

same effect on others who have given most largely of their time and interest to the *Journal's* success. I do not yet know who my successor is to be, but I bespeak for her the cordial and hearty support of all the members of the Associations, and I feel sure that she will find that every effort she puts forth for the *Journal* is its own reward. I close my report with the sincerest good wishes for a most prosperous New Year for the *Journal* and its new Editor.

ETHA BUTCHER KLOSZ.

## RECENT LEGISLATION IN ENGLAND AGAINST TUBERCULOSIS.

BY CAPTAIN W. D. H. STEVENSON, M.A., M.D., D. P. H., I. M. S.

IN this article I desire briefly to describe some of the administrative methods now current in England for grappling with the problem of tuberculosis.

Tuberculosis in England still presents one of the heaviest factors in the death rate. The new regulations regarding compulsory notification of this disease have brought out the alarming fact that in the first quarter of 1912, 38,477 cases of tuberculosis were notified in England. When one considers that the majority of these cases are not only in a dangerous state of health for themselves, but are a powerful danger as a source of infection to those brought in contact with them, the necessity of legislation aiding health societies and other private bodies will be realized. It must not be thought that legislation regarding tuberculosis was only initiated lately. Legislation very wisely goes slowly as it must in its operation touch many divergent interests. If hasty and unconsidered it is apt to become non-operative. The history of the legislative methods of dealing with tuberculosis illustrates very forcibly the way in which research must precede action in any matter.

It was in 1882 that Koch announced the discovery of the germ of pulmonary phthisis. When the methods of searching for and isolating this organism had been perfected it became evident that tuberculosis was not confined to the lungs—that pulmonary phthisis was not the only manifestation of this disease. It was found that certain caseous diseases of the bones were tuberculous, as also scrofulous lymphatic glands so common in the necks of children, and the abdominal conditions known as *tabes mesenterica* due to caseous lymphatic glands in the *mesentery* of the abdomen. These are only some of the manifestations of the multiform activity of this bacillus.

PULMONARY PHTHISIS :—While it had been surmised for long that the infective agent in pulmonary phthisis is present in the sputum, it was only after the identification of this bacillus that it became certain that sputum is infective not only when moist as when a tuberculous patient coughs into the face of a contact, but that dried sputum is also infective, drying having little effect on the potency of the bacillus as a disease spreader.

It had been recognized also that certain factors aid the dissemination of phthisis. For example, in certain occupations the prevalence of tuberculosis has been above the average, in occupations where a hard gritty dust is inhaled which offers, as we know now, a sort of nest where the bacilli also inhaled can escape destruction, multiply and cause the dissemination of the disease, such occupations as those of the Cornish miners, cutlers, and file makers.

This matter was especially dealt with in the Factory and Workshops Act passed in 1901 where it was laid down that wherever dust and impurities are generated to such an extent as to become injurious to the health of the workers steps must be taken by the use of fans or other mechanical means to prevent them.

As the dried sputum is infectious it is obvious that all manner of conditions which lead to bad and inefficient ventilation and which interfere with the thorough purifying by currents of air and sunlight of infected rooms will help the spread of pulmonary tuberculosis. Take for example such principles of building as in the houses built in rows back to back where ventilation is very difficult. It was shown in Salford that where all the houses were back to back the annual death rate from phthisis was 5.2 per 1000 persons living, where they were only 23 per cent of all the houses, the death rate was 3.3 and where there were no back to back houses at all, the rate was 2.8 per 1000 persons living. Except for the ventilation the back to back houses were in better sanitary condition than the other houses. The question was considered in Parliament in 1909, and the incriminative evidence was considered so strong that in the Housing and Town Planning Act of 1909, a clause was introduced practically prohibiting the erection of any more of these insanitary buildings for the working classes.

There are many statutes also which lay down the minimum cubic capacity of sleeping rooms in common lodging houses, etc., for the working classes, all with the same idea that some ventilation is necessary for health. In these and in many other ways, as for example the bye-laws regarding building and laying out of streets, legislation has indirectly attacked the problem of tuberculosis.

That these general sanitary methods have been of great utility is obvious from the great decline in tuberculosis which has occurred since 1850. The death rate among males from tuberculosis has declined to about 45 per cent and among females to about 30 per cent of what it was then. This is very encouraging and shows the value of general sanitation. But the figures given by me at the commencement of this paper show that the position is still grave. Tuberculosis is a preventible disease and that nearly forty thousand persons were reported to be suffering in 1912 should be an incentive to further measures. As a matter of fact legislation has directly attacked the problem in the last year or two.

**SCROFULA AND TABES MESENTERICA.** Recent workers had shown that tuberculosis was not confined to human beings; it occurs among oxen, cows and pigs and also among birds.

For long it was held that all tuberculosis among mammals was caused by the same variety of the bacillus, but lately it has become manifest that there are minute differences in the bacilli which are found in cases of human phthisis and in the bacilli which cause tuberculosis among cattle. Koch was of opinion that human and bovine tuberculosis were practically distinct and that infection of the human being by tuberculous milk or flesh very rarely occurs. As this was a matter of vital importance commissions were appointed in many countries to investigate it. The general consensus of opinion is that human beings suffer from both forms of the bacilli—the human type of bacillus causing the pulmonary forms of the mischief while the bovine type of the bacillus is found in a great measure in the intestinal form of tuberculosis among children, in *tabes mesenterica*, in the enlarged lymphatic glands of the neck and in diseases of the bones and joints of children. There is no doubt now that in many European countries at all events, the ingestion by children of the milk of tuberculous cows is the cause of the bovine type of the disease. Another method by which persons can get the bovine type of the disease is by eating tuberculous meat.

The widespread distribution of tuberculosis among cattle is shown by the fact that Delepine in 1901 proved that of 693 samples of mixed milk from town and country dairies 11·37 per cent. were found to be tuberculous and that of 178 diseased or unhealthy cows 17·36 were tuberculous. In the German states the percentage of cattle suffering from tuberculosis among those slaughtered for food varied from 4 to 37 per cent and so in other countries.

In Glasgow Glaister states that in 1909 and 1910 of cows slaughtered the percentages affected with tuberculosis were 35 and 24·5 respectively. It is obvious then that legislation must control (1) the milk supply and (2) the meat supply, as well as (3) look after the proper housing of cattle.

It is well known that milch cattle which are herded into badly ventilated byres are the most likely to suffer from tuberculosis. The dairies, cow-shed and milk shops orders of 1885, 1886 and 1899 laid down regulations regarding the construction of dairies and the cubic air supply to be given to cattle. It also ordered that the milk of a cow suffering from tuberculous deposits in the udder should not be sold or used for human food or mixed with other milks. Unfortunately these orders were not properly carried out. Further, cattle with no obvious tuberculous deposits in the udders may be passing tuberculous milk, and so be a source of infection.

Very recently a "Tuberculosis Order" has been issued by the Board of Agriculture and Fisheries (1913) which aims at the destruction of every cow suffering from tuberculosis of the udder or passing tuberculous milk. This will of course be an expensive business for owners of cattle, but the Treasury will aid local authorities in giving compensation for the slaughtered animals. If this order be carried out conscientiously it ought to strike at the root of the mischief.

With regard to the selling of tuberculous meat, matters are not at all satisfactory. There are of course legal enactments against the sale of "unsound" meat, as for example in the Public Health Acts of 1875 and 1907 and in the

Public Health Act of 1875 it is expressly forbidden under penalties to expose unsound meat for sale in slaughter houses.

But precise enactments as to tuberculous meat, or meat otherwise apparently healthy, removed from tuberculous carcasses are required. The Royal Commission on Tuberculosis in 1898 made some recommendations as to what kind of carcasses should be condemned. In some of the larger slaughter houses these are adhered to, but in others no attempt is made to do so. Certain kinds of cooking by no means supply enough heat throughout joints to destroy bacteria in them. It is therefore obvious that the present state of affairs is unsatisfactory. It is also unfortunate that even were stringent and precise laws passed regarding the sale of meat removed from tuberculous carcasses, there would be great difficulty in enforcing them, because there are so many private abattoirs scattered throughout England that efficient inspection is almost impossible. Again, the establishment of public abattoirs is impossible in certain cities, for example, in certain areas in London, on account of the fact that areas of ground large enough to locate them in are impossible to obtain in situations at the large railway termini where they are necessary.

**TUBERCULOSIS GENERALLY.** But the measures which have lately passed into law, and which will in future we hope have a great influence in the fight against tuberculosis; are 1st, The Public Health (Tuberculosis) Regulations of 1912: and 2nd, The National Insurance Act of 1911. The recent legislation is the direct outcome of the instruction given to the public regarding the infectiousness of tuberculosis by various health societies. The education of public opinion which has advanced *pari passu* with the results obtained by research, has paved the way to certain repressive legislation which a few years ago the public would not have tolerated. Tuberculosis was not to be found in the list of infectious diseases tabulated in the Infectious Diseases Notification Act of 1889; its infectivity then was not generally recognized.

Before 1912 however certain local authorities throughout England had added tuberculosis voluntarily to the list, and insisted on its notification. It must of course be obvious that in any campaign against a disease, the extent of the disease must be known before measures can be taken to combat it and this can only be done by compulsory notification. This has now become law in England by the Public Health Tuberculosis Regulation of 1912. All notifications are held as confidential; it is strictly laid down that the notified person must not be subjected to any disability or restriction regarding his employment on the grounds of his suffering from tuberculosis. While thus safeguarding the individual, the regulations insist on all private practitioners, and doctors of institutions, notifying the Medical Officer of Health of their districts of the existence of tuberculosis among their patients and the Medical Officer of Health must take such steps as he can for investigating the source of infection and preventing the spread of it. The National Insurance Act of 1911 has provided the machinery for the proper treatment of tuberculosis among insured persons in sanatoria and other institutions.

A Government Departmental Committee in 1912, recommended the establishment of tuberculosis dispensaries, which were to be the centres of diagnosis and treatment and through which persons were to be passed to sanatoria or back to their homes, for treatment. It will be seen then that a proper grasp has been taken of this vital subject, and it is to be hoped that the succeeding years will show a great diminution in the number of cases throughout England.

## WOMEN AND THE WAR.

A FEW NOTES BY THE WAY.

BY MISS ELAINE MAUD PEARSE.

*Late Sister, Victoria Hospital, Benares.*

IN August last when the war came upon us women of England, with the first shock women began to realize they were not trained to help. Queen Mary and the Princess and many others in their train, at once started useful and practical relief for women at home, and soldiers and wounded abroad. Ambulance classes and volunteer workers of many kinds came for instruction. I think one of the most striking things was the way all started at once to knit, or sew, or do something womanly to help.

Suffragettes decided to sink all strife for the time being, and uniting together to take up the women left at home needing work and relief in the emergency; the Women's Emergency Corps were formed, to organize and prevent the overlapping of volunteer aid. For unemployed women the Women's Emergency Corps opened fifteen branches where work was supplied to needle women of every sort, from skilled hands doing fine embroidery and other works of beauty and art, to the makers of dozens and hundreds of shirts, jackets, and apparel of every kind for the front, and for the wounded and the refugees, down to the set of baby clothes sent to the wife of the Belgian Officer.

Amongst other wonderful women in the corps, was the glorified housekeeper, who, realizing the waste of food supplies turned her knowledge to practical account and service.

The first organization formed solely to deal with war refugees telephoned to the corps to say, "We are offered shelter for 100 Belgians arriving tomorrow. Can you feed any of them?" The Emergency Corps housekeeper answered "Ring me up at such a time and I will tell you." Then she went out to market. She had no money that we know of, but in brains and resource lay her trumps. So when the housekeeper was rung up at the hour named and asked, "well, how many of the 100 can you feed?" The answer was, "a hundred of them." Then the emboldened applicant answered again, at the other end of the line, "But instead of sending 100, they now say they are sending 300. Could you feed any more?" "Yes" was the answer, "the Emergency Corps will feed 300 till further notice." And this was done, with food which Covent Garden and the great provision dealers supplied for nothing.