High Commissioner for India, General Department, 42 Grosvenor Gardens, S.W.1 (Aug. 10). A lecturer in mineralogy and petrology in the University of Reading—The Vice-Chancellor, The University, Reading (Aug. 14). An assistant plant pathologist under the Department of Agriculture and Forests of the Sudan Government—The Controller, Sudan Government London Office, Wellington House, Buckingham Gate, S.W.1 (Aug. 15). An assistant superintendent in the Archæological Survey Department of the Government of India—The Secretary to the High Commissioner for India, 42 Grosvenor Gardens, S.W.1 (Aug. 17). A professor of geology and mineralogy in Rhodes University College, Grahamstown—The Secretary, Office of the High Commissioner for the Union of South Africa, South Africa House, Trafalgar Square, W.C.2 (Aug. 31). A research assistant in the Colour Chemistry and Dyeing Department of the University of Leeds—The Registrar, The University, Leeds (Sept. 2). A professor of clinical pathology in the Egyptian University, Cairo—The Dean, Faculty of Medicine, Egyptian University, Cairo (Sept. 15). An assistantship in natural history—The Secretary, University College, Galway (Sept. 21). An assistant director of the Technological Library of the Indian Central Cotton Committee, Bombay—The Secretary to the High Commissioner for India, General Department, 42 Grosvenor Gardens, S.W.1 (Sept. 29). Part-time lecturers in market research and sales management at the Polytechnic, Regent Street—The Director of Education, The Polytechnic, Regent Street, W.1. A head of the pathological division of the Rubber Research Institute of Malaya—The Secretary, London Advisory Committee, Rubber Research Institute of Malaya, 2-4 Idol Lane, Eastcheap, E.C.3. A lecturer in mathematics at the Gordon College, Khartoum—The Controller, Sudan Government London Office, Wellington House, Buckingham Gate, S.W.1. A full-time chief instructor of the Printing Department of the North-Western Polytechnic, Prince of Wales Road, Kentish Town—The Secretary, North-Western Polytechnic, Prince of Wales Road, N.W.5. An assistant master to teach mathematics in the Junior Technical School for Boys of the Woolwich Polytechnic—The Principal, Woolwich Polytechnic, S.E.18. A teacher of telephony in evening classes at the Woolwich Polytechnic—The Principal, Woolwich Polytechnic, S.E.18. A chief officer for the Imperial Agricultural Bureau for Plant Genetics: Herbage Plants—Prof. R. G. Stapledon, Agricultural Buildings, Aberystwyth.

Our Astronomical Column.

July and August Meteors.—Mr. W. F. Denning writes: "The season for meteoric abundance has now opened and a large number of showers are visible, including the early phase of the great Perseid display. The latter appears to be visible during the whole of July and August with a maximum on Aug. 11 or 12. Probably the morning of the latter is the period when most meteors will be visible. The present year seems likely to be favourable for the occurrence of many meteors, for an abundant maximum of 250 per hour for one observer was counted in 1921 on the early morning of Aug. 12. The earth will occupy very nearly the same position in its orbit on the morning of Aug. 12 next, and the shower may be repeated if the density of the part of the stream encountered is about equal to that through which the earth passed eight years ago. This may be doubted, however, though there are slight evidences of an eight-year period in the character of the display and observations may prove specially interesting. The Capricornids (July 19–Aug. 6) with radiant at 304° – 11°, and the Aquarids (July 24–31) radiant 338° – 11°, usually form two of the principal displays of the July–August period; but there are some hundreds of others exhibiting various degrees of strength, though the majority are very attenuated and are only to be recognised by long and accurate observation."

Ancient Greek Astronomy.—M. E. M. Antoniadi contributes an article to *L'Astronomie* for May in which he points out that several of the philosophers of ancient Greece anticipated the conception of universal gravitation. Anaxagoras, Plato, Aristotle, and others perceived that massive bodies exercised a force directed towards their centres. Aristotle ascribed the tides to the action of the sun. Anaxagoras and Empedocles recognised that the centrifugal tendency of a revolving body, such as the moon, enabled it to circulate round a central orb without falling into it. While these conceptions were quite sound, it does not appear that they were tested numerically with the same rigour as was done by more modern philosophers. Newton deduced from Kepler's laws that the sun exerts an attractive force on the planets varying as the inverse square of the distance. He did not announce his law of universal gravitation, however, until he had demonstrated that the fall of the moon towards the earth in a second was to the fall of a body at the earth's surface in the ratio of inverse squares of the distance from the earth's centre. He also demonstrated that a sphere attracts external bodies as though concentrated at its centre. Hence while we recognise the merits of the ancient philosophers, we cannot put them on the same level as Newton.

Measures of the Brightness of Earth-shine.—Prof. H. N. Russell in the *Scientific American* for July gives an account of the measures of the intensity of earth-shine on the moon made by M. Danjon at Strasbourg. He used an ingenious photometer of his own design in which the light of the sunlit lunar crescent was admitted to one section of the objective, weakened by reflection from plane unsilvered glass surfaces, and then compared with the earth-shine admitted into another section of the objective. He found that when the moon is 30° from the sun the earth-shine is $\frac{1}{1000}$ of the intensity of an equal portion of the sunlit crescent; at 90° from the sun the ratio is less than $\frac{1}{10000}$; at 120° from the sun it is $\frac{1}{40000}$. It cannot be followed further than this. The experiments also showed that the earth-shine was bluer than the reflected sunlight; they indicated that the earth is a less rough reflector than the moon, which is reasonable since much of the earth's light would be that reflected from vapours in its atmosphere. The resulting albedo of the earth is about 29, perfect whiteness being represented by 100. The figure is lower than previous estimates, which have been in the neighbourhood of 50. It is concluded that the full earth would give the moon $\frac{1}{10000}$ of the light of the sun, or more than 40 times as much as the full moon gives us. Allowing for the difference of areas, the albedo of the moon is $\frac{1}{3}$ of that of the earth, or about 10.