

The review contains a bibliography of contemporary publications and articles concerning oceanography in the widest sense of the term; this should be of value to all who are interested in the science of the sea.

APPLICATIONS are invited by the Zoological Society of London for the Anatomical Research Fellowship, tenable for three years with a possible extension for two further years, of the annual value of £400, and for an Aquarium Research Fellowship, tenable for three years, of the annual value of £350. Applications must be sent to reach Dr. P. Chalmers Mitchell, Zoological Society, Regent's Park, N.W.8, before Nov. 1.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—An Inspector of Agriculture in the Sudan Department of Agriculture and Forests—J. Nield Cameron, Old Vicarage, Wetherby, Yorks. (Sept. 15). An assistant lecturer in mechanical engineering at King's College, London—The Secretary, King's College, Strand, W.C.2 (Sept. 16). A graduate assistant in the Information Bureau of the British Cotton Industry Research Association—The Secretary, British Cotton Industry Research Association, Shirley Institute, Didsbury, Manchester (Sept. 17). A lecturer in mining at the Denbighshire Technical Institute, Wrexham—The Secretary and Director of Education, Education Offices, Ruthin (Sept. 17). A reader in pathology at Westminster Hospital Medical School—The Academic Registrar, University of London, South Kensington, S.W.7 (Sept. 23). A junior technical officer at the

Royal Aircraft Establishment for work in the specification section of the Wireless and Photographic Department—The Chief Superintendent, R.A.E., South Farnborough, Hants (Sept. 24, quoting No. A.210). A professor of chemistry and a professor of English language and literature in the University of Melbourne—The Agent-General for Victoria, Victoria House, Melbourne Place, Strand, W.C.2 (Oct. 1). Two assistants, one male and one female, in the Plant Pathological Laboratory of the Ministry of Agriculture and Fisheries, Harpenden—The Secretary, Ministry of Agriculture and Fisheries, 10 Whitehall Place, S.W.1 (Oct. 1). A lecturer in biology and a lecturer in chemistry in the University of Western Australia—The Agent-General for Western Australia, 115 Strand, W.C.2 (Oct. 1). A research fellow in bacteriology at the Lister Institute of Preventive Medicine—The Secretary, Lister Institute of Preventive Medicine, Chelsea Bridge Road, S.W.1 (Oct. 8). A professor of mathematics and a professor of education at Raffles College, Singapore—C.A. (N), The Secretary, Board of Education, Whitehall, S.W.1. Scottish candidates (N), The Scottish Education Department, Whitehall, S.W.1 (Nov. 1). An assistant in the Research Department, Woolwich, under the directorate of metallurgical research—The Chief Superintendent, Research Department, Woolwich. An assistant lecturer in economics in Auckland University College—The High Commissioner for New Zealand, 415 Strand, W.C.2. A chief assistant in the Domestic Science department of Battersea Polytechnic—The Principal, Battersea Polytechnic, S.W.11.

### Our Astronomical Column.

COMET GALE.—Mr. Walter F. Gale, the discoverer of comets 1894 II and 1912 II., has sent particulars of the discovery of comet 1927 f. He was sweeping the neighbourhood of Theta Piscis Australis with a Zeiss binocular just after midnight on June 7, and picked up a small faint nebulosity, the cometary character of which was quickly verified with his telescope. He obtained approximate positions on the next three nights (incidentally these positions suggest that Prof. Gonnessiat's observation of June 10 was inadvertently telegraphed half a degree too far north); these, together with a rough position on June 25 by Mr. Townsend at Hawera, New Zealand, afford material for an approximate orbit, which Dr. A. C. D. Crommelin has deduced as follows:  $T: 1927 \text{ June } 14:30 \text{ U.T.}; \omega: 212^\circ 35'; \Omega: 66^\circ 38'; i: 12^\circ 40', \log q 0.1030$ . The small value of  $i$  suggests the possibility that the orbit may be periodic. The distance from the earth at discovery was 0.43 astr. units. The comet still remains too far south for convenient observation in England. Some observations were made at the Cape, which have been sent to the I.A.U. Bureau at Copenhagen. It is noteworthy that three of the four unexpected comets discovered this year are due to British observers, as is also the detection of Comet Grigg-Skjellerup on its return.

Later.—The Cape observations, now to hand, suggest that Gonnessiat's declination is right and Gale's wrong.

VENUS.—Mr. H. McEwen, director of the Venus Section of the British Astronomical Association, contributes an interesting paper to the July issue of the *Jour. B.A.A.* He quotes the radiometric measures

of Coblentz and Lampland from which Menzel deduced a surface temperature of  $122^\circ \text{ F.}$ , which bears to that of the earth the proportion of the inverse squares of distances from the sun. He also uses the temperature measures to advance an argument in favour of the period of rotation and position of axis announced by Prof. W. H. Pickering; the period was about 3 days, and the inclination so high that the tropics would be within  $5^\circ$  of the poles. Under these conditions the poles would be for most of the time the hottest regions of the planet, for they would have a very high sun continuously for a large fraction of the planet's year. The measures indicated that one cusp was much hotter than the other, this being the one where the sun was setting, whereas the other had cooled during the night. The spring equinox of the northern hemisphere is stated to occur when the planet's heliocentric longitude is  $316^\circ.6$ , the other seasonal points being found by successive additions of  $90^\circ$ .

Pickering's view is that the planet is practically covered with oceans, so that there would be no surface markings of a permanent character. Those that are seen are presumably atmospheric. Mr. McEwen shows that their changes are in good accord with the atmospheric circulation that would result from such an axial pose. When the pole is nearly central on the disc, there would be little rotational velocity in the line of sight; but this should be appreciable when the pole was near the limb.

The writer has made out a good case for the view he advocates, and it may at least be adopted as a working hypothesis. The rotation has long been a puzzling enigma, and any further light is welcome.