

Technology—The Registrar, Municipal College of Technology, Manchester (Sept. 19). A demonstrator in agricultural botany in the University of Reading—The Registrar, The University, Reading (Sept. 24). A senior lecturer in physiology in the University of the Witwatersrand, Johannesburg—The Secretary, Office of the High Commissioner for the Union of South Africa, Trafalgar Square, W.C.2 (Sept. 26). Research appointments, as follow, under the Ministry of Agriculture, Cairo, Egypt—a chief entomologist, an entomologist for entomological research, a mycologist, and another entomologist, each in the Plant Protection Section; two botanists in the Botanical Section; and a chief chemist, a soil physicist, and a soil bacteriologist in the Chemical Section—The

Under-Secretary of State, Ministry of Agriculture, Cairo, Egypt (Oct. 1). A director of tobacco investigations under the Commonwealth Government and the States of Australia—The Official Secretary, Commonwealth of Australia, Australia House, Strand, W.C.2 (Oct. 17). A physics specialist at the Liverpool Collegiate School—The Director of Education, 14 Sir Thomas Street, Liverpool. A lecturer in estate management (including farm machinery) at the Harper Adams Agricultural College—The Principal, Harper Adams Agricultural College, Newport, Shropshire. A chemical laboratory assistant in the experimental department of the Fine Cotton Spinners' and Doublers' Association, Ltd.—The Chief of the Department, Rock Bank, Bollington, Macclesfield.

Our Astronomical Column.

NAKED-EYE SUNSPOT.—A recent spot of considerable size is the eighth to be observed this year as a naked-eye object on the sun's disc. The growth of the spot was rapid, and it originated in a place immediately in front of the disappearing fragments of a group which was near the east limb on Aug. 9. The following table shows the rate of growth, the area being measured in the customary units of millionths of the sun's hemisphere:

Date	Aug. 12	Aug. 13	Aug. 14	Aug. 15	Aug. 16	Aug. 17
Area	25	160	550	900	1150	1300
Long. from central meridian.	25°E	12°E	2°W	15°W	28°W	41°W

On Aug. 16 the spot was approximately 40,000 miles in length and 30,000 miles broad. Its structure was complex with several umbrae. In appearance it resembled those spots the magnetic polarities of which are found to be irregular and are, according to the Mt. Wilson observers, most likely to be associated with terrestrial magnetic disturbances. In the present instance no disturbance has been reported, but as the spot, when near the central meridian, had not reached its maximum growth, it will be of interest to await its second transit about Sept. 10. The duration of large irregular spots is not proportionate to their size, a smaller spot of regular outline often lasting much longer, but the return of the recent spot may well be expected on Sept. 4 at position angle 122° from the north point on the sun's east limb. Other details of the spot are as follows:

No.	Date on Disc.	Central Meridian Passage.	Latitude.	Max. Area.
8	Aug. 11-20	Aug. 14-2	10° S	1/750 of hemisphere.

THE TEMPERATURE OF MARS.—Prof. H. N. Russell gives in *The Scientific American* for July a simple description of the work of Drs. Coblentz and Lampland on the heat received from Mars (see also NATURE, Sept. 19, 1925, p. 439). They used a very delicate thermocouple, and screens of glass, quartz, fluorspar, or cells containing water to isolate different wave-lengths of the heat spectrum. The chief difficulties were the effects of the atmospheres of the two planets; that of the terrestrial atmosphere was minimised by the high altitude and dry climate of Flagstaff. It is noted that a moist, slightly hazy atmosphere tends to increase the surface temperature of a planet since it retards the escape of radiation of long wave-length: but for this very reason observations made from another planet are

likely to give too low a value for the surface temperature, since they are derived largely from reflection from the upper surface of the haze. It is thus explained why the temperature at the melting edge of the polar cap was measured as -75° F. in 1924, when it must have been in the neighbourhood of 30° F.

Taking the necessary corrections into consideration, Dr. Coblentz gives the following estimates of the noon temperatures of different zones of Mars in the late summer of the southern hemisphere;

Zone.	Temperature (F.).
South polar region	15° to 50°
South temperate zone	65 „ 75
Tropics	65 „ 85
North temperate zone	30 „ 60
North polar region (southern part)	-40 „ +10

The nights are probably very cold, even at the equator.

The above values are stated to be in good agreement with those found by Messrs. Pettit and Nicholson at Mt. Wilson in 1924. For example, they gave the noon temperature in the tropics as 80°, after correcting for the effects of cloud and haze.

The temperatures as a whole are much higher than was previously thought probable, and this is obviously a point in favour of the planet's habitability.

THE MASS OF VENUS.—The issue for June of *Mon. Not. R.A.S.* contains two papers on this subject. Dr. H. Spenger Jones rediscusses the observations of Mars made with the Cape heliometer at each opposition from 1899 to 1924, applying some necessary corrections to a former discussion. His new value for the mass of Venus in terms of the sun is 1/411,300, with a probable error of 1 part in 300. This is 1 per cent. smaller than Newcomb's mass and 3 per cent. smaller than Le Verrier's.

The other paper, by Dr. J. K. Fotheringham, deals with all determinations of the mass of Venus from 1750 to the present time, and shows that they may be divided into three groups. The observations from 1750 to 1846 give a small mass, those from 1846 to 1888 a large one, the remainder an intermediate value, nearer the first than the second. Dr. Fotheringham regards the change in the mass as real, but most people will consider this as improbable as that the length of the seconds pendulum should change by an inch or so. It is, however, very useful to have all this material rediscussed, though the apparent change remains a puzzle.