

contact with the living tissues for a very small part near the skin. This small part was eroded, while the remainder, steeped in the serum, was only softened at the termination of the tenth day. A puncture was then made in the most dependent part of the sac, the drainage supplied being so free as to permit the coalescence of the sides of the cavity, when the tube, which had not hitherto undergone absorption, became absorbed in four days. In another case, there was a slight depression in the limb of a patient, at the bottom of which a granulating surface existed, which discharged pus. On this granulating surface, a small portion of drainage-tube was laid. It was found that the tube was covered with pus after the lapse of six days. The tube generally was softened; but the only part which was eroded was that which lay on the granulating surface. These illustrations are sufficient to show that these tubes do not disappear by the chemical action of the secretions, kept at the temperature of the human body; but that they must be placed in contact with living tissue before they disappear, the leucocytes absorbing them.

In order to aid the observations of the behaviour of carbolised chicken-bones while in contact with the tissues, a small part of the tube was made to project beyond the lips of the wound. By-and-bye, this projecting portion was eaten through, and then dropped off; while the tissues closed over and absorbed the remainder. Tubes have been inserted into abscesses from which the pus has been thoroughly evacuated. When next looked at, fourteen days later, the portions of the tubes which projected from the wound were found detached, lying in the former opening; while a white ring, enclosed in granulation-tissue, marked the seat of the decalcified bone; and, finally, the epithelium covered both from sight. As a rule, however, especially when the tubes were originally threaded with hair, their calibre generally diminished, from pressure on their walls and from the penetration and coalescence of the tissues through the apertures made in them; so that the decalcified tubes, having served their purpose, were slowly removed by molecular activity. The tissues have in this way, so far, the control of their drainage. The greater the normal molecular activity, the more quickly will the wound heal, and the more quickly will these tubes be absorbed; the weaker the vitality, the longer will the healing process take, and the longer will the drainage-tube remain.

*Button and other Sutures.*—Regarding button-sutures, you are aware of the various kinds already in use. The objection to these is, that they have one aperture in the centre, through which a wire is drawn, and which is then fixed to a catch on one or other side of the button, thereby tending to tilt the button sideways, and so bruise the tissue with its border. This can be obviated by using the button which I show you, and which is in constant use in my wards. It has a couple of apertures, placed very near to one another in the centre, and a double thread is brought through these apertures and tied—so that the pressure comes from the centre of the button, and the wires or threads may be tightened or relaxed without tilting the edge. They are easily adjusted. They can be made in a few seconds by using a sharp-pointed pair of scissors. Lead has generally been used for buttons, on account of its pliability. Block-tin may be had sufficiently pliable, and it is free from the production of black deposits, to which the lead gives rise. Chromicised catgut may be used with these buttons, one end of the double thread being tied into a loop—so that it may be opened to permit tightening or relaxation, as the case may require. It becomes softened and absorbed when the buttons become loose. The edges of the wound are generally brought together by several deep sutures of chromicised gut, with a number of stitches of carbolised gut between; the latter absorbing in a few days, the former about the end of a fortnight.

*Conclusion.*—In conclusion, gentlemen, you will perceive that our aim is to place in wounds substances which, while effecting the purpose for which they were introduced, will yet produce no irritation, and will permit themselves to be absorbed in due course; so that, once having dressed a wound, we may not be forced to open the dressings for the purpose of readjusting the material employed. We aim at being able, after an operation, to judge of the character of the wound; make provision for its probable wants; and, while the patient is yet under the influence of the anaesthetic, apply a dressing which will remain untouched until the wound is healed, or, at least, well on its way towards being healed. By this means, the healing will take place more rapidly, and the patient will be relieved of much annoyance and pain. An accurately recorded rectal temperature will be a sufficient index of the constitutional condition of the patient; while a watchful eye on the dressings, to insure that discharge does not penetrate them, will secure the safety of the wound. If there should happen to be a discharge of blood during the first forty-eight hours, sufficient to stain the external dressing, the dressings are reapplied; and the opportunity is taken of removing the hairs from the tubes—unless chromicised catgut be used as a substitute. If there be no such discharge, the dressings are left on till the end of the first week; they are then opened, the wound inspected, the hairs

removed, and the dressings reapplied. At the end of a fortnight, the wound is looked at for the second time; and, as a rule (in fresh wounds), it is found healed. You see excellent examples of this in the two excisions of the mammæ, in which the whole axilla had to be cleared out; and, in one of them, a large portion of the pectoral muscles had to be removed, as they were infiltrated with caseous deposits. These were looked at for the first time a week after the operation, and found almost quite united; the hair was withdrawn, and the dressings reapplied. At the end of a fortnight, they were looked at a second time, found firmly united, and the drainage-tubes absorbed. Again: in that Carden's amputation in 29 Ward, the same thing has happened; it was all but healed at the end of a week, and firm at the end of a fortnight. There was not a drop of pus from any of them.

## HARVEIAN LECTURES

ON THE

### PROGNOSIS AND TREATMENT OF CHRONIC DISEASES OF THE CHEST IN RELATION TO MODERN PATHOLOGY.

*Delivered at the Harveian Society of London.*

By JAMES E. POLLOCK, M.D., F.R.C.P.,

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#### LECTURE III.—(Concluded from page 149.)

CAN we promote the healing of cavities? This is an important question, and is only part of another—Is phthisis ever curable?

The chronic single cavity, with sufficient communication with a bronchial tube, is, perhaps, the only variety which we could expect to close up and cicatrise.

The conditions under which it formed were necrosis of certain indurated products in the lung, tubercular or inflammatory, the result of compression and strangulation of the blood-vessels. Caseation and fatty degenerative changes followed, and hence the cavity.

The primary condition necessary for its closing or undergoing changes favourable to contraction, is a restoration of the circulation around it to a healthy state.

Fibroid changes in the neighbourhood almost always exist, and, being of low vascularity, oppose the healthy nutrient changes desired. On the other hand, they bound and limit cavities, and prevent their extension; they favour contractile processes, and, if the neighbouring lung-tissues be supplied with a vigorous nutrient circulation, may assist in the ultimate closing of the cavity. Another agent is found in the expansion of the healthy air-cells in the neighbourhood of the injured part; a very common condition, as we know.

We arrive then at this proposition: that when a cavity has become chronic, is cleared out and ceases to extend, every means tending to invigorate a healthy circulation in the neighbouring part of the lungs, and to expand its cells, would assist in its closing; possibly in its cicatrization. I need not say that we know that such cicatrizations are often found. Now have we any such agents?

Healthy, invigorating exercise, increasing expansion of the chest in all its movements, is among the first of these.

Reading aloud, active out-of-door pursuits, athletic exercises (guided by medical advice), arm-movements, especially adapted to expansive action of the upper ribs, must forward healthy enlargement of the chest-walls. To the same end, the bracing application of cold to the chest-walls by daily cold sponging would minister. Singing, and, in cases not hæmorrhagic, the moderate use of wind-instruments might be advised.

The use of the compressed air-bath may also assist, and of this I hope to be able to record some results, as we have fitted such a bath for use at our new hospital at Brompton.

Climatic influences which tend to expansion of the lung, are important agents in cases of chronic cavity, which we may hope to assist in closing. Elevated positions, with diminished atmospheric pressure, may assist, and especially the bracing influence of cold air. It has always seemed to me that the danger most frequently met with in practice in sending such patients to elevated positions is hæmoptysis, of which I have known many examples; and it will be well to remember this caution, and to avoid sending those who are liable to this symptom.

While we are considering the interdependence of local and general symptoms, it may be well to speak of antiseptic agents applied directly to the lung. In cases of empyema, we are aware of their value.

When the cavity of the pleura has been emptied, and free drainage has been established, the use of carbolic acid and iodine and other injections is undoubtedly great; and the same may be said of the few cases of deep cavity of the lung which have been tapped. In certain instances, I have seen undoubted results for good from the use of antiseptic inhalations, as oxygen gas, chlorine highly diluted, and the sulphurous acid gas. The worst of naming these well-known agents is, that their supposed merits have been often exaggerated; also theories more or less improbable have been started, and the remedy has been almost formed to meet the theory.

But, without descending to the parasitic or any other supposition, we have, in the fact of a local suppuration, with necrotic products leading to secondary septic infection, and causing excessive fever and exhaustion as a result of the local changes, quite sufficient grounds for doing our best to treat such local conditions on the soundest surgical principles, as proved by modern experience.

I have sought to bring before you the relation between recent pathological research and treatment, and I find this prominently occupying the medical and surgical mind of the day: that many disorders, which we formerly thought to be purely constitutional, are now known to be of septic origin, that all necrotic degenerative processes in organs or on mucous surfaces, or in glands, or in any structure of the body, send out a morbid material, capable of repeating itself and forming new foci of disease in distant parts, and that so the patient is self-infected and poisoned. I find the later research of the day into the minuter structure of disease has not only informed us on those alterations which constitute local changes, but has revealed a connection between the local symptoms and the systemic disorder.

I notice also that—as is natural from such investigations—the local disorder has risen into a prominence hitherto less noticed; and men now say, if this phthisis be identical in products with inflammation, and if, like inflammation, it load the blood with impurities, and hence raise temperature and waste the patient; and if we observe a direct correspondence between the degree and extent of the disease in the lung, and the general condition of the sick man, let us by all means see whether we cannot save him, or raise him to a higher level of health by treating the local disease more actively than we have done, and especially by removing such material, and guarding against secondary affections.

And then this modern era of surgery has come upon us at the same time; nay, out of the same mode of reasoning; and if we see local disease in the joint, or deep-seated abscess, cured by free openings and drainage, and antiseptic dressings, why should not the lung be so treated?

And when this modern surgery demands for its patients a perfectly pure air, free from the possible contamination of atmospheric and organic impurities and dressings, which shall not permit the access of the germs of diseased products to the wounds, I say, shall we ask less for our phthisical patients who are suffering from like suppurative processes and local infections?

I do not advocate the theoretical views which I have brought before you in all their details. Some of them will doubtless vanish before future pathological research, and the inflammatory theory be replaced by another; but the practical outcome of these views about local septic disease is leading us in the right direction, and it is surely time for us to turn our attention actively to the remedy, as far as we can remedy them, of all septic conditions; to the removal, if possible, at the earliest possible period, of all products of degenerative disease inside the body, just as we would remove them in a limb; and to the perfect drainage of all collections of matter in the lung or in the pleura. This is sound leading of the pathologist, and we cannot err in carrying out such views.

I would remark here how poor and inefficient are at present our modes of introducing medicated air or vapour into the lung. We add a little carbolic acid or benzoin to a steam-spray, and let our patient inhale it for a quarter of an hour, a good part of which time is past in spasm and struggle, and but little of the remedy goes beyond the glottis. We require chambers, the whole atmosphere of which may be impregnated with the agents to be introduced into the chest, and in which the patient may remain for hours under the influence of iodine or chlorine, or carbolic acid, or other chemicals. It will interest you to know that, in the new hospital at Brompton, we have provided several chambers which may be so used.

From a like mode of reasoning, I would insist on the importance of the most perfect ventilation of the chambers inhabited by persons suffering from chronic lung-disease. The air must become loaded with impure matters where numbers of the sick are lodged together, as in hospitals.

Consumption hospitals are only excusable from the necessity of pro-

viding for many sick together in large cities. They should be in hospitals only for convenience of treatment, and not because it is the best mode of treating phthisis. The best place to treat phthisis is in pure dry air, away from cities, where the drainage of the soil is perfect, and the exposure to sun and air the best which can be obtained.

Consumptive patients should not be lodged together, so that no possible deterioration of air or contamination by morbid products should exist. The sputa should be frequently removed, and the linen of the bed and the body often changed. The surface should be daily sponged with tepid or cold water, or vinegar.

In hospitals for the chest, a high temperature is generally maintained; and I believe it is commonly too high. I regard everything above 60° as too high, and there should be chambers which it is possible to reduce much below this by excluding them from the system of warming. Who would like to treat a case of congestive hæmoptysis at a temperature of 65° to 70°? The cubic space should also be large for each patient.

In the hospitals artificially warmed, there is always a danger that the air may become stagnant. The attendants keep up the fires which warm the entering air; but, if the change of air in the wards depend on extraction, as it does in all modern systems, the extracting shaft must be heated day and night up to quite 10° to 15° above the temperature of the wards. It is the higher temperature of the extracting shaft which draws off the used and impure air, on which the system of ventilation depends.

These are some of the evils of hospitals. The advantages are found in the great financial convenience of treating numbers of patients together, and in the greater opportunity for scientific study of diseases so grouped. But country air and open windows, with good open fires in cold weather, form my ideal of the mode of lodging phthisical patients; and it may interest you to know that, by careful observations with an anemometer, we have proved that, for extracting air out of a room, there is nothing equal to an open fireplace.

As I am speaking of pure air, this is, perhaps, a fitting place to dwell for a moment on what is called change of air, and the influence of climate. I must here deal only with the general views arising out of our pathological knowledge.

First, while those degenerative processes which we have been considering are going on in the lung, patients should not be allowed to travel at all. Do not send the feverish abroad; for what is fever? The loading of the blood with detritus of degenerative processes. Do we find that patients gain in weight, improve in strength, or progress at all while fever is going on? Certainly not. Our examination into the real meaning of high temperature is, that it means, or is correlative with, waste—progressive local disease—nature's efforts at clearing out and draining off morbid material not completed. Why should such persons be sent to change of air? Will any climate stop such processes as are pouring septic matter into their blood? We say no; and add, such had better be in their own homes, with home comforts, surrounded by the accustomed faces, and the well considered provision for small wants. Locomotion would in itself be an evil—fancy the cabin of the steamer; the journey prolonged through the night to reach the favoured climate; the contracted cubic space of the railway carriage—to a man whose temperature is 102°, and who is undergoing the *malaise* inseparable from fever.

When local morbid processes have ceased (as we know, from want of further material on which to act), the system, well-nigh exhausted, may still be capable of revival. The moment wasting ceases and nutrition revives, that is the time for removal, for getting into sunshine, for breathing purer, dry, bracing air; and then only should a patient be removed. For there is no climate, just as there is no specific, which can cure this "consumption" of many forms; but there are influences which can second reviving nature, stimulate enfeebled digestive powers, and arouse vital energy. Among these is the influence of change—any change—of locality; but, above all, to countries where winter is short, and the sun shines on most days, so that the sick man can be out for a part at least of every day.

Fashion, guided by medical knowledge, has wisely of late set itself against sending much enfeebled patients to warm, damp, relaxing climates; and Madeira has been abandoned for the Engadine. The usual results and mistakes have occurred; some have benefited, and some have (from want of the selection on which I have dwelt) perished miserably on the mountain-side, who should never have left England. But, on the whole, we must say, as the result of our inquiry how far modern pathology has assisted us in treatment, that all which tends to lung-expansion and improved respiratory movements, all which promotes a healthy circulation in the parts of the lung surrounding defined cavities, all which tends to improve the tone, and therefore to lessen the secretion from the bronchial membrane, which forms so large a

part of phthisis, is to be preferred for our patient; and, therefore, bracing, pure, upland air is preferable to low, damp, ill-drained localities; and, as heat and moisture promote secretion and relax mucous membranes, hot and damp climates are not so suitable.

Again, the digestive processes are best strengthened in dry and rather cold air, and on them depends our patient's possibility of regaining flesh and repairing waste. It is well known that sea-air is very favourable in promoting all these requirements.

I make a summary of these views, on which I have acted for many years.

Persons ought not to travel at all with feverish symptoms; with secondary complications, as diarrhoea; with a large amount of local disease in any stage; with both lungs diseased; with poor digestion and greatly lowered nutrition; or in such a state of weakness or emaciation as to require home comforts, peculiar beds or chairs, or varieties of invalid cookery.

A case in the first stage, already chronic, does best for travelling about, with frequent change of residence. The complication with bronchitis or asthma is generally much benefited.

Chronic single cavity, with retraction of walls accomplished or proceeding, is favourable for removal to a dry, bracing locality, if the hæmoptical element be wanting in the case.

That form of diffused disease in the lung which I have described—without much dulness or signs of massing of disease, with pretty large chest, and with moderate emaciation—generally does well on a sea-voyage.

I need not occupy much of your time, if you have followed our investigations, with the meaning of the several varieties of phthisis, by an inquiry whether any specific remedy for the disease is likely to be found.

A specific is an agent which meets some definite form of disease, and opposes its progress, or even effects its destruction. But have we in phthisis any such defined disorder? Examine it as we have done here, and it is resolvable into many forms, really differing in pathological results and in symptoms, in progress and in termination. Its history is made up of many progressive changes, and variety in mode is its very character. Such variety eludes the action of any remedy; and remedies of efficacy cannot be presumed to address themselves to multiform phenomena, and certainly cannot meet in succession and overcome those morbid changes which are the result of mixed chemical and vital actions, progressively increasing and changing their mode of destructiveness as the disease advances. We have been tracing the destructiveness of phthisis to the kind of degeneration which the morbid products undergo in the lung; to the nature of the lung-impaction, its form, limit, and distribution; and to the amount of suffering which the system undergoes from fever, waste, and secondary infections. To these influences are found added such agencies as hereditary features, age, sex, temperament, and the complications with other disorders. All these were described as essential considerations in estimating the gravity of any case of phthisis. But is not this summary of chronic morbid products in the lung—some tending to death and degeneration, others to more rapid disintegration, and others again to contractile results in the tissues—a picture, not of one, but of many disorders, which, while we have stamped them with a common name, have diverging tendencies and endless pathological variety?

To meet all this, we are to seek for a single remedy, if we are to search for a specific which shall so directly address itself to the morbid state that every progressive step which we know to constitute the history of phthisis shall cease. Again, if there be (as some suppose) a constitutional cause, inherited or acquired, which leads up to and decides the character of the local affection, this cause, involving deep-seated errors in the most vital processes of sanguification and nerve-power, can scarcely be supposed to be within the reach of a single agent.

My purpose here is to give expression to general views of treatment, gathered from our more recent pathological knowledge; and I conclude that we are in these days going farther away from "constitutions" and "specifics", and drawing nearer to the treatment which shall address itself to diseased local conditions. The tendency of the day to seize that which is tangible, and susceptible of proof by physical laws, is swaying the practice of medicine and surgery, as it is swaying our views of the whole universe and of man himself. In this we may, indeed, find much error and many fallacies; but, if it in the least assist us to practical views of treatment, we are bound to accept the teaching of this school, provided that it remain true to its own profession of only holding that which is susceptible of physical proof. Experiment first, and afterwards theory.

I must recommend, therefore, a thoughtful attention in practice to the local relief of the lung. Let us treat congestions, when they occur,

by local depletion; let us not be in a hurry to stop a moderate hæmoptysis by styptics, while the flow of blood is relieving an overloaded lung. See what relief a bloodletting gives to an engorged right side of the heart with secondary congestion of lung, with hæmoptysis. We do not give gallic acid and ergot here, because the overflow is Nature's mode of relieving the engorged organ. No more should we treat moderate congestive hæmoptysis by astringents. Let us treat cavities in the lung on the same views that the surgeon treats abscesses with insufficient exit for matter. Let us drain them, and then dry them up, and during this process support our patient by rest and nutrients.

In speaking of rest in chronic chest-disease, we should remember the constant movements of the lung and of the chest. It is this feature which makes an essential difference between the lung and any other part of the body excepting the heart. It is always moving. It is its incessant movement which makes the surgical treatment difficult. The surgeon can rest a diseased joint; but he cannot rest a diseased lung. While, however, it is impossible to stop all movements of the chest, it is quite possible to control them; and, in certain conditions of disease, the strapping the lower ribs, so as to limit their motion in breathing, is a great relief to the patient, and gives time for reparative processes. Thus, in pneumothorax, it is a great relief to the suffering of the patient. In pleuritic pain, so common in the lateral and inferior parts of the chest, it will often at once enable the patient to breathe, and especially to cough, without distress. During certain periods also of disintegrative processes and of cavity-formation, strapping the side is useful; and again in chronic contracting fibroid alterations, where to fix the side is to imitate nature. It is also useful after operations of tapping either the lung or the pleura.

If you ask me whether, after some experience of the treatment of chronic lung-disease, I am of opinion that some forms are curable and cured; whether some varieties have had increased prolongation conferred on them by treatment; and, on the whole, whether the great load of consumption has been somewhat lightened of its pressure on the community in my time,—I answer frankly "Yes" to all these questions. Rapid forms of disease are still rapid and uncontrollable; acute tuberculosis is not amenable to any treatment; and so of the congestive form which I have described. But the chronic varieties of phthisis are much more prolonged in our day, because they are no longer shut up in hot rooms and denied fresh air and exercise; neither do they live so much surrounded by their own emanations; and the whole habits of society have improved their condition along with that of all others. The requirements of health are more considered; and, with a lessened mortality per thousand, man lives longer. The use of oil and nutrient medicines has added many years—I know not how many—to the phthisical life; but so have exposure to air, increased facilities for travel, increased personal cleanliness. We are not degenerating in this generation. And let it be said, once for all, that phthisis is not an English disease; and that, with all its disagreeables, I am satisfied that the subjects of phthisis unable, for want of means, to escape from it, live as long here as in any country.

Yet withal I know, as we all know, how much remains to be done; how much patient investigation—yes, even now—when we seem to have exhausted all microscopical and pathological inquiries, when we appear to know the whole story of the disease, and have accumulated a great literature about phthisis alone.

Again, if you ask me whether I think that this later German pathology, which seems so clear and has somewhat displaced the French pathology, will itself be replaced by-and-by some nearer approach to truth, I say surely "Yes". But in the meantime let us live by the best light we have; and, above all, if there be any practical truth, anything which can save a life or lessen a symptom of disease, let us seize hold of that and appropriate it, whether it contradict our own theory or not. It is by this light that I regard the views which dwell most on local disease and local remedies. This idea of localisation may be the key, as I believe, to much valuable treatment.

Before we conclude, I must ask you to consider briefly the possibility of the prevention of phthisis. It would appear that geographical position and temperature have little to do with the prevalence of phthisis. It is found everywhere except at great elevations, above 2,000 feet. Moist air and frequent changes most favour its production. Dryness of air is the best preservative against it. During seven years passed in the out-patient room of the hospital, I noted that the valley of the Thames and the beds of other great rivers furnished the largest number of our out-patients. That was over twenty years ago. We cannot pay too much attention to the fact of the diminution of the death-rate from phthisis in different towns where the Sanitary Act has been put in operation. I quote from Mr. Simon's and Dr. Buchanan's researches, reported to the Privy Council in 1867. I have extracted the table from the report.

**"Reduction of Death-Rate from Phthisis in Fifteen Towns.**

Salisbury .. .. .	49 per cent.	Cheltenham .. .. .	26 per cent.
Ely .. .. .	47 "	Bristol .. .. .	22 "
Rugby .. .. .	43 "	Dover .. .. .	20 "
Banbury .. .. .	41 "	Warwick .. .. .	19 "
Worthing .. .. .	36 "	Croydon .. .. .	17 "
Leicester .. .. .	32 "	Cardiff .. .. .	17 "
Newport .. .. .	32 "	Merthyr .. .. .	11 "
Macclesfield .. .. .	31 "		

Mr. Simon and Dr. Buchanan agree that the *drying of the soil*, which has in most cases accompanied the laying of main sewers in the improved towns, has led to the diminution, more or less considerable, of phthisis. Still further, the diminished fatality of phthisis is *by far the largest amendment, if not the only one*, which has taken place in the local health. Works of sewerage, by which the drying of the soil is effected, must always of necessity precede by years the accomplishment of house-drainage, abolition of cesspools, etc., on which the cessation of other diseases (diarrhoea, typhoid, etc.) depends. Again, Dr. Bowditch (Boston, 1862, five years before the English reports were published) says "the medical opinions from physicians in 183 towns prove that *dampness of soil* is intimately connected with the prevalence of consumption". The Registrar-General of Scotland, in his Seventh Annual Report, makes the same statement; and Dr. Buchanan, who has collected a vast amount of information from personal investigations made for the Privy Council, is of opinion that "wetness of soil is a cause of phthisis, and that drying of the ground is found of most importance as a preventive measure". It is curious also, and to us deeply interesting, that diseases of the lung *other than phthisis* have not been reduced by drying of the soil.

In drawing these lectures to a conclusion, it will be evident to you, sir, and the members of the Society, who have given me such patient attention, that my line of thought has been suggestive rather than dogmatic.

In treating of the phenomena of disease, about which there has existed, and must still exist, much diversity of opinion, I have seized only the more prominent and pronounced features, and in all instances have endeavoured to trace the clinical fact in the living back to structural alterations purely pathological. On this connection must stand or fall all teaching which is to outlast the contests of schools, and remain as a fresh starting-ground for future investigators.

In reviewing our most recent knowledge, and comparing it with the teaching of a past generation, I have not expressed my own views, but have sought to make clear the difference, and so leave you to judge whether we have been gainers by the change.

Above all, I have sought to seize, if possible, the mind of the pathologists of the day; for these men are not mere investigators of abstract reasoning, nor arguers of a philosophic school, but in very deed the practitioners living among the sick, to whom is committed the very grave charge of the health of the community. I have said to myself, if these men know more than their predecessors about the nature of structural changes, it will be reflected in their practice, and have furnished them and us with new weapons against disease. And out of this study and comparison I seem to have gathered that the mind of the day is to believe less in constitution and more in local disorders, and to trace every systemic disturbance to derangement of some tangible part of the body. I recognise this tendency also in antiseptic surgery, and in the multifarious symptoms attributed to uterine disorder and displacement. And we physicians are, in consequence, asked daily, Is this phthisis contagious or infectious? or has it not a parasitic origin? It is, further, a consequence of this tendency, that the limit and localisation of lung-disease has come to be recognised as having a peculiar bearing on its events and result. As this is susceptible of proof, I have brought it prominently before you, and have sought to connect varieties in the form, with corresponding deviations in the course, of disease.

Finally, in treatment, where I might have diverged into endless disquisitions about oil and iron, and the numerous so-called blood-remedies with which we have been lately deluged, I have preferred to state recent advances in the local treatment of the lung—in hæmoptysis, congestions, septicinfections, and in efforts towards the healing of cavities.

Regarding the enormous amount of laborious research which this subject has received in this and other countries, it might be argued that no room is left for further investigation or improvement, at least as regards the nature of phthisis and its pathology. But I am far from thinking so; nor, indeed, do I believe that the present school of pathology can stand long where it is. In some respects, we seem only to have changed our names for certain conditions, without explaining them. In others, we can all recognise considerable additions to our knowledge; and as a distinguished man has said: "It is ever thus with the advancing tide of scientific research, which inaugurates new systems as the old ones ripen and die out."

## ABSTRACT OF ADDRESS ON THE REGISTRATION OF DISEASE.

*Delivered at the Fourth Annual Meeting of the Dublin Branch  
of the British Medical Association.*

BY ROBERT McDONNELL, M.D., F.R.S.,  
President of the Branch.

My first duty is to offer to you my sincere thanks for the honour you have conferred upon me by electing me President of the Dublin Branch of the British Medical Association; my second, to express the profound regret I feel, in common with you all, at the loss we have sustained in the recent death of Dr. Alfred Hudson, first President of the Branch. You will remember a few years since the admirable address he delivered, from the chair I now occupy, on the history and objects of the British Medical Association—an address so exhaustive and complete that it left little for his successors to say upon that topic. The influence of the Association, he then told us, has been most decidedly felt in the improved relations of the members of the profession to each other and to the public, and the consequent increasing influence, both social and political, of the profession as a body, as well as in the promotion of that branch of preventive medicine called sanitary science.

The active, zealous, and untiring energy devoted to preventive medicine is, without doubt, one of the noblest traits of our profession. Let it not be supposed that I am not keenly alive to our professional faults and shortcomings; but it may be said that in this, at least, we compare favourably with any other calling, we never cease to seek to stay the progress of disease, even to our own loss. We unceasingly strive to arrest the growth of that dread harvest on which our gains depend, with a genuine unselfishness and exalted public spirit, in a great degree peculiar to our noble profession. It is, therefore, with genuine pride and satisfaction that I point to the work done during the past year by our Branch of the British Medical Association with reference to the compulsory notification and registration of infectious diseases.

It is unnecessary to recapitulate the details already laid before you in the report read by our secretary. I would briefly say that our Branch has, as regards this country, inaugurated a movement which will certainly make progress, and I hope, ere long, be so far brought into action in this city as to sensibly diminish that high death-rate for which Dublin is unhappily notorious.

As you are aware, a Bill on this subject has been already printed, and will shortly be introduced to the House of Commons by Mr. Edward D. Gray, our late respected Lord Mayor. Let me say in passing, that Dublin owes much to Sir John Gray for the admirable water-supply now pervading this city; but his son, if he succeed in the undertaking he has now taken in hand, will not less deserve the gratitude of his fellow citizens and fellow countrymen (for the scope of his Bill is not limited to Dublin). May he persevere and prosper in this work. So much I can say without expressing any distinct opinion on the details of Mr. Gray's measure.

This Bill, to a large extent, follows the language of the model clause prepared by Mr. Ernest Hart for the Parliamentary Bills Committee of the Association. It recites that "it is desirable that due notice should be given to sanitary authorities in Ireland of the existence of dangerous infectious diseases within their district," and proposes to enact that, upon the application of any sanitary authority, the Local Government Board for Ireland may declare the Act to be in force within the district.

Mr. Gray proposes to throw on the medical attendant—if there be a medical attendant in the case—the duty of informing the sanitary authority when any inmate of a building used for human habitation is attacked by small-pox, cholera, scarlatina, typhus, typhoid, puerperal or relapsing fever, diphtheria, measles, or erysipelas. This clause is one about which there will be much difference of opinion. From the side of our profession, it has been strongly urged that, by throwing this duty on the medical attendant, the confidential relationship between him and his patient is invaded.

I frankly confess that, although at one time inclined to take this view, I no longer do so. Once that any community, whether it be a club, a village, or a city, is pleased to make a rule that for its own benefit and protection, the various members of the community requiring their medical men to report certain infectious diseases, with the very laudable intention of preventing the spread of these formidable maladies, then it