observation. This plan worked so well that within a few months the physicians, seeing that the dispensary did not detract work from their offices, showed an entirely different attitude: opposition ceased, new interest was aroused, and confidence and co-operation followed. This is evident from the fact that during the first three months after the social worker commenced her duties, and the dispensary was moved to the Board of Health office, forty new cases were reported.

Since its establishment, seventy-three cases have been sent to sanatoria, seventeen of whom have died, four of these having died of other diseases than tuberculosis. Of the remainder forty-seven are working full time; eight, part of the time; and one is unable to work at all. Since 1908, 232 cases have been reported. Most of these the social worker calls upon in the interest of the attending physician or the dispensary.

Not wishing to detract from the benefits derived from sanatoria or local hospital, we wish to emphasize the effort to put more efficient social workers throughout every community in the state. We feel that as much effort should be made to put as many social workers in the field as is put into building new sanatoria, as they both are essential in the management and care of the tubercular patient.

The social worker does much to correct the mistaken ideas of the public, who sometimes practically ostracize the tubercular patient. The social worker should strive to accomplish her ends by tact, constant attention, and friendliness, rather than by making her directions compulsory and thereby creating a feeling of antagonism to her work.

That the social worker is a most important influence in a community cannot be denied, and that her influence is educational is recognized, for as Dr. Cabot says, "The contagion of disease must be opposed by a contagion of intelligence."

THE FIELD OF WORK OF THE ANTI-TUBERCULOSIS ASSOCIATION.*

By SEYMOUR H. STONE, BOSTON,

Secretary, Boston Association for the Relief and Control of Tuberculosis.

THE STATE PROBLEM.

What is the tuberculosis problem in Massachusetts? Briefly stated there are about 5,000 deaths annually, and a State Commission on Tuberculosis has estimated that there are between 35,000 and 40,000 persons suffering with the disease.

* Read at the sixth Massachusetts Conference on Tuberculosis, March 20, 1914.

THE STATE PLAN FOR HANDLING THE PROBLEM.

The State has developed a well-defined policy for fighting the disease which may be summarized as follows:

1. It has established four (4) State sanatoria, to be used mainly for patients in the incipient or curable stages of tuberculosis.

2. A law was passed in 1911, and amended in 1912, providing that cities shall, and towns may, build hospitals for the care of persons having tuberculosis. It is proposed that these hospitals shall care for patients in advanced stages of the disease. Experience has proved that while persons with the disease in the early or curable form are willing to remain at the State hospitals, those suffering from an advanced form prefer, as is natural, to be near home and friends, and can only be adequately reached and provided for in local institutions.

3. At the same time another law was passed requiring the State to assist these cities and towns in the maintenance of their hospitals by paying them \$5.00 per week per patient, provided such patients are indigent and have tuberculosis germs in their sputum.

4. To complete this plan a law was passed which requires cities and towns of 10,000 inhabitants or over to maintain tuberculosis dispensaries for the discovery, treatment, and supervision of needy persons afflicted with tuberculosis.

WHOSE JOB IS IT TO PROVIDE FOR THE TUBERCULAR?

This program, if carried out, will undoubtedly provide for most of those sufferers from the disease who need care. It means the expenditure of large sums of money, and this in turn means appropriations, raised by taxation; for the cost of maintenance of State, and particularly municipal tuberculosis work, is rapidly increasing.

A bulletin issued recently by the National Association for the Study and Prevention of Tuberculosis shows that nearly \$20,000,000 was spent last year in the treatment and prevention of tuberculosis in the United States. This fact clearly indicates that the duty of caring for the tubercular is too great a one for private enterprise, and should therefore be assumed by the State and the municipalities, and paid for by taxation. That this policy is gaining headway is shown in this same bulletin which states that 69.3 per cent. of the above sum of \$20,000,000 was derived from public funds, either federal, state, county, or municipal, as against a record of 53.5 per cent. in 1909.

THE STATE'S EQUIPMENT.

Massachusetts maintains at public expense:

1. Four State sanatoria under the Trustees of Hospitals for Consumptives.
2. A hospital for indigent men and one for

indigent women at the State Infirmary, Tewksbury.

3. Thirteen municipal hospitals.
4. Fifteen municipal dispensaries.
5. A prison hospital for tubercular prisoners.
6. And special provision for the tubercular insane at twelve asylums.

PRIVATE INSTITUTIONS.

This State program, however, does not mean that there is no place for the private institution. While a large majority of persons afflicted with tuberculosis are poor or of very moderate means, often with others dependent upon them, there are, of course, many who are amply able to pay for the care and treatment received. For this type of case the private institution is the proper place. There are several hospitals and sanatoria specially endowed for this purpose, and excellent institutions already well established, that should by all means be continued and supported.

THE FIELD FOR THE ANTI-TUBERCULOSIS ASSOCIATION.

In view of the above facts what work remains for an Anti-Tuberculosis Association? It is evident that it:—

1. Should not *permanently* maintain a hospital.
2. Should not *permanently* maintain a dispensary.
3. Should not *permanently* maintain a visiting nurse or nurses.

It seems to me, however, not only legitimate but very desirable that an Association should carry on experimental work of this sort to demonstrate a need and should then turn it over permanently to the municipality. The longer the Anti-Tuberculosis Association carries on these enterprises the longer the legitimate duty of the municipality is neglected and the proper work of the Association deferred. If it is impossible to induce a municipality to take over a necessary piece of work, I believe that an Anti-Tuberculosis Association should find some other way of passing on the enterprise. If this is not done the energy of the Association is invariably diverted from its own peculiar and important field of work.

THE PROPER WORK FOR AN ANTI-TUBERCULOSIS ASSOCIATION.

An Anti-Tuberculosis Association should, in my estimation, direct its energy along preventive lines of work; that is, in the direction of investigation, education, experiments and legislation.

INVESTIGATION.

Under the head of investigation it can make a study of local conditions, ascertaining the amount of tuberculosis in a given community,

determining whether there is proper equipment to provide for it, and proposing a complete program for the suitable handling of the problem.

EDUCATION.

The object of the educational work should be to instruct people how to guard against contracting the disease, to give information about early symptoms, and what to do to protect others from infection. This can be carried out by free lectures in churches, lodges, labor unions, clubs and theatres; also by the distribution at lectures, schools and clubs of literature dealing with preventive measures, health rules, the value of fresh air, and sleeping-out devices. Exhibits of various sorts may be used to advantage but probably the most useful type is the small portable exhibit that can be shown in schoolrooms and churches, and set up in libraries, settlements, clubs, and even in the waiting rooms of hospitals clinics and stations. The newspapers will be found to be a willing and very useful ally in an educational campaign if material is prepared in a newsy form. Too much credit cannot be given the newspapers for all that they have done to assist in the fight against tuberculosis. Nor must it be forgotten that the sale of the Red Cross Christmas Seal has a certain amount of educational value.

EXPERIMENTAL.

As has already been suggested, experimental work, to demonstrate the need of a hospital, a dispensary, a visiting nurse, a day camp or an open air school, may be carried on by an Anti-Tuberculosis Association to the very great advantage of a community. When a real need of this sort is pointed out in a practical way to a progressive city or town, the public authorities are not slow in taking over and establishing the work on a permanent basis.

LEGISLATION.

Interest in legislation is an important function of an Anti-Tuberculosis Association. If the Association is not near the State Capital it is possible for it to be kept informed of the activities at the State House by some organization that is in close touch with the legislative machinery. Such an organization we have had to a certain degree in the Boston Association, and now with the formation of a Massachusetts Anti-Tuberculosis League we hope that distant Associations may be kept even more closely informed about legislation.

After being apprised of what is before the legislature an active Association may do good work by carefully studying the measures, applying them in theory to its own community, and then bringing pressure to bear on the local legislative representative to aid in enacting or defeating them. If it is possible to unite all the Associations for or against a given measure the pressure will be very effective.

An Anti-Tuberculosis Association can be even more effective by insisting on the enforcement of local or municipal laws, such, for instance, as those requiring physicians to register all cases of tuberculosis, obliging cities to build and maintain tuberculosis hospitals and dispensaries, and forbidding spitting in public places. It is also possible for an Association to do good work along the line of urging ample appropriations for the maintenance of municipal hospitals, dispensaries, nurses, open air schools and the Health Department.

COÖPERATION.

One of the most important things for an Association to cultivate is hearty coöperation with the health authorities, relief agencies, and the various civic bodies. It should always bear in mind that each of these agencies is necessarily looking at the tuberculosis problem from a different point of view, which, while it may not coincide with the point of view of the Association, is nevertheless worthy of the most thoughtful consideration. Toleration is a valuable characteristic and the Association that possessess it will find it comparatively easy to coöperate with others.

New Instruments.

HOME-MADE PROBES.

By ERNEST BOYEN YOUNG, M.D., BOSTON.

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Probes are always becoming lost or mislaid, and it is often impossible to procure one of suitable size, length or pliability for special explorations, or in some emergency.

If of a size pliable enough to follow a delicate sinus, the tips are apt to be so small as to engage in any slight irregularity of the passage, and so mislead as to its extent. Furthermore, the material is often so stiff that the probe refuses to follow the tortuous course in friable tissue, and a false passage is the result.

In an emergency a very serviceable probe for small sinuses may be made by tipping a strand of silkworm gut with a drop of paraffin, or by wrapping one end with a wisp of cotton and then dipping one or twice in collodion. When paraffin is used, the end of the gut should be scorched in the flame, which roughens it and makes the paraffin bead secure. Metal probes are naturally more satisfactory, and the writer having found it necessary, in several cases, to employ probes of greater length and flexibility

1. Silk worm gut tipped with cotton.
2. Same tipped with paraffin.
3. Silver wire with borax bead.
4. Copper wire probe.
- 5 and 6. Silver wire.

than could be bought, has manufactured them for his own use by a method so simple, that it may be generally useful. In the making, it is possible to vary the size of the beaded tip, according to the caliber of the sinus, so that a very flexible fine probe may be armed with a tip nearly as large as those on the heavy probes sold by the instrument makers, thus providing a flexible probe and at the same time minimizing the danger of the tip engaging or creating a false passage.

Silver or copper wires of suitable size, are most useful although silver is the better; as the smaller silver wires are easily fused in the common alcohol flame, while larger copper wire always requires the flame of a Bunsen burner. The copper wire also oxidizes and may become rough, while the silver wire comes from the flame bright and ready for use. However, any roughness is easily removed by a piece of fine emery paper, sand paper, or a whetstone, while the roughness of the copper may be obviated by dipping the hot wire in