

## ORIGINAL PAPERS.

### THE ANTI-TUBERCULOSIS DISPENSARY MOVEMENT.

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THE most striking feature in the development of the anti-tuberculosis campaign during the first decade of the twentieth century has been the establishment, in rapid succession, of tuberculosis dispensaries in most of the great civilized countries of the world. The dispensary movement, in fact, marks the dawn of a new era in our fight against this disease.

It is noteworthy that this great movement had its origin in our own country—in Edinburgh—in the year 1887, though for some years no further development took place. In the year 1901, however, Professor Calmette founded the Émile Roux dispensary at Lille, and since then dispensaries have been established with almost bewildering rapidity in France, Germany, Belgium, Holland, Denmark, Sweden, Austria, the United States of America, Canada, and, quite recently, in England.

#### **The Evolution of the Dispensary Movement.**

There is no effect without a cause, and it is obvious, or at any rate highly probable, that the cause which has been operating in each of the above-named countries with such similar results has been the same in each case. Let us endeavour to see what it is that has led to this world-wide movement. Koch's announcement in 1882 of his discovery of the *tubercle bacillus* laid the foundation for systematic measures against the disease. Previous to this the communicability and preventability of phthisis had been realized in a vague way even in the Middle Ages; while in the eighteenth century very stringent measures were enforced in certain countries—notably Italy—regarding the notification of cases, disinfection of premises, and destruction of all clothing and bedding which had been used by persons who had died of the disease.<sup>1</sup> Medical opinion, however, gradually forsook

<sup>1</sup> Newsholme: "The Prevention of Tuberculosis," pp. 55, 56. London: Methuen, 1908.

the idea of the communicability of the disease, and came to look upon it as evidence of a particular diathesis which might be hereditary. Preventive measures naturally fell into desuetude. Curiously enough, Koch's discovery, which once and for all classified tuberculosis as a communicable, and hence a preventable, disease, was not immediately, nor for some years afterwards, followed by any definite scheme of preventive measures being adopted on a large scale in this or other countries. Attention was for a time largely riveted on the erection of sanatoria, and the then comparatively new method of treatment by open air, while speculation dwelt on the possibilities of tuberculin as a specific remedy.

Opinion as to the value of these two forms of treatment has varied considerably from time to time, but in the meanwhile another great development has been taking place, spoken of generally as the awakening of the social conscience. This awakening has been related to every aspect of modern civilization, and, since almost every social problem is concerned directly or indirectly with the health and hygienic condition of the people, this great wave of public opinion has carried along with it the medical profession. Its influence is seen in the creation of an entirely new branch of science, known as "State, or Preventive, Medicine."

Of all the problems thus examined in the searchlight of reform, none was found to present a more extensive field or a more difficult solution than the eradication of tuberculosis. On the one hand were the totally inadequate and inefficient efforts which were being made by our hospitals and public authorities to stamp out the disease, and on the other hand was the very definite conclusion to be drawn from Koch's discovery—*i.e.*, that tuberculosis was preventable. His late Majesty King Edward merely voiced public opinion when he asked the pertinent question, "If preventable, why not prevented?"

#### **The Inadequacy of Past Measures.**

If our acknowledged aim be the eradication of tuberculosis from the community, and not the mere treatment of a certain number of individual cases, our present measures—or, as we may now almost call them, our past measures—must be considered entirely inadequate. They have had very little to do with the progressive fall in the death-rate from tuberculosis which has already taken place, this having been the result of the awakening of the social conscience with regard to the general welfare of our poor. Let us examine this statement more closely :

(1) Firstly, then, consumption is a disease which is spread chiefly—one might almost say entirely—from one human being to another, especially affecting those who have to spend any length of time in

intimate contact with existing cases. Such intimate contact takes place chiefly in the home, yet it would be quite within the bounds of truth to say that the home has never been considered a subject worthy of the least attention by our hospitals until the most recent times, and then only in a half-hearted fashion.

(2) Secondly, consumption is a disease, known even by Hippocrates, the father of medicine, to be curable only in the early stages. This old truth has been still more emphatically insisted upon since sanatorium treatment became the vogue. Further, all our out-patient departments have lamented the fact that patients do not begin to suspect they may have consumption, and do not present themselves for treatment as a rule until this curable stage has been passed. Yet no steps were taken to *search out* early cases of the disease by the systematic examination of the relatives of persons known to be spreading infection.

(3) Thirdly, in consumption we are dealing with a disease intimately associated with and fostered by poverty, malnutrition, overcrowding, insanitary and unhygienic dwellings, unhealthy occupations, drunkenness, and dirty habits, all of which conditions call for careful and individual study of the case in hand, yet the whole treatment of many thousands of patients has consisted in giving them a bottle of medicine each at periodic intervals. This very treatment, even where it has improved the patient's condition, has in this way in many cases—since the majority of such patients are past the curable stage—merely served to prolong their lives and the period during which they might infect their friends and relatives.

In a word, the comparatively few more or less advanced cases who present *themselves* at our out-patient departments are merely the outward and visible signs of a great social evil, whose roots are implanted firmly in the overcrowded areas of our great cities; and to devote all our money and energy to treating them as if they in themselves represented the extent of the tuberculosis problem is as futile as it would be for a gardener to attempt to destroy a rapidly-spreading weed in his garden by cutting off those parts of the weed which showed above the ground.

#### **What was Needed.**

What has just been said regarding our past measures does not in any way condemn all the work that has been done. On the contrary, institutions, such as sanatoria, homes for the dying, Poor Law infirmaries, surgical and general hospitals, and children's hospitals, are each and all suited for a special purpose, and are essential factors in a complete scheme. They are, however, insufficient in themselves to

thoroughly cope with the problem. What was needed<sup>1</sup> was an organization which would—

(1) Search out, if possible, every case of the disease, however incipient, and put it under treatment while still in the curable stage, and for this end would examine all "contacts"—*i.e.*, persons exposed to infection.

(2) Deal with the great mass of patients, who can only be treated at home, from a broader standpoint than heretofore—*i.e.*, in relation to their home surroundings, pecuniary condition, etc.

(3) Carry out an active campaign of prevention, both by education and by an efficient supervision of the homes.

(4) Co-operate with existing institutions, supplying them with suitable cases, and looking after their patients, if necessary, on discharge.

#### **The Tuberculosis Dispensary.**

The organization which fulfils these requirements, and which has been evolved in the various countries before mentioned to obviate the inadequacy of their past measures, is the tuberculosis dispensary.<sup>2</sup> It goes by different names in the different countries, and there are, of course, certain differences in its methods to meet local requirements, but its fundamental purpose and features are the same everywhere.

#### **The Victoria Dispensary, Edinburgh.**

This dispensary was founded by Dr. R. W. Philip in 1887, through whose foresight Edinburgh was, by fourteen years, the pioneer city to adopt this great movement. Dr. Philip had primarily approached the municipality through the then Lord Provost. "At that time, however, the City was not prepared for what perhaps seemed a leap in the dark, and, so far as the corporation was concerned, the matter was allowed to drop. Having failed to obtain the ægis of the city, the Victoria Dispensary for Consumption was founded by charitable enterprise in November, 1887."<sup>3</sup>

The dispensary started in a very humble fashion, but it has steadily grown and undergone a gradual process of evolution, until now the

<sup>1</sup> Philip, R. W. : "An Anticipation," *BRITISH JOURNAL OF TUBERCULOSIS*, 1907. London: Baillière, Tindall and Cox. "The Public Aspects of the Prevention of Consumption," *British Medical Journal*, December 1, 1906. "The Erection of Municipal Dispensaries, and a Completer Organization against Tuberculosis," *Edinburgh Medical Journal*, January, 1906. "The Anti-Tuberculosis Programme: Co-ordination of Preventive Measures," being a lecture delivered before the International Congress on Tuberculosis at Washington, D.C. 1908. "The Rôle of the Consumption Dispensary in the Tuberculosis Campaign," a lecture delivered in the Theatre of the Royal Dublin Society, April 21, 1909.

<sup>2</sup> *Ibid.*

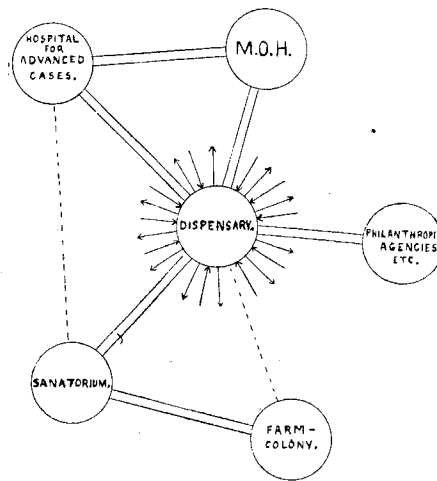
<sup>3</sup> Philip, R. W. : Paper read at the V<sup>e</sup> Conférence de l'Association Internationale.

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Edinburgh scheme consists of the following factors all working in close co-operation :<sup>1</sup>

- (1) Compulsory notification of the disease.
- (2) A dispensary in the heart of the city.
- (3) An isolation hospital for advanced cases (these being accommodated in the City Fever Hospital).
- (4) A sanatorium of a hundred beds for curable cases.
- (5) A working colony, to which certain patients are sent after passing through the sanatorium.

The various factors co-operate together, as shown by the accompanying diagram, the double lines representing the closest co-operation.



A fact worth noting with regard to the Victoria Dispensary is that "in Scotland the tuberculosis dispensary was not, as in some other countries, an after-thought—the younger sister, as it has been termed, of the sanatorium—but actually the starting-point of the tuberculosis campaign in the city of Edinburgh, from which the other agencies have emerged."<sup>2</sup>

Another fact worth noting is that the Local Government Board for Scotland adopted the Edinburgh system as a national scheme for

<sup>1</sup> Philip, R. W. : "The Anti-tuberculosis Programme: Co-ordination of Preventive Measures," being a lecture delivered before the International Congress on Tuberculosis at Washington, D.C. 1908. MacDougall, J. Patten and Philip, R. W. : "Official Report regarding the Anti-tuberculosis Movement in Scotland, submitted to the International Congress on Tuberculosis," Washington, 1908. Philip, R. W. : "The Rôle of the Consumption Dispensary in the Tuberculosis Campaign." A Lecture delivered in the Theatre of the Royal Dublin Society, April 21, 1909.

<sup>2</sup> Philip, R. W. : Paper read at the V<sup>e</sup> Conférence de l'Association Internationale.

that country, and recommended to all local authorities the establishment of dispensaries on the same lines.<sup>1</sup>

The programme of the Victoria Dispensary, Edinburgh, is as follows :<sup>2</sup>

(1) The reception and examination of patients at the dispensary, the keeping of a record of every case, with an account of the patient's illness, history, surroundings, and present condition, the record being added to on each subsequent visit.

(2) The bacteriological examination of expectoration and other discharges.

(3) The instruction of patients how to treat themselves, and how to prevent or minimize the risk of infection to others.

(4) The dispensing of necessary medicines, sputum bottles, disinfectants, and, where the patients' conditions seem to warrant it, food-stuffs and the like.

(5) The visitation of patients at their own homes by (1) a qualified medical man, and (2) a specially-trained nurse, for the double purpose (a) of treatment, and (b) of investigation into the state of the dwelling and general conditions of life, and the risk of infection to others.

(6) The selection of more likely patients for hospital treatment—either of early cases, for sanatoriums, or of late cases for incurable homes—and the supervision, when necessary, of patients after discharge from hospital.

(7) The guidance generally of tuberculous patients and their friends, and for inquiries from all interested persons on every question concerning tuberculosis.

#### **The Dispensary Movement in France.**

This movement commenced in France with the foundation of a dispensary at Lille in 1901 by Professor Calmette.<sup>3</sup> He states the case for the dispensary in the following words : " Aux autres malades, les plus nombreux, que ne peuvent plus rendre à la société que des services intermittents, ou qui lui resteront définitivement à charge jusqu'à leur fin prochaine, la porte des sanatoriums demeurera close : il faut donc leur ouvrir d'autres asiles où ils puissent achever, avec le

<sup>1</sup> "Administrative Control of Pulmonary Phthisis in Scotland." Circular of Local Government Board, March 10, 1906, and July 15, 1908.

<sup>2</sup> Philip, R. W. : "The Public Aspects of the Prevention of Consumption," *British Medical Journal*, December 1, 1906. "The Erection of Municipal Dispensaries, and a Completer Organization against Tuberculosis," from *Edinburgh Medical Journal*, January, 1906. "The Anti-tuberculosis Programme : Co-ordination of Preventive Measures," being a lecture delivered before the International Congress on Tuberculosis at Washington, D.C. 1908. "The Rôle of the Consumption Dispensary in the Tuberculosis Campaign," a lecture delivered in the Theatre of the Royal Dublin Society, April 21, 1909.

<sup>3</sup> *La Lutte Antituberculeuse en France—Congrès International de la Tuberculose*, Paris, 1905—Guide du Congressiste.

minimum de souffrances, les jours qui leur sont comptés. Il faut aussi les rendre inoffensifs pour leur entourage. Il faut enfin assister leur famille pour éviter à celle-ci la misère et le tandis où la contagion poursuivrait bientôt son œuvre de mort.”<sup>1</sup>

Professor Calmette prefers to call the dispensary a *préventorium*, as being more descriptive of its chief functions.

At the time of the International Congress on Tuberculosis in Paris in 1905 (four years after the foundation of the Préventorium Émile Roux at Lille) there were over fifty dispensaries already established, and the official guide to the Congress says: “A Paris, comme en province, se sont ouverts et s’ouvrent encore, de jour en jour plus nombreux, des dispensaires et des sanatoriums; se sont organisés et se préparent les services hospitaliers et des asiles.”<sup>2</sup>

Professor Calmette considered that the dispensary should not give treatment, but, on the other hand, should give a considerable amount of material assistance. This has not been strictly carried out, owing to the difficulty of attracting patients if no treatment be given, and several of the later dispensaries give both.

“La formule de ces dispensaires spéciaux n’est pas univoque. Pour les uns, ils représentent uniquement un organe de préservation, pour les autres, ils sont à la fois un instrument de préservation, d’assistance et de cure.”<sup>3</sup>

Professor Calmette describes the functions of a dispensary in the following words: “Leur but ne consiste point à donner des consultations ou à distribuer des médicaments aux malades pauvres, ce qui est le rôle des bureaux de bienfaisance, mais à *rechercher*, à *attirer*, et à *retenir*, par une propagande activement faite dans les milieux populaires, les ouvriers atteints ou suspects de tuberculose; à leur donner, aussi souvent et aussi longtemps qu’ils en auront besoin, des conseils pour eux et pour leurs familles; à leur distribuer, lorsqu’ils seront obligés de suspendre leur travail, des secours alimentaires, des vêtements, de la literie, des crachoirs de poche, des antiseptiques; à assainir leur logement par des nettoyages fréquents et des désinfections répétées à intervalles réguliers; à leur procurer, dans les cas où cela est nécessaire, un logement plus salubre; à lessiver gratuitement leur linge pour éviter la contagion dans la famille et hors de la famille; à faire toutes les démarches utiles auprès de la bienfaisance privée, des patrons, etc., pour obtenir des secours qui permettront de rétablir le malade s’il n’est pas trop gravement atteint, et de le rendre à son

<sup>1</sup> Calmette, A.: “Les Préventoriums ou Dispensaires de Prophylaxie Sociale Antituberculeuse. Le Préventorium ‘Émile Roux’ de Lille: Son organisation—son fonctionnement, 1901-05.” 1905.

<sup>2</sup> La Lutte Antituberculeuse en France—Congrès International de la Tuberculose, Paris, 1905—Guide du Congressiste.

<sup>3</sup> *Ibid.*

travail. On comprend facilement qu'une telle œuvre présente une extrême souplesse d'organisation et de fonctionnement. On peut l'adapter aux besoins particuliers de chaque ville ou de chaque quartier. Elle se prête à des extensions ou à des modifications incessantes, suivant les ressources dont elle dispose."<sup>1</sup>

At the Émile Roux dispensary each patient is carefully examined by one of the medical staff, who notes down the lung condition diagrammatically on the case-sheet, on which the details as to family history, etc., are also kept.

Visits are also paid periodically to the homes by a staff of trained working men, who make full inquiries as to the family income and resources, and give advice as to the best way in which to minimize the risk of infection in each case.

### **The Dispensary Movement in Germany.**

In Germany the movement commenced as late as 1904 by the establishment, by Ministerial-Director Althoff and Professor Kayserling, of a dispensary in a suite of unoccupied rooms in the Charité Hospital, Berlin. I would refer the reader to a reprint in the *Medical Magazine* of February, 1908, of an excellent lecture on "The Combat against Tuberculosis in Germany, with Special Reference to Working-Class Sanatoria and Dispensaries," by Professor E. J. McWeeney, M.D., F.R.C.P.I.

No account of the German dispensaries can be given without a mention being made of the compulsory insurance system inaugurated by the Emperor William II. in 1882. Clause 18 of this law, which empowered the insurance office to apply whatever course of treatment was most suitable for preventing a loss of wage-earning power in any person likely to become entitled to an invalidity pension, was, in 1895, held to apply to tuberculosis, and the Regional Insurance Offices received formal authorization to set up and maintain their own sanatoria. The result was that, by the end of 1907, there were eighty-seven working-class sanatoria in Germany, with 8,422 beds. With this enormous capacity for treating the disease, there still remained the difficulty of obtaining cases in the very earliest stages of the disease, and of supervizing the home conditions to prevent the healthy becoming infected, or those treated from retrogressing. These matters, the importance of which we are realising in England to-day, were recognized to be of the utmost *financial* interest to the German insurance offices six years ago. It was to meet these needs that the German dispensaries came into being. So great has been the

<sup>1</sup> Calmette, A.: "Les Préventoirs ou Dispensaires de Prophylaxie Sociale Antituberculeuse. Le Préventorium 'Émile Roux' de Lille: Son organisation—son fonctionnement, 1901-05." 1905.



development of this movement in Germany, that in 1909 the annual report published by the German Central Committee for the Suppression of Tuberculosis shows 226 of these institutions, besides 537 dispensaries of the Society of Women in Baden, making a grand total of 763 in the German Empire.<sup>1</sup>

It must be understood that the German dispensaries only fulfil the functions for which they were established, and give no treatment.

Professor McWeeney describes their methods as follows:<sup>2</sup>

(1) Applicants are not medically treated. They are merely advised how to obtain the necessary treatment.

(2) Applicants are carefully examined by a skilled doctor, and their exact condition noted down.

(3) The day after their appearance at the dispensary each applicant is visited at his or her abode by a specially trained nurse.

(4) Should the original applicant be found to have tuberculosis, he or she is requested to bring all the other members of the family or household, or as many as can be induced to come, to the dispensary for examination on a subsequent day.

(5) The physical condition and circumstances of each applicant having been carefully ascertained and entered in a separate note-book kept for that patient, and called his "journal," they are considered by the doctor and nurses attached to the dispensary, and the best advice given, as well as material assistance if urgently needed.

#### **The Dispensary Movement in the United States.**

The first dispensary, or clinic as it is called in America, was opened in New York in 1904.<sup>3</sup> The success of the campaign in New York has been chiefly due to Dr. Hermann Biggs, the General Medical Officer of that city. In 1894 the Board of Health had adopted a system of notification, partly voluntary and partly compulsory. In the same year it commenced an educational campaign through the public press and special circulars. It also appointed a special corps of medical inspectors (unqualified), who visited the homes of reported cases, and gave information as to the measures to be taken to prevent infection. It further undertook the disinfection of premises after death and the free bacteriological examination of sputum.

In 1897 the Board of Health made the notification of all cases

<sup>1</sup> "Der Stand der Tuberkulose"—Bekämpfung im Frühjahr, 1909.—Geschäftsbericht für die General-Versammlung des Zentral-Komitees am 22 Mai 1909 im Reichstagsgebäude zu Berlin.

<sup>2</sup> McWeeney, E. J.: "The Combat against Tuberculosis in Germany, with Special Reference to Working-class Sanatoria and Dispensaries," a lecture delivered on December 31, 1907. From *Medical Magazine*, February, 1908.

<sup>3</sup> "How the Department of Health of the City of New York is Fighting Tuberculosis." Prepared for the International Congress on Tuberculosis, Washington, D.C., September 21 to October 12, 1908, by the Board of Health, 1908.

compulsory. In 1903 provision was made for a corps of trained nurses, in addition to the corps of special medical inspectors. In the following year the first clinic (dispensary) was opened, and in 1906 and 1907 similar clinics were established. Between 1906 and 1907 several other special tuberculosis clinics were opened in connection with various city hospitals or dispensaries; and in 1907, under the patronage of the Tuberculosis Committee of the Charity Organization Society, an "Association of Tuberculosis Clinics of the City of New York" was formed, comprising not only the clinics of the Department of Health, but also all of those in the city which comply with certain requirements (including the provision of trained nurses for visiting the patients at their homes, etc.), and this association began by allotting a special district to each dispensary.<sup>1</sup> In 1908 New York was served by ten dispensaries. "Patients receive free medical treatment and advice if not able to pay, and are visited regularly in their homes by experienced trained nurses. In some instances milk and eggs are provided by the clinics as part of the treatment. Aid in the form of clothing, payment of rent, and general charitable relief, is given out of special funds administered by the dispensary nurse, or, as is more frequently the case, through already existing benevolent organizations. Hospital and sanatorium care is secured for those who need such treatment. The ruling principle of these dispensaries, as pointed out by Dr. Miller, the President of the Association of Tuberculosis Clinics, is that tuberculous patients "everywhere receive treatment based as much upon the social environment as upon the physical conditions of each case."<sup>2</sup>

Other American cities besides New York have now got tuberculosis clinics (or dispensaries). Chicago ordered ten straight off. Dr. Philip, the pioneer in this movement, was, at the time of the Washington Congress in 1908, presented with a map of Pennsylvania, showing sixty-seven dispensaries on the lines of the Victoria Dispensary, Edinburgh, in that one State alone.

#### **The Dispensary Movement in our Colonies.**

Two dispensaries are now in operation in Canada—one at Ottawa, opened in 1908; and one in Montreal, opened by His late Majesty King Edward in 1909. An account of the latter one, at which Dr.

<sup>1</sup> "How the Department of Health of the City of New York is Fighting Tuberculosis." Prepared for the International Congress on Tuberculosis, Washington, D.C., September 21 to October 12, 1908, by the Board of Health, 1908.

<sup>2</sup> Copy of Report of Arthur Newsholme, Esq., M.D., Medical Officer of the Local Government Board; J. Patten MacDougall, Esq., C.B., Vice-President of the Local Government Board of Scotland; and T. J. Stafford, Esq., C.B., F.R.C.S., Medical Commissioner of the Local Government Board of Ireland, the delegates of H.M. Government to the International Congress on Tuberculosis, held at Washington from September 21 to October 3, 1908.

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Philip gave the opening address, appears in the April number of this magazine.<sup>1</sup>

In the January number Sir P. Sydney Jones, M.D., in his special article on "The Tuberculosis Problem in Australasia," says: "There are no tuberculosis dispensaries in Australia or in New Zealand, but the need of them for the detection and supervision of cases and as distributing centres is fully recognized."<sup>2</sup>

### The Dispensary Movement in England.

The Paddington dispensary<sup>3</sup> was opened in January, 1909, by charitable enterprise. It took as its model the Victoria Dispensary, Edinburgh. From the first it has met with hearty approval and support by the Public Health Department, hospitals, provident dispensaries, private practitioners, health society, charitable agencies, and all health visitors and others engaged in social work in the neighbourhood. North Kensington have recently, at their own request, been amalgamated with Paddington, and a second doctor has been appointed and taken up his duties.

Other boroughs are about to establish dispensaries on similar lines, and it is to be hoped London will soon have its dispensary service, as New York, Berlin, Paris, and many other great cities already have.

A book by Dr. Latham and Mr. Charles Garland, recently published,<sup>4</sup> indicates very clearly the trend of public opinion. Speaking of "Our Present Defences," they say: "As we hinted just now, experience has shown that, for the early detection of consumption, and for putting the necessary machinery into motion to allow the consumptive to obtain speedy and adequate treatment, and at the same time to provide for the necessities of his family and the disinfection of his home, no institution has been shown to be so effectual as the anti-tuberculosis dispensary. One of the many proofs of the inadequacy of our efforts to deal with consumption is the fact that, in the whole of England and Wales, only one such institution exists—namely, the one which within the last few months was opened in Paddington." Further on in the book Dr. Latham and Mr. Garland elaborate what they consider to be "An Efficient Campaign"; and under that heading one finds that they propose the establishment of 128 dispensaries (four for every 1,000,000 inhabitants) throughout

<sup>1</sup> "The Anti-Tuberculosis Movement in Montreal, and the Foundation of the Royal Edward Institute: a Retrospect and a Prospect," THE BRITISH JOURNAL OF TUBERCULOSIS, April, 1910.

<sup>2</sup> Jones, Sir P. Sydney: "The Tuberculosis Problem in Australasia," THE BRITISH JOURNAL OF TUBERCULOSIS, January, 1910.

<sup>3</sup> The First Annual Report of the Paddington Dispensary for the Prevention of Consumption. (Copies of this Report may be had on application to the Hon. Sec.)

<sup>4</sup> Latham and Garland: "The Conquest of Consumption." London: T. Fisher Unwin, 1910.

England and Wales, at the very much underestimated cost of £500 per annum each, or £64,000 a year, exclusive of the capital outlay. The book is at least interesting as showing the rapid advancement of thought in favour of the tuberculosis dispensary. The day of the dispensary is as surely coming in this country as it has come in France, Germany, and America, and for the same reasons. It may then be somewhat gratifying to our national pride to know that the dispensary movement, which many look upon as of foreign growth, had its origin on our own shores, and bears the stamp "Made in Britain."

## PROGNOSIS IN CONSUMPTION.

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IN consumption it is frequently the unexpected that happens, and it is a wise rule never to prophesy unless one knows. Many a consumptive has attended the funeral of the expert who pronounced his doom, and many a hopeful case has galloped to the grave.

Prognosis is difficult for many reasons. It is difficult because we have few means of estimating either the virulence of the seed or the fertility of the soil, and yet a correct estimate of both is essential to a correct prognosis. One case may show a very small incipient lesion, and yet have received a very large dose of virulent bacilli. Another may have a very large lesion, and yet show very few toxic symptoms. Some patients have very mild infection, and yet, having poor resistance, succumb rapidly. Likewise, disease apparently arrested may, without discoverable cause, suddenly flare up again, and acute trouble may as suddenly and inexplicably subside. A mere microscopic count of the bacilli is futile, for there is no constant relation between the number of bacilli discoverable and the virulence of the disease, and, further, mixed infection may any day quite alter the state of affairs. Many hold, it is true, that the opsonic index is of both diagnostic and prognostic value; but, with all due deference to distinguished bacteriological experts, the writer is of opinion that the prognostic value of the opsonic index has yet to be conclusively proved.

### Principles of Prognosis.

How, then, can we best arrive at an accurate prognosis? Prognosis is of paramount importance. Nothing is more important than to