

cannot become a real menace to the coal trade, as the amount available is only one-sixteenth of that needed to displace coal, and much of this is required for other purposes. A summary of addresses delivered at the annual dinner of the Guild by Field-Marshal Sir William Robertson, Col. Sir Ronald Ross, the Very Rev. Dean Inge, the Right Hon. Lord Rayleigh, and the Right Hon. Lord Bledisloe is also included in this issue of the Journal. Sir William Robertson made some illuminating comparisons between military experience of the past and the scientific warfare of the present day. He remarked that the day of the amateur is past, and that those who aspire to exercise Ministerial control over the destinies of this country should attach greater importance to the value of science. The administrative activities of the Guild fill a considerable portion of the issue. Special importance attaches to the report of the Committee on the Utilisation of Science in Public Departments, attention being directed to the position of scientific research workers in regard to tenure of service, salary, super-

annuation, etc. The attitude adopted by the Scientific Research Department of the Admiralty towards the individual university worker whose researches bear on Admiralty requirements is spoken of with approval.

A FAVOURABLE opportunity of obtaining books in general literature and on scientific subjects in new condition at prices considerably below those at which they were published is presented by Messrs. W. Heffer and Sons, Ltd., Cambridge, in their "Remainder" catalogue (No. 201), which has just been issued. It contains 485 titles, and is worthy of perusal.

THE most recent catalogue of Mr. F. Edwards, 83 High Street, Marylebone, W.1, is No. 416, entitled "Australasia and the South Seas." It gives particulars of some 813 works relating to Australia, New Zealand, Tasmania, New Guinea, and the islands of the Pacific. Some very choice and rare volumes are included.

Our Astronomical Column.

RECENT METEORS.—Mr. Denning writes:—"On July 5 there were two showers in prominent activity, supplying large, slow-moving meteors. The radiants were at $243^{\circ}+65^{\circ}$ and $228^{\circ}+58^{\circ}$. These positions are some distance east of the radiant point computed for Pons-Winnecke's comet, but it is possible the comet and meteors may be associated, the discordances having been brought about by perturbations. Fireballs were observed at Bristol on July 5 11h. 40m. G.M.T. from radiant $243^{\circ}+65^{\circ}$, on July 9 11h. 54m. from radiant $238^{\circ}+18^{\circ}$, and 12h. 47m. from radiant $343^{\circ}+12^{\circ}$. A well-defined shower of swift, streaking meteors was observed from the latter position on the night of July 9."

ANOTHER PLAN OF CALENDAR REFORM.—Prof. Rene Baire (Dijon) contributes an article to *Revue Scientifique*, 1921, No. 9, in which he points out several drawbacks (chiefly from a statistical point of view) attaching to the proposal to place certain days in each year outside the weekly and monthly reckoning. His plan of evading the difficulty is bold and novel, and consists in shortening the greater number of weeks to six days. A Saturday would occur only on the thirty-first day of the month—that is, five times in the year or six times in leap-year. The months are left nearly as at present, but the missing days of February are supplied. The following is the suggested table:—
January 30, February 30, March 31, April 30, May 31, June 30, July 30, August 31, September 30, October 31, November 30, December 31. In leap-year July has 31 days.

The 1st, 7th, 13th, 19th, and 25th days of each month would be Sundays; there would thus be sixty Sundays in the year instead of the present fifty-two or fifty-three. The author seeks to disarm ecclesiastical criticism by pointing to this increased number; he also notes that the feasts of January 1, November 1, and December 25 would always occur on Sunday, while if Easter were fixed to the date April 1 it would be preceded by a Saturday. It is proposed that the additional Sundays should take the place of the present Bank Holidays, thus making the number of working days in the year much the same as at present.

While the scheme has some obvious advantages, it is doubtful whether public opinion could be brought to sanction such a revolutionary change.

THE VARIABLE NEBULA IN CORONA AUSTRALIS.—Bulletin 20 of the Helwan Observatory contains a photographic research by the director, H. Knox Shaw, of the variability of this nebula and the neighbouring star R Coronæ Australis. The star magnitudes were deduced by comparison with standard fields at the same altitude, the incidental result being derived that the graph connecting magnitude with diameter of image shows decided curvature in the direction of enlargement of the image of the fainter stars. There are five variables in the field besides R Coronæ, viz. S and T Coronæ, C.P.D. -37-8450° (shown by Mr. Innes to be an Algol variable with period just under twenty-six days; a minimum of this star was observed at Helwan in 1915 August 9) and two other stars. Except for the Innes star, the variations appear to be irregular, and Mr. Knox Shaw conjectures that they may be due, wholly or in part, to the absorbing medium which he assumes to cover the whole region, as its star density is distinctly less than that of the neighbouring sky. The variability of the nebula is next discussed. Its structure is shown to be made up of a series of rings and knots, which apparently remain *in situ*, but alter in relative brightness. This is analogous to the behaviour of the nebulosity round Nova Persei, and Mr. Knox Shaw has examined the results to see if there is any connection between the changes of the star R Coronæ and those of the nebula. There is suspicion that the nebular changes follow those of the star at a ten-day interval, but the interruptions of the series of photographs by moonlight render it difficult to confirm this. If correct, and if it be due to an emanation travelling from the star with the velocity of light, the distance of the object would be about 100 light-years. It is pointed out that Hind's and Hubble's variable nebulæ are also near variable stars, and in regions of the sky that give evidence of the intervention of absorbing matter.