

FEVER HOSPITALS.

Mr. T. W. Aldwrickle, in a paper on the above subject before the British Institute of Architects, recently said :---English communities nowadays recognised the advantage of isolation hospitals as a means of preventing the spread of infectious diseases from persons who cannot be properly isolated in their own homes. But too often the provision of such hospitals is put off until some infectious disease is immediately threatening, or has actually invaded, a district. It cannot be too clearly understood that an isolation hospital, to fulfil its proper purpose of sanitary defence, ought to be in readiness beforehand. During the process of an epidemic it was of little avail to set about hospital construction. The mischief of allowing infection to spread from first cases will already have been done, and this mischief cannot be repaired.

Large villages, and groups of adjacent villages, would commonly require the same sort of provision as towns. Where good roads and proper arrangements for the conveyance of sick have been provided the best arrangements for village populations was by a small building accessible from several villages; otherwise, the requisite accommodation for, say four cases of infectious diseases in a village, might at times be got in a fairly isolated and otherwise suitable four-room or six-room cortage which has been acquired by the Sanitary Authority, or by arrangement made beforehand with some trust-worthy cottage holders, not having children, that they should receive and nurse, on occasion, patients requiring such accommodation.

In towns, hospital accommodation for infectious diseases was wan ed more constantly, as well as in larger amount, than in villages, and in towns there is greater probability that room will be wanted at the same time for two or more infectious diseases, which have to be treated separ ately. The permanent provision to be made in a town should consist of not less than four-rooms, in two separate pairs, each pair to receive the sufferers from one infectious disease, men and women of coarse separately. The number of cases for which permanent provision should be made must depend upon various considerations, among which the size and growth of the town, the housing and habits of its population, and the traffic of the town with other places are the most important.

For a town the hospital provision ought to consist of wards in one or more permanent buildings, with space enough for the erection of other wards, temporary or permanent. Considerations of ultimate economy make it wise to have permanent buildings sufficient for somewhat more than the average necessities of the place, so that recourse to temporary extensions may less often be necessary. And in any case, it is well to make the administrative offices somewhat in excess of the wants of the permanent wards; because thus, at little additional first cost, they will be ready to serve when occasion comes for the wants of temporary extensions.

FIRE PROTECTION.

A lecture on the above subject was recently delivered before the Society of Arts, London, by Mr. Edwin O. Sachs. He pointed out that towns owed their safety from fire, not so much to brigades, as to preventive legislation based on the practical experience and research of architects, engineers, and fire experts. Fire protection was a combination of fire protection, fire combating, and fire research. Preventive measures might be partly contained in the local building Acts and partly in a separate code of fire survey regulations, supplemented by special rules as to the treatment of extraordinary risks, such as the storage of petroleum, the manufacture of explosives, and the performance of plays. Self-help for the shopkeeper, the lodger, or the private householder could scarcely be regulated. There were places where, without any regulation being attempted, and thanks entirely to the influence of training in classes, most residences could boast of a hand-pump, a bucket, and a crow-bar, the proper use of which was known to most of the household. Self-help in small risks must be distinctly encouraged by the authorities, without any irksome interference with personal liberty, simply by the provision of street pillar-boxes with the necessaries of first aid, including perhaps a couple of scaling-ladders, and, further, the arrangement of some opportunities for householders to learn how to handle them. The link between selt-help and outside help was the fire-call. The efficiency of the fire-call depended not only on the instrument employed and its position, but also on its conspicuousness and the indications given to find its whereabouts. As to the organised outside help, it need not simply be limited to the attendance of the fire brigade. Special arrangements might be made for the attendance of the local police force, a public or private salvage corps, an ambulance, or in cases a military guard. Arrangements might further be made for the attendance of the water and gas companies' servants, even officials from the public works office and insurance survevors. The author laid stress on the point that the efficiency of the outside help depended in the first instance on the clear definition of duties and powers of all concerned, then on the organisation, and last, but by no means least, the prestige, the social standing, the education of commanders and their ability to handle men easily. In dealing with the provisions of local by-laws for protection from fire the author urged that if a locality had a proper fire-brigade and the force was decently handled, spreads of fire from one house to

another could be absolutely barred. The division of a building or a large "risk" into a number of minor ones was only possible to a certain extent. In lieu of spending enormous sums trying to make each of the minor "risks" impregnable, the aim should be to try to retard the spread for a certain limited time after the flames had really taken hold of the contents. In those minutes most fires would have been discovered, and a sufficient number of firemen could be on the spot to localize the outbreak, and prevent the conflagration being a big one. In a warehouse or factory, with well-built wooden floors, thickly pugged, and the ceilings perhaps run on wire-netting instead of on laths, with ordinary doubleledged doors safely hung, at the most, perhaps, lined with sheet-iron on asbestos cloth, a very stiff blaze could be imprisoned for an hour. The general mistake of expensive iron and concrete construction was its aptitude to allow some breach being easily made through which the fire spread. Directly a fire had got a hold, these composite floors were, again, much too dangerous for firemen to work on, or under. Further, if a strong stream of water touched the hot iron there was often an extra danger; and after the fire had been extinguished, the ironwork would be so damaged that it would require entirerenewal, and the brickwork would probably be so strained and bulged that the re-erection would have to commence from the footing. A simpler construction was in most cases the most satisfactory. The few iron and concrete floors, for instance, which would stand some strain were too expensive to allow their introduction for fire protection alone, for it was not only the expense of the floors which had to be considered, but that also of the supports and the surrounding walls. All shaft openings should be as small as possible, well armed with shutters, and the lift have not only vertical doors, but also horizontal flaps, which would cut up the well into sections. Division of "risks," commonsense construction, and proper staircase accommodation were really all that fire protection required, and where the special Building Act clauses had been kept within the lines indicated there had been little friction and discontent. As to the fire survey regulations, they should mainly prevent the actual outbreak of fire. In certain classes of risks fire survey could also increase the personal safety of the inmates, and the possibility of a fire spreading might be lessened. The actual preventive work of the survey would, however, mostly consist in the warning of property owners against temporary stoves standing on ordinary floor-boards, sooty chimneys, badly hung lamps, dangerous burners, and gas brackets fixed in risky positions. So far as the safety of the public in theatres and public assembly halls was concerned, attention should be chiefly given to the exits. Spread of fire, and even its outbreak, were secondary considerations, for a panic caused by a suspicion of fire would be quite as fatal as where a conflagration was actually started.