Meteor-Showers.

	R.A.	Decl.	
Near γ Persei	44 ...	54 N. ...	Slow.
	103 ...	33 N. ...	Swift; streaks.
	135 ...	80 N. ...	Very swift.

GEOGRAPHICAL NOTES.

THE Hon. Secretary of the South Australian branch of the Geographical Society recently received the following telegraphic message from Mr. Tietkens, who is in command of an Expedition engaged in exploring the interior. The telegram came from Charlotte Waters, and is published by the *Colonies and India*. It says:—"The Expedition under my command arrived at Erldunda on July 22, the party being all well. The Expedition left Glen Edith on May 10. While there for four days and five nights almost incessant rain fell. Forty miles west of Glen Edith we discovered and named Cleland Hills and Gill's Creek, flowing south for twelve miles. The extent of good country is limited. We also discovered and named Beetson Hills, where there were three miles of running water, the extent of available country also being limited. In east longitude 128° 45′ and south latitude 23° 20′, we discovered and named the Kintore Range, the highest peaks of which are Mount Leister and Mount Strickland, 1500 feet above the plains. Here we experienced three days' heavy rains. In south latitude 23° 22′ and east longitude 128° 15′, we discovered and named Lake Macdonald, after the hon. secretary of the Victorian branch of the Society. It extends westerly to east longitude 127° 50′, the south shore being in latitude 23° 40′. South of the Kintore Range we visited and named Davenport Hill, and thence we travelled in a south-easterly direction to Blood's Range, the highest peaks of which were named Mount Harris and Mount Carruthers, being 1400 feet above the plains. Mount Unapproachable, in Long's Range, marks the west extremity to Lake Amadeus, its south shore, south of Mount Olga, being in latitude 24° 39′. At Lake Amadeus the camels partook of a poisonous plant, from the effects of which one died. At Mount Olga the other was unable to travel. After a week's rest the Expedition left there and visited Ayer's Rock. Mr. Goss's marked tree has been burnt down by the blacks. Near Mount Connor we discovered a small spring, and travelling northward from there discovered and named Basedow Range; from there travelled easterly over better country until we arrived here, receiving a most cordial and hospitable reception from Messrs. Warburton and Tomlin. To Mr. Warburton's kindness we are indebted for conveying this message to the telegraph line. The general character of the country passed over has been Spinifex, sand-hills, and plains, with extensive forests of Casuarina. Rock reservoirs, native wells, and a few clay-pans were the only descriptions of water met with."

ONE of the most important of recent exploring Expeditions has been that under Sir William Macgregor, the Administrator of British New Guinea, who has recently ascended and examined the Owen Stanley Range, over 13,000 feet above the sea. Several attempts have been made to reach the summit within the past few years; Sir William therefore deserves much credit, all the more that his natural history observations are very full and valuable. Sir William is an accomplished naturalist, so that any exploring work he may undertake is sure to be of scientific value. He left Port Moresby in May, accompanied by his secretary, and when the Expedition was finally made up there were about forty natives. Only five, however, went up to the top with Sir William, who spent three or four days examining the ridge. The summit was reached on June 11. The climate Sir William describes as foggy and unpleasant up to 8000 feet; but above that clear blue sky and beautiful climate, "one of the finest in the world." The party were ten days over 10,000 feet, and never had a cloud above them. The sea coast was visible on both sides, that on the north being the most distant. But the country is much smoother on that side, and the ascent of the mountain from the north apparently unobstructed and easy. From the point of Mount Victoria in the east to Mount Lilley in the west is a continuous, unbroken crest of thirty miles, which was traversed by Sir William, who spent three days and a half on the summit. His eyes were gladdened by the sight of daisies, buttercups, and forget-me-nots, and he brought away with him a quantity of white heath which reminded him of his native mountains. Big icicles amazed his native companions, who thought their mouths were burnt when they attempted to bite this, to them, novel product of Nature. Larks were plentiful, similar in flight and song to those of the old country. Specimens of the flora were naturally collected by an enthusiastic naturalist like Sir William, and amongst them also probably several novelties will be found. There are no trees within 1000 feet of the top, which is bare rock or covered with grass. There are no snakes or other pests on the main range, but unfortunately game is very scarce also. The temperature ranged from freezing-point to 70° in the sun. The southern aspect of the range is drained exclusively by the Vanapa River, the head of which was crossed at an elevation of 10,130 feet. No natives live on the mountains above 4000 feet, although they hunt as high as 9700 feet. All those met with at the base were extremely friendly. Nothing, however, would induce any of them to accompany the party up the mountain. They grow tobacco, peas, beans, many kinds of potatoes, yams, and bananas, and of these they gave Sir William as much as he wanted. They are certainly Papuan. The party returned to Port Moresby on June 25. Sir William was in perfect health the whole time, though, as usual, the natives had their little complaints. Another account states that Sir William found the top of the crest very uneven, consisting of immense masses of rock separated by deep chasms. The long-tailed bird of paradise was shot at from 5000 to 9000 feet altitude. On the top of one of the mountains what is believed to be a new bird of paradise was obtained, golden yellow on the back, with a black velvet breast and belly. As to the botany, the variety was very small, but what there was was new.

M. YADRINTZEFF'S Expedition returned to Kiakhta on August 16, after having reached the sources of the Orkhon River, and determined the position of Kara-korum. It also discovered the ruins of two large cities (one of them having a circumference of thirteen miles), as well as of the palaces of the Khans of Mongolia, and their cemeteries, where numerous statues and important inscriptions were found.

THE BRITISH ASSOCIATION.

REPORTS.

Report (Eighteenth) of the Committee appointed for the purpose of investigating the Rate of Increase of Underground Temperature downwards in various Localities of Dry Land and under Water. Prof. Everett, Secretary.

Very important observations have been published (*Neues Jahrbuch für Mineralogie*, &c., 1889, Bd. 1) during the past year by Herr Dunker, whose observations in a very deep bore at Sperenberg were embodied in our Report for 1876. The new observations were taken at Schladebach, near Dürrenberg, in a bore of greater depth and smaller diameter than at Sperenberg, and with similar precautions against convection currents. The depth was 1748 metres, the bore passing through new red sandstone (Buntsandstein), magnesian limestone (Zechstein), Lower Permian sandstone (Rothliegendes), and coal measures (Steinkohlengebirge), to the Upper Devonian beds (Oberdevon).

It was tubed to the depth of 1240 metres. For the first 584 metres the diameter was 120 millimetres; for the next 104 m. it was 92 mm.; then for 393 m. it was 72 mm.; and for the next 159 m. it was 50 mm. From this point to the bottom the diameter gradually diminished to that of a man's little finger. The diamond borer was the instrument employed in sinking it.

India-rubber bags, such as were used at Sperenberg for preventing convection currents, being deemed unsuitable for such a narrow bore, a plugging of moist clay was employed, constructed as follows:—

On a cylindrical rod, which might be of tough wood for bores of moderate depth, but was of iron in the actual observations, are two wooden disks of such size that there is only just room for them to move in the bore. The lower disk is fixed, and the upper movable on the rod. The part of the rod below the fixed disk has a length equal to that of the water-column which it is desired to isolate. The maximum thermometer with which the temperatures are taken has its bulb half-way down this portion of the rod. It is fastened beside the rod if there is room for it; and when the bore is too narrow for this arrangement, the thermometer is placed in a metal box which may be described as forming part of the rod, the rod being divided into two portions screwed to the two ends of the box. The movable disk is re-