

methods. The line linking the new Svir hydro-electric station with Leningrad uses the very high voltage of 220 kilovolts. The Soviet intends to electrify about 2,300 miles of railway before 1937. The pressure of 1,500 volt direct current is generally used for suburban electrification, but the voltage for the long distance main lines has not yet been fixed.

Mr. Monkhouse laid stress on the extreme importance the Soviet authorities attach to research and experimental work. Academic and fundamental research work is receiving the closest

attention, and very large electrical research laboratories have been developed. All the various works and factories connected with the Electro-technical Trust send their more complicated problems to the Central Institute in Moscow. The laboratories employ 1,700 workers, about 800 of whom are men with university training. The departmental chiefs are, almost without exception, men who occupy professorial chairs in the universities. There is little doubt that, in electrical development, more has been achieved than in many other branches of the country's economic life.

## News and Views

### "Letters to the Editor"

ON two occasions last year, issues of NATURE were published in which "Letters to the Editor" occupied considerably more than the usual proportion of the journal. This week we are printing a Supplement of sixteen pages, fifteen of which are occupied by correspondence—and there are still many letters in type awaiting publication. The number of letters we receive for this part of the journal reflects fairly accurately, we believe, contemporary progress of research in all departments of science. Last year we printed no less than 597 columns of correspondence, the great majority of which announced new lines of work or made significant contributions to older established knowledge. The addresses at the ends of the letters in this week's Supplement alone indicate the world-wide distribution of our correspondents. The spate of letters brings its own difficulties, and we are frequently obliged to ask correspondents to reduce the length of communications, but nevertheless we are gratified to find our columns so much in demand. It reaffirms the old saying that science over-rides all national barriers. Recently, a short section has been introduced at the end of "Letters to the Editor", in which brief mention is made of points brought out in some of the longer letters in the preceding pages. Correspondents will realise the difficulties involved in obtaining suitable notes, and they are invited to submit paragraphs about fifty words in length which they regard as summarising the main conclusions of their communications, for possible use in this section of the journal when their letters appear.

### Royal Astronomical Society's Medal Awards

THE Gold Medal of the Royal Astronomical Society has been awarded to Prof. E. A. Milne, Rouse Ball professor of mathematics, University of Oxford, for his work on radiative equilibrium and theory of stellar atmospheres. A Jackson Gwilt (bronze) Medal has been awarded to Mr. Walter Frederick Gale, of Waverley, N.S.W., for his discoveries of comets and his work for astronomy in New South Wales. Prof. Milne has occupied his present chair since 1929, having then moved to Oxford from Manchester, where he had been professor of applied mathematics.

Before going to Manchester, however, he was university lecturer in astrophysics at Cambridge and assistant director of the Solar Physics Observatory. His contributions to mathematical physics and astrophysics are of particular value on account of the close contacts they represent between observational work and theoretical conceptions. His essay as Smith's prizeman at Cambridge in 1922 embodied a treatment of radiative equilibrium which has proved the starting point for the greater part of the more recent work on stellar atmospheres. In his Bakerian lecture of the Royal Society in 1929, on the opacity of stellar atmospheres, Prof. Milne further developed a method of determining stellar temperatures and pressures, depending largely on the study of the contours of spectrum lines, that is, on the determination of their intensities at different distances from the centre of the lines. Of a different character is the model of the universe conceived by Prof. Milne and developed in a lecture entitled "World-Gravitation by Kinematic Methods" delivered before the London Mathematical Society in May last. The striking simplicity of the method used in the construction of this statistical model, and the far-reaching character of its interpretations, open up a new vista of possibilities for cosmic research.

MR. GALE, the Jackson Gwilt medallist of the Royal Astronomical Society, belongs to the enthusiastic band of non-professional, or amateur, astronomers who have contributed so much to observational astronomy. He is the discoverer of three comets—in 1894, 1912 and 1927—and has given close attention to the planet Mars, especially during the southern oppositions of 1892, 1894 and 1907. As first secretary, and afterwards president, of the New South Wales branch of the British Astronomical Association, Mr. Gale has done much to encourage the practical study of the heavens in New South Wales, as well as to promote interest in astronomy among the general public.

### Geological Society's Awards

THE Geological Society of London has this year made the following awards: Wollaston Medal to

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