

DR. STEVENS has been appointed Chief Sanitary Inspector to the Camberwell Vestry.

THE salary of Dr. J. A. Turner, the medical officer of health for the combined district of Leicester and Rutland, is to be increased from £450 to £550 per annum.

DR. A. WELLESLEY HARRIS has been appointed port medical officer for Southampton, in addition to his previous duties as medical officer of health to the town, at an additional salary of £100 per annum.

ATTENTION is called to the announcement in another column that the Council of the Society is anxious to ascertain which day of the week, and which week of the month, would be most convenient to provincial members for holding the ordinary meetings of the Society. The Hon. Secretary, Dr. Sykes, will be glad to receive communications on this point from any members finding the present day of meeting inconvenient.

DR. TATHAM, a copy of whose Manchester life-table has reached us, is to be congratulated on the completion of a work of great importance. It marks a new departure in local statistics, being the first life-table constructed on local data by a medical officer of health for local purposes. At the end of the twentieth century, when the knowledge of an actuary may possibly have been added to the somewhat multifarious knowledge already required of medical officers of health, Dr. Tatham's work will be quoted as that of a pioneer. We hope next month to give copious extracts from this life-table.

THE Cheshire County Council have decided to appoint a medical officer of health for the county at a salary not exceeding £100 per annum. It will be his duty to attend all meetings of the Public Health Committee, to summarise the district health reports, and generally to advise the Council on all questions affecting the public health. It is unfortunate that the Cheshire County Council do not appreciate the importance of the appointment they are about to make. An officer at the nominal salary named above will not be able efficiently to discharge his duties, nor to come into line with the public health work of other county councils, which have more fully realised their duty in this respect.

THE proceeds of the Sir George Buchanan subscription fund will, we believe, be devoted to the founding of a gold medal, to be given biennially or triennially, for distinguished services rendered to sanitary science. The Royal Society will probably be asked to award the medal.

ACCOMMODATION FOR FEVER PATIENTS IN LONDON.

By T. ORME DUDFIELD, M.D.

IN a recent report, Dr. Dudfield, after carefully marshalling all the available figures, concludes "that London requires in its rate-supported or public hospitals at least more than 6,150 beds; some 1,050 more, therefore, than the Royal Commission recommended in 1882. The normal accommodation already in existence, or provided for, at the several hospitals, appears to be about 3,959 beds, viz., at the Eastern Hospital, 298 beds; the North-Western, 411 beds; the Western (shortly to be raised to), 400 beds; the South-Western, 338 beds; the South-Eastern, 426 beds; the North-Eastern (shortly to be raised to), 456 beds; and the Northern (for fever convalescents), 480 beds. Total, 2,809 beds. To which must be added the hospital ships and the Gore Farm Infirmary, for acute cases of small-pox, 550 beds; and the Gore Farm Hospital for convalescents, 600 beds; total, 1,150 beds. By utilising this hospital for scarlet fever cases: by placing additional beds in the wards of the various hospitals; and by diverting rooms hitherto in use for other purposes; by the erection of temporary wooden huts in the grounds at several of the hospitals; and, lastly, by the erection of the North-Eastern Hospital, the managers have increased the accommodation for patients to, at the present date, 4,110 beds—or 4,410 if account be taken of the beds remaining to be brought into use, soon, at the last-named hospital. The 4,110 beds are at present appropriated to the several diseases as follows: Scarlet fever, 3,550; diphtheria, 280; enteric fever, 130; other fevers and isolation, 150. This accommodation, however, would be appropriated otherwise to the various diseases, as their relative prevalence might require.

"Now it is hardly necessary to insist on the abstract impropriety of placing additional beds in wards, or of diverting to the use of the sick, during the prevalence of an epidemic, rooms usually employed for other purposes, and no one defends the costly expedient of temporary huts. It is manifest, therefore, that provision of a permanent sort should be made to supply the reasonable maximum requirements of the Metropolis. How this should be done is a subject well worthy of the attention of the Asylums Board, and, indeed, of the Local Government Board. The accommodation that remains to be provided, if my estimate is correct, would be, in round numbers, 2,200 beds. How and where this could best be done is the question. Among the first points, perhaps, to be settled would be the number of beds which may properly be placed on a given space—say in pavilions of two storeys each? And to what extent additional accommodation may properly be provided on the existing sites? as the more economical plan obvi-

ously would be that of enlarging the present hospitals. The North-Eastern Hospital site, for instance, is adequate for a thousand beds; the North-Western Hospital, about to be rebuilt, could be enlarged; the Western Hospital could be still further extended. Another highly important question to be solved is the requisite provision for acute and convalescent cases respectively? The latter class of cases should be provided for by another hospital a little way out of town, where less difficulty would be experienced in finding a site. The next epidemic should not be allowed to find the Asylums Board unprepared. London should not again suffer the anxieties of 1887 and 1892; nor be burthened by a repetition of wasted expenditure, on temporary accommodation, to an amount probably equal to half the cost of providing the permanent accommodation necessary."

THE SMOKE NUISANCE IN MANUFACTURING DISTRICTS.

(A Contributed Article.)

WE are glad to observe that all over the North of England substantial progress is now being made in the purification of the atmosphere by the lessening of the emissions of black smoke from various manufactories. Hitherto the chief excuse for inaction lay in the difficulty of procuring suitable smoke-consuming appliances; manufacturers, when brought before the magistrates for nuisance from their chimneys, protested, and not altogether without reason, that the mechanical aids to combustion were expensive, usually wasteful of fuel, and so unsatisfactory that after a short trial they were thrown as useless upon the scrap heap. Within the last two years, and just at a critical juncture, a man of light and leading has shown himself in Lancashire who has instructed the whole manufacturing community, not only in the proper principles on which mechanism for complete combustion should be constructed, but who has at his own works shown thousands of interested persons a pair of chimneys which have been worked practically without the issue of black smoke for the past fourteen or fifteen years.

The well-known Jukes furnace was the first of the smokeless machines, and it was very generally applied all over the country. In it the furnace was made up of endless chains lying close together so as to form a floor on which the fuel rested. The chain floor revolved round a drum at either end, thus taking in the raw fuel at the front, and dropping the exhausted ash and clinker over the other end on to the bottom of the flue. The Jukes machine was practically smokeless, but as it was not economical from excessive admission of air, and as it was only applicable to the old externally fired boiler, it has ceased for many years to be of any service to the manufacturer as an aid to smokeless combustion. It rendered, however,

during its life a great service to the cause of atmospheric purity by establishing the principle on which a smokeless firing machine should be constructed, and Jukes is in fact the parent of the modern coking smokeless furnace.

Jukes was followed in the market, after an interval of some years, by a class of machines which are called "sprinkling" or "throwing" stokers, and which have had an enormous sale in the manufacturing districts of Lancashire and Yorkshire. In these machines a shovel, actuated usually by a pair of springs, received the coal in small quantities from the hopper above, and sprinkled it or flipped it over the surface of the fire. The popularity of these machines has been very great as steam raisers, but the earlier and, indeed, many of the later ones are quite useless as smoke preventers, and often, indeed, cause a greater nuisance from smoke than even bad hand firing. In practice it is found that the fuel is thrown by the sprinkler on to the surface of the fire in uneven heaps, thus necessitating the frequent use of rake and poker to break up and level the fire. The result is loss of heat from the frequently opened furnace, and clouds of black smoke issue from the necessary interference of the attendant with the fuel imperfectly distributed by the machine. Some machines of the sprinkling class are less bad than others, but all of them have the common and incurable vice of throwing the fine coal dust into the flues, whence the draught carries it up the chimney, and distributes it broadcast for a long distance around. To such an extent does this occur in towns, that there is a general soiling of the surroundings, and a very extensive blocking of house gutters, down spouts, etc., from accretions and accumulations of these coal particles sent up the chimney in a continuous stream from these sprinkling stokers. These defects, and the uselessness of the average "sprinkler" as a smoke consumer, which has led its owner in many instances to the police court for nuisance, have doomed the sprinkler to the scrap heap, to which final resting-place it is being slowly but surely consigned by all intelligent steam users. The Jukes furnace left behind it an established principle of smoke combustion by the coking process, while the sprinkler will leave but a memory of misspent cash to the amount of hundreds of thousands of pounds all over the manufacturing districts of this country.

About three years ago, when the advocates of smoke combustion and the owners of manufacturing concerns were alike, from failure of all previous appliances, in despair of any improvement in the methods employed for smokeless combustion, the voice of a man was heard all over Lancashire, whose name and actions it would be impossible to pass over in any record of the progress of the manufacturing districts towards the better consumption of the smoke from the steam boilers.

Mr. Herbert Fletcher, of Bolton, is a proprietor