyes; dark illusions; heavy sensation in right temple toward the right eye. Thirteen years ago the itch was suppressed by ointments; the scalp itches occasionally without eruption. Psorinum²⁰⁰ at the suggestion of Wm. P. Wesselhoeft brought out an eruption between the fingers ten days after, which itched violently, and cured the case.” —C. F. NICHOLS, M.D.

CASE 2.—“A gentleman, æt. 26, who had grown rapidly, of unmistakable consumptive habit, with bad family history. When a child had itch cured with unguents. In his nineteenth year had bleeding from the lungs, since then every year. Symptoms: for eight years he has had occasional night-sweats; frequently hoarseness, especially early in the morning. Cough at times dry, again with expectoration tasting like old cheese. It is hard for him to climb stairs, although he usually feels best while in motion. The right clavicular region and the infra-clavicular fossa yields a dull sound upon percussion.

“Auscultation of the left and more particularly of the right anterior thorax, showed that inspiration was short and superficial, while expiration was comparatively deep. Gave Psorinum⁵, one dose daily; after four weeks gain in flesh, increased activity, general improvement of every symptom; appearance of an itch-like rash. Percussion sounds unchanged.” —LEIDBECK in *Hygea*, XIII, p. 579.

SAMBUCUS NIGRA.

Lungs and Thorax.—Oppression of the chest with pressure on stomach. Suffocative attacks after midnight, with throwing about of the arms and shedding of tears; patient has to sit up in bed to get breath.

Cough.—Cough spasmodic, hollow and dry; very tormenting. Expectoration of small quantities of tough, yellow mucus, only during the day; sometimes copious mucus, yellow and of saltish taste.

Aggravations.—At about midnight; from head lying low; from dry, cold air.

Accompaniments.—Œdematous swelling of the feet and legs. Hands and forearms bloated, and blue. Renal and cardiac disturbances.

Raue gives: "Profuse sweats, but only when awake; the skin becoming dry and hot during sleep."

Hering mentions that "In Sambucus cases, inhalation is regular, but sighing attends exhalation."

C. C. Smith sends: "Patients can inspire, but expiration is difficult."

We have met a class of cases in phthisical families where there seemed to be early tendencies to dropsical complications. Such have looked sallow in the face, and bloated about the face and limbs. We remember in particular the case of a woman past 40, whose children had all died of phthisis, who herself showed marked tendencies to dropsical complications and really broke down more from troubles affecting the heart and liver than the pulmonary structures.

The following are typical cases:

Clinical.—CASE 1.—"Woman, æt. 32, constant cough, copious expectoration of salty taste; loss of strength; increasing dyspnoea; cough with pain in chest; legs œdematous as far as above the knee.

March 26th, she received tinct. cort. Sambucus nigra, one dose each day.

I saw the patient after six days and had every reason to be pleased. The constant cough had been easier, the arterial excitement was less, a four hours sleep had given her new

courage and the œdema had descended below the knee. The patient said the remedy had acted especially upon the urine and skin, for she had been obliged to urinate three or four times each night and there had been an itching all over, which she had never before had. The remedy was repeated every other morning,—improvement progressed daily, the œdema grew less and less, and could hardly be noticed in the morning; cough and expectoration became more rare and the dyspnoea lessened as she grew stronger; the urine which under the action of the first six powders had deposited a copious fetid sediment, commenced to look clearer; in spite of the stubborn itching, no rash showed itself, but the epidermis scaled off with violent itching. May 12th, I found the convalescent busy about her home duties.”—SCHUELER in *Arch. XIV.*, 3, 34.

CASE 2.—“Male, æt. 20, of strong constitution. After drinking of cold water, inflammation and fever, violent cough and expectoration; after several remedies had been given without affording him relief, he was in the following condition: pressing pain in the chest; cough torments him day and night, with copious expectoration of nasty, sweetish taste; pale, earthy appearance of countenance; emaciation; rapid, weak pulse; burning heat in the palms of the hands; much thirst in the P. M.; profuse night sweat; tongue lightly coated; bowels regular; appetite, which at first had been good, is now quite gone. Gave tinct. cast. Samb., one drop, 3 times a day. After the first two doses relief; cough and expectoration were far better; appetite; after 14 days the pain in the chest and the sweats had left him. A perfect cure followed.”—SCHULZ, *Pr. Beitr. II.*, 185.

SANGUINARIA CANADENSIS.

Lungs and Thorax.—Pain in the right chest to shoulder (Kali bichrom., left, Myrtus, Sulphur), affecting the muscles so the arm is raised with difficulty to vertex. Heat in right chest passing down to stomach and perhaps to abdomen. Great soreness in chest from coughing. Burning in chest.

Cough.—Cough dry, often excited from a constant tickling at entrance of larynx, also from tickling in stomach, and from a crawling sensation behind the sternum. Cough often awakens one

at night and compels the erect posture, and ceases on the passing of flatus upward or downward. Sputa bad-smelling, noticed even by the patient.

Accompaniments.—Flushes of heat passing over the body, or heat flying from head to stomach, or chest to stomach, are very characteristic of Sanguinaria. The fever is most apt to appear at 2 or 3 o'clock, P.M. daily, and with circumscribed redness of the cheeks; this redness simulates peculiarly that which is almost always present at some stage of a pulmonary phthisis. Pulse quick and small; hands and feet burning; breath short; heat after coughing spell; yawning; belching of wind, and passing of flatus from the bowels; night-sweats and diarrhœa. There is an empty feeling in the stomach, which eating aggravates rather than relieves. Patient dislikes motion. Some authors think Sanguinaria controls the heart's action as does Digitalis; our provers speak of frequent palpitations before vomiting, with a sense of great weakness.

We are convinced from experience that this remedy has not received the attention from the profession which it deserves. We were cured with it ourself of a very teasing and debilitating cough which had lasted four or five weeks, and had withstood other remedies. There was much tenderness in left chest under third rib, with soreness, burning and smarting worse when we coughed. Cough was dry, voice weak, with a feeling of general prostration and weakness, as with a slow fever. It is to be noted that the trouble was in the left lung in our own case, while a majority of provers say the action of Sanguinaria is chiefly upon the right lung.

Dr. Holcombe speaks of it for a harassing cough with marked inflammatory action, where you are uncertain whether you are dealing with a chronic bronchitis or an incipient tuberculosis.

Dr. C. C. Smith speaks of it as a remedy in syphilitic affections of the lungs. He also sends the symptom: "Desire to take deep breaths, followed by intense pain in right side of chest, and morning lassitude."

Clinical.—CASE 1.—"M. has coughed more or less for years, but more during the summer; a year ago he had pneumonia, after which his cough sounded suspicious; he cannot lie down

but sits up; his countenance is bloated, his pupils somewhat enlarged, his pulse small and quick; night-sweats, diarrhoea, pain in the legs, pain in the chest, every attempt to breathe is accompanied with a murmur (rauschen) in the chest, followed by cough; otherwise the cough comes in paroxysms of very copious expectoration of fetid pus; the breath also is very fetid (Psor.) and disagreeable even to the patient. Choking with the cough; before and after coughing, spasmodic hiccough; with the cough a beating, and feeling of tightness in the head. After cough heat continues some time; after the heat, yawning and stretching.

"Gave Sanguinaria³, one dose every two days; after this constant improvement.

"The fetor of breath and expectoration disappeared altogether. Lessening of the expectoration, which a few days ago were streaked with blood; he can lie horizontal once more and walk about during the day."—Hempel and Arndt's *Mat. Med.* from BUTE in *N. Arch.* II., p. 148.

SEPIA.

Lungs and Thorax.—Oppression of the chest and shortness of breath from exercise. Stitch in left chest and scapula when breathing or coughing; soreness in the sternal region of the chest; congestion of blood to chest.

Cough.—Dry cough at night until midnight, accompanied frequently with nausea and vomiting of bitter substances; coughs till breath is gone and then gags or vomits. Coughs through the evening, only stopping when the cough loosens, so as to expectorate a little phlegm; cough with blood-streaked expectoration after dinner; expectoration in the morning of green or gray purulent matter, generally of a saltish taste; sometimes the taste is putrid and the breath fetid. (Psor., Sang.)

Aggravations.—When at rest; when lying on left side (Natr. mur., Phos., Lycop.); from use of acids.

Accompaniments.—Palpitation; fatigued badly by a short walk. Face pale and sallow with pimples, particularly upon forehead and tip of nose. Falling off of hair; disposition to take cold from dry, cold winds, and from getting the head wet. Night-

sweats; sweats most upon the back and thighs, moving downward upon the calves; sweat smells sour or offensive; urine also offensive.

Clinical.—CASE 1.—“Miss M. J. H., æt. 28, dark brunette, sisters died of consumption; has had affection of the lungs with hemoptysis and cough for six years; often troubles her now when she is obliged to exert herself as a nurse, but the cough is less since the appearance in the face of a red papular eruption, now existing for two years; it consists of a hard papula on a red base without suppuration, on her cheeks, forehead, nose and chin; characterized by burning, itching and smarting, especially in wet, cold weather; menses too often and too profuse. Lung troubles were: a dry, hard cough most of the time, with slight expectoration on rising in the morning; much desire to clear the throat of phlegm which cannot be raised; has an oppressed feeling through the lungs after a hard fit of coughing; says her cough seems to come from her stomach, which feels as if scraped. Sepia²⁰⁰, two doses, removed all symptoms pertaining to the chest, and for a long time, and we know not but to the present.”—C. WESSELHOEFT.

This may be studied with Dr. Hitchman's case, reported elsewhere.

CASE 2.—“A man of forty years, small and phthisicky, had been bedridden with consumption for six months. During December he received Phosphorus with good results, then Calcarea¹², then Lycopodium¹², with improvement until the middle of April, when he had come to a standstill, he received Sepia³⁰; after this there was a constant improvement in the lung until the end of May; the patient could lie equally well on the back and on the sides and was no more troubled with night cough, nor did he cough much during the day; the expectoration had lost the appearance of pus and showed only white bronchial mucus; there was such a wonderful improvement in his condition, that no one would have recognized in him the formerly hopeless case; he resumed his occupation as shepherd and bore much fatigue and overheating.”—Hempel and Arndt's Mat. Med. from Gross in *Archiv.* VII, 2, 30.

Dr. Gregg attaches much importance to the symptoms: expectoration free in the morning, or expectoration at night, but not

during the day. Also, stitching, darting pains through the central portion of the right lung.

Raue mentions that the cough is better when lying down.

SILICEA.

Lungs and Thorax.—Excruciating deep-seated pains in chest. Lungs feel sore. General sensation of weakness in chest (Stan.); has to use the whole chest to speak. Stitches in sides and chest going through to back. Tickling itching in the region of the supra-sternal fossa which threatens suffocation, until a deep shattering cough comes on, which lasts several hours.

Cough.—Deep, exhausting; at first dry, thin, loose, with copious purulent sputa. Cough produced by tickling in throat-pit; awakening him at night. Sensation as of a hair lying from tip of tongue to trachea, compelling him to cough, hack and scrape. Sputa viscid, milky, frothy, tasting greasy; or more often dense, muco-purulent, composed largely of pus globules of musty odor, possibly fetid.

Aggravations.—By cold drinks (Rhus); by motion; by speaking; by lying down.

Accompaniments.—Great shortness of breath from exercise, and from lying on the back; hoarseness in the morning (reverse of Phos.). Cough is often accompanied by swelling of sub-maxillary glands. Often there is vomiting of tenacious mucus in the morning. Want of animal heat, always chilly even when exercising. Face and head sweat on the least exertion. In later stages of phthisis, there is often violent general heat with violent thirst in the afternoon, evening and all night; or periodically returning heat during the day without previous chill, followed by a slight sweat. Night-sweats, mostly after midnight, which are sour or musty, or of a cadaverous odor. Periodical sweats at 6 A.M., 3 to 5 P.M., and 11 P.M. Stool watery, containing undigested food, weakening; or hard and difficult to expel, from inactivity of rectum. Stool recedes after partial expulsion. Patient has great aversion to warm cooked food, especially to meat.

The well-known power of Silicea over suppurative processes and septicemic action would lead us naturally to suppose such power might be utilized in the purulent stages of tubercular

action, and so it has proved. Probably the advanced stage is the more appropriate time for its use; yet if *Silex* can develop tubercular exudation, as has been supposed, why may it not cover the earlier symptoms as well as the later? Possibly the tubercular deposit which has followed the breathing of quartz dust, may have been more from mechanical irritation producing inflammation as any foreign body, the tubercular exudation following the inflammation. There is a cachexia, however, to which *Silicea* corresponds, and it may yet be determined that it is as much a modifier of the tubercular diathesis as *Calcareo carbonica* or *Calcareo phosphorica*, only varying in its type. Hughes regards it as suited to organic changes, rather than to functional disorders; says it is even more important than *Calcareo* for rachitis in children.

It has a powerful action upon the lymphatic glands, promoting dispersion or maturation, and as it has cured epilepsy it must have a marked influence over the nutrition of the nerve centres, which, if phthisis comes of loss of nerve force as many think, tends to show still further its range of applicability. The low grade of vitality indicated by the impossibility to keep warm, or get warm even when in motion, has much analogy to some forms of tuberculosis.

Clinical.—CASE 1.—Mr. T., æt. about 30, of a sanguine-bilious temperament, rather dark complexion; five feet, ten inches high; weight in health, 160 lbs.; family consumptive, two sisters and a brother having already died, leaving a brother still enjoying tolerable health. Had severe hemoptysis in the summer while in the hayfield and had constantly declined from that time. Saw him the April following, he having passed through the hands of several physicians and at that time was so low that his physicians said he could not live six weeks, and such was my opinion on seeing him. There was a large cavity in the right lung at the second intercostal space at about three inches to the right of the sternum; there were heavy rales in the left bronchi, with decided indications of breaking down of the parenchymatous structure, and cavernous lesions there also; the sputa was very heavy and largely purulent; there was the odor of the cadaver already present,

musty and offensive enough from septicemic influences; he had no appetite, and sat up hardly longer than to have his bed made; skin had a cold, clammy feel and he was drenched with night-sweats. Case was marked with absence of vital warmth—indeed, so forbidding was the case that I refused his brother when he asked me to visit him again in a week; he lived forty miles away; he was given a dose of *Silicea*^{200c} every other night with *Sac. lac.* and ordered to report by mail in a week. He had been very much harassed with his night-sweats and cough which was worse from motion; the first mail brought me the intelligence that medicine acted like a charm and wanted more of the same kind. I sent so that he got a dose of *Silicea* twice a week and so treated him till June when he paid me a visit. Left lung appeared to be cleared up; night-sweats no longer troubled him; appetite was good; was steadily gaining in flesh and strength. Nevertheless, in the right lung there yet remained traces of the vomica which now was much smaller and secreting only a small amount of mucopurulent matter; he was furnished additional medicine and went home and by the middle of July was on his mowing machine. Patient was alive four years after and enjoying fine health and I do not know but he is to-day; no man could be more surprised than myself at these results. Were we all deceived? Three good physicians of the leading school of medicine agreed about the diagnosis and I don't think there is left a possible ground for doubt. The case is exceptional we agree, but is it not full of suggestions?—G. N. B.

SILPHIUM LAC.

This is a remedy lately brought to the notice of the profession, and for excessive secretion of mucus and the serous elements is invaluable. I do not know that we have any extended proving of the drug, and hence indications for its use are mostly drawn from clinical sources. It resembles *Stannum* as to the abundance of the expectoration, but it differs from *Stannum* in that the sputum to which it corresponds is more watery, is tasteless, and the mucus mingled with the watery elements is stringy and light-colored. If it be slightly purulent it does not

seem to be contraindicated. Usually Stannum sputa offer much more consistence, are of a yellowish or greenish-yellow hue and sweet of taste. We have met cases where there was little of the yellow cast, the principal mass, which surpassed in quantity anything we had ever seen, being of a tough, ropy, glairy consistence, like the white of an egg, not watery at all. Silphium has not the gone feeling of Stannum, nor has it the concussive paroxysms of coughing. It has the symptom of exhaustion peculiar to our cases of phthisis. The guiding symptom then is, excessive expectoration of a thin watery mass, with stringy mucus floating in the more liquid elements, which may also be slightly purulent.

Dr. W. T. Laird, of Augusta, Maine, writes me that he has prescribed it in numerous cases, where such symptoms were present, and always with satisfactory results. "It always diminishes the amount of expectoration and contributes greatly to the relief of the sufferer."

Clinical.—CASE 1.—"Mrs., M. æt. 39, lymphatic temperament, in the last stages of catarrhal phthisis; large cavities in both lungs; pulse 120 to 140; hectic fever and night-sweats. The most pronounced and troublesome symptom was a slight cough, day and night, preventing sleep, with a constant, profuse expectoration of water mixed with light colored, stringy, tasteless mucus, containing a few pus globules. The amount raised in twenty-four hours was nearly three pints by measurement. Silphium³⁰ afforded marked and rapid relief. In less than a week the sputa had diminished to half a teacupful per diem. The appetite improved and there was a slight gain in flesh and strength. The disease, however, had made too great progress to be arrested and patient died three months later."—W. T. LAIRD.

This is a very instructive case and shows pointedly the curative action of the remedy. The question naturally arises if we can arrest for a time the progress of a disease, why we may not hope to bring to the aid of such reaction the means necessary to complete a cure? Was this case supported by all that diet could do? Were there not new indications by which the remedy to follow Silphium could be selected? Dr. Laird

has the thanks of the profession for what he has done. Is it not just possible, however, that he yields the ground too soon, in saying that his remedy cures no case of phthisis, leaving us to infer that he thinks the disease incurable?

STANNUM.

Lungs and Thorax.—Empty feeling in chest, or great weakness in sternal region. Sore feeling in the chest; stitches in left side of the chest when breathing, or when lying on the left side. Tendency to hemoptysis.

Cough.—Dry, concussive, apt to be in three paroxysms; short cough from time to time, as if from weakness of the chest; desire to cough as if from sense of constriction. Cough and expectoration followed with great weakness of chest and voice; too weak to talk. Cough with copious sputa, glairy mucus, like the white of an egg, streaked with yellow or greenish-yellow pus; sputa also yellowish-green, tasting sweet or saltish, sometimes sour and raised most abundantly in the morning. Very abundant sputa a leading indication.

Aggravations.—By singing, laughing, lying on the right side (reverse Phos., Lycop.), and by warm drinks (Phos.).

Accompaniments.—Reading aloud or talking produces great exhaustion; great weakness of the legs; patient drops into a chair, instead of sitting down with ease. Oppressed breathing when lying down, more in the evening, increased by movements. Chill at 10 A.M. (Nat. mur.), with numbness of finger-tips, or in the evening over the back; chill slight but with chattering of teeth.

Burning heat in the hands evenings; hectic fever; sweats night and morning, and most profuse on the back; perspiration smells mouldy (Sil.).

Pulse frequent and small, trembling.

The reputation which Stannum has gained in the cure of consumption can hardly be based upon mere accident, though to what extent it is able to disperse tubercle when existing, we are not yet fully persuaded. It seems to cure both catarrhal and scrofulous consumption. We incline to the opinion that its greatest service will be found in cases largely catarrhal

which have been grafted upon a scrofulous habit; tubercle affecting more particularly the mucous membrane would be its most effective plane.

In our own experience it has corresponded to an abundant secretion of mucus relatively, even when muco-purulent, the empty feeling in the chest an important characteristic.

Clinical.—CASE 1.—“A gentleman, æt. 36, of a phthisical habit with hereditary consumption in the family, pale, emaciated, breathing short and puerile; troubled with a cough which is sometimes dry, but morning and evening coughs up a greenish-yellow matter of a sweetish taste. The physical signs are flatness of the thoracic walls, diminished resonance and broncophony; has headache, aggravated by the cough; small stools and urging at the rectum; hands cold and feel heavy; feet cold and œdematous; hectic flushes; much thirst; appetite good, but food disagrees; eating followed by pain in the epigastrium; cured in a few weeks by Stannum.”—HITCHMAN.

CASE 2.—A Mrs. Powers, æt. about 40, abandoned by two physicians to a hopeless phthisis of the lungs; she had had a hard swelling upon the neck a few months previous to commencement of her chest troubles; discussed with iodine by advice of her physician; found her with a pulse of 160, small and trembling; physical examination showed dulness in the upper portion of right lung and voice sounds at the middle of third intercostal space three inches to the right of the sternum; heavy rales as of air passing over quantities of matter in a fluid state; cavity seeming of unusually large size, although expectoration was not so heavily purulent; the quantity expectorated, however, was simply enormous; estimated to be fully a quart for every twenty-four hours; much of this was a thick glairy mucus, streaked with greenish veins or yellowish-green; there was a weak feeling of the chest, and voice was weak; raised more in the morning, coming up by severe coughing turns, and sputa tasted rather sweetish, sometimes salt; both the walls of the vomica and the bronchial mucous membranes must have been active secreting points to have furnished such quantities of matter. I first gave Calcarea

carb., which was not the simillimum; pulse fell to 123, and expectoration fell off about one-fourth; no additional improvement followed the medicine; three weeks later I gave Stannum³, and six doses cured the case, given at increasing intervals for six weeks.—G. N. B.

STICTA PULMONARIA.

Lungs and Thorax.—Pulsations at right side of the sternum, going down to epigastrium. Oppressive pain in left thorax under fourth rib. Oppression in the chest as if a hard mass were there.

Cough.—Hard, racking cough provoked by inspiration; dry cough in the evening and at night; loose cough in the morning with more scanty expectoration as the day advances. Incessant wearing, racking cough in consumptives.

Aggravations.—In the evening and from lying down.

Accompaniments.—Splitting frontal headache. Pain in left side below scapula. Tickling in bronchi and larynx. Rumbling in abdomen with pain from sternum to spine.

SPONGIA.

Lungs and Thorax.—Congestion in chest from least exertion. Burning, soreness, and sense of great heaviness in chest. Stiches in both sides of chest. Tuberculosis in apex of left lung.

Cough.—Chronic cough attended with violent paroxysms, in which small hard tubercles are thrown off. "Cough dry and sibilant, sounding like a saw driven through a pine board; each cough corresponding to a thrust of a saw."

Aggravations.—From eating sweet things; from cold drinks; lying with head low; in a warm room; in dry cold winds and from excitement.

Ameliorated from taking warm food or drinks.

Accompaniments.—Motion exhausts one particularly in the chest; sudden attacks of weakness while walking, which causes one to totter, while the blood seems to rush into the chest as if something would burst. Severe dyspnœa, relieved by bending body forward, worse from lying down. Voice gives out in talking or

singing. Suffocative attacks; throat symptoms relieved by recumbent posture. Nausea with faintish weakness. Canine hunger, and swollen thyroids.

SULPHUR.

Lungs and Thorax.—Dulness on percussion; sensitive thoracic walls; sore spots in the chest; soreness in upper portion of left lung going through to scapula (Myrtus). Pain in scapula and right intercostal spaces when coughing. Lungs feel as if they touched the back. Pressure in the chest; contractive pain around the chest, sensation as of screwing together in the chest. Cutting and burning deep in the chest after a walk in the open air.

Burning in chest with heat arising to face.

Feeling of coldness in the chest; sometimes as if a lump of ice were in the right chest. Rattling in the chest. Weakness in chest when talking.

Cough.—Dry, short, violent; occurs both day and night, but apt to present typical periods early in the morning or on going to bed. Dry cough with hoarseness, worse nights. Sometimes patient wants to cough, but is not able. Much coughing at night on going to bed (Hepar), with heat in the head, especially crown of the head and face. Cough caused by mucus in the bronchi, morning mostly when the air passes over into the air-cells. Painful shocks in the head when coughing.

Sometimes there is a loose cough with soreness in chest, or pressure with expectoration of thick mucus; vomiting when coughing (Bry., Sep.). Much rattling of mucus in the lungs. The cough worse in the morning, relieved by sitting up (Spongia). In one case we noted aggravated by Sulphur; there was great rattling and difficulty of breathing with considerable expectoration, yet not enough to begin to clear the bronchial passages. Cough frequently seems to be provoked by an irritation at the ensiform cartilage, especially when the cough is accompanied by gagging, and head symptoms. Sulphur has proved curative in coughs attended with expectoration of blood mingled with pus; with sputa consisting of greenish lumps, or of thin, milky fluids, mixed with pus-globules; and with putrid sourish sputa offensive to taste and smell (Psor. Sang.).

Aggravations.—From talking; from eating; from taking air in upon the lungs (Natr. mur., Phos.); from walking in the open air.

Accompaniments.—The throat is apt to feel rough and dry with a burning sensation in the trachea. There is sudden arrest of breathing when turning in bed. There is unsteady gait and trembling of the hands. Chill occurs at any time in the day, but more likely to occur in the evening; mostly internal and without thirst; the chill may be external with internal heat at the same time. Another phase is a chill with thirst preceded by heat; the chill often begins on the back of the hand or on the toes and runs up the spinal column. Again we have flushes of heat coming frequently followed with a slight perspiration and faintish feeling; burning palms and soles are quite characteristic. There are profuse sour-smelling sweats the whole night; or sweats in the morning, and in the evening; in the evening mostly on the hands; in the night on the nape and occiput. Cramps in calves of legs at night, and in feet—inclined to put feet out of bed because of heat.

There may be many associated symptoms, such as diarrhœa driving one out of bed in the morning; hunger and faintness at about 11 A. M.; heat on the vertex; itching upon the integuments, or at the throat and anus, which gets worse in bed; disgust amounting to nausea about any effluvia coming from his own body; head symptoms worse after dinner, inclination to vertigo with falling to left side; freckles and black pores on the face; smell before the nose as of an old catarrh, wants the doors and windows open for want of air. Drowsiness in the day-time and wakefulness at night. Chronic constipation with hard, dark and dry stools, requiring much straining to expel (this last symptom was noticeable in one of our cases reported below); soreness, excoriations, exudations and itching of the anus; lancinating pains in anus; fistula in ano and hæmorrhoids.

The rank the great Hahnemann gave to Sulphur as an anti-psoric, or exterminator of the root of chronic diseases is none too great, and well illustrates the acuteness of the man's observation and the scope of his generalization. We knew little of the power of the remedy till we had been in practice

many years, and feel that we very poorly know how to teach the conditions that govern its higher functions now. In consumption everything depends upon the potency; the lower potencies are vile or pernicious. I once provoked fatal activity of the secreting vessels in a pulmonary consumption with a third potency, so that my patient was absolutely drowned out. We must caution against too frequent repetition and too low dilutions of Sulphur in pulmonary phthisis. Fincke says: "With single doses of Sulphur^{55m}, I have cured numerous cases of incipient phthisis." Our most pronounced cures have been with the 100^m, Fincke; one hardly less pronounced with 20^m, Fincke; and how this is we are unable to say; 200th and the 6th had been tried with no results in one case; lastly, this case was cured with a single dose of 20^m, Fincke. It is almost too much to believe, but we must report the facts let the reason be found out when it may; there is still something for us to learn. We have spoken of Sulphur as an anti-psoric from the Hahnemann standpoint; a term to express a diathesis productive of tubercle and other chronic morbid phenomena. The action of Sulphur seems to be primarily upon the sympathetic system of the nervous chain, or the seat of organic life; under the guidance of the ganglia of this system of nervous force the processes of nutrition and alimentation go on; the functions of the stomach, liver, pancreas, spleen and mesenteric glands are all modified by the action of Sulphur operating through this ganglionic chain; it acts upon the skin and entire mucous membrane. Acting upon the glands and follicles as it does, it is easy to explain its great power as an absorbent, suggesting that it can be utilized in the matter of drainage of the system. The taking up of debris and adventitious products and causing their elimination out at the natural sewage, is most important to health. As an electric it is negative to all known substances and the exact opposite of oxygen, which is positive to all known substances; this may be of more significance than we think. I should place the service of Sulphur then largely as that of an eliminating element. Substances refused by the morphic or structure-building forces need to be removed and carried out at the waste-gates of the body, such as the skin,

lungs, kidneys and alimentary tract; broken-down structure or the refuse left from the combustion which liberates force, has to be conveyed away by these same channels. In tubercle we have exudation of albumen, the substance produced by the first processes of digestion; as Sulphur acts upon the entire class of functions operating to produce albuminoid and fibrinoid products, it is fair to presume that it can be utilized in molecular movements antecedent to the deposition of tubercle, and further acting as our most efficient agent in removing certain kinds of exudation, notably albuminous and fibrinous, it is fair to presume that it can be utilized to remove tubercular exudation. Wurmb, in his studies of pneumonia, has based a successful generalization for the use of Sulphur upon pathological anatomy, and it is about the only generalization of the kind ever made. "If pneumonia," he says, "be not complicated with other diseases, then generally there comes a period when the febrile storm subsides; the pains, the dyspnœa, etc., cease—in short, the patient feels himself greatly relieved as soon as the infiltration has become complete; at this period art can have no other problem than to support nature; while she, for the sake of removing the exudation, increases the activity of the processes of absorption, or on the other hand to oppose nature in case she shows a disposition to get rid of the pneumonic infiltration by a purulent degeneration. Now in our view no remedy yet proved corresponds so well to these indications as Sulphur; none compares with it in point of certainty and celerity of action. Sulphur penetrates the entire organism even in its finest and most recondite portions. It increases the activity of vegetative life generally, and the processes of secretion and absorption in particular; it accelerates the interchange of elements and makes it more pervading; in a word, it fulfils all the demands upon which the removal of an abnormal product is conditional. Upon these grounds we apply Sulphur to the removal of pneumonic infiltration of serous exudations of old as well as recent deposits in the skin, the parenchyma, the joints and bones." That it does remove pneumonic infiltrations no one denies; that it does remove tubercular exudation I am almost as positively assured. The

products of pneumonic infiltration, or hepatization are unlike the exudation called tubercle; both, however, are the products of inflammation, and pneumonia supervenes upon tubercular irritation, and it would appear that tubercular infiltration often follows pneumonic inflammation. Persons subject to repeated attacks of pneumonia usually die of phthisis; to this fact our attention should be carefully given; if the same generalization made by Wurmb in relation to pneumonic infiltration should finally be found to apply to tubercular infiltration, science surely will have made a point and humanity have cause for thankfulness. The generalization founded upon the scrofulous diathesis, the evidences tending to show exudative obstructions and temperamental and antecedent peculiarities, governed our choice in two of our phthisical cases more than any pathogenetic symptoms we were able to gather up. There was concurrence, but too much generality to get at sharply defined indications. This very breadth of impression may be a valuable symptom; molecular movements like the beginnings of a great storm may be slow and cumulative, but all the more significant for the wide scope and sphere of the movements. In our cases of phthisis we are to study heredity, the forces of nutrition and the functions of elimination profoundly; we are to examine by physical and other signs for impediments from exudative matter. Conjoining our pathological studies with the study of our provings, we shall render the best possible service to our patients. We formulate the proposition that as the ganglionic system is the primary and fundamental seat of life, it is presumable that the hereditary elements of disease are contained here. The action of Sulphur being so energetic upon the system, more than any other remedy it may be expected to meet and overcome the tendencies to degradation of morphic forces in the nascent state, even to the removal of hereditary influences.

Clinical.—CASE 1.—Mr. P., æt. 33, nervous-bilious temperament, with blue eyes and light hair. Grandfather, several aunts and an uncle had died of consumption, also mother and three sisters; the latter, all the sisters he had, died before reaching the age of 25.

He began to decline with the following symptoms: severe, dry, irritating cough which after a while ended not unfrequently in gagging and spitting up a little tough mucus, or ejecting from the stomach a little sour fluid; was much troubled with pyrosis, little desire for food, and if eaten attended with much distress; emaciated quite rapidly, and became despondent under the impression that he would soon follow those of his family, who had already died of consumption. Bowels were badly constipated; dullness of lungs on percussion, and attenuation of the thoracic muscles strongly supported the inference of tubercle in the parenchymatous structure of the lungs; two or three remedies were tried with no apparent results, certainly no curative results. At this time I concluded to take the constitutional diathesis as the basis of my prescription, and gave Sulphur^{100m}, medicating three powders and giving one with instructions to take one each week. At this time patient looked sallow and haggard in countenance; had been afflicted with an inveterate constipation for nine months, an aggravated dyspepsia accompanying the harassing cough and more recently night-sweats. When my patient called upon me again in three weeks he was so much changed as to astonish me; his constipation had given him no trouble whatever from the time he took the first dose of Sulphur, indeed, the whole morbid chest and abdominal symptoms were rapidly passing away; he got three or four more powders of Sulphur in the next six months and was discharged cured, and has so remained. I think there was no question about the character of the disease or the fatality that would have followed in a few months, had not curative action been established; there were no cavities in this case and of course no septicemia, and yet it is a very suggestive case when put with two or three more which will follow.—G. N. B.

CASE 2.—Miss C., milliner by trade, æt. 30, of sanguine nervous temperament, family consumptive, has had a dry cough for several months and been getting weaker and weaker gradually; been under the charge of a homœopathic physician a long time. At our first visit found her just able to be about, but had given up all business; apex of left lung was dull from

above third rib, and rales could be heard from a small cavity opening there, also voice sounds; was expectorating a small amount of muco-purulent matter which was raised with difficulty; cough much more of a dry than a loose character. She had stitching pains going through from the front of the upper left thoracic region to the scapula, and was sore in front from pressure and tender from percussion; had hectic fever with accompanying chills and sweats, though sweating was not so marked as in some cases. On consulting with her physician, found that many remedies had been tried—Sulphur low and also 200. I said, I saw but one remedy indicated, and if Sulphur would not help her, knew of nothing to be done, and gave her Sulphur^{20m}, not to be repeated for a week; in about six days she showed signs of improvement and got no other remedy; recovered in a few months so as to go on with her business, and is yet living so far as known. Many will be skeptical as to the correctness of our diagnosis. I was astonished at the effects of the medicine, but feel pretty confident, that there was not only tubercle there, but that a cavity was well formed.—G. N. B.

CASE 3.—C. W., æt. 37, a lawyer by profession, and at the time of being taken down, a member of Congress; began to decline the second year of his stay in Washington; of the nervous sanguine temperament, tall and spare with light hair and blue eyes; had consulted several physicians before coming into our hands, and among them Dr. Bowditch of Boston, all of whom pronounced the case one of tuberculosis of the lungs; came into our hands the last of June, 1872. At that time suffered from a severe cough attended with very considerable expectoration of a rather tenacious character, largely composed of greenish mucus with traces of pus-globules among the more greenish portions; much of it would almost rope; voice was weak and hoarse, and patient was able to sit up only one-third of the time; very little appetite, and given to a great deal of shuddering, and so pronounced a chill as to be followed with considerable fever; chill came on daily and in the forenoon usually began on the back of the hand, or on small of the back, and ran up the spine; night-sweats of a sourish, unpleasant

odor, staining under-garments. Physical signs showed apex of right lung to be the seat of tubercular infiltration. Several remedies were tried. Phosphorus in particular; taking the constitutional diathesis more into account than any detail of symptomatology, though they were of Sulphur as much as anything; prescribed at last Sulphur^{100m}, and with so decided an effect as to have our attention called to particular sensations on meeting patient two days after, prefaced with the question: "Doctor, what did you give me at your last visit?" We were also told that he was feeling better than for a long time. Did not repeat the dose for fourteen days, using a placebo in the mean time; when we did repeat the dose, it was put in among the same powders we were dealing out to amuse our patient with, numbered so he might get it first; what was our surprise to be promptly told on our next meeting that we had given again a dose of the old medicine. We asked "How do you know?" "By my feelings," was the reply. He was a man of the cold, intellectual type, believing very little in homœopathy or anything not appealing to reason directly, in fine, the last man to be given to fancies. He got well in the course of the next twelve months; that is, he got well of his cough and recovered so far in his general health as to be in his seat at Washington the next winter, and the summer following attended to legal and editorial business with greater ease than for the ten years previous; but within eighteen months he had fistula in ano.—G. N. B.

Since my leaving Vermont the gentleman has died of phthisis, some nine years after above treatment. We have numerous other cases of interest and suggestiveness, especially where high potencies of Sulphur have been used; we have never seen any good follow in this class of cases from the use of low potencies of Sulphur; in the second case mentioned above, the attending physician had used Sulphur 4th and 200th, so he said, and with no satisfactory results. I have myself given Sulphur 4th and 200th with scarcely perceptible effects, and with 20 M. seen prompt curative action follow; even brought out the pathogenetic symptoms, or my patients have woefully deceived me; and how they could, not knowing the symptoms of the remedy,

is difficult to conceive. I confess to astonishment, but must believe where we can no longer doubt. That we have tried and failed we do not deny, but that we have succeeded at all is the greater wonder, and we do not expect our cases to be taken without grave doubts by the most of our brethren; we give the cases with all the suggestiveness that follows in all honesty of purpose and with great hope for the future. How it is that our higher potencies have done for us what the lower failed to do, we are unable to say, and yet there is never a fact without a reason. Whether disease plants itself on a molecular basis or takes root in the vital principle, and because of this, demands molecular force for its dislodgement, one can answer as well as another. If we shall elicit investigation and further trial in this rather new field, we shall have done all that is intended by the publication of these cases. The wisest thing to do will be to keep watch and ward off the people and wherever opportunity allows, see to it that the inceptive stages of this terrible scourge be promptly dealt with, by removing the consumptive dyscrasia, even from the fœtus in utero if opportunity offer; moreover we should arrest any other drift of obstruction tending to the thoracic organs, knowing full well that the earlier an evil is dealt with the better the chances of success in the treatment. That we have remedies which if administered in season are competent to arrest a large per cent. of these cases, there remains no longer a doubt in our own mind; it is time to begin to deal with life *ad initio*.

CASE 4.—“H., æt. 25, when a child had crusta lactea; hæmoptysis when 20 years old, since then constant, dry cough, difficult breathing; after six months a second bleeding-spell, and again a third followed by unmistakable symptoms of phthisis. Symptoms: lying on his back, great emaciation and pallor, constant fever with aggravations in the P.M. and copious clammy sweats, especially on the anterior surface of the body; cough with tuberculous expectoration, at times consisting of clear pus; cough more frequent, more violent and more dry during the aggravations of fever; looser and with increased expectoration during the sweat; dull ache in different portions of the chest; especially and from the very beginning at a place

between the third and fourth left ribs where physical examination proved the existence of a large cavity; loss of appetite, thirst, diarrhœa, œdema of feet, sleeplessness, lassitude, indifference. Gave Sulphur²⁰⁰⁰, one dose; it produced early improvement and after two months disappearance of all the symptoms; after seven months a little cough removed by Sulphur; after three years still perfectly well."—*Allg. Hom. Zeitg.* XXXIX, 203, from a Spanish Journal.

CASE 5.—"M., æt. 30, thickset, without hereditary tendency to phthisis, when a student had itch suppressed; venereal excesses and intemperate; has had trouble with his lungs for last eight years. Symptoms: pressure and tension in chest and epigastric region; sensation of constriction in the chest; to relieve this and to get breath, he is obliged to throw back his shoulders. Has had frequent spitting of blood; expectoration at present very salty, purulent, sometimes streaked with blood; digestion good; blind piles; sleep uneasy, cannot go to sleep on account of great dry heat. Sulphur relieved him in a short time so that the progress of the disease was completely arrested; his lungs are somewhat sensitive to cold air, but all during the years which have elapsed since then he has been able to look after his business in all sorts of weather, fair and foul."—GRIESELICH in *Hygea*, II, 355.

CASE 6.—"H., æt. 25, when a child had itch suppressed by unguents. Symptoms: Cough so violent that it terminated in choking and vomiting, and the patient fell back utterly exhausted, his forehead bathed in cold sweat, with the cough, stitches in the chest here and there which did not, however, create difficulty of breathing; cough worse at night, incessant, returning as soon as he closed his eyes; expectoration copious, clear pus, horribly fetid; very poor appetite; extreme lassitude; drenching night-sweats, despairing mood. Gave Sulphur³⁰, one dose each day; cough better in a short time; the night-sweats became more moderate; gain in strength; could go out in three weeks."—KREUSSLER in *Allg. hom. Zeitg.*, XXIX, 154.

CASE 7.—"Man, æt. 38, of delicate physique and cachectic appearance, in ten years has had twenty attacks of bleeding from the lungs; he was bled in each case and suffered after

every paroxysm, and for weeks following from cough with profuse purulent expectoration. Symptoms: The bright red blood was expectorated in large quantities, accompanied with rattling in the trachea, and usually by choking and gagging, with painful soreness in the chest; feeling of anxiousness; palpitation of the heart; cold hands; oppressed breathing; in former years an attack of itch had been suppressed; this was followed by headache, later by these paroxysms of cough with bloody expectoration. Gave Sulphur², one dose every hour; in the evening no more bright blood; on the following day the expectoration of dark blood had also disappeared, and the patient could see to his business; under the less frequent use of Sulphur the pus-like expectoration was removed in a few days."—ELWERT.

CASE 8.—"L. D., æt. 45, has had a cough for many months, attended with emaciation; the symptoms are a dull heavy aching on the chest, with dulness on percussion, over the lower right lobe, very marked, accompanied with crepitation; chest feels weak; expansion of chest one inch; weight of person 134 pounds. Prescribed Phosphorus every night for ten days, and gave Scott's Emulsion; ten days later crepitus a little abated. Gave Sulphur³⁰, one dose, and no more medicine for a month; two months after commencement expansion of chest $2\frac{1}{2}$ inches, weight $135\frac{1}{2}$ pounds; has taken a little cold, for which Bryonia²⁰⁰ was given; six months later all traces of condensation had disappeared, and had increased much in flesh."—N. C. RICHARDS, M.D.

TUBERCULINUM.

We have no extended provings of the drug, and whether it differs from phosphate of lime or not, I am unable to say; it is composed, as we understand, of the cretacious matter which comes from the transformation of the caseous or albuminous infiltration called tubercle; it is probably a compound of phosphate and carbonate of lime with soda, and possibly some other minerals. The remedy has been only recently introduced, and we have had no experience except in two cases

where we have attributed very decided curative effects to it, and if we are not mistaken it will prove a very valuable addition to our remedies for the treatment of consumption.

Dr. Swan reports a case with the usual features of the last stage of pulmonary phthisis, great emaciation, constant cough, purulent expectoration, profuse night-sweats, cured by Tuberculinum, M. M. and C. M. M.

Clinical. — CASE 1. — Jennie J., æt. 15, a blonde, unusually bright, and much in advance of her years intellectually, has led her classes at school, and made beside much proficiency in music, has been very nervous, easily excited for weeks, and often irritable, and then again moved to tears. Has been coughing more or less for two or three years; had chills and fever a year ago, and came down in March with chills again, as was supposed. Chills in the afternoon with almost continuous fever; cough, and pains in the chest, particularly the upper left side; all the symptoms about the chest aggravated with the setting in of chills and fever; chills from 6 to 8 evening, but soon settled down to 7 P.M.; fever after a little abated in the forenoon and all through the night till near morning, when a sour sweat sets in, pulse however keeping up all the time to from 110 to 120; walls of chest very tender, and much more so at about three inches below the left clavicle, where is found considerable dulness on percussion; also bronchial sounds are distinctly heard in this region; expectoration of a trifle of yellowish mucus, with possibly traces of purulent matter. Diagnosis: cheesy condensation, with the fever attending tubercular infiltration, but no cavities; complicated with a malarial cachexia. The chills were arrested, or partly arrested at least, by Lycop. 200th and 10 M. Fever, however, continued, so that pulse only fell to 110, till Tuberculinum was given. It then went down to 100 per minute. The appetite, which previously was entirely gone, began to reappear, and visible improvement was seen in strength, looks, and otherwise. The preparation given was C. M. (Swan).

I repeated the remedy for return of some symptoms after two weeks, followed by more marked improvement again; patient steadily improved, till cough entirely disappeared, as

well as the soreness about the lung. Menstruation, which disappeared early in her attack, was again set up after the sixth month, patient having gained fourteen pounds in weight. Two or three times she took Lycopodium for some febrile symptoms with the 4 to 8 aggravation, after being put upon Tuberculinum. There may properly arise a question if the case be not more attributable to Lycopodium than the Tuberculinum. We think not, from our standpoint, and we are probably best able to judge. The rebound which followed from the first dose of Tuberculinum, and which followed at subsequent periods, leads us to believe it was the one remedy which saved our patient, though Lycopodium did something very creditable for the chill and febrile paroxysms.

Patient almost at once began to eat and assimilate food after taking Tuberculinum, a thing she had not done for months. She showed a remarkable relish for beer and for fat boiled pork, the first being allowed her with malt, and the last taken as she liked. Cream and milk, to which was added either wine or brandy, was also given.

CASE 2.—Dr. Nichols writes from Boston that Calcarea pulmonica^{cm}, potentized by Dr. Swan, acted most favorably upon a cough attended by the expectoration of calcareous matter. The patient, a blonde female, æt. 18, had lost two sisters by pulmonary consumption. I do not quite know if this be Dr. Swan's Tuberculinum.

CASE 3.—Another case presented the usual features of consumption in the last stage: "Great emaciation, constant cough, purulent expectoration, profuse night-sweats." Tuberculinum^{mm} + ^{cm}.
—DR. SWAN.

CASE 4.—"A man given up to die was emaciated to the last degree; cough with sweet, yellow expectoration, night-sweats and very weak. Tuberculinum^{mm}, Sepia^{mm} and Phosphoric acid^{cm}, helped him so much that he went to Manhatten Beach to complete his cure; got to eating finely; had no night-sweats and very little cough."—DR. SWAN.

CASE 5.—Dr. A., æt. 26, blonde, light hair and blue eyes, of a scrofulous habit; began coughing a year ago; health failing, and cough proving obstinate; was examined by Dr. Willard,

of Alleghany, New York, and the physician in town. Diagnosis: condensation from tubercular deposit in the apex of the left lung; depression at the third rib; was soon taken with pleuritic pains followed by fever, which ran on into a hectic with chills, night-sweats and purulent expectoration; for months ran steadily down, till considered hopeless by all friends and her physician; was so feeble indeed, that she could not be moved; sent her one dose of Tuberculinum about the 1st of July; soon after astonishing changes followed with improvement in all the lung symptoms; fever and sweats almost entirely disappeared. A second dose of Tuberculinum was given August 12th; improvement continued and patient was able to be removed to New England, where she mended a little and then died.—G. N. B.

These cases are reported for the purpose of calling the attention of the profession to the use of this remedy in phthisis. Some express great disgust at the mention of a nosode.

Psorinum has had a place in our *Materia Medica* for a long time, and some of our best physicians report excellent clinical results from its use.

What we want are facts in the case, and if we accept *Calcareæ phosphorata* as a remedy from the mineral plane, why may not the cretaceous products of tubercle when potentized become a remedy as well? Its value is to be settled by trial. This is about all there is to the question. The case of Miss Young continued to improve, and menses appeared after a cessation of six months. An eruption appeared about the nose as she began to improve. She may be said to be fairly convalescent and enjoying better health than for three years at this date, eleven months from beginning of treatment.

Water.—Sandozy has discovered that the hypodermic injections of water wonderfully controls the cough of phthisical patients. The explanation will be found no doubt in the nervous vibrations produced.

We often feel the need of some agent to relieve this harassing symptom, and this will not impair nutrition as would morphine, a remedy never to be given until the very last stage of the disease.

We have had no experience in the use of this agent, but shall try it when our simillimum fails, and such perplexity arises.

ZINCUM.

Lungs and Thorax.—Sticking in left side of chest, with painfulness of left nipple.

Spasmodic sensations in lungs and heart. Burning in chest; cutting pains, with sense of constriction.

Rawness and roughness are felt both in throat and chest.

Cough.—Lasting all night; cough with shooting pains passing to the stomach, pains relieved after raising a little. Bloody expectoration is frequently met with; or spitting of blood after a hard coughing spell, followed by burning and soreness in chest. Sputa sometimes yellow, purulent, tenacious; or sweetish sputa with a metallic taste.

Blood raised in the morning and during the day.

Aggravations.—All lung symptoms worse after eating sweet things, partaking of wine, and after menstruation.

Accompaniments.—Dryness in larynx. Cramp-like pain in external muscles of throat when swallowing. Jerking of the body during sleep.

Chills begin after dinner, in open air, just before a storm, run down the back alternating with heat. Sweats towards morning.

Zincum is a remedy we have used but little, but it has a clinical record entitling it to a place among our remedies for consumption.

I regard it as best adapted to those cases where the nervous system shows intensity of action, possibly where anæmia exists and where nervous shocks, as in onanism or mental grief, are a cause. Provers, however, find the remedy to have very pointed direction toward the respiratory mucous membranes, and the stitches in the chest would indicate that the parenchyma was also affected. Purulent sputa also indicates its adaptability to the severer forms of lung degradation.

In phthisis, where many symptoms seem to sympathize strongly with the female reproductive organs, with much disturbance of the sensorial and reflex system of nerves, we are likely to find our simillimum in Zincum.

Some affirm that phthisis itself has a primary start in the nervous system, and find an indication for the use of Zincum in this hypothesis. Such generalizations, however, can be of but little use practically; it has a clinical record of very high value in paralytic affections of the brain such as follow from serous exudations, and tubercle may be behind this exudation. It is well to remember this fact, as it may point to a force in the drug capable of modifying the tubercular dyscrasia.

FAVORABLE SYMPTOMS FOLLOWING THE ACTION OF A REMEDY, ACCORDING TO NIESSER'S OBSERVATIONS.

1. Swelling of the glands in the axilla.
2. Rheumatism in the muscles of the neck, shoulders, thorax, hips or extremities.
3. Swelling of the glands of the neck and ear.
4. The materia peccans rises from within toward the outside, contrary to the air which passes during respiration from without inward. The chest feels lighter, but the trachea and larynx become affected in a manner to produce hoarseness, which subsiding, the nose becomes sore, and finally ends with pimples and pustules around the nose. This soreness, followed by pimples and pustules, was especially noticeable in the case of Miss Young, reported cured by Tuberculinum and Lycopodium.
5. The ears become affected, from mere ringing in the ears to suppuration within them.
6. The eyes become inflamed.
7. Headache and toothache set in; in such cases let the patient suffer; a sudden suppression of them would quickly bring back all the troubles in the chest.
8. Eruptions on the thorax with or without itching in the chest or back.
9. Sweating of the feet.
10. Hæmorrhoidal irritations and tumors.

11. Violent colds in the head, which indicate Acon. or Phosphor., and which almost always act beneficially.

12. The morbid action goes down into the intestines, and throws out gall and acid, mucus, or gas, until finally it develops itself in a cutaneous disease, first attacking the head, the upper extremities, the thorax, and so on down like small-pox.

When a well-selected remedy brings forth any of these symptoms, never disturb its action by change or repetition.

In the case of Mr. Willard, fistula in ano, followed the improvement of the lungs from Sulphur^{100m}.

In the case of one lady the invasion of the lung followed from the cessation of activity in a lupus upon the face which had first appeared in the eyelid upon opposite side, metastasis following from the use of Kali carb., low. Another from the discussion of a glandular tumor by Iodine.

MODE OF ADMINISTERING REMEDIES.

We have come to the conclusion, after careful observation, that it is not well to repeat a remedy more frequently than two or three times a week, and perhaps not as frequently even as that; in our best cures the remedy was only repeated three or four times in two or three months; in one case only one dose was given, no improvement showing for the first six days, but thereafter it was continuous to a recovery; it was where a small cavity had opened up about two inches below the clavicle, on the left side; the remedy was Sulphur and the 20 M., Fincke. In a very grave case cured by Silesia, patient got about two doses of the 200th a week for six weeks or so. In a case cured by Stannum, patient got four doses in all of the 3d centesimal trituration. In one case where Sulphur was given in the third dilution at night and repeated in the morning, so excessive was the aggravation that patient died in four days from excessive accumulation of fluids in the bronchioles. We are satisfied that both Phosphorus and Sulphur are liable to

dangerous aggravations, and do not know any other remedy that may not have its dangers when administered to patients in the tuberculous state, either too frequently or in too crude a form. We are glad to be able to add other testimony, and quote from the Counsellor, Dr. D'Espiney, of Nizza, France, who says: "Of fifteen years practice, and since I began to use dynamized drugs I have seen many cases of phthisis singularly ameliorated or cured under homœopathic treatment, and my confidence is established. But I found out a while since that my patients succumbed more rapidly than formerly, and I became convinced that in certain forms or periods of phthisis the inconsiderate employment of homœopathic drugs may sensibly accelerate the fatal issue." Dr. Chargé is of the same opinion; he, being asked one day about the use of Phosphorus, and especially its repetition, replied, that he put the same question to Rummell, who replied: "Phosphorus always succeeds with me when I know how to give it." "And what do you mean by knowing how to give it?" "A dose every fifteen days." Chargé adds: "Rummell is right. In certain cases of phthisis some drugs, and especially Phosphorus, may produce the most horrible ravages when we repeat the doses too close together." He then adds: "About fifteen years ago I was accidentally in a city where I was requested to visit a nun suffering from a slight tuberculous infiltration in one apex of her lungs; her general health was still good; she only complained of a little dry cough, and the expectoration contained sometimes streaks of blood; she was a blonde, small and tender, with blue eyes, white teeth, and fine complexion; she received three powders, each containing ten or twelve globules of Phosphorus, with the advice to dissolve a powder in nine spoonfuls of water, take three times a day a spoonful for three days, and then omit three days, and thus continue till finished. I returned to the city in about forty days, and was horror-stricken when she appeared. The pulmonary lesion had fearfully progressed, whereas formerly it was very slow. I was told that after taking a few doses a serious hemorrhage set in. The medicine was continued till a more serious bleeding followed." The more serious and dangerous our case the more

caution are we to take in the administration of our remedies. The more danger from repetition and low dilutions.

The author in giving his experiences upon dilutions and in quoting the experiences of others has no other object in view than that of reaching the exact truth upon the matter under discussion. As a controversialist we join no party but claim the right to use any and all dilutions; and yet our experience we feel bound to give as well as the logical inferences following the same. In all clinical cases reported we have given the dilution or potency when given us. If cures have followed the use of the cruder preparations, to any extent, they have not been given us, and we have honestly sought for information in all quarters, sending special invitations through our journals and by letter. My own case cured by Stannum is perhaps the best case cured by the lower triturations or dilutions we have.

We certainly fear that disappointment will come to him who shall from any motive discard the higher attenuations. The tendency of modern science is to the acceptance of the theory of molecular energy being at the bottom of all transformations and vital movements. If there be anything clear in the history of recent investigations in the domain of physics, it is that Hahnemann was a century in advance of his colleagues as a thinker and observer. If neural analysis shall show that his 30th potency actually impresses more rapidly and more profoundly the nervous system than the 2d, it will certainly increase our respect for a man whose consummate abilities entitle him to the first place among physicians.

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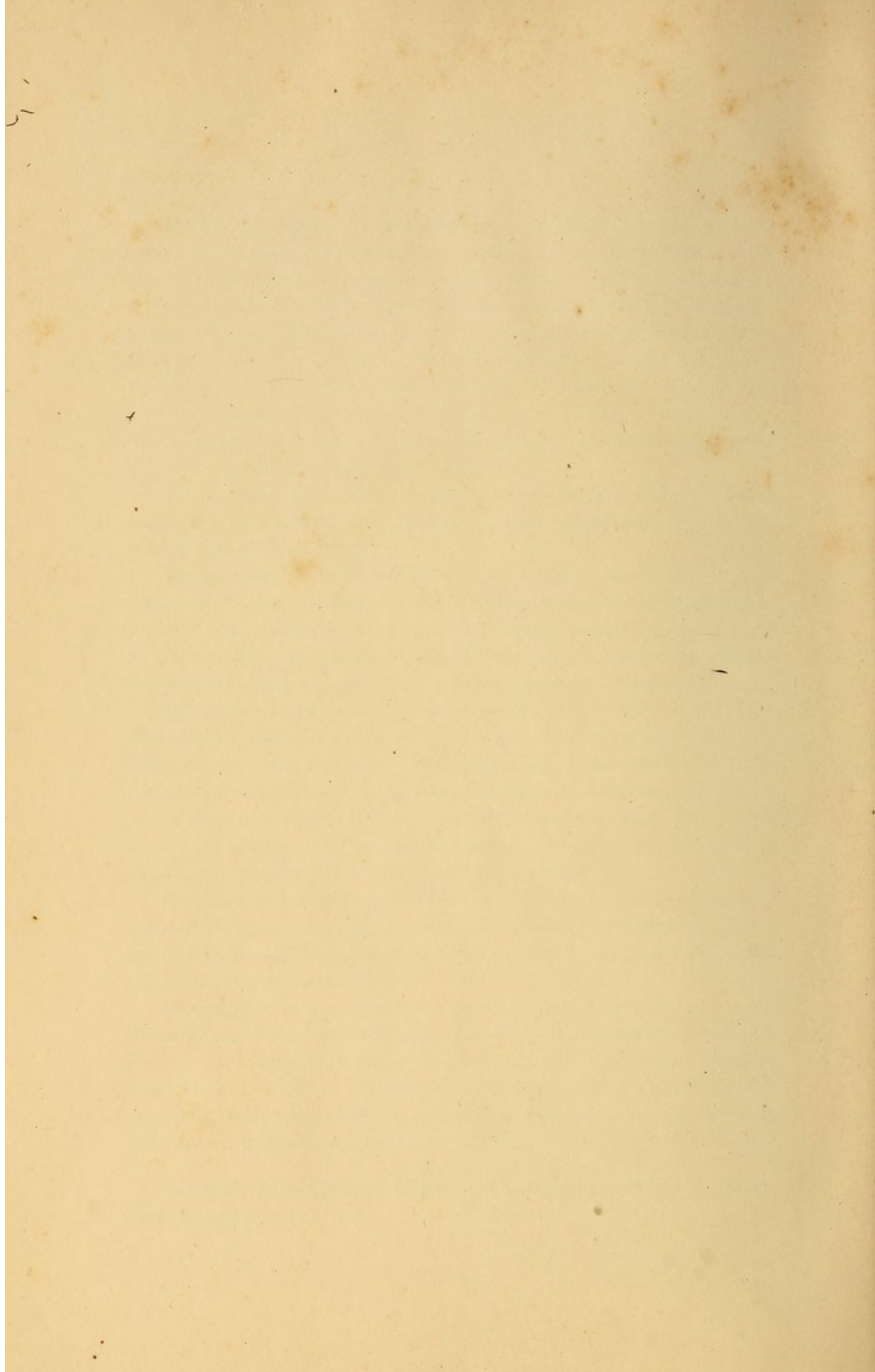
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