

energy, perseverance and thoroughness. Foster's actual additions to knowledge by way of research are small. But he was a discoverer of men rather than of theories. His powers of organisation were remarkable. Huxley's estimate of his powers can be inferred from a letter he wrote to Professor Weldon on February 9, 1893, in reply to Weldon's plea that what was possible in the Cambridge Biological School should not be difficult to be achieved in London. He wrote 'Michael Fosters do not grow on every bush.'

Foster was a delightful companion. He was excellent as an after-dinner speaker and was usually expected to speak; on the very day on which he died, January 28, 1907, he had made an excellent speech at the meeting of the British Science Guild.

S. R. RANGANATHAN.

Russell (Henry Chamberlaine) 1836-1907.

RUSSELL, the pioneer Meteorologist of Australia, was born at West Maitland, New South Wales, on 17th March 1836, that is, within nine days of the birth of the pioneer physiologist of the British Empire. After graduating at Sydney University in 1858, he became assistant to Mr. Scott, the Government Astronomer and succeeded him in 1870. He held the post for thirty-five years.

HIS CONTRIBUTIONS TO ASTRONOMY.

Apart from reorganising and refurbishing his observatory, he led the Australian observation of the transit of Venus in 1874. He also interested himself in the measurement of Double Stars from 1882 to 1889. Volumes 42 and 55 of the *Monthly Notices* contain his account of the "Transits of Mercury in 1881 and 1894".

HIS CONTRIBUTIONS TO METEOROLOGY.

The chief contribution of Russell was to the Meteorology of Australia. In 1870 there were only 12 meteorological stations in New South Wales and Government could not afford any large outlay towards an increase. But, by his persuasion and influence, Russell induced the farmers to make observations and supplied them with the necessary apparatus made by himself. The result was that, when he resigned his post in 1903, there were 1800 stations, of which over 1500 were voluntary.

By 1878, he began to get a sufficient number of returns from the observation stations, and he commenced the publication of weather map in the papers. He also succeeded in establishing a system of weather forecast. It is said that 82 per cent. of his forecasts were found to be correct.

As an inventor, there are 23 meteorological instruments to his credit. He contributed 130 papers to various learned periodicals.

HIS GENERAL SERVICES.

Mr. Russell took a very active part in initiating technical education in Australia and was a member of the Board of Technical Education. In 1891 he was made Vice-Chancellor of the University of Sydney. He was for several years President of the Royal Society of New South Wales. He was the first New South Wales man to be elected an F. R. S. This was in 1886; while he became a Fellow of the Royal Astronomical Society in 1871.

After a severe illness in 1903, when he retired from service, his health continued to be indifferent, until he died on February 22, 1907.

S. R. RANGANATHAN.

The Total Solar Eclipse of June 19, 1936.

THE Governments of Soviet Russia and Japan have invited the various scientific organisations of the world to send expeditions to their territories for observation of the eclipse. Since the eclipse of February 1934, this is the first total solar eclipse to be visible on the earth. According to the *Christian Science Monitor* (January 2, 1936) the eclipse will begin to be visible at sunrise in the Mediterranean Sea off the south-western coast of the Grecian Peloponnesus. The moon's shadow, making a path of totality about 50 miles wide, will sweep in a direction north of east across the Ægean Sea, Istanbul and the Black Sea and will pass

south of Rostov and Stalingrad, across Orenburg and over Omsk and Tomsk in Siberia.

An expedition consisting of six scientists from Georgetown University and the National Geographical Society, under the leadership of Dr. Paul A. McNally, Director of Georgetown College Observatory, will leave America in April to take photographs during the two and a half minute total eclipse. It is announced that the headquarters of the expedition will be established near Orenburg, 775 miles south-east of Moscow, over which the centre of the moon's shadow will travel during the eclipse.