

together with the summaries of 'Opinions' 1 to 90, has been printed in the *Proceedings of the Biological Society of Washington*, D.C., vol. 39, pp. 75-104, July 1926. Copies can be obtained from Dr. Thomas E. Snyder, the Secretary of the Society (address: Bureau of Entomology, U.S. Dept. of Agriculture, Washington, D.C.), price 1 dollar.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A chemist for research work on the evaporation rates and the ignition temperatures of vapours, of certain inflammable spirits used in industry as solvents, under the Safety in Mines Research Board—The Under-Secretary for Mines, Establishment Branch, Mines Department, Dean Stanley Street, S.W.1. (September 29). A head of the mining department of the Central School of Science and Technology, Stoke-on-Trent—The Clerk to the Governors, Town Hall, Hanley, Stoke-on-Trent (September 30). An assistant for technical records work in connexion with the Department of Scientific and Industrial Research—The Secretary, Department of Scientific and Industrial Research, 16 Old Queen Street, Westminster, S.W.1 (October 4). A senior lecturer in electro-technics at the University of the Witwatersrand—The Secretary,

Office of the High Commissioner for the Union of South Africa, Trafalgar Square, W.C.2 (October 15). An engineer to take charge of the section of Wood Preservation of the Forest Products Research Laboratory at Princes Risborough—The Secretary, Department of Scientific and Industrial Research, 16 Old Queen Street, Westminster, S.W.1 (December 1). A director of agriculture in the Territory of New Guinea—The Official Secretary for Australia, Australia House, Strand, W.C.2 (December 15). An assistant lecturer in agriculture at the South-Eastern Agricultural College, Wye, Kent—The Secretary. Junior professional assistants in the Meteorological Office—The Secretary, Air Ministry, Adastral House, Kingsway, W.C.2. A senior woman library assistant at the School of Oriental Studies—The Librarian, School of Oriental Studies, Finsbury Circus, E.C.2. A laboratory assistant for the Veterinary Research division of the Agricultural Department of the Government of Kenya—Crown Agents for the Colonies, 4 Millbank, Westminster, S.W.1 (quoting M/14661). A mistress for physics at the Cowley Girls' School, St. Helens—The Secretary to the Governors of the school, 17 Cotham Street, St. Helens.

Our Astronomical Column.

RECENT NAKED-EYE SUNSPOTS.—The last naked-eye group of sunspots noted in these columns was No. 9, seen on the sun's central meridian on July 30. Another large group bordering on naked-eye visibility was in transit across the disc between August 10 and 22, but as some observers failed to see it, a number has not been assigned to it in our tabular list of these large spots. Since September 13, however, an important group has been an easy naked-eye object. This new group is composed of two very large spots, both of which could be seen separately through morning fog on September 18. On that day their apparent separation was $3\frac{1}{2}'$, corresponding to $14\frac{1}{2}^\circ$ of solar longitude between their respective centres.

When the spots first appeared round the sun's east limb on September 13, they were evidently of recent origin and growing rapidly, for within 48 hours their total area had doubled. On September 18 the area of the group was 3000 million square miles or $1/400$ th of the sun's hemisphere. The group ranks accordingly in size with the spot of last December as the second largest group seen as yet this cycle. The region of the sun in which the group occurs is very near that of No. 8, the central meridian passage of which was June 29. During the interval between the disappearance of group No. 8 and the formation of No. 10, the photosphere of that region was marked fairly strongly with faculæ. Particulars of position and area of the August and September spots are given below:

No.	Date on Disc.	Central Meridian Passage.	Latitude.	Area.
—	Aug. 10-22	Aug. 16.2	18° S.	1/1400
10	Sept. 13-25	Sept. 19.5	24° N.	1/400

COMETS.—Two periodic comets, Giacobini-Zinner and Neujmin, are due at perihelion in a few months. The former is interesting from the near approach that its orbit makes to that of the earth. Mr. Cripps has calculated the perturbation and finds December 7 as the date of perihelion. The following ephemeris for 0^h U.T. is from the B.A.A. Handbook:

	R.A.	N. Decl.	log r.	log Δ.
Sept. 30	16 ^h 50.3 ^m	7° 15'	0.136	0.144
Oct. 8	17 8.2	5 5	0.115	0.133
„ 16	17 28.5	2 48	0.093	0.120
„ 24	17 51.7	0 25	0.070	0.105

The comet is fairly well placed in the evening sky, being on the meridian about 4 P.M.

THE SPECTRUM OF δ PERSEI.—The results of a detailed photometric study of certain features of the spectrum of the star δ Persei (Sp. type Bope), by Dr. W. J. S. Lockyer, Director of the Norman Lockyer Observatory, are recorded in *Monthly Notices, R.A.S.*, vol. 86, p. 474 (1926). Bright hydrogen lines appear in this spectrum, superposed on broad absorption lines. Each of these bright lines appears double, owing to the superposition of a fine absorption line which undergoes a periodic oscillation, presumably due to a Doppler effect. The two bright components accordingly undergo a periodic change of relative intensity, and the paper records the measurement of this change by the wedge photometer at frequent intervals throughout a complete cycle (Sept. 9, 1925–Jan. 13, 1926). Interesting conclusions are drawn from the measurements, some of which are contrary to what was expected from the observations of other workers. A similar study of the narrow absorption lines of hydrogen confirms an indication of a preliminary investigation that a variation of short period with quite a considerable amplitude is superposed on the primary variation. Pulses of activity are suggested, which seem to increase up to the epoch of maximum negative velocity and decrease down to that of maximum positive velocity. Bright lines of helium and other substances also occur in the spectrum, and the paper includes some comments on their behaviour. The character and intensity of the helium lines suggest a period of variation equal to half that of the primary variation, but the components of the bright ionised metallic lines, although their relative intensities occasionally alter, do not all behave alike, nor do they present any apparent cyclical change.