

REVIEWS.

A Contribution to the Demography of South Australia.
By T. BORTHWICK, M.D. Edin. (Bailliere, Tindall, and Cox.)

Dr. Borthwick has published in book form the thesis which he presented to the University of Edinburgh for the degree of M.D., and the volume deserves perusal, as it contains much interesting information on the geography and meteorology, the sanitary progress, and vital statistics of the Colony of South Australia.

The capital, Adelaide, has only had a proper system of drainage since the year 1882, before which time it was rightly described as "a city of stinks from one end to the other." The rapid progress of a new country furnishes special sanitary difficulties. This may be best illustrated by the discovery of some new mine. There is a sudden rush of population to the spot. The miners take no sanitary precautions, and speedily the camp is a hotbed of filth and disease. Excreta are washed by rains into the wells and drinking-water tanks, and thus infection rapidly spreads. There being no provision for treatment in the camp, the patients are taken to their homes in various parts of the colony, and thus fresh centres of infection are started. Hence, it is evident that the prevalence of enteric fever in one district may result from insanitary conditions remote from it.

It is unfortunate that the quinquennial census enumerations in South Australia, which were kept up from 1846 to 1881, were then discontinued on the score of expense; as it is evident that the rapid immigration, emigration, and transmigration to which a new colony is so subject interfere with the trustworthiness of all estimates of population. Thus, the increase in different quinquennial periods oscillated between 13·5 and 184·5 per cent. of the preceding population.

The general conditions of the population are favourable to health, there being no overcrowding, no poverty, and no climatic, or other hardships. In 1881 (the last census year) the birth-rate was 38·5, as compared with 33·9 in England and Wales, and the death-rate 14·4, as compared with 18·9; while in 1889 the estimated death-rate was 11·1, as compared with 17·9 in England and Wales. Death-rates are given at various age-groups, showing that at no age-group does the mortality of the colony exceed that of England and Wales. The comparison of death-rates at all ages would have been much more valuable had the factor of correction for age and sex distribution been supplied.

In the curves with which the seasonal prevalence of certain diseases is illustrated, Dr. Borthwick makes a valuable distinction between the death-curve and what he calls the "germ curve." Thus diphtheria and diarrhoea are usually fatal in about a week, and their incubation period is also short; hence the germ curve corresponds closely with the death curve. On the other hand, enteric fever is usually fatal in the fourth week, and its incubation period averages three weeks (this long incubation is perhaps not remembered sufficiently); hence its germ curve would be from six to eight weeks in advance of the death-curve.

The germ curve of diarrhoea attains its maximum in December or January, that of enteric fever in February or March, and that of diphtheria in May or June. Dr. Borthwick would infer that, inasmuch as the prevalence of diarrhoea begins in early summer, the micro-organisms causing it exist near the surface of the soil, while those of enteric fever exist at a greater depth, and those of diphtheria still deeper.

These views would have been of much greater value had they been associated with systematic observations of the earth-temperature at various depths, and of the variations in the level of the subsoil water.

The mortality from phthisis is about 1 per 1,000, as compared with 1·5 per 1,000 in England and Wales. The superiority of the colony in this respect is not so great, as might have been expected in the absence of overcrowding and noxious trades, and the abundance of food.

The total number of deaths in the colony from hydatid

disease in 1889 was 11 out of 3,501 total deaths. For the prevention of this disease are recommended the reduction of the number of dogs, the exclusion of dogs from slaughter-houses, and feeding them on cooked meat, and the protection of water supplies from dogs, and of water-tanks from the entry of dust, while the water itself should be filtered or boiled.

APPOINTMENTS.

MEDICAL OFFICERS OF HEALTH.

ABBOTT, CHARLES E., L.R.C.P., M.R.C.S., re-appointed Medical Officer of Health for Braintree.

BOOTH, FREDERICK, M.B., C.M.Aberd., re-appointed Medical Officer of Health for St. Anne's-on-the-Sea.

BOSWELL, J. I., M.D.Lond., L.R.C.P., M.R.C.S., re-appointed Medical Officer of Health for the Portland Borough of Faversham.

BOUSTEAD, R., L.R.C.P., L.R.C.S. Edin., D.P.H., re-appointed Medical Officer of Health to the Hexham Union Rural Sanitary Authority.

BRADEN, JNO. GEORGE, M.R.C.S. Eng., L.S.A., re-appointed Medical Officer of Health for the Borough of Lewes.

BUTTERFIELD, HARRIS, M.R.C.S., L.S.A., re-appointed Medical Officer of Health for the Cranbrook Union.

DICKSON, ROBERT HARPER, L.R.C.P., L.R.C.S. Irel., appointed Medical Officer of Health for the Newcastle-under-Lyme Rural Sanitary District.

DUDFIELD, R., M.B., D.P.H., appointed Medical Officer of Health to the Borough of Eastbourne.

EVANS, ROBERT WM., L.R.C.P., L.R.C.S. Edin., re-appointed Medical Officer of Health for Wrexham.

EVANS, WILLIAM, L.R.C.P. Edin., M.R.C.S. Eng., re-appointed Medical Officer of Health to the Anglesey United Sanitary Authority.

GREEN, C. D., M.D.Lond., re-appointed Medical Officer of Health to the Edmonton Local Board.

HAWTHORNE, WM. THOS., M.R.C.S., L.S.A., re-appointed Medical Officer of Health to the Wellington Rural District.

JONES, FELIX, M.R.C.S., L.S.A., appointed Medical Officer of Health for the Llanfyllin Rural District.

JOYNES, FRANCIS J., M.R.C.S., L.S.A., re-appointed Medical Officer of Health for the Dursley Rural District.

MARSDEN, R. S., M.B., C.M. Edin., appointed Medical Officer of Health for Birkenhead.

OWEN, JNO. VAUGHAN, M.R.C.S., L.R.C.P., appointed Medical Officer of Health for the Llanidloes Urban Sanitary District.

REES, HUGH, M.R.C.S., re-appointed Medical Officer of Health for the Carnarvonshire Combined Sanitary District.

RODERICK, SYDNEY JAS., M.B. Edin., appointed Medical Officer of Health for Llanelly.

SMITH, HENRY, M.B., B.S. Durh., appointed Medical Officer of Health to the Brandon and Byshttles Local Board.

SOMERVILLE, JAMES W., M.B., C.M. Edin., appointed Medical Officer of Health for Galashiels.

TURNER, Dr., re-appointed Medical Officer of Health for Melton Mowbray.

TYNDALE, W. R., M.B., C.M. Aberd., L.R.C.P., M.R.C.S., re-appointed Medical Officer of Health for the Hampton Sanitary District of the Kingston Union.

WILLIAMS, Dr. E., appointed Medical Officer of Health for Mold.

WRIGHT, J. H., M.B., C.M. Edin., appointed Medical Officer of Health for the Borough of Kelso.