present methods of treatment are carried out intelligently, from 60 to 80% of the patients recover. It does not need any new specific, it does not need anything but the early discovery of the cases." "The next step in tuberculosis work," says Donald Armstrong, "is the first step, namely, the discovery of the disease." To this slogan I add the word " early." There is a stage well recognized by signs and symptoms even before the standardized classification, "incipient." This stage might properly be called the early activation of a tuberculous infection. One hundred per cent. of these cases go first to the general practitioner. In this stage home treatment as practised by Pratt would achieve glorious results. Any steps, therefore, which will equip the family physician to recognize pulmonary tuberculosis at this stage will inspire tuberculosis workers with renewed courage and hope in their efforts to conquer consumption.

With this end in view, we plead for the creation of a Department of Tuberculosis in Medical Schools. The general practitioner is our first line of defence in all invading illness. To strengthen this line to the greatest degree of efficiency is to insure the safety of the besieged city. Through this department the research results of 20 years of intensive tuberculosis work can be epitomized and taught. The policies of proven merit of these years of untiring effort can be demonstrated. With earnest instructors, worthy of affiliation with Grade A medical schools, the course could be made indispensable to students and furnish better training for the future general practitioner.

For these men who are now engaged in general practice the Department of Public Health proposes a series of consultation clinics in pulmonary tuberculosis. Plans have been perfected for the creation of 16 consultation clinics in various cities and towns in the state. These clinics will be conducted by physicians attached to the state sanatoria and the family physician will be able, without price, to obtain expert diagnosis in his tuberculosis cases. In addition to this we plan to demonstrate the case in detail to the family physician; history taking, method of making physical examination, interpretation of the signs elicited by auscultation and percussion, as well as interpretation of the symptoms revealed by the history of the case, will be thoroughly discussed. In this effort we expect hearty coöperation from the general practitioner. For, in the words of Voltaire, "Men who are occupied in the restoration of health to other men by joint exertion of skill and humanity are the great of the earth."

These are days of reconstruction. Medical schools and medical men may well give ear to the present unrest in tuberculosis work. The present condition of affairs is no longer a professional secret. Popular magazines teem with criticisms of them, and the remedies suggested, as might be expected, coming from those on the verge of despair, are drastic.

The adoption of these policies will provide a bigger army of better trained men. Such reinforcements will delight the pioneers who have borne the brunt of the battle with varying success, and who through these agencies see the dawn of victory in the conquest of consumption.

DISCUSSION.

Dr. Arthur K. Stone, Framingham Center: About a quarter of a century ago a callow youth just out of the medical school had a vision. It was a great vision. He saw relief for the people who were dying of consumption in the tenement houses in all parts of the city. At his suggestion a bill was introduced into the Massachusetts Legislature to provide for the construction of a sanatorium for the care of these people. Dr. Lawrence Flick, one of the leaders in the tuberculosis movement in Philadelphia, and in the whole country, wrote to this man that it was a great idea but that no government would ever undertake the tremendous job of caring for tuberculosis.

A great many of you gentlemen are too young to know anything about the terrible conditions existing before the sanatoria and hospitals for consumptives were built. All that floating tuberculous population, dying in the tenements under most distressing conditions, have disappeared. Dr. William J. Gallivan's vision has come true.

In Framingham, where they have a record of nearly ten active tuberculosis patients to each death, they find that they need for the care of the people that are under observation, at least one bed for every death, and I do not believe for one that the tuberculosis work began at the wrong end when it began with building institutions. It may be staggering in the amount of cost, but I think the good that has come, the saving of misery and helplessness, in addition to the saving of a great many lives, is due to the well hospitalized condition of Massachusetts. I believe that we need every bed that we have; that we have empty beds is a misfortune. We have the patients and the beds should be filled; that they are not is because the local authorities do not realize their opportunities. The expense

is nothing compared with the benefits that have been received.

DR. EDWARD O. OTIS, Boston: I want to speak of what we are doing at Tufts College Medical School in teaching tuberculosis. There is a professorship of pulmonary disease, and students of the third and fourth years receive instruction in this branch. It consists chiefly of a system of didactic lectures giving a general program of the whole disease, covering, one might say, the fundamental points, and, most important of all, a series of clinics extending over the third and fourth years. We have three institutions which provide these clinics. First, the Mattapan Consumptives' Hospital; second, the Out-Patient Department of this same hospital, in which various instructors connected with this division give instruction in the diagnosis of early cases and suspected cases; third, the Tuberculosis Department of the Boston Dispensary. These classes are divided into sections of about seven or eight students and the clinics last about two hours. They are continued a certain period of time, altogether too short, but such are the demands on our students that our time is limited. The most important part in the teaching of tuberculosis are these clinical sections, in which the students at first hand meet the cases and are taught how to examine patients, how to obtain the history, and something about the social side of the patient. They are also given instruction in x-ray determination, and they are also, as time permits, given sputum to examine. So that we feel that these students when they graduate have some fundamental knowledge of tuberculosis; have some idea of how to make an early diagnosis. At the end of the third year they have an examination upon that subject alone, and at the end of the fourth year a part of the examination—one of the three papers on clinical medicine—is upon tuberculosis. This has been going on for the last fifteen or more years and we feel that the students, when they graduate, have some fundamental and clear knowledge of how to go to work to make a diagnosis of tuberculosis.

One other point I would like to add in reference to what Dr. Gallivan has said in regard to general clinics for practitioners, that is a school at the sanatorium. I have spoken of this before. I have often felt that our State sanatoria can do a great deal more than they do in giving instruction in tuberculosis. I do not see why a school, lasting from ten days to two weeks, could not be held, giving intensive work, and the physicians in the community invited there, giving free lodging, free board, and possibly some man from Boston, or elsewhere, who is an expert, to join with the staff at the sanatorium. In that way an intensive course could be given to physicians which would be exceedingly valuable. This could be repeated time and again. It seems to me some such plan as this would be of great value.

One other point with regard to our own teaching at Tufts Medical School. We did use for a year or more, until the war came, the sanatorium which is nearest to Boston—North Reading. We sent some of our students out there with great advantage to them. They had clinics and saw the cases under sanatorium conditions. Such an arrangement was very popular with the students and was heartily entered into by the staff of the santorium.

DR ERNEST B. EMERSON, Rutland: I think Dr. Otis' suggestion that intensive courses be given at the sanatoria and furnishing room and board for whoever is interested enough to come, would be a very good thing if the Doctor would suggest some way to house these people.

This spring we have held at Rutland a series of lectures once a week to which the physicians of the surrounding country have been coming. We have taken the subject up in a general way—told them about the classification, the methods of diagnosis and treatment. Anybody can diagnose an advanced case, but it is frequently extremely difficult to diagnose an early case. These physicians have been driving in to Rutland from miles around and I have been very much surprised at the interest shown. Rutland, as you all know, is located in the central part of the State, rather a remote community and difficult to get at, yet these men have been coming in from a distance of 15 to 20 miles. That indicates interest in the question of tuberculosis. I think if they can have information on tuberculosis put in front of them in such a way that they can get at it they will go for it.

What Dr. Gallivan has brought out in his paper about starting a consultation service is a most execellent idea. I think it can be done in such a way that it will not conflict with the general practitioner and I believe that it will bring about a spirit of coöperation between the general practitioner and the sanatorium men. The general practitioner is meeting many of these cases as we meet them in the sanatorium, where a diagnosis is extremely difficult to make. I feel that the patient ought to be given the benefit of the doubt. I believe that if the doctors are unwilling to commit themselves by making a flat diagnosis, and in some instances they are justified, they will take advantage of such a service. Get the patients started; give them the benefit of the doubt. If they have a case of typhoid fever they treat that; if it is a suspected case they treat it as a suspected case of typhoid. They give the patient the benefit of the doubt. I think that ought to be done in tuberculosis. It is not necessarily a sentence of death to the patient. It may give the patient a little jolt but if he does not get that little jolt sometime he is not going to get well. We

see too much of this end-result business in the sanatoria; cases which, if we can believe their histories, it seems to me have been handled in a way which is almost criminal. I do not think that represents the majority of men, but we do get those cases occasionally.

I think that giving a course in the medical schools is one way to bring about a better understanding of the disease. Anything that can be done to bring about earlier diagnosis is worth while and will be well supported.

ITINERANT CONSULTATION SERVICE.

BY H. S. WAGNER, M.D., POCASSET, MASS.,

Superintendent, Barnstable County Infirmary.

CONSULTATION service for the detection of tuberculosis had its inception in the Framingham Health Demonstration. After a certain time, there, results were analyzed and it was found that the time of one of their chiefs was being requested regularly each month by physicians of that community to assist them in their diagnosis of tuberculosis. It was evident that some activity had developed which was beneficial. Therefore, it deserved a name and was dignified by the name of consultant service. Barnstable County was in the meanwhile opening a small tuberculosis sanatorium and presented the opportunity of utilizing their resident physician in attempting such a service. The committee of the Massachusetts Tuberculosis League, having the work in control, advised that it be supported by clinics, the wisdom of which course is now shown to be fully justified. The advantage of this plan was that it gave a working base, quite consistent with the purpose and of use to the consultant in the disposal of the cases. During the first year, anything in the nature of so-called propaganda carried directly to the people has not been attempted. The scheme was to work through the physicians, visiting nurses, and the local health boards.

The work was made further possible in the support given it by the large state organizations, State Department of Public Health, Trustees of Hospitals for Consumptives, and the Framingham Health Demonstration. Their representatives introduced the consultant generally at medical and board of health meetings or personally to the different physicians on the Cape. Some such proceeding by a representative person, having the entire confidence and respect of the community is absolutely essential to the success of this project.

In the handling of consultation cases, our experience has shown two possible contingencies liable to arise, both of which should be referred to the physician requesting consultation. Before the examination, the question of permitting an informal discussion in the presence of the patient should be decided. In this event, the patient is liable to join and subject both to a bombardment of questions—the direct answers to which are embarrassing. On the other hand, it might better be decided to reduce discussion to the minimum during the consultation and have the general practitioner act as spokesman in presenting the case finally. At the end of consultation, if the diagnosis is positive, it is the duty of the physician to report his case.

The consultations were held when and where it was deemed to be most convenient to the patients in case of an urgent call; otherwise, it was generally understood that the time would be limited to those days on which clinics were scheduled in that vicinity. Two-thirds of the physicians on the Cape have used this form of the service. One-half of them have used it two to four times. At present writing, there is expected a total of five to six consultations monthly.

In estimating this work, certain advantages and disadvantages are to be considered as to geography and concentration of population. At least a day is required to make Provincetown, which is sixty-five miles distant from the local sanatorium. When the trains are on schedule, a two-hour period of working time is effected; otherwise, a night lay-over is required to complete the work the following day. It is also necessary to spend a day in each of two other towns on the eastern end of the county. The remaining towns can be visited by automobile because of the good roads—a distinct advantage in saving time.

Obviously, it would be much easier to conduct the work, if this 30,000 lived compactly in the space required by the ordinary small city with that population—where but one visiting nurse association and one board of health would have to be approached—also where opportunity would be offered to meet the physicians oftener in their medical meetings. Under present conditions, one has to examine fifteen sets of records for deaths from tuberculosis, and to interview fifteen boards of health.