

examples of *Hydrous piceus* (the large Water-Beetle), *Pelobius hermanni*, *Notonecta glauca* and *Argyroneta aquatica* are at present exhibited.

GEOGRAPHICAL NOTES

THE current number of the Geographical Society's *Proceedings* gives the paper recently read by Mr. Whympy on some of the geographical results of his expedition among the Ecuadorian Andes, with a diagram of his routes, while Mr. W. G. Lock supplies a contribution on Iceland, which is published at a convenient season for tourists. Mr. Lock's paper refers chiefly to the Askja volcano, the largest in the island, and is illustrated by a map of the east coast of Iceland. In the "Geographical Notes" a brief reference is made to this season's Arctic expeditions, and we are informed that Mr. Leigh Smith has lately sailed from Peterhead on his fifth Arctic expedition; and on reaching Franz-Josef Land he intends to construct a house and refuge at Eira Harbour, and afterwards to get as far north as possible. A very interesting account is given, from a letter recently sent home by M. de Brazza, of the results of his explorations and of the advantages of his route to Stanley Pool by the Ogowe as compared with Mr. Stanley's along the north bank of the Congo. After some news respecting Russian travellers an account is given of Messrs. Soltau's and Stevenson's journey from the Irawaddy to the Yangtze, to which we recently referred. Under "Correspondence" is a letter from Major H. G. Raverty on the Dara'h of Nur, which does not leave a pleasant impression on the reader's mind.

LORD ABERDARE has finally accepted the office of representative of the British Government at the International Congress of Geographers at Venice, and he will of course act as chief delegate of the Geographical Society. The India Office and the Admiralty are sending maps, charts, &c., to the Exhibition, and the former will be represented by Lieut.-General Sir H. Thuillier, late Surveyor-General of India, and the latter by Sir F. J. Evans, Hydrographer of the Navy. It is probable that nothing further will be done to represent this country officially, as the Treasury sternly decline to furnish funds.

THE Italian North-African explorers, Massari and Matteucci, to whose journey we have repeatedly referred, instead of returning by Tripoli, as was expected, struck across the Continent and came out at the Gulf of Guinea. Only a few days ago they arrived at Liverpool, and it is sad to record that, after so successfully accomplishing an arduous work, Dr. Matteucci has succumbed to African fever. He died on the morning of his arrival in London last week; his body has been conveyed to his native city, Bologna. Matteucci was only twenty-nine years of age.

LETTERS from Zanzibar of the 1st ult. notify the arrival there of Mr. Thomson, the African traveller, whose services have been engaged by the Sultan to examine and report on the mineralogy of the mainland. It is his Highness's wish that Mr. Thomson's first surveys should be devoted to the discovery of coal mines, of which several are said to exist not far from the coast. His Highness writes that he intends sending the explorer shortly to Makindary, which is to be the centre of his future operations.

LETTERS from the steamer *Oscar Dickson* have been received at Gothenburg. The steamer, as our readers will remember, was frozen in at the mouth of the Venisei River in 72° lat. N., and between 76° and 77° long. E. The winter was successfully passed, the difficulties the crew experienced were great, however. The sun was below the horizon for seventy days, and the cold rose to -41° C. During March and April enormous masses of snow fell, so that it covered the ice to a height of seven feet above the ship's deck; the thickness of the ice was seven and a half feet.

WHAT might have been the climate during the Glacial Period is the subject of an interesting paper published by Dr. Woeikoff in the last issue of the *Zeitschrift* of the Berlin Geographical Society (vol. xvi. fasc. 3). It is well established now that for the formation of glaciers, not only a sufficiently low temperature is necessary, but also a sufficient supply of moisture in the atmosphere. Thus, on the Woznesensky gold-mine, which lies at a height of 920 metres and has a mean temperature of -9° Celsius, but a rather dry climate, we have no glaciers, nor in the Verkhojansk Mountains, where the mean temperature is as low as -15°·6, and the temperature of January is -48°·6. To show

these differences Dr. Woeikoff prepares a table of the temperatures at the lowest ends of glaciers, and we see from his figures that in Western Norway, at the end of the Jostedal glacier (400 metres high), the mean temperature is 4°·8 Cels., 5°·8 at the end of the Mont Blanc glaciers (1099 metres), 6°·8 at the Karakorum glaciers in Tibet (3012 metres), and even 7° on the western slope (212 metres) of the New Zealand highlands, and 10° on the eastern slope (835 metres). In other countries, as, for instance, on the Mounkou Sardyk Mountain, in Eastern Siberia (3270 metres), the mean temperature at the end of the glaciers is as low as -10°·2, and -2°·4 in the Daghestan Mountains of the Caucasus. Thus the difference of mean temperatures at the lower ends of glaciers reaches as much as fully 20°. Besides we see that, provided the quantity of rain and snow is great, glaciers descend as low as 212 metres above the sea-level in a country (New Zealand) which has the latitude of Nice and the mean temperature of Vienna and Brussels, that is, higher than that of Geneva, Odessa, and Astrakhan, whilst the average temperature of winter is higher there than that at Florence. Further, Dr. Woeikoff discusses the rather neglected influence of large masses of snow upon the temperature of a country during the summer, and by means of very interesting calculations he shows how much the temperature of summer in higher latitudes is below what it ought to be in consequence of heat received from the sun, and *vice versa* during the winter, these differences being due on the one side to the refrigerating power of snow, and on the other side to the heating power of sea-currents. In a following paper he proposes to discuss the other causes which might have influenced the climate of different parts of the earth during the Glacial period.

WE notice in the *Verhandlungen* of the Berlin Geographical Society (vol. viii. fascicle 5) a full report on the surveys which were made in the Russian Empire, including Caucasus, Siberia, Turkestan, and the Orenburg military district, during the year 1880. This is translated from the official report published in the organ of the Ministry of War.

DURING the last session of the German Reichstag, Dr. Thilenius, Prof. Virchow, and Herr von Wedell Malchow presented a petition to the Government requesting the participation of Germany in the exploration of the Polar regions proposed by the late Karl Weyprecht in the interest of meteorology, geology, and other sciences. It is now announced that the German Government will probably soon take steps in this direction, and will first give its principal attention to securing the co-operation of other nations.

HEFT VIII. of Petermann's *Mittheilungen* begins with a paper by Dr. Danckelman on the Temperature Conditions of the Russian Empire, after Dr. Wild. The other papers are on M. Desiré Charnay's Expedition in Central America, Dr. I. B. Balfour's visit to Socotra, the Irawaddy above Bamo according to the data collected by the Indian Pundit in 1879-80 (with a map), and an article on the unfortunate Flatters Expedition by Dr. Rohlf.

IN the *Bulletin* of the Antwerp Geographical Society (tome vi. 2^e fasc.) is a paper of much interest by Dr. Delgeur on the Geographical Knowledge of the Ancient Egyptians.

MESSRS. LONGMANS AND STANFORD have published an enlarged edition of the Alpine Club Map of Switzerland. As it is issued in a number of separate sheets, it ought to prove useful to tourists.

THE Geographical Society of Lisbon has resolved to send an exploring party into the Sierra d'Estrella for scientific investigation. The mountain chain in question has never been scientifically explored.

IN 1879 Mr. L. Loth, a Government surveyor in Dutch Guiana, made a survey of a considerable portion of the River Saramaca, and his map of its course, on the scale of 1 : 400,000, together with an account of his expedition, has lately been published in the *Transactions* of the Amsterdam Geographical Society.

THE *Oesterreichische Monatsschrift für den Orient* of this month contains an interesting article on the new Conseil de Santé et d'Hygiène publique en Egypte by Prof. v. Sigmund, a well-known authority of the Medical High College of Vienna. Amongst various other papers we may mention an essay on Japanese paper manufacture by Dr. Rudel of Dresden, and an article on the wines of Cyprus by Dr. Richter of Larnaca.