

advances to meet the cost of existing schemes is stated to be 128,000*l.* only, against an estimated requirement of 200,000*l.* There may be some ground, therefore, for the apprehension expressed in the article as to the future adequacy of the Fund.

REFERRING to a remark made in the notice of his book "The Supremacy of Spirit" in *NATURE* of January 13, p. 45, Mr. C. A. Richardson writes to say that his purpose was not to attempt to deal at all adequately with scientific objections, but to show that (1) the evidence for the alleged facts is now of such a kind as to merit serious consideration and investigation by a scientific committee; (2) the alleged facts are in terms of his philosophical theory.

THE January list of new books and new editions added to Lewis's Medical and Scientific Circulating Library during October-December has just reached us. Although intended primarily for subscribers to the library, it should be of service to many others, being a general guide to medical and scientific works published in the past three months. The list, which is classified according to subjects, is to be

obtained free of charge from Messrs. H. K. Lewis and Co., Ltd., 136 Gower Street, W.C.1.

THE spring announcement list of the Cambridge University Press contains particulars of many forthcoming books of science. Among them we notice "The Air and its Ways," by Sir Napier Shaw, being the Rede Lecture for 1921, and other papers dealing with the physical explanation of the atmospheric circulation and with the application of meteorology to agriculture; "Relativity," forming the second of the supplementary chapters to Dr. Norman R. Campbell's "Modern Electrical Theory"; a newly arranged and enlarged edition of "The Mathematical Theory of Relativity," by Prof. A. S. Eddington; the "Collected Scientific Papers" of the late Dr. J. Aitken, containing some thirty-seven papers on atmospheric dust, fogs and clouds, air temperatures, and other scientific subjects, added to which is a sketch of the life and work of the author; and "Glass-Making in England," by the late H. J. Powell of the Whitefriars Glass Works, in which an account of glass-making in all its branches is given from the Roman period to the Great War.

Our Astronomical Column.

OCCULTATIONS OF STARS BY THE MOON.—On the night of January 27, the moon will pass over a number of the stars forming the well-known group in Taurus called the Hyades. The bright star Aldebaran is among those which will be hidden. The times of occurrence for four of the brighter stars will be as under:—

	Mag.	Disappears.		Reappears.	
		h.	m.	h.	m.
γ Tauri	3.9	2	57	3	57
θ' Tauri	4.2	8	31	8	56
+15° 637	4.8	9	26	10	39
Aldebaran	1.1	12	35	13	30

The moon will be about 10½ days old at the time and the stars will disappear at the unilluminated side, and reappear at the bright edge of the disc.

The event may be witnessed with a small telescope, and it is possible that Aldebaran may be seen by acute, unaided vision nearly up to the time of its disappearance, which will occur 35 minutes after midnight. The moon will be due south at 8^h and will be 55 degrees above the horizon at the time. There will be four other occultations of Aldebaran during the next 12 months, on March 23, October 27, November 24, and January 17, 1924.

OBSERVATIONS AT WALLAL OF THE ECLIPSE OF SEPTEMBER 1922.—The winter number of the *Chaldaeian* (vol. v., No. 17) contains an interesting account of the observation of the eclipse at Wallal on the west Australian coast by Messrs. J. Hargreaves and G. S. Clark-Maxwell. Their principal instrument was the 19-ft. camera with lens of 4-in. aperture lent by Father Cortie, and the 8-in. coelostat lent by the Royal Irish Academy; these were the same instruments as were used at Sobral, Brazil, in 1919, when they gave a result in close accord with Einstein's predictions. But in 1922 the stars were too faint to be photographed with a ratio of aperture to focal length 1/57, and the instrument was simply used as a coronagraph. A large number of successful exposures were secured with a range of 1 to 80 seconds, so that they should give good details both in the inner and outer regions. Successful plates were also secured with the smaller cameras; a declinometer, to record magnetic variations during totality, failed owing to a

smoky lamp. The darkness during totality is stated to have been considerable, necessitating the use of lamps for plate-changing, etc. The extension of the corona on some of the plates is 4 solar diameters, which is quite satisfactory.

A gale rendered re-embarkation very difficult, one boat sinking in the surf. None of the important pieces of apparatus were in it, and the articles were recovered. This experience shows that it would have been quite impossible to land the very heavy packages of the Christmas Island party at Wallal; it is a slight mitigation of the disappointment that they suffered to realise that they chose the only station that was reasonably possible in the circumstances.

SPECTROSCOPIC PARALLAXES OF A-TYPE STARS.—The earlier spectroscopic parallaxes were restricted to types F, G, K, M; but, as was recently noticed in this column, Messrs. Adams and Joy have found that the state of sharpness or nebulousity of certain metallic lines in the spectra of stars of type A forms a trustworthy guide to absolute magnitude. The calibration of the correlation curves is effected both by trigonometrical parallaxes and by the group parallaxes of stars in moving clusters. The average differences of the spectroscopic and trigonometric parallaxes (without regard to sign) are +0.0131" (104 stars), spectroscopic and group parallaxes +0.0077" (82 stars). The systematic differences are 0.0000" and -0.0014" respectively. A list is given (*Astrophys. Journ.*, November 1922) of 544 spectroscopic parallaxes of stars in Boss P.G.C., including a number of members of the Taurus, Perseus, and Praesepe streams. The parallax of Praesepe is given as 0.013".

A test of the values found is afforded by plotting parallax against proper motion. The resulting graph is nearly straight, showing an increase of proper motion from 0.000" to 0.400" as the parallax rises from 0.009" to 0.058". It is found advisable to omit Sirius, the large parallax of which unduly affects the mean of its group.

Data are still wanting for finding the parallaxes of stars showing the *c* characteristic, α Cygni being the leading example. Its absolute magnitude is estimated as -4 or -5.