attractive part of the Dordogne Valley will be conducted by M. Paul Reclus, formerly professor of geography at Brussels. Full particulars of the tour may be obtained from Miss Jowett, 152 Abbey House, Victoria Street, London, S.W.1.

APPLICATIONS are invited for the following appointments, on or before the date mentioned :—A professor of mechanical and electrical engineering at the Artillery College, Woolwich—The Assistant Commandant, Artillery College, Red Barracks, Woolwich, S.E.18. A research mycologist in the Department of Agricultural and Horticultural Research of the University of Bristol, Long Ashton—The Registrar of the University (March 22).

Our Astronomical Column.

A LARGE SUNSPOT.—A spot now on the sun's disc has been seen with the naked eye, thus making the fifth of its kind to be recorded since the beginning of the year. The spot is of recent origin, as no trace of it was seen on February 9, when its position would have been near to the receding west limb of the sun. Its shape is somewhat irregular, and its size is about half that of the great spot of last January. Further particulars are as follows :

No.	Date on Disc.	Central Meridian Passage.	Latitude.	Area.
5	Feb. 25-(Mar. 10)	March 3·6	27° S.	1/600

(Area expresses the proportion covered of the sun's hemisphere.)

RECURRENCE OF MAGNETIC 'STORM.'—On February 23, a considerable magnetic disturbance commenced at 16½ hr., reached its greatest intensity between 13 hr. and 19 hr. on February 24, and died away by about 5 hr. on the following morning. The greatest range shown by the declination magnet throughout the disturbance was a little more than 1°. Bright moonlight probably prevented the observation of aurora, which would be a likely phenomenon on the nights of February 23 and 24. The interval between the commencement of this magnetic storm and the preceding one on January 26 is 28·0 days. The sunspot disturbance, with which it is presumably related, is in solar latitude 22° (see NATURE, Feb. 6, p. 208). The time taken for a spot at this latitude to make one complete rotation relative to the earth is, on the average, 27·6 days.

As evidence of the existence of a relationship between sunspots and magnetic disturbances, Mr. E. W. Maunder showed from the Greenwich magnetic and sunspot data that the latter frequently recur at intervals of about 27 days, corresponding to the average period of the sun's rotation relative to the earth as given by sunspots (*Monthly Notices R.A.S.* 65, 2-34, 1904). The last two 'storms' provide an example of such a recurrence.

THE SPECTRUM OF THE RECENT AURORA.—In a letter received from Prof. L. Vegard, Universitets Fysiske Institut, Oslo, an account is given of the aurora of January 26, which appeared at the time of the magnetic storm noted in NATURE for February 6. Prof. Vegard writes that the striking feature of this aurora was its intense red colour, which spectroscopic analysis showed was mainly due to one single sharp line in the red, about λ = 6323 Å.U. Spectrograms taken at Oslo and Tromso also showed the characteristic auroral spectrum consisting of the 'auroral line,' 5577 Å.U., and the negative bands of nitrogen. The prominent red line has been recorded on two previous occasions at Tromso in 1923–24, and its mean wave-length deduced from the three observations is 6322·4 Å. Prof. Vegard states that the line, which is of the same character as the 'auroral line,' cannot be due either to hydrogen, helium, oxygen, or the ordinary spectrum of gaseous nitrogen. When, however, solid nitrogen is bombarded with cathode rays, two pairs of narrow bands (N_1N_2) and (N_3N_4) appear in the red and green parts of the spectrum. The relative intensities and character of these bands vary considerably with the magnitude of the nitrogen particles, the properties of the electric discharge, and when an inert gas, such as neon, is introduced (see also NATURE, May 1924, p. 716, for Prof. Vegard's account of his investigations of the auroral spectrum). From these laboratory experiments, Prof. Vegard thinks that this red line, 6323, is to be regarded as the limiting aspect of the band N_3, just as he considers the auroral line, 5577, to be the limiting aspect of N_1. Moreover, the study both of the luminescence spectra of solidified gases and the oscillation band series suggests to him that the changes of colour so frequently observed in auroræ may result from a transformation of the spectrum due to oscillations.

Another letter, received from the Chief of the Polish Maritime Station at Dantzig, gives observations of the same aurora seen at that place and at the Hel peninsula. The colour is described as varying from brick-red to dark carmine and its brightness as being very variable.

Attention may be directed to two other recent contributions to the problem of the auroral spectrum appearing in *Proc. R.S.*, Series A. vol. 106, p. 117 and p. 138, by Lord Rayleigh, and Prof. McLennan and Dr. Shrum, respectively.

COMETS.—Ensor's comet is now well placed for observation in the morning ; it is moving north so rapidly that it will soon be observable throughout the night. The following ephemeris is for 6^h A.M. :

	R.A.			N. Decl.		log *r*.	log Δ.
Mar. 4.	21^h	2^m	48^s	21°	4'	9·8124	9·9643
8.	21	13	23	30	33	9·8661	9·9481
12.	21	28	14	40	13	9·9134	9·9419
16.	21	48	56	49	36	9·9552	9·9466
20.	22	17	48	58	12	9·9928	9·9616

Its naked eye visibility during this period is doubtful, but it will probably be an easy telescopic object. On the morning of March 8 it will be ½° east of Zeta Cygni, on March 14 1½° east of Rho Cygni. It then passes through Cepheus and the northern part of Cassiopeia.

Blathwayt's comet has grown fainter, but should still be within reach of moderate apertures. The following ephemeris is for 0^h :

	R.A.			N. Decl.		log	log Δ.
Mar. 4.	5^h	53^m	14^s	42°	47'	0·2055	0·0123
8.	5	41	24	43	50	0·2140	0·0620
12.	5	32	35	44	30	0·2225	0·1061
16.	5	26	1	45	3	0·2312	0·1462

The comet is in Auriga, moving nearly parallel to the line joining Beta to Alpha.

Tuttle's comet may be visible with moderate apertures when the moon is absent. The ephemeris for 0^h is :

	R.A.		N. Decl.		log *r*.	log Δ.
Mar. 3.	1^h	21·7^m	30°	43'	0·1222	0·2249
11.	1	52·1	28	25	0·0991	0·2226
19.	2	22·2	25	49	0·0769	0·2212

Prof. A. Dubiago gives the following hyperbolic elements for Van Biesbroeck's comet, based on observations on Nov. 19, Dec. 4 and 21, Jan. 12.

$$T \quad 1925 \text{ Oct. } 3\cdot00066 \text{ U.T.}$$

ω	106° 25' 13·0"	
Ω	334 34 29·9	⎫ 1925·0
i	49 10 38·4	⎭

log *q* 0·19500,
e 1·002442