by the Moon at Greenwich. The angles are counted from the true North through the true East as in observations of double stars, &c. :—

Disappearances.

Star's No.	Angle. °	G.M.T. h. m.
148	74	10 23·1
152	107	25·8
156	80	30·5
Beginning of total phase		
150	131	10 32·3
157	65	33·8
153	128	34·8
142	154	37·1
166	89	38·7
164	111	39·7
165	116	41·1
180	86	52·0
155	163	55·3
172	145	58·8
181	63	11 1·3
198	100	17·6
194	57	18·6
197	127	24·4
207	97	25·5
201	56	27·8
210	84	28·1
209	110	29·4
190	164	34·2
212	127	41·2
223	94	42·9
216	124	45·3
224	70	46·4
225	107	46·9
221	56	49·4
226	138	58·2
236	105	12 0·8
237	70	3·5
End of total phase		
242	116	12 11·9
219	168	12·1
233	155	17·4
247	87	19·1

Reappearances.

Star's No.	Angle. °	G.M.T. h. m.
87	243	10 22·3
97	316	23·6
124	351	29·3
116	339	30·2
102	234	30·2
Beginning of total phase		
91	277	10 32·3
112	330	32·7
93	278	33·7
115	331	34·6
98	286	34·6
114	211	35·1
100	288	35·4
108	314	35·7
125	211	42·5
110	264	50·1
130	328	53·1
136	337	57·9
126	269	11 3·7
134	317	6·4
128	283	6·6
138	260	22·1
142	228	22·3
144	294	29·8
148	308	30·2
155	221	31·5
157	318	34·5
150	252	38·1
156	303	40·3
152	275	40·6
153	254	41·8
166	294	52·6
164	273	54·4
172	240	54·5
165	268	54·7
181	322	59·7
180	298	12 4·8
End of total phase		
190	222	12 10·9
194	328	11·2
201	330	19·4

The following table gives the magnitude of the occulted stars :—

Star's No.	Mag.	Star's No.	Mag.	Star's No.	Mag.	Star's No.	Mag.
100	9·5	150	10	181	10	219	10
108	9·3	153	10	197	10	221	10
126	9·5	157	9·4	198	9·5	225	10
128	9·5	164	8·0	201	8·7	226	10
136	9·5	165	9·4	209	10	236	9·5
142	10	166	9·5	210	9·5	247	9·2
148	10	180	9·5	216	10		

The remaining stars are all of the eleventh magnitude.

It would be advisable for intending observers to make a rough map of the stars they are to observe, and to acquaint themselves as completely as they are able with their configuration. The observations should be rehearsed as far as possible on previous evenings, that the necessary quickness in changing from one point of the Moon's limb to another may be acquired, and a fair acquaintance made with the sequence of the settings. It will be well probably, to somewhat reduce the list of stars for observation; since some of the phenomena follow each other so closely that some must be lost, and if the work of selection is left for the actual time of observation probably more stars will be lost than necessity demands, and a risk of confusion and mistake will be incurred. The suggestion has also been made that the eye-piece to be employed should not be placed as usual in the centre of the field, but be made to revolve round it at the distance of the Moon's radius. The Moon would then be brought to the centre of the field, and kept there throughout the entire series of observations, and only the eye-piece would be moved. A fairly high power will probably be found the best for the work.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

CAMBRIDGE.—Among the lectures for the present term we note the following:—

Chemistry: Prof. Dewar, on Organic Chemistry; Mr. Pattison Muir (Caius), on Chemical Affinity; Mr. Heycock (King's), on Chemical Philosophy for Natural Sciences Tripos, Part I.; Mr. Robinson, on Agricultural Chemistry.

Physics: Prof. Stokes, Physical Optics; Prof. J. J. Thomson, Properties of Matter; Mr. Shaw (Emmanuel), Thermodynamics and Radiation.

Geology: Prof. Hughes, Geology of a District to be visited at Easter; Mr. Marr, Principles of Geology.

Botany: Mr. Gardiner, Advanced Anatomy of Plants; Mr. Potter, Advanced Systematic Botany.

Zoology: Prof. Newton, Geographical Distribution of Vertebrates; Mr. Sedgwick, Morphology of Mollusca and Echinodermata; Mr. Gordon, Morphology of Amniota, recent and extinct.

Physiology: Dr. Lea, Chemical Physiology; Mr. Langley, Advanced Histology and Physiology; Dr. Gaskell, Advanced Physiology of Vascular System.

Prof. Ray lectures on Pathology, and has practical classes; Prof. Latham on the Physiological Actions and Therapeutical Uses of Remedies; Dr. Anningson gives demonstrations in Practical Hygiene.

In Mathematics the following are among the lectures:—Prof. Cayley, Analytical Geometry; Mr. Forsyth, Modern Algebra, symbolical methods and ternary forms; Dr. Ferrers, Elliptic Functions; Dr. Besant, Integral Calculus, Definite Integrals, Mean Value and Probability, Calculus of Variations, and Differential Equations; Mr. Ball, History of Mathematics up to 1637; Mr. Mollison, Discontinuous Functions and Conduction of Heat; Mr. Whitehead, Grassmann's Ausdehnungslehre, with special reference to its applications.

SOCIETIES AND ACADEMIES.

LONDON.

Royal Society, December 22, 1887.—"The Early Stages in the Development of *Antedon rosacea*." By H. Bury, B.A., F.L.S., Scholar of Trinity College, Cambridge. Communicated by P. Herbert Carpenter, D.Sc., F.R.S., F.L.S.

In the orientation of the larva, J. Barrois' suggestion (*Comptes rendus*, November 9, 1886) has been adopted, viz. that the stalk of the Pentacrinoid represents the præoral lobe of other Echinoderms. Besides the right and left body-cavities, an anterior unpaired body-cavity is developed (distinct from the hydrocele), and opens to the exterior by the water-pore in the free-swimming larva.

A larval nervous system is developed, but is lost after fixation.

The vestibule of the fixed larva (Cystid) is formed by invagination, as described by Barrois (*Comptes rendus*, May 24, 1886).

The water-tube (stone canal), by opening into the anterior body-cavity (now very small), places the water-vascular ring in indirect communication with the exterior.

The anus opens in the same interradius as the water-pore.

In the skeleton, besides the parts already known, three underbasals are present, which are of great phylogenetic interest.

Geological Society, December 21, 1887.—Prof. J. W. Judd, F.R.S., President, in the chair.—The following communications were read:—On the correlation of some of the Eocene strata in the Tertiary basins of England, Belgium, and the north of France, by Prof. Joseph Prestwich, F.R.S. Although the relations of the several series have been for the most part established, there are still differences of opinion as to the exact relation of the Sable de Bracheux and of the Soissonnais to the English series; of the Oldhaven Beds to the Woolwich series; and of the London Clay and Lower and Upper Bagshots to equivalent strata in the Paris basin. The author referred to the usual classification of the Eocene series, and proceeded to deal with each group in ascending order. The Calcaire de Mons is not represented in England, but may be in France by the Strontianiferous marls of Meudon. It contains a rich molluscan fauna, including 300 species of Gasteropods, many of which are peculiar, but all the genera are Tertiary forms. The Heersian are beds of local occurrence, and the author sees no good reason for separating them from the Lower Landenian or Thanet Sands. He gave reasons for excluding the Sands of Bracheux from this group. Out