

appendage of the variable star R Coronæ Australis. Some results obtained since 1911 are described in a preliminary note (Bulletin No. 16). It is found that the nebula is bright when R Coronæ Australis is bright, and selectively variable areas have also been noted.

#### BRITISH RAINFALL IN 1915.

A DIGEST of the rainfall returns over the British Isles for the year 1915 is given in the *Times* of January 18 by Dr. H. R. Mill, director of the British Rainfall Organisation. For the purpose of the discussion 130 stations, scattered over the British Isles, have been selected from a total of 3000.

A table shows for each of the 130 stations the rainfall for 1915 with the average fall for thirty-five years, and the difference of 1915 from the average, also the percentage of 1915 fall on the average. The heaviest rainfall at the 130 stations was 103.52 in. at Seathwaite, and the least 24.56 in. at Bury St. Edmunds. Other records as yet to hand give 138.99 in. at Llyn Llydaw, in Snowdonia, and 138.97 in. on the Styne, overlooking Borrowdale, in Cumberland, whilst at Huntingdon the fall was only 23.99 in., and at Cambridge 23.00 in.

The percentage of the average rainfall for the year over the British Isles is given on a map which shows at a glance that the most excessive rainfall occurred in the south-east of England, south of the Thames, where the fall was 130 per cent. of the average. From the Bristol Channel to Mid-Norfolk there is a belt with practically normal rainfall, whilst to the north of this in the Midlands the rainfall was relatively higher. The east coast, as far north as the Moray Firth, had a rainfall in excess of the average. The whole of the west of Scotland and the north-west of England had a rainfall below the average; the deficiency was greatest in the West Highlands. The lack of rainfall in the north-west of Great Britain is said to have been a feature of the year's weather as striking as the excess in the south. In Ireland the distribution of rainfall during 1915 was not very different from the normal. For the British Isles as a whole there was practically an average rainfall with a tendency to excess rather than deficiency.

A table is given showing the general rainfall for the several months. The winter months—January, February, and December—had the greatest excess of rain in England and Wales, whilst the heavy summer rains in July were slightly the heaviest in Ireland.

The rainfall in London for 1915 was 28 per cent. above the average, the year being the wettest in fifty-nine years, with five exceptions—in 1903, 1879, 1878, 1872, and 1860; whilst the number of days with rain was 7 per cent. below the average. Rain fell for 568.9 hours, which is 136.1 hours above the average, and the highest in thirty-four years, except in 1903 and 1909.

#### SCIENCE AT EDUCATIONAL CONFERENCES.

##### II.

A PREVIOUS article (January 13) summarised the papers and discussions at conferences of teachers with reference to the national aspect of early training in science. The number and variety of the meetings was so great that many other points of general scientific interest deserve notice. First may be placed the exhibition of scientific apparatus at the meeting of the Public School Science Masters' Association, as it marks a new era. Formerly a large proportion of the laboratory ware and appliances were of German or Austrian origin; this year, with the exception of a few balances from Rotterdam, all the exhibits were British. Natur-

ally, the size of the display was reduced, but there was no falling off in quality. So far as visual and handling tests can be trusted, the goods shown were of a high grade of material and workmanship. There was a large selection of electrical apparatus, mostly measuring instruments, suitable to all grades of teaching, from the most elementary forms of magnetometers or electroscopes to the elaborate potentiometer sets. Messrs. Philip Harris, F. E. Becker and Co., Gallenkamp and Co., and Gambrell Bros. all contributed to this section. Messrs. Baird and Tatlock (London) made a special feature of laboratory glassware, and a number of science masters paid a visit to their works at Walthamstow. Messrs. Philip Harris exhibited lamp-blown glass apparatus suitable for volumetric and research work, also moderately-priced strong instruments suitable for field-work in physical geography and meteorology. Balances were also a strong feature in the exhibits of the above-mentioned firms, and of Messrs. Townson and Mercer, the last-mentioned providing a good variety of glass apparatus. It was satisfactory to observe that those essentials, best quality porcelain and filter papers, have not been neglected. There is evidence that the efforts of the British Science Guild have stimulated the manufacturers; without doubt the guild, by bringing before the Government the fundamental importance of the supply of scientific apparatus, has done a great service to science teaching. It is inevitable that prices should be advanced, and doubtless there will be some shortage in the supplies here and there; but it is a matter for congratulation that the main requirements are being so well met by British firms under conditions of exceptional difficulty.

Exhibitions of books were held at the University of London, and also at the Science Masters' and the Assistant-Masters' meetings. New scientific books are being steadily issued, and the general state of the book-trade, so far as leading publishers of educational works are concerned, appears to be far more normal than could have been anticipated. This implies that instruction is proceeding with but little disturbance.

The inventiveness of the Science Masters shows no diminution. The Rev. W. R. Burton (Sandwich) showed several of those simple and cheap devices which combine the merits of economy with pedagogic effectiveness. An instance was an electrocope costing one shilling, the main insulator being a piece of candle deprived of its wick. Mr. D. R. Pye (Winchester) showed a most effective wave-motion model; even more educative was his model illustrating diffraction at a straight edge, of light from a point source. From Rugby came an admirable exhibit of chemical preparations made during the summer holidays, under the direction of Mr. E. R. Thomas. The Rugby exhibit included useful devices in the fitting of apparatus, and stereo-chemical models made almost instantaneously by the use of plasticine—a useful lecture "tip." To the present writer it seems a pity that these exhibitions should not be accessible to a larger number; if they could be transferred to South Kensington as soon as the P.S.S.M.A. meeting was concluded, their sphere of stimulating usefulness would be widened.

Mr. M. D. Hill (Eton) opened a discussion on "School Museums," the general outcome of which was the importance of frequent change in the objects shown, and the relatively great value of living objects, aquaria, etc. The curator must regard the function of the museum as dynamic rather than static. It was so much easier to follow the arguments of the speakers whenever the hearer knew the buildings in which the work was done, that it is here suggested that the British Association committee which is dealing with the subject should obtain a collection of photographs and lantern-slides of school museums.