

## MR. CHARLES DARWIN AND THE DEFENCE OF SCIENCE.

THE following is an extract from a letter of Mr. Darwin to Dr. Lauder Brunton, dated November 19th.

Dear Dr. Lauder Brunton,—I saw in some paper that there would perhaps be a subscription to pay Dr. Ferrier's legal expenses in the late absurd and wicked prosecution. As I live so retired, I might not hear of the subscription, and I should regret beyond measure not to have the pleasure and the honour of showing my sympathy and admiration of Dr. Ferrier's researches...

We mentioned last week that a number of eminent medical men, among whom are Sir William Jenner, Sir James Paget, Sir William Gull, Sir J. Risdon Bennett, Mr. Lister, and many others, have also spontaneously expressed their desire to take part in such proceedings as it may be thought desirable to take, in order to prevent the recurrence of unjust attacks upon biologists and medical men, and other men of science, who may, in the prosecution of their studies, become subject to interference by the opponents of experiments upon animals under the existing law. With this view, and with the further object of putting into an accessible form the information on the benefits which experimental physiology confers upon the art and practice of medicine, and the advancement of the science of healing, arrangements are in progress for the formation of an extended association of medical men, biologists, and other men of science, and those interested in the advance of knowledge and the alleviation of human and animal suffering. Circulars will shortly be issued, inviting members of the medical profession, physiologists, men of science, and others, to join such an association; meantime, communications may be addressed to Dr. Lauder Brunton, F.R.S., 50, Welbeck Street. We may mention that subscriptions already offered for the purpose range in amount from £100 to one guinea.

## THE QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

THE latest Quarterly Return of the Registrar-General relates to the marriages of 100,460 persons in England and Wales during the three months ending June 30th. These were equal to an annual rate of 15.5 per 1,000, which was 1.0 below the average rate of the corresponding period of the preceding ten years, but was above the marriage-rates of the second quarters of the years 1879 and 1880. The return deals with the births and deaths of the three months July, August, and September. The births registered in this period were 215,586, and 3,437 fewer than in the corresponding quarter of last year. The annual birth-rate did not exceed 32.8 per 1,000, which was 1.8 below the average, and was lower than in the third quarter of any year since 1860. The deaths registered during the three months in England and Wales were 109,956; the natural increase of population was consequently 105,630. But, as 72,665 British (including 46,388 English) emigrants left the country during the same period, whilst the number of immigrants is not recorded, the actual increase of the population cannot be ascertained. The temperature in the first three weeks of July was considerably above the average; the weather in the latter part of the month was very variable; while it was for the most part wet, cold, cloudy, and unseasonable, throughout August. The first half of September was cold, while the weather was moderately fine during the remainder of the month. The rainfall at Greenwich during the quarter was 8.19 inches, which was three-quarters of an inch below the average. There was however, a considerable excess in August.

The 109,956 deaths during the quarter showed a decline of 21,285 from the number in the corresponding period of 1880. The birth-rate was 16.7 per 1,000, being 2.9 below the average. In the third quarter of 1879, the death-rate was 16.3. With this single exception, the rate last quarter was lower than in any summer quarter since civil registration commenced in 1837. The low death-rate implies that more than 24,000 survived the three months who would have died had the death-rate corresponded with the average rate in the forty-three preceding corresponding quarters. The 109,956 deaths included 57,099 of males and 52,857 of females.

In the fifteen and a half millions of persons living in towns, the death-rate was equal to 18.5 per 1,000; in the rural population of about ten and a half millions, the rate did not exceed 14.2 per 1,000. In the twenty largest towns, including London, the death-rate averaged

20.5 per 1,000, and was 2.7 below the rate of the third quarter of 1880. The highest rates were, 25.3 in Liverpool, 26.2 in Hull, and 26.5 in Leicester, due in great measure to excessive zymotic fatality, which also showed a considerable excess in Stoke-upon-Trent, St. Helen's, and Gateshead. The 109,956 deaths included 29,765 of infants under one year of age, 54,516 of children and adults aged between one and sixty years, and 25,675 of persons aged upwards of sixty years. The rate of infant mortality, measured by the proportion of deaths under one year to births registered, was equal to 138 per 1,000, as against 170 per 1,000 in the ten preceding corresponding quarters. It is satisfactory to learn that, excepting the summer of 1879, infant mortality was lower last quarter than in the third quarter of any recent year. The rate was as low as 66 and 67 in Herefordshire and Wiltshire respectively, whilst it ranged upwards to 188 in Warwickshire, and 216 in Leicestershire, the county of unenviable notoriety for excessive infant mortality. In London, this mortality was 191, whilst it was 239 in Nottingham and 325 in Leicester. The rate of mortality amongst persons aged between one and sixty years was equal to 9.3 per 1,000, or 1.3 below the average. Amongst persons aged upwards of sixty years, the annual death-rate averaged only 52.3 per 1,000, and was 3.1 below the average. There was thus a satisfactorily low rate of mortality at all ages, equal to 15 per cent. below the average; the decline was 18 per cent. amongst infants, 13 per cent. amongst children and adults under 60 years, and 5 per cent. amongst persons aged upwards of sixty years.

The zymotic mortality was thus distributed: 8,307 deaths attributed to diarrhoea, 3,535 to scarlet fever, 2,031 to whooping-cough, 1,705 to fever, 1,341 to measles, 674 to small-pox, and 629 to diphtheria. There were 18,222 deaths attributed to these causes, giving a death-rate of 2.77, against an average rate of 4.21. The 8,307 deaths from diarrhoea corresponded to an annual rate of 1.26 per 1,000, against an average of 2.27 in the ten preceding summer quarters. Once only—viz., in 1879—was the rate lower; it was then only 0.73. The lower rate in the past quarter was doubtless due to the cold weather that prevailed through August and September, and which more than counterbalanced, so far as the production of diarrhoea was concerned, the burst of excessive heat and high diarrhoea mortality of July. The diarrhoea death-rate was 2.67 in Leicestershire, 5.4 in Leicester, 3.6 in Nottingham, and 3.2 both in Leeds and Yarmouth; it was also high in Chiswick and Prittlewell. The deaths from scarlet fever, whooping-cough, fever, and measles were all below the average, though there were outbreaks of each of these diseases in various districts. Thus scarlet fever prevailed in Hull, where it caused a death-rate of 5.8; in Merthyr Tydfil the rate was 4.5, in Nottingham 2.8, and in Leicester 2.1. The highest death-rates from whooping-cough were 1.4 in Leicester and in Colchester, and 1.1 in Birmingham and in Halifax. The 1,705 deaths due to fever corresponded to an annual rate of 0.26, against an average of 0.44. Once only in the preceding ten summers was the rate so low; viz., in 1879, when it was also 0.26. The highest death-rates from measles were at Liverpool, Portland, Harwood, and Barnsley. The 674 deaths from small-pox were higher than in any summer quarter since 1871 and 1872. Of the 674 deaths, 522 occurred in London and its outer ring; there were 34 deaths in Lancashire, 15 in Yorkshire, and 9 at Wokingham. The 629 deaths from diphtheria gave an annual rate of 0.10, against an average of 0.09. In Portsmouth, the rate was as high as 1.44.

Mr. GALSORTHY, vice-chairman, has been elected chairman of the Metropolitan Asylums Board, in the place of the late Dr. Brewer; and Sir E. Currie has been elected vice-chairman. The fever-statistics presented to the board showed a decrease of thirty-five in the total number remaining under treatment as compared with those of the previous fortnight, and the small-pox an increase of fifty-one.

CINCHONA BARK.—During the past year a new kind of cinchona bark is said to have been discovered in the neighbourhood of Bucaramanga, Province of Santander (United States of Colombia), which contains about two per cent. of quinine, and is free from all other alkaloids. This bark was brought into the market under the name "Cuprea" bark. Reports from Colombia state that two rival companies, with about 1700 labourers, are working these districts. It is estimated that a labourer is able to collect daily 20lbs. of fresh bark; 7lbs. of fresh yield 3lbs. of dry bark; hence the 20 lbs. of fresh yield 8.57 lbs. of dry. The daily production of 1700 labourers is therefore, on the average, 14,569 lbs. which amount in thirty days to 437,070 lbs. or about 4000 bales, each 110 lbs. At first these reports were considered to be exaggerated, but time has shown them to be correct, since the calculated quantities of supply are even somewhat less than the actual arrivals. This bark represents about one kilo of quinine per bale.