

of space as the Isle of Man to the whole surface of the earth. Reference was then made to the conclusions of Friedmann and Lemaître that the equilibrium of such a universe would be unstable, and if expansion started it would continue. Sir James conjectures that the initial impulse which started the expansion may have arisen in the process of the condensation of the primeval chaotic gases into nebulae. Spectrograms of the distant galaxies indicate such an expansion, the rate of recession being about 105 miles per second at a distance of a million light-years, and increasing in the same proportion as the distance, so that it attains the amount of 15,000 miles per second for the most distant nebula yet measured.

ALLUSION was then made to the difficulty of reconciling this rapid recession with a past duration of the universe extending to millions of millions of years. Sir James has himself given strong reasons in favour of such a past duration, but he now admits that it may be necessary to abandon it. There are, however, some alternatives; there might have been a long period before the recession got fairly started; or the spectral shift that appears to indicate recession may be due to some other cause. Allusion was made to Sir Arthur Eddington's attempt to evaluate the cosmical constant, and so obtain a theoretical value for the rate of expansion; he obtained a value quite close to the observed rate. Sir James noted that this result, while intensely interesting as linking up the largest and the smallest objects of observation, is still a matter of controversy, and cannot be accepted as certain.

Hughlings Jackson Memorial Medal

DR. HUGHLINGS JACKSON, who died in 1911, gave the first Hughlings Jackson lecture that was founded in 1897 in his honour by the Neurological Society of London. With a few intervals, as during the War, this lecture has been given triennially, by an eminent neurologist or physiologist. Last year the Section of Neurology of the Royal Society of Medicine decided to form a fund to endow the lectureship with a gold medal and an honorarium of a hundred guineas triennially, and subscriptions were invited by a committee of which Mr. Leslie Paton was chairman and Dr. Wilfred Harris treasurer; 146 subscribers from many parts of the world produced a sum of just over £1200, which has been handed over to the Royal Society of Medicine, after paying for the design of a gold medal by Mr. Percy Metcalfe, the work being carried out by the Royal Mint. Sir Charles Sherrington, who gave the last lecture, on "Quantitative Management of Contraction in Lowest Level Co-ordination", has been awarded the first medal.

THE first Hughlings Jackson Memorial Medal, with the honorarium, was formally presented to Sir Charles Sherrington on Thursday, May 19, by Dr. Watts Eden, president of the Royal Society of Medicine. Before doing so, Dr. Stanley Barnes, president of the Section of Neurology, introduced Sir Charles Sherrington as an original member of the Neurological Society in 1886, and referred to Sir Charles's fame as an experi-

menter. He also called upon another original member of the Society who was present, Sir James Crichton-Browne, to give some personal recollections of Hughlings Jackson. Sir James recalled that in the early 'seventies Jackson had regularly visited the West Riding Asylum at Wakefield, where Sir James was then medical superintendent, and contributed several articles to their reports. After Sir James left Wakefield for London, he, with Hughlings Jackson, Ferrier, and Bucknill, founded the neurological journal, *Brain*. After Sir Charles Sherrington's reply, thanking the Royal Society of Medicine and the Fund Committee for their valuable prize, Mr. Leslie Paton presented Dr. Watts Eden, for the Royal Society of Medicine, with two replicas of the Jackson Medal, in toned silver, suitably framed.

Two-way Television

WHEN the possibility of television was recognised, the first application that suggested itself was to show the image of a person hundreds of miles away. A natural development was to superpose a television on a telephone system so that the hearer could both see the speaker and hear him talking. This latter method is used daily by the B.B.C. in the television radio broadcasts. A successful experiment showing the combination of ordinary telephony with two-way television was demonstrated to the Press in Paris on May 19, and an account of it appeared in the *Times* on the following day. The television apparatus used was supplied by the Baird Television Corporation. Infra-red rays are obtained by filtering artificial light through ebonite screens. They fall on both the speaker and the hearer. Only invisible rays are used to produce the electrical impulses in the connecting wires. At the ends of the line they are converted into light rays and focused on screens. It is difficult for either the speaker or listener to realise that his head and shoulders are in full view of the other. The visual screens are ten inches long by five inches broad. As the scanning disks make 750 revolutions per minute, $12\frac{1}{2}$ complete images per second appear on the visual screen. At this speed there is little flickering. The features are easily recognisable and the play of expression on the face is remarkably clear. The movement of the lips can easily be followed. If necessary, the 'finessness' of the images could be improved by increasing the number of dots. In the near future, public communication combined with television on a commercial basis will be started between Paris and Lyons. The Baird-Nathan Company is exploiting this system in France, and later on it is hoped to connect Paris and London in this way. A form of two-way television was demonstrated in New York by the Bell Telephone Co. on April 9, 1930 (*NATURE*, May 31, 1930).

London Power Supply

THE Central Electricity Board was created by the Act of 1926, and was given great powers to co-ordinate generation throughout the whole of Great Britain, including the London area. In 1929-30 the load for this area, excluding the railway and tramway re-