

the corona are of such varying brightness that it will be impossible to obtain all the details with a single exposure. For the spectroscopic work it is also recommended that isochromatic plates be employed, with special reference to the distribution of the material which gives the green line 1474 Kirchoff. Mr. Lockyer proposes to use an objective prism, so as to obtain monochromatic images of the corona, that is, rings corresponding to each elementary radiation of the coronal light. This method will not only give the spectrum of the corona, but the distribution of each spectrum line over the whole of it. The problem of the "reversing layer" is also wanting definite solution, and it is pointed out that instantaneous photographs may settle the question once for all. M. Pluvinel also points out the importance of noting the presence or absence of the hydrocarbon bands suspected by Tacchini in 1883, as this observation may throw further light on the analogy between the corona and the tails of comets.

Photometric observations should also be secured, and the polariscope should be employed to determine the proportion of polarized light in various parts of the corona.

NOVA AURIGÆ.—Prof. Barnard has recently made some measures of the position of Nova Aurigæ, with a view to detecting proper motion. The two comparison stars selected were the stars E and F in Mr. Burnham's previous list of comparison stars. The results are stated thus (*Ast. Nach.* No. 3143):—"The measures with F come out identical with Mr. Burnham's during February, but those with E seem to show some sort of motion in distance and possibly in angle. From the position of the comparison star this can hardly be due to parallax. It is possible, though, if the discrepancy is a real displacement, that it is due to orbital motion, the orbit being so situated as to show no motion with reference to F. The difference is not sufficiently great, considering the distance, to prove anything." Prof. Barnard further remarks that although the Nova presented no nebulosity at its first appearance, it has always appeared as an undoubted planetary nebula since he observed it on August 19. Estimates of magnitude in the present condition of the Nova will depend greatly upon the telescope and magnifying power employed. Since August the nucleus has become fainter, while the light as a whole has remained essentially constant.

"ASTRONOMICAL JOURNAL" PRIZES.—"A gentleman earnestly interested in the development and progress of astronomy in his native land has authorized the editor of the *Astronomical Journal* to offer two prizes, for resident citizens of the United States" (*Ast. Jour.* No. 284). The prizes will either take the form of money or of gold medals, one being of the value of two hundred dollars and the other of four hundred dollars. In the first instance the prizes will be awarded for observations tending to advance our knowledge of cometary orbits, one being for the best series of measurements of the positions of comets during the year ending March 31, 1894, and the other for the best discussion of the path of a periodic comet, with due regard to its perturbations. With regard to the first, astronomers who hope to gain the prize must frequently be at work until sunrise, as special value will be attached to observations made at inconvenient hours.

GEOGRAPHICAL NOTES.

THE name Ibea, contracted from the initials of the Imperial British East African Company to designate their territory on the east coast of Africa, has acquired a certain amount of currency, and although open to philological criticism is practically convenient. On the same principle the great Dutch possessions in the East Indies have been termed Noi (*Nederlandsch Ost Indië*), and Mr. Ravenstein has suggested a similar abbreviation for the German East African territory (*Deutsch Ost Afrika*), only he would combine the initials with a Swahili affix or suffix signifying "land," and make it either Udoa, or Doani. The cumbrousness of using many words to specify a well-defined region seems to justify a somewhat bolder coinage of new names in geography than has hitherto been customary.

The *Mouvement Géographique* publishes a sketch map of the Stanley Falls district of the Congo, compiled from the compass-bearings of M. Page, one of the members of the disastrous Hodister expedition. Besides Stanley, Lieutenant Gleerup and Dr. Oscar Lenz are the only other authorities on this stretch of the river. Special information is given regarding the three groups of rapids which occur between Stanley Falls

station and Kibonge. The cataract of Mandombe above Stanley Falls is composed of a succession of falls from six to ten feet high and numerous rapids, but local canoe-men are able to take boats through in four or five hours. Three hours of free navigation leads to the rapids of Mamanga, where the river is barred from bank to bank by a ridge of rock about twelve feet high, and followed by rapids and other smaller falls necessitating a portage. Three and a half hours of free navigation lead to Basundu, the last cataract, which canoes are able to pass in about three hours after being lightened.

THE Antarctic whaling fleet, the dispatch of which was noticed in vol. xvi. p. 477, has been reported from the Falkland Islands. The *Balaena*, which has the most complete scientific equipment, arrived at Port Stanley at the end of November, the *Active* on December 8, the *Diana* on December 11. The fourth vessel, the *Polar Star*, was spoken off the Plate on November 16. The telegram from Monte Video reports all well, and a preliminary notice of the scientific observations will probably follow by mail.

In a communication to the Paris Geographical Society, M. Venukoff calls attention to the fact that although the extensive Government drainage works have almost obliterated the Pinsk marshes from the valley of the Pripet, the most recent non-Russian atlases continue to represent these marshes as they were thirty years ago. Now their site is largely forest and meadow-land.

TRAVELS IN BORNEO.

MR. CHARLES HOSE'S paper on "A Journey up the Baram River to Mount Dulit and the Highlands of Borneo," read to the Royal Geographical Society on Monday evening, was a pleasant variety in the succession of African papers which has formed the staple of the Society's programme for the session.

The Baram River runs on the whole northward through eastern Sarawak, reaching the sea in $4^{\circ}37'15''$ N. and $115^{\circ}59'30''$ E. Its mouth is complicated by a series of sandbanks shifting with the change of the monsoons. The river is in parts very deep, and is navigated by a fleet of Government steamers. The bordering land is low and swampy or covered with jungle until Claudetown, about sixty miles from the mouth, is reached. There the ground rises, and a prosperous trading town has been established by Chinese merchants. At Long Mari, about fifty miles further up, there are great rapids which can only be passed with difficulty, and gorges of considerable depth occur at intervals further up the stream. The journey to Mount Dulit was made up the Linjar, a large tributary of the Baram. The people on the banks of this river have a peculiar custom of keeping dead bodies in their houses encased in ornamental coffins for three months before burial; and Mr. Hose gave some highly interesting particulars regarding their burial customs, their complicated subdivisions of the world of the dead, and their habit of interchanging messages with departed friends. At the head of canoe navigation the Sibop tribe hunt various species of monkeys with the blowpipe, the valuable commodity being the intestinal calculi known as Bezoar stones, which are greatly in demand by Chinese apothecaries.

The ascent of Mount Dulit was commenced on September 21, when a hut was built at the height of 2000 feet, and a path cut through the thorny scrub to 4000 feet, near which another hut was built. Several days were spent here collecting natural history specimens, many of which were species new to science; amongst the smaller quadrupeds *Hemigale hosei*, and amongst birds *Calyptomena hosei* and *Mesobucca eximius* may be mentioned. A cave some distance higher was found with wild tobacco growing at its mouth and several remarkable ferns, one with fronds 14 feet long; but except for bats and a solitary snake, the cave was untenanted. The fauna of Mount Dulit closely resembled that of Kina Balu, showing the widespread distribution in the highlands of Borneo of Himalayan forms. The flat moss-clad summit of Mount Dulit was found to be, by aneroid, 5090 feet; and there was a magnificent view of distant ranges, the position of a number of peaks in which was fixed. Some natives reported having heard a tiger roaring in the neighbourhood, but Mr. Hose found the sound to proceed from a gigantic toad, measuring $14\frac{1}{2}$ inches round the body. At the close of the paper Dr. Bowdler Sharpe F.R.S., pointed out the great importance of Mr. Hose's results in their bearing on geographical distribution.