

THE following arrangements have been made for science lectures at the Royal Victoria Hall during October:—October 4, Sir John Lubbock on "Books." After the address he will present the prizes and certificates gained by students of the M. M. College, Prof. Foxwell in the chair. October 11, Mr. C. T. Dent (late President of the Alpine Club), on "The Alps in Winter." October 18, Mr. F. W. Rudler, on "Frost and Fire," with special reference to the flood at St. Gervais, and the eruption of Etna. October 25, Col. Swinhoe on "Some Curiosities in Nature."

LAST week we noted that Messrs. Macmillan and Co. had issued a new edition of "Arithmetic for Schools." This is the well-known work by Mr. Barnard Smith. The book has been revised and enlarged by Prof. W. H. H. Hudson.

MESSRS. GAUTHIER-VILLARS have issued "Bulles de Savon," a translation, by C. E. Guillaume, of Mr. Boys' little work on "Soap Bubbles." The translator, while reproducing the main features of the book, has, with the author's sanction, adapted it for the use of French readers. He has also incorporated an account of some new experiments which Mr. Boys has brought to his notice.

THE first number of a new German journal, which promises to be of considerable interest to non-professional students of science, has just been issued in Berlin, the publisher being R. Oppenheim. It is entitled *Natur und Haus*, and is edited by L. Staby and M. Hesdorffer. The articles are written in a popular style, and well illustrated.

THE additions to the Zoological Society's Gardens during the past week include a Mona Monkey (*Cercopithecus mona* ♀) from West Africa, presented by Col. Makins; a Macaque Monkey (*Macacus cynomolgus* ♂) from India, presented by Mrs. Palmer; a Vulpine Squirrel (*Sciurus vulpina* ♂) from North America, presented by the Hon. G. Carew; a Malayan Tapir (*Tapirus indicus* ♂) from Malacca, presented by Col. J. M. Jenkins; a Great Eagle Owl (*Bubo maximus*), European, presented by Commander Ernest Rason, R.N.; a Black-crested Cardinal (*Gubernatrix cristatella*) from South America, presented by the Rev. W. B. K. Frances; a Small Hill Mynah (*Gracula religiosa*) from India, presented by Mr. George Grigs; a Long-nosed Crocodile (*Crocodilus cataphractus*) from the River Juba, East Africa, presented by Capt. F. G. Dunbar, R.N.; two — Tortoises (*Testudo* —), five Cinixys (*Cinixys* —), a Puff Adder (*Vipera arietans*) from East Africa, presented by Mr. D. Wilson; a Pig-tailed Monkey (*Macacus nemestrinus* ♂) from Java, a White-backed Piping Crow (*Gymnorhina leucanota*) from Australia, an Adorned Terrapin (*Clemmys ornata*) from North America, a Robben Island Snake (*Coronella phocarum*) from South Africa, deposited; a Red Kangaroo (*Macropus rufus* ♀), a Black-fronted Weaver Bird (*Hypotriorchis velatus*) bred in the gardens.

OUR ASTRONOMICAL COLUMN.

PROPOSED SCHOOL OF PRACTICAL ASTRONOMY.—Mr. H. C. Russell, Government Astronomer of New South Wales, in a paper read before the Royal Society of Tasmania, makes some very practicable, and what we think excellent, suggestions with respect to the disposal of the sum of money (£10,000) left by the late Mr. Leake for the foundation of a school of astronomy. The idea is for the Leake trustees to co-operate with the University of Tasmania, and in this way form a complete school in which both the theory and practice of astronomy should be dealt with simultaneously. In addition to the observatory being merely a school for students, Mr. Russell suggests that it should take up some special line of research, and proposes that of astronomical photography. This seems an excellent proposition. The work which such an observatory as this could do if thoroughly equipped with the necessary apparatus, would be very considerable, and the special advantages of climate and position, to say nothing of the unexplored state of the

southern heavens, would soon render it of great importance. There is no doubt that we are not yet overburdened with a surplus of observatories in the southern hemisphere, for even now there is a doubt as to how the international photographic chart of the heavens shall be provided for in this region, three observatories which have undertaken the work having been unable to carry out their plans on account of the political troubles. Should this proposal be accepted, the new Leake Observatory will start under good auspices, as it will fill up a gap by taking in hand a share of the greatest modern astronomical enterprise.

DOUBLE STAR MEASURES.—Mr. S. W. Burnham, in *Astronomische Nachrichten*, Nos. 3113-14, gives a list of all the double star measures that he has made during the year 1891 with the 36-inch of the Lick Observatory. Most of the stars here included may be classed as difficult objects, being too close for any smaller aperture, and all of them more or less unequal. As Mr. Burnham tells us, many of the stars are taken from his own catalogues, it being rather important to measure them at this time, since several are in very rapid motion. Owing to the fact that some of these stars have not been measured since the time of their discovery, it is interesting to note the changes that have taken place. Observations of these have "shown some very remarkable changes, and have shown the existence of some of the most remarkable binary systems known." Measurements have also been made of some of the closest and most difficult binaries from the discoveries of Clark, Struve, and others. The epoch for the star places is as heretofore 1880.

COMET BROOKS (1882, AUGUST 27).—From *Edinburgh Circular*, No. 31, we make the following extract of the elements and ephemeris relating to the comet discovered by Mr. Brooks at Geneva on the 27th. The computations are based on four observations made between August 31 and September 5:—

Elements.

T = 1892 Dec. 19.727 M.T. Berlin.

$\omega = 269^{\circ} 24' 27''$
 $\Omega = 261^{\circ} 2' 55''$
 $i = 27^{\circ} 57' 8''$ } Mean Equator, 1892.0.

Log $q = 9.84455$.

Ephemeris for Berlin Midnight.

1892.	R.A. h. m. s.	Decl.	log. Δ .	log. r .	Br.
Sept. 21	7 2 13	+28 41.6	0.2342	0.2458	2.5
23	7 8 13	28 14.5			
25	7 14 21	27 45.0	0.2105	0.2315	3.0
27	7 20 37	27 13.1			
29	7 27 2	26 38.6	0.1860	0.2166	3.6

The brightness at the time of discovery is taken, as usual, as the unit of Br.

NOVA AURIGÆ.—Some short notes with regard to Nova Aurigæ are communicated to *Astronomische Nachrichten*, No. 3114, which may be of interest here:—On Sept. 3, Dr. F. Ristenpart, of the Observatory in Karlsruhe, with a 6-inch refractor, by comparing the Nova with the brightness of an accompanying star, estimates the Nova as of the 9.65 magnitude of the Bonn scale. Herr Cand. F. Kroeger observed the Nova on three different occasions—Sept. 3, 4, and 6. Comparing it with a neighbouring star of the 9.5m. (Star—Nova = +3s.5 + 1'.2), the Nova was found to be about "a degree dimmer than the comparison star." On Sept. 4 the seeing was much better, and the Nova was about "two degrees brighter than the comparison star." On the third occasion, with excellent definition, the comparison star and the Nova were of equal brightness. These observations are all made between 12h. and 12h. 30m. Kiel mean time. Prof. E. E. Barnard has also made a very interesting observation with the 36-inch of the Lick Observatory, finding that the Nova appeared as a small, bright nebula, with a star-like nucleus of the 10th magnitude. The nebulosity, as he says, "was pretty, bright, and dense, and was 3" in diameter. Surrounding this was a fainter glow, perhaps half a minute in diameter." If this observation can be verified, it will assuredly strengthen very considerably the hypothesis that the Nova was caused by collisions of meteorites, in the same way as the stars in the Pleiades nebula are the loci of intersecting streams, as clearly shown by Mr. Roberts' wonderful photographs.