of this postural tone; the new position is taken up by contractile fibres, and then the fixing fibres supply plastic tone to assist in maintaining the new position. This plastic tone is present not only in the muscles actively producing the posture, but also in the antagonistic muscles; and it is reasonable to suppose that there is more inhibition of contractile than of plastic tone in opposing muscles. Compared with the state of affairs in the moving muscles (where over-contractile tone is very obvious), there is relatively a preponderance of plastic tone over contractile tone in the antagonistic muscles. But this plastic tone in these muscles will not be evident (as is a contraction) on palpation by the hand. Co-ordination is thus provided; but the explanation of the tense feeling in Mr. Paramore's examples is as I have outlined above.

The evidence for the reflex inhibition of antagonistic muscles is weighty, and a disturbance of this function and corresponding failure of co-ordination is more likely to be the explanation of the phenomena of the diseases mentioned by Mr. Paramore than an active contraction of opposing muscles normally.—I am, etc.,

ROBERT J. GITTINS, M.D.

Friends' Hospital, Itarsi, C.P., India.

Obituary.

SIR BRYAN DONKIN, M.D., F.R.C.P.,

Late Physician to Westminster Hospital and a Commissioner of Prisons.

WE announced with much regret last week the death, on July 26th, at his house in London, of Sir Bryan Donkin, at the age of 82. He had been in good health until comparatively recently, when his vigour began to fail.

Horatio Bryan Donkin was the son of a civil engineer. He was born at Blackheath, and there went to school. He entered Queen's College, Oxford, in 1862 as an open scholar and took a first class in Greats (classical). He attended St. Thomas's Hospital and took the M.B. degree at Oxford in 1873. He proceeded to the M.D. in 1893, and was elected F.R.C.P. in 1880. He at first settled down in practice as a physician in London, and became attached to the Westminster Hospital (where he was lecturer on medicine) and to the East London Hospital for Children, Shadwell. He lectured also on medicine at the London School of Medicine for Women. On his appointment to be a commissioner of prisons and director of convict prisons he resigned these clinical appointments, and was appointed consulting physician in both instances. During his connexion with the prison service he was a member of the visiting committees at the Borstal institutions; of the Royal Commission on Control of the Feeble-minded (1904-8); and of several departmental committees appointed by the Home Office. When he retired from the directorship he was appointed medical adviser to the Prison Commission. Afterwards he lived in retirement in London, but continued to take keen interest in matters relating to criminology and mental disease. He gave a course of lectures at the Maudsley Hospital on mental defect and criminal conduct, and delivered the Harveian Oration of the Royal College of Physicians in 1913, taking as his subject "The inheritance of mental characters." He received the honour of knighthood in 1911.

He was a frequent writer of articles, not only in the medical and psychological press, but also in the monthly reviews, and made many contributions to the *Times*. He took an active interest also in the prevention and treatment of venereal disease, and was one of the founders of the Society bearing that name. He held strong personal views on the subject, and did not always see eye to eye with some of his colleagues in the society. He was for a good many years a member of the British Medical Association, but never took an active part in its affairs. He was also an honorary member of the Royal Medico-Psychological Association.

Donkin, during early middle-life, and indeed beyond, was very well known in London, both to the profession of medicine and to biologists. In association with his friend Sir E. Ray Lankester, he was active in the investigation,

and on some occasions in the exposure, of spiritualistic methods. Intellectually in this matter, as indeed in all others, he was fearless and was not afraid to go where his observations and conclusions led him. The controversy has rather died down, but at the time to which we refer it was burning fiercely. Donkin was a clubbable man; he was particularly fond of the Savile Club, and followed its fortunes from Savile Row to Piccadilly.

Donkin married rather late in life, his first wife being a Polish lady. After her death he married again, an American lady, the widow of Mr. Isaac Dates of Belfast.

CHARLES CREIGHTON, M.D.

CHARLES CREIGHTON died on July 18th in the country village of Upper Boddington, Northamptonshire, to which he retired some years ago. He was born at Peterhead in 1847, graduated M.A. Aberdeen in 1867, studied medicine at Aberdeen, Edinburgh, Vienna, and Berlin, and received the degree of M.D. from his own university in 1878. For four years he was occupied with research on cancer for the Medical Department of the Local Government Board, and thereafter was demonstrator of anatomy at Cambridge for five years, taking the degree of M.A. (King's College) in 1880. He settled in London in 1881, and for the remainder of his life was largely occupied in the study of epidemiology and the preparation of books and numerous papers on subjects belonging to that department of science.

The death, in his 80th year, of Dr. Charles Creighton should excite emotions of pride, shame, and sorrow in members of his profession; pride in his scholarly achievements, shame that his colleagues never paid him the tribute of respect willingly conceded to far smaller men, sorrow that what Johnson would have called the anfractuosités of his character, if they did not excuse, partly explained the cold hostility with which he was almost universally treated. Creighton was a voluminous writer, but it is practically certain that he will be remembered for two works. His translation of Hirsch's *Handbook of Historical and Geographical Pathology* for the New Sydenham Society secured him the kind of immortality gained by, say, Tieck and Schlegel or North—namely, that earned by those who have made really available to foreigners the original text of an epoch-making work. His *History of Epidemics in Britain* admits him to the circle of great original writers, and is, in the strict sense of the word, a classic. The admirable literary style of this work can be appreciated by any educated reader; to assess its scholarship requires some independent experience of the subject matter. I have worked over a small part of the field and never detected any error of fact. But Creighton's historical scholarship was greater than is implied even by minute accuracy in citation and power of focusing the data. Anybody who studies the medical writers of the eighteenth and earlier centuries with a serious intention of understanding them eventually realizes that a great deal more is needed than mere study of the texts, that it is necessary to acquire a new sense of intellectual values by reading the books—particularly the Latin versions of the most popular works of Galen and Hippocrates—with the teaching of which the older epidemiologists were saturated. Although Creighton makes no parade of erudition it is obvious enough that he had taken these pains, and could, in the stock phrase of the *Arabian Nights*, both read a letter and understand it. He was wholly free from the neocentric error of supposing that because a writer of the seventeenth or eighteenth century uses words which, used as we use those words, seem nonsensical he was therefore writing nonsense. This was a great merit, a fine quality in an historical writer; but as Creighton had, like all other men, his share of human frailties, this very virtue betrayed him into a fault which his contemporaries had not generosity enough to forgive. The fault was that, while he tried to do justice to the past and succeeded in that aim, he never tried to do justice to the present. He despised the pseudo-historian who awards praise or blame in accordance with the extent to which the opinions or descriptions of the old writer can be

"identified" with those of modern idols of the market place. His reaction was either to ignore wholly or to mention with cold contempt those lines of thought and research which his own contemporaries highly prized. He acted in the spirit of the epigrammatist who said that whatever is generally believed is necessarily false. Contempt is more wounding to one's vanity than vehement attack. This habit of mind, together with the inevitable exploitation of his scholarship by one party to an acrimonious dispute, will explain the practical ostracism of Creighton. A very small number of Englishmen openly recognized him as the most learned epidemiologist we have ever produced; some others borrowed from him without acknowledgement or even affected a certain superiority; to most he was just Creighton the antivaccinator and—what more is there to be said?

Although Creighton will surely live as an epidemiologist, he seemed to value himself far more upon his microscopic work. I met him several times some twenty years ago in his friend Professor Bulloch's laboratory, and remember that he used to speak lightly of the amount of ability required for literary research in comparison with the demands made by work in the laboratory. But his literary conversation was fascinating. Those of us who gathered round Bulloch's tea-table will remember Creighton's brilliant solutions of literary puzzles. He had solved, or thought he had solved, most of the problems of literary identification. I recollect a particularly neat identification of the "four beasts full of eyes before and behind" of the Apocalypse: one stood for Isaiah, another for Jeremiah, another for Ezekiel, and the last for Daniel. Very likely—I am no judge—his pathology and his literary criticism may have been amateurish, but he was quite certainly something much bigger than a technical expert; he was a scholar and a gentleman.

It was rather hard to explain to Continental scholars, who had a habit of assuming that Creighton was one of our great men, that the practical British mind could not take an antivaccinator seriously; they might actually suggest that such heterodoxies were of no more relevance to Creighton's work than Virchow's political alarms and excursions detracted from his scientific position! A dead man does not offend the herd instinct any more. Let us hope that now all will read the *History of Epidemics in Britain*.

M. GREENWOOD.

ALEXANDER CAMPBELL, M.D., F.R.C.S.Ed., Dundee.

We regret to record the death of Dr. Campbell, on July 10th, in his 86th year. He graduated at Aberdeen in 1865, settled in Dundee in 1870, and before long was appointed surgeon to the Royal Infirmary there. In the *Edinburgh Medical Journal* of July, 1874, he reported one of the earliest British cases of successful nephrectomy, a cystic tumour provisionally diagnosed ovarian being found to proceed from the lower pole of the kidney; the kidney and tumour were removed together. After ten years' service Dr. Campbell was appointed consulting surgeon, and he was several times a member of the board of directors. He was certifying factory surgeon and surgeon to the Post Office.

He was keenly interested in public affairs, and served as surgeon-major of the Rifle Volunteers. In 1901 he was president of the Dundee Branch of the British Medical Association. He is survived by his elder son, Dr. A. Sydney Campbell, and by a married daughter, to whom we desire to express our sympathy.

Medical Notes in Parliament.

[FROM OUR PARLIAMENTARY CORRESPONDENT.]

On July 29th, before Parliament adjourned for the Recess, the Royal Assent was given to the Diseases of Animals Act, Poor Law Act, Midwives and Maternity Homes (Scotland) Act, and other statutes, including the Finance Act and the Trade Disputes and Trade Unions Act. The House of Lords and House of Commons will both reassemble on November 8th. The Unemployment Insurance Bill will come before the Commons for second reading on November 9th. The Mental Deficiency Bill

and the Nursing Homes (Registration) Bill are awaiting consideration by the Commons on report, and both should become law before Christmas.

The Scottish Board of Health.

Housing.

On the Estimates for the Scottish Board of Health, Mr. Adamson and other members discussed housing difficulties. Mr. James Stuart thought that the Government should accelerate its building programme in Scotland and compel slack local authorities to hasten. In Glasgow 277,000 people were living in overcrowded conditions according to the Scottish standard that three persons or more per room was overcrowding. The results were respiratory diseases, tuberculosis, measles, and whooping-cough. Three children died of tuberculosis in the overcrowded areas of Glasgow for one in the well-to-do residential part. From measles the proportion of deaths was five to one, and from whooping-cough seven to one. Even in the new houses 28 per cent. of those who had come from the slums were living in overcrowded conditions. The number of houses required in Glasgow in 1919 was 57,000; to-day 107,000 were needed. In 1909 13,000 Glasgow houses were insanitary; to-day not fewer than 20,000. Dr. Elliot said the Scottish Board of Health was not responsible for policy. Reviewing the health of the country, he said that the death rate from all forms of tuberculosis per 100,000 of the population in Scotland fell from 110 in 1925 to 99 in 1926, and the rate for deaths from non-pulmonary tuberculosis from 110 to 95. Compared with 1916, 1,744 fewer people died in Scotland during 1926 from pulmonary tuberculosis and 1,071 from non-pulmonary tuberculosis. Beds reserved for treatment of tuberculosis were now 4,339, compared with 4,170 at the end of 1925. Infant mortality in 1926 was 23 per 1,000, or 8 less than the rate in 1925, and 13 less than that for the preceding ten years. It was the lowest rate on record except that for 1923, despite last year's unemployment and depression in the coal trade. He agreed there was a high death rate in the crowded areas, but that could not be attributed only to one factor. It was also correlated to the low rate of nourishment. In Dundee, an overcrowded city, infantile mortality was lower than in Aberdeen. Mr. Stewart, intervening, said that in the Rose Street district of Glasgow the infantile death rate was 235 per 1,000 children born, against an average for the city of 107, and that the rate for the congested districts remained practically steady. Dr. Elliot said that this year to the beginning of July, houses had been built to meet the whole of the year's housing requirements for Scotland—practically 10,000 houses. He hoped another 6,000 would be built before the end of the year.

Highlands and Islands Medical Service.

Mr. Macpherson referred to the Highlands and Islands Medical Service Fund, drawing attention to the fact that it was still at the pre-war figure of £42,000. The Highland doctor did splendid work, often for a miserable fee. He asked whether the attention of the Secretary for Scotland had been drawn to the appeal by the medical officers for the establishment of a superannuation fund. The local doctor in remote parts should be guaranteed a house or the site of a house. Last year the Board of Health had caused three houses to be built for doctors. That was well worth doing.

Dr. Elliot said the Highlands and Islands Fund had an accumulated balance out of which the Board of Health was drawing between £18,000 and £20,000 a year. By 1928 or 1929 that balance would be exhausted, and the Secretary for Scotland would ask the Treasury for an increase in the sum given for medical benefits to the Highlands and Islands. An occasion for this approach would be found in the reconstitution of the fund, which had been recommended. The vote for the Board of Health was carried.

Scottish Prisons.

On a subsequent vote for Scottish prisons some protests were made about the sending of persons to prison for minor offences. Sir John Gilmour, in reply, said that Scotland admittedly lagged behind England in the use of probation, but the Scottish Office was investigating the problem, and he hoped progress would be made. Prison administration, particularly at the new prison in Edinburgh, was an advance on anything previously seen. This vote was also carried.

Public Education in Scotland.

On the vote for public education in Scotland, Mr. Maxton remarked that Glasgow had to be responsible for two-thirds of the physically defective and two-thirds of the mentally defective children in all Scotland; this, he argued, showed that a high percentage of Glasgow children were in social conditions which tended to make them defectives. The debate was adjourned.

Insulin.

Answering Mr. Forrest, Mr. Chamberlain said insulin was not a curative agent in the ordinary sense. No statistics were available of the number of persons who had received insulin treatment, nor was it possible to ascertain in how many cases the administration of insulin had contributed to the cure of diabetes.

Prospects of Insurance Legislation.—Mr. Neville Chamberlain states that as soon as consideration of the recommendations of the recent Royal Commission on National Health Insurance has been completed, the Government hopes to introduce the necessary legislation, and the question of the compulsory insurance of share fishermen, both in England and Scotland, in so far as they are not already included in the scheme, would be dealt with in such legislation.