

F.R.S., and Mr. H. G. Madan. The first volume, containing elementary exercises, has been issued. In the preface to this new edition, Mr. Madan, who has undertaken the task of revision, explains that he has made some verbal alterations, introduced additional experiments and exercises, and somewhat altered the course of analysis of a single substance. In many cases the preparation of useful compounds of the radicle is more fully dealt with than in former editions.

THE "Flora of West Yorkshire," a volume of about 800 pages, by Mr. Frederick Arnold Lees, will be ready in August. It will be published by the Yorkshire Naturalists' Union, by subscription, and will form an extra volume of the Botanical Series of the Transactions of the Union. The work is divided into four sections—(1) Climatology; (2) Lithology; (3) the Botanical Bibliography of the Riding; (4) the Flora proper. With regard to the fourth section, it is claimed that "such a complete flora for any district in the world has never before been published, more than 3000 species being dealt with."

AN interesting volume relating to the "Grand Concours International des Sciences et de l'Industrie," which is to be held at Brussels in the year 1888, has just been issued. It consists of reports drawn up by the Committees which have been appointed to make preparations for the Exhibition. Each of these reports includes a letter-addressed to producers, a general and detailed classification of objects, a list of sub-committees, and a series of desiderata in the department to which the report relates. If the "Grand Concours International" corresponds to the scheme which the Committees have worked out, it will be one of the most complete and suggestive Exhibitions that have yet been held.

ON August 7 the University of Göttingen will celebrate the 150th anniversary of its foundation.

THE annual *conversazione* given by the students of the Finsbury Technical College was held on Friday the 15th inst., and was remarkably successful. The College was tastefully decorated with flowers and flags, and a large fountain, illuminated by powerful coloured arc and incandescent lamps, played during the evening. All the rooms were thrown open to visitors, and exhibitions of chemical, electrical, and mechanical apparatus and manufactures were arranged in the laboratories. Over fifty of the leading scientific firms lent exhibits, and one electrical firm sent over £500 worth of apparatus. In the workshops specimens of the work of the students during the session were shown. Two concerts, both attended by crowded audiences, were given; and Prof. Ayrton lectured on "Church Bells," and Prof. Meldola on "Spectrum Analysis." Over four hundred visitors were present, including many distinguished men of science and commerce; and the students are to be congratulated on having provided a very pleasant entertainment for their friends.

THE additions to the Zoological Society's Gardens during the past week include a Pig-tailed Monkey (*Macacus nemestrinus*) from Java, presented by Mrs. Lewis; a Tiger (*Felis tigris* ♂) from India, presented by Mr. Sandford Kilby; a Turtle-Dove (*Turtur communis*), British, presented by Mr. R. Humphries; a Bonnet Monkey (*Macacus sinicus* ♀) from India, two Booted Eagles (*Nisaetus pennatus*) from Spain, a Golden-crowned Conure (*Conurus aureus*) from Brazil, two Alligators (*Alligator mississippiensis*) from the Mississippi, two Common Toads (*Bufo vulgaris*) from North Africa, deposited; a Ruffed Lemur (*Lemur varius*) from Madagascar, an Elate Hornbill (*Ceratomyza elata*) from West Africa, two Common Boas (*Boa constrictor*) from South America, purchased; a Squirrel-like Phalanger (*Belideus sciureus*) born in the Gardens; two Diuca Finches (*Diuca grisea*), an Auriculated Dove (*Zenaida auriculata*) bred in the Gardens.

OUR ASTRONOMICAL COLUMN.

THE NICE OBSERVATORY.—M. Faye has published in the *Comptes rendus*, tome cv. No. 1, a note on the work of the Nice Observatory, from which the following particulars are extracted:—As soon as a small meridian circle by Gautier had been erected at the new Observatory, M. Perrotin, the Director determined the difference of longitude telegraphically from Paris and from Milan. These operations gave for the difference: Paris-Milan, 27m. 25.325s., whilst a direct determination previously made by MM. Perrier and Celoria gave 27m. 25.313s. The value 43° 43' 16".9 has been provisionally adopted for the latitude. With the equatorial of 0.38 m. aperture M. Perrotin has undertaken an extensive series of double-star measures, which have already proved of great excellence and value. It is proposed to continue these measures on a more extended scale with the large telescope of 0.76 m. aperture. A large number of observations of comets and of minor planets have been made by M. Perrotin and by M. Charlois, his assistant. The latter has also quite recently discovered a new asteroid (No. 267). M. Faye goes on to speak of the spectroscopic researches carried out at Nice by the late M. Thollon, particularly those connected with the investigation of the telluric lines in the solar spectrum. As our readers will remember, M. Thollon showed that in the regions B and a of the solar spectrum some of the telluric lines are due, not to an element varying with the temperature, such as aqueous vapour, but to a constituent of the atmosphere, such as oxygen, the influence of which varies with the altitude of the Sun only. M. Egoroff afterwards confirmed this by showing that the lines referred to are due to the oxygen present in our atmosphere.

The instrumental equipment of the Nice Observatory is now all but complete, and M. Faye speaks with enthusiasm of the career of usefulness before it—favoured as it is with a splendid climate, and, thanks to the munificence of M. Bischoffsheim, with instruments which suffice to place it in the front rank of modern Observatories.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1887 JULY 24-30.

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on July 24

Sun rises, 4h. 14m.; souths, 12h. 6m. 14.3s.; sets, 19h. 59m.; decl. on meridian, 19° 54' N.; Sidereal Time at Sunset, 16h. 8m.

Moon (at First Quarter on July 27) rises, 8h. 38m.; souths, 15h. 26m.; sets, 22h. 0m.; decl. on meridian, 5° 53' N.

Planet.	Rises.		Souths.		Sets.		Decl. on meridian.
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	
Mercury ...	5	20	12	33	19	46	13 24 N.
Venus ...	8	33	15	1	21	29	4 47 N.
Mars ...	2	8	10	28	18	48	23 53 N.
Jupiter...	12	20	17	35	22	50	9 29 S.
Saturn...	3	48	11	48	19	48	20 57 N.

Occultation of Star by the Moon (visible at Greenwich).

July.	Star.	Mag.	Disap.	Reap.		Corresponding angles from vertex to right for inverted image.
				h. m.	h. m.	
25 ...	B.A.C. 4277	6	20 20	20 45	...	34 35°
July.	h.					
24 ...	4	...	Venus in conjunction with and 3° 8' south of the Moon.			
27 ...	1	...	Jupiter in conjunction with and 3° 59' south of the Moon.			
29 ...	5	...	Mercury in inferior conjunction with the Sun.			

Meteor-Showers.

The Aquarids, R.A. 340°, Decl. 13° S., near δ Aquarii, form the principal meteor-shower at this season of the year; the meteors from this radiant are slow, in marked contrast to those from Perseus, radiant at R.A. 32°, Decl. 55° N., at the same time, which are swift.