The best orbit is by Kuhnert, but it is probable that the want of observations in 1877-78 is not wholly attributable to errors of elements, but in a certain degree to the position of the planet at a considerable distance from the ecliptical belt of the sky for which charts of small stars are as yet published, and, in addition, to its faintness. *Medusa*, which appears to have a very small inclination, may possibly be recovered in the ensuing summer.

GEOGRAPHICAL NOTES

TASMANIA.—The prospects of Tasmania are reported to be improving, owing to the development of its mineral resources. Very large quantities of tin, as is well known, have been discovered at Mount Bischoff, and quite recently the vast tract of country to the north-west, which has always been looked upon as valueless, has been explored with more care, and though it is probably of little use for agricultural purposes it has been found to contain enormous quantities of iron and other minerals. Traces of gold have been met with in the beds of some of the rivers, and copper has also been found. In the dense forests which are common in this region specimens of the *Eucalyptus* have been seen which are said to be more than 300 feet in height. Further exploration is still being carried on with a view to the accurate determination of the capabilities of this part of Tasmania.

AFRICAN EXPLORATION.—Journalistic enterprise is again contributing to the exploration of Africa, and this time Paris is vying with London and New York. M. P. Soleillet, who has been equipped under the auspices of the *Moniteur Universel*, departs soon for a tour of exploration in Equatorial Africa, to follow in the footsteps of his fellow-journalist Stanley. The development of openings for French commerce is to form a prominent feature in the undertaking.

PARIS.—The Paris *Société de Géographie* has elected Baron de la Roncière Le Nourry its president for the ensuing year.

FRENCH GUAYANA.—Dr. Crevaux, who was sent out by the French government to explore the interior of French Guayana, has returned to Paris after completing one of the most arduous journeys in the annals of South American discovery. After having fulfilled his instructions to penetrate to the Tumuc-Humac range, he determined to make the passage of these mountains, and descend into the valley of the Amazon, an attempt which has several times been tried in vain during the past three centuries. Although deserted by all his attendants, with the exception of a negro, he succeeded, after overcoming numerous obstacles, and battling with famine during a march of sixteen days across an uninhabited tract, in reaching the head waters of the Yary, from whence a canoe-voyage brought him to the Amazon. Of the 500 leagues traversed in this journey, 225 were hitherto completely unknown.

SURVEY OF NEW YORK.—The Second Annual Report of the State Geographical and Topographical Survey of New York, in charge of Mr. James T. Gardner, gives an account of the labours of the commission during the year. The principal work of the year has been the precise determination by primary triangulation of points in eleven counties, embracing an area of about 3,000 square miles; 167 points were located in an area of 1,700 miles in seven counties alone; the average has been one to every ten square miles. Fifty-one monuments have been placed in defining the boundaries of counties, this being a very important part of the work of the survey. The report is accompanied by several maps showing the progress of the work, the position of the stations, &c.

BIOLOGICAL NOTES

A NEW FRUIT.—Mr. Hollister has introduced from Japan to San Francisco a fruit, which is said in its native country to have as many varieties as are grown in this country of our apple, and the sweetness of the fruit is more or less retained by all of them. It is known as the Japanese Persimmon and, according to Mr. Hollister, is the most beautiful of all the fruits he had ever seen and the most delicious to the taste—four of the fruits which ripened with him weighed three quarters of a pound each, they were of a rich yellow colour, and looked like balls of wax; these were pronounced equal to a good pear or peach. The tree is a highly ornamental one, a prolific bearer, and as hardy as a pear. Its fruit season is from October to March. It seems quite adapted to the soil and climate of California. The grafted trees bear in four years. The seedlings require double that time, and are not reliable (*Proceedings*, Acad. of Science, California, in *American Naturalist* for March, 1878). This is the well-known and beautiful fruit of *Diospyros kaki*, Linn., fil., a near ally of the Persimmon of the Southern United States of America. Mr. Hiern tells us in his Monograph of the Ebenaceæ that the Chinese preserve this fruit with sugar, and that it has for a long time been in cultivation with them and the Japanese. The fruit has a thin skin, with a sweet orange-scarlet coloured flesh, with six or eight dark smooth seeds. It was beautifully figured in the *Gardeners' Chronicle* for 1872.

FOSSIL INSECTS.—Messrs. S. H. Scudder, of Cambridge, and F. C. Bowditch, of Boston, attached to Hayden's United States Geological and Geographical Survey, spent two months in Colorado, Wyoming, and Utah, in explorations for fossil insects and in collecting recent coleoptera and orthoptera, especially in the higher regions. They made large collections of recent insects at different points along the railways from Pueblo to Cheyenne, and from Cheyenne to Salt Lake, as well as at Lakin (Kansas), Garland and Georgetown (Colorado), and in various parts of the South Park and surrounding region. Ten days were spent at Green River and vicinity in examining the tertiary strata for fossil insects, with poor results. The tertiary beds of the South Park yielded only a single determinable insect; but near Florissant the tertiary basin described by Mr. Peale in one of the annual reports of the Survey was found to be exceedingly rich in insects and plants. In company with Rev. Mr. Lakes, of Golden, Mr. Scudder spent several days in a careful survey of this basin, and estimates the insect-bearing shales to have an extent at least fifty times as great as those of the famous locality at Œningen in Southern Bavaria. From six to seven thousand insects and two or three thousand plants have already been received from Florissant, the specimens from this locality being remarkable for their beauty. There is every reason to believe that the tertiary strata of the Rocky Mountain region are richer in remains of fossil insects than any other country in the world, and that within a few months the material at hand for the elaboration of the work on the fossil insects of the American tertiaries which Mr. Scudder has in preparation, will be much larger than was ever before subject to the investigation of a single naturalist. Mr. Scudder has in all now more than 12,000 specimens of fossil insects.

THE CLIMBING OF THE VIRGINIA CREEPER.—Mr. B. D. Halsted has studied the mechanism of climbing in the Japanese Ampelopsis, and finds that the clinging discs terminate tendrils which are homologous with main stems. While approaching a support, these discs flatten themselves on the inner side. The surface of the disc is papillose, and excretes a sticky substance; and the irregular contraction of the tendril draws the vine to its support (*Proc.* Boston Soc. Nat. Hist., January, 1878).