

ping and management of temporary hospitals. Various bodies such as the St. John Ambulance Brigade and Association, the Red Cross Society, and the Women's National Reserve offered their services freely and worked in conjunction with the committees. The work carried out by these different organizations at a time of national stress cannot be too highly praised. In recognition of this the issue of testimonials to those whose work had in particular come to the notice of the Department was authorized.

Despite the fact that the milder cases were, as far as possible, nursed in their own homes the existing hospitals were soon full to overflowing. In order to accommodate the large number of serious cases emergency hospitals had to be opened, and for this purpose free use was made of schools, halls, and other public buildings. To those who so readily placed at our disposal the use of suitable buildings for hospital purposes the gratitude of the whole community is due. In the equipping and staffing of these temporary institutions the fact that Defence stores could in some centres be drawn upon proved a great boon. But for the organization of the Defence Medical Stores Department there would have been a serious shortage of drugs and other necessities in the Dominion. In the Wellington Province the services of the Army Medical Department, of the Ordnance Department, and of the Army Service Corps were of the greatest value in dealing with the epidemic, and have been the subject of special memorandum of thanks to the officers concerned.

At the commencement of the epidemic no fewer than 228 doctors were absent from the Dominion on military service; many doctors, moreover, contracted the disease. It was therefore imperative that the time of the doctors should be saved as much as possible. Consequently in the larger towns the "block system" was evolved, under which each doctor had his own special district, and overlapping of medical service was reduced to the minimum.

Immediately on commencement of the epidemic pamphlets were prepared by the Department giving advice to sufferers from the disease, to convalescents, and to the general public. These were published and circulated as freely as possible.

Trial was made by the Department as a prophylactic measure of the inhalation treatment with 2 per cent. solutions of zinc sulphate atomized by means of steam under pressure. Chambers for such treatment were established at railway-stations, at wharves, and in all centres of population. There is no convincing proof, however, that the procedure was of any value when applied to the general public.

In influenza, where the disease is spread through personal contact, congregations of people are to be avoided. Accordingly, at an early stage of the epidemic measures were adopted to prevent public meetings and gatherings. Schools, theatres, picture-theatres, billiard-saloons, and other places of amusement were closed. Barbers' shops, hotel-bars, tea-rooms, and other places of business which might prove likely foci of infection were similarly treated.

Other measures adopted by the Department were the gazetting of influenza as a dangerous infectious disease, the prohibition of tangis, the prohibition of the sale of alcohol, except on a medical prescription, and the enforcement of burial of the victims of the disease within twenty-four hours of death.

#### *Prophylactic Measures.*

*Inhalation Chambers.*—In regard to the value of inhalation-chambers, some doubt has been expressed by observers as to the efficiency of this method of combating influenzal epidemics. The experience of two years and a half in the military camps in New Zealand is wholly favourable to the use of weak solutions of zinc sulphate as an inhalation. The systematic treatment of all recruits whose throats showed abnormal bacterial contents, and of men leaving hospital or returning from leave, undoubtedly checked epidemics of measles, and reduced the complications following this disease and influenza. The value in checking infection by the meningococcus and by diphtheria has been abundantly shown. In regard to influenza, the invasion is so rapid that unless the treatment is repeated very frequently and soon after exposure to infection the value of inhalation is reduced. The opinion of the Principal Medical Officers was that during the second influenzal wave as soon as the temporary disorganization caused by reduced effective staff was overcome, and the inhalations were applied regularly and frequently, a marked reduction in pneumococcal complications resulted. On the troopships, too, infections of a catarrhal nature greatly lessened after the chambers were installed and used systematically. Some brief observations made by Colonel Leahy at Trentham Camp during the November outbreak showed a reduction from 50 per cent. of severe cases among untreated men to 22 per cent. among men who were treated daily for three successive days. Casual exposure in an inhalation-chamber at irregular intervals cannot be expected to yield results. The treatment should be repeated within a few hours of each exposure to infection, thus its value, probably, can only be appreciated when it is available to the occupants of an institution—say, an office or factory—and applied compulsorily perhaps twice a day. The public chamber is of questionable value, more especially if those who are awaiting treatment are allowed to congregate in crowds. On trains and ships, if applied to the passengers during the journey, some value may result; but the chambers at the stations and wharves were generally productive of crowding, and so their value was minimized. Institutional installations, therefore, are recommended, but for the general public some simple form of apparatus suitable for family use is likely to be of more value than public chambers. The use of inhalants of an irritating nature in too strong solution proved harmful, as they only made the mucus surfaces of the naso-pharynx liable to infection. Frequent washing-out of the nose and mouth with simple salt solution is probably as valuable a family remedy as any which can be suggested. For inhalation plants the use of compressed air in place of steam was found very satisfactory, as the atmosphere of the chambers was less humid and relaxing, and any stoppage of the suction of the inhalant solution became at once noticeable.

*In regard to masks* there was little experience in New Zealand. Where they were made available in temporary hospitals the attendants generally refused to use them. The experience in Australia does not seem convincing. It is certain that to wear a mask in the open street and take