its administration and maintenance. If there was not a colony attached to any particular unit which was suitable for any particular patient, he could be drafted with family to another unit.

A last word as to *after-care*. The after-care must be State subsidized, and the after-care worker must have a definite sum of money at her disposal for her work. If this sum were sufficient all taint of charity could be removed from the help given during after-care, as the whole of the material help could be given from the dispensary, as is medical help without the intervention of any fund-supplying charitable society. We have no hesitation in giving expensive drugs, so why haggle over food and blankets? And there should be no idea of cash repayment, but only repayment by useful work and by the patient becoming less dangerous to the community.

The Ministry of Health must concentrate on after-care before all else. If proper after-care was insisted upon now, and proper facilities provided for it, the usefulness of our present Tuberculosis Scheme would increase by 100 per cent. It must be recognized that the present system of after-care committees is cumbersome, and has proved in actual practice useless. The after-care must, like the medical side of each unit, be in the hands of one single expert.

THE WORK OF THE AMERICAN COMMISSION FOR THE PREVENTION OF TUBERCULOSIS IN FRANCE: THE ROCKEFELLER FOUNDATION.¹

BY DR. WALTER C. KLOTZ.

IN the fall of 1916 reports were received in America that tuberculosis in France was assuming menacing proportions; that there were many cases in the French Army, and that there had been an alarming increase among the civilian population. At the suggestion of Mr. Warwick Greene, of the Rockefeller Foundation, Dr. H. Biggs, Director of the Board of Health of the State of New York, was sent to France in the beginning of 1917 to make an investigation. On the strength of Dr.

¹ The Rockefeller Foundation International Health Board Commission for the Prevention of Tuberculosis in France has accomplished notable service in France, and this paper has been prepared, at the invitation of the Editor of this Journal, in order that British workers for the prevention and arrest of tuberculosis may understand what their American colleagues have accomplished in France. The Commission consists of the following: Director, Livingston Farrand; Associate Directors, James Alex. Miller, Homer Folks, Selskar M. Gunn; Comptroller, T. Crompton; Secretary, Alexandre Bruno. The headquarters of the Commission are at 12, Rue Boissy-d'Anglas, Paris.

AN OUT-OF-DOOR POSTER USED IN CONJUNCTION WITH A POSTER
GIVING DETAILS OF MEETINGS.

This type of poster was designed merely to attract public attention.

SAMPLES OF POST-CARDS USED IN CONNECTION WITH CONFERENCES
IN THE SCHOOLS.

The original post-cards were printed in colours.

Bigg's report the Rockefeller Foundation decided to send to France a Commission which was to institute a campaign of popular education on the subject of tuberculosis and establish centres of instruction where

EDUCATIONAL POSTER DESIGNED FOR USE IN SCHOOLS.

The original poster was issued printed in two colours.

French nurses could be trained in the methods of treating tuberculous patients at dispensaries and other institutions, or in their homes. At the same time these centres were to be utilized to demonstrate such methods to French physicians and public health authorities, and to

serve as a basis or a nucleus for a complete organization against tuberculosis throughout the whole of France.

This Commission, organized under the auspices of the International Health Board, a subdivision of the Rockefeller Foundation, reached France in July, 1917, and was headed by Dr. Livingston Farrand, then President of the Colorado University, who had for many years been actively engaged in tuberculosis work as Secretary of the National Anti-Tuberculosis Association (American). Associated with him were Dr. James Alexander Miller, Director of the Associated Tuberculosis Dispensaries of New York City; Professor Selskar M. Gunn, of the Department of Public Health in the Massachusetts Institute of Technology; and Mr. Homer Folks, Chairman of the New York State Charities' Aid Association.

While further investigation disclosed the fact that the number of cases of tuberculosis in the French Army was less than had been feared, the mortality from tuberculosis among the civilian population had for some years been considerably higher than that of other countries: 14,443 deaths in 1913, with an estimated population of 39,500,000. It was found also that, while there had been created in France a large number of institutions for the treatment of tuberculosis, these were all used for military purposes and were not available for civilian patients. At the same time it was easy to discover a number of factors that would tend to increase the percentage of tuberculosis among the civilian population: the general physical and mental strain caused by the long duration of the war; straitened circumstances in many homes on account of the absence of the male members of the family, and consequent increased hard work on the part of the women; the higher cost of living; and at the same time the relative scarcity of such articles of food as milk, eggs, and butter. In addition there had to be considered a large floating population of refugees who had been subjected to even greater physical and mental strains than the permanent population, and who had been obliged to live under conditions that would tend more to diminish resistance.

It is important to state at the outset, in describing the work of the Rockefeller Commission, that its principal purpose was to institute a campaign of education and propaganda, to offer ideas and plans for a comprehensive organization for the whole of France, and not to supply relief or aid to any given group or groups of the French population. For that reason, and also for the purpose of avoiding duplication and confusion, all work of relief, whether through institutions or to individual patients directly, was to be provided by the American Red Cross.

For the purpose of demonstration and instruction two centres were selected, in each of which a system of tuberculosis dispensaries was organized.

In order to illustrate conditions typical of a large city, the nineteenth arrondissement of Paris was selected, because it was one of the most densely populated and one of the poorest districts of the city, having in 1913 a mortality from tuberculosis of 919, with a population of 155,300. At the same time it was a district in which at the moment no other tuberculosis activity was being carried on.

For the purpose of illustrating the conditions in a rural community a similar plan of organization was carried out in the department of Eure-et-Loir, situated a short distance south-west of Paris. This department, with a population of 272,000, had a mortality from tuberculosis of 440 in 1913. One of the principal reasons for selecting this department was that it was at a convenient distance from Paris, where the Central Bureau of the Commission is located.

In the nineteenth arrondissement of Paris a dispensary was planned for each of the four quartiers or districts. Three of these have been in operation for some time, and a fourth, which will also serve as a central dispensary, will be in operation shortly.

In the Eure-et-Loir a dispensary has been established in the *chef-lieu*, or principal town, in each of the four arrondissements or shires; while secondary or auxiliary dispensaries will be established in the principal towns of the cantons. Seven of these cantonal or parish dispensaries are now in operation, and fourteen others organized and in course of completion.

Institutional treatment for the patients of the Paris dispensaries has been provided through several sanatoria maintained by the American Red Cross and through barraquements in the Municipal Hospitals. Several arrangements had been made in the department of Eure-et-Loir for the hospitalization of dispensary patients by the setting aside of pavilions in the local existing French hospitals.

Through and with the assistance of the American Red Cross tentative plans have been adopted for a departmental sanatorium, with not less than 100 beds.

While, as has been mentioned above, the principal purpose of the Rockefeller Commission was not to treat a given group of the population, it may be interesting to know that out of the 155,300 inhabitants of the nineteenth arrondissement of Paris, 4,869 patients have been seen and examined at the dispensaries; 1,529 of these were found suffering from tuberculosis.

In the Eure-et-Loir, out of a population of 272,000, 2,184 have been seen and examined at the dispensaries, and 673 of these found to be suffering from tuberculosis. Owing to the fact that the population is more scattered, it is natural to expect that it will take a longer time to reach every case of tuberculosis in the department than in the more densely populated district of Paris.

More important, however, than the medical results in the demonstration centres is the general educational work of the Commission. In this connection must be mentioned first the training and instruction of French nurses in the treatment of tuberculosis. Upward of 100 French nurses have received at the dispensaries in Paris a course of theoretical and practical instruction in the treatment of tuberculosis, including a careful training in the methods of making domiciliary visits and doing social service work in connection with tuberculosis. Nurses trained in the Paris dispensaries have been sent out to other departments, not only to the demonstration centres in Eure-et-Loir, but also to help organize dispensaries in Brittany, Nantes, Lyon, and Bordeaux.

More far-reaching and widespread in its scope than all the above has been the work of the Bureau of Education and Propaganda, under the direction of Professor Gunn. It is difficult in figures to express or describe the results of this work. Over two million pieces of literature of various kinds have been distributed. Public lectures and conferences and exhibits have been held in 141 cities and towns of ten departments of France. This work is carried on by means of travelling exhibits, reference to which has been made in the January number of this Journal for this year.

In addition to the above, considerable advance work in other departments of France has been done by Dr. Bruno, Secretary of the Commission. He has been actively engaged in making a large number of preliminary surveys. By means of lectures and conferences, he has established a relationship with the leading men of the community, and in this way initiated the organization of permanent Departmental Committees to proceed with the establishment of centres of propaganda and tuberculosis dispensaries, following the lines and plans of the demonstration units in Paris and in the Eure-et-Loir.

It will be difficult to describe or enumerate the number of interviews and conferences that have been held with important French public officials and eminent French physicians in the military service and those engaged in civilian work.

With all due modesty we can say that the Commission has been able, through this work of propaganda, to stimulate a very widespread national interest in the question of tuberculosis. Among other results may be mentioned also the formation of a permanent committee, "*Le Comité Franco-Américain pour l'étude de la tuberculose*," which meets at regular intervals to discuss the most important problems in connection with tuberculosis, and which constitutes a very important factor in shaping public opinion with regard to the many problems in connection with the campaign against tuberculosis in France.