

EXPLORATION AND TRAVEL.

The Stanley expedition and Emin Pasha.

While Stanley is proceeding up the Kongo to relieve Emin Pasha, news has been received that the latter is safe and well, though unable to leave his province. A Somali trader from Uganda has arrived at Zanzibar, confirming former news that Emin Pasha was established at Wadelai. He had two small steamers plying on the White Nile and on Lake Mvutan. In November, four months later than the advices brought by Dr. Junker, Emin Pasha visited the capital of Unyoro, which is situated on the north-west shore of the Albert Nyanza. He was accompanied by Dr. Vita Hassan, ten Egyptian officers, three Greeks, and four negroes. From there he sent a message to Mwanga, the young king of Uganda, requesting an audience. The king consented to receive him if he came without his followers, and Emin Pasha thereupon went to him, accompanied by Dr. Vita Hassan and the three Greeks. After he had staid seventeen days with the king, he asked for permission to pass through his territory toward Zanzibar; but Mwanga, upon hearing this request, ordered them to return the way they came. The Somali who made this statement says that the messengers despatched from Zanzibar to inform Emin Pasha that Stanley had gone with an expedition by way of the Kongo to rescue him, were detained in Unyanyembe. The frequent news from Emin reaching us by way of Zanzibar encourages us to hope that he will succeed in leaving the district in which he is now imprisoned.

Meanwhile Stanley is proceeding by the Kongo route, and Tippo-Tip's couriers are on the way to Stanley Falls in order to make preparations for the northward journey. Stanley's observations and plans are set forth at some length in two letters from Zanzibar published in the *London Times*. On leaving Zanzibar on board the *Madura*, his expedition numbered 709 men. The contract he made with Tippo-Tip is of considerable interest. He found this enterprising trader to be of far greater importance than in 1877, when he escorted Stanley's caravan to the Kongo. It is practically in his power to close the roads leading from the east coast to the upper Kongo. Stanley engaged him and his followers to accompany him from Stanley Falls to the region north of Lake Tanganyika, and to have the ivory belonging to Emin Pasha — which, according to Dr. Junker, amounts to seventy-five tons — carried back to the Kongo. But, besides this, he has appointed him governor of the Stanley Falls station, which was lost to the Arabs some time ago. It will be remembered that the object for which the station was es-

tablished was to prevent the Arabs from extending their influence farther down the Kongo. Since the loss of the station, they descend the river, and are said to have reached the Bangalla station. Tippo-Tip's duties will be principally to defend Stanley Falls, in the name of the state, against all Arabs and natives. The flag of the station will be that of the state. At all hazards, he is to defeat and capture all persons raiding the territory for slaves, and to disperse all bodies of men who may be justly suspected of violent designs. He is to abstain from all slave traffic below the Falls himself, and to prevent all in his command from trading in slaves. In order to insure a faithful performance of his engagements with the state, a European officer is to be appointed resident at the Falls. By this contract, the upper Kongo is actually surrendered to the Arabs, for those Arabs who were to be prevented from descending the Kongo beyond Stanley Falls are Tippo-Tip's men, who, to be sure, will not abstain from the profitable slave trade on the Kongo, as demanded by this contract. Stanley's action, and Baumann's description of Stanley Falls in the *Proceedings of the Geographical society of Vienna*, show that the Arabs are actually the masters of the upper Kongo, and that the Kongo Free State is utterly powerless there.

As the fate of Emin Pasha forms the central point of interest in Central Africa, some biographical notes may be welcome. According to Dr. Wolkenhauer (*Deutsche geogr. Blätt.*, 1887, No. 1), his name is Eduard Schnitzer, not Schnitzler, as he was generally called. He was born at Oppeln, in Prussian Silesia, in 1840, but his family removed soon after his birth to Neisse. After having gone through the gymnasium of that town, he studied medicine at the university of Breslau, and passed his examinations, about 1864, at Berlin. His favorite studies from early boyhood were natural sciences, more particularly zoölogy, and he had always longed to visit foreign countries. Having passed his examinations, he went to Turkey, and was appointed physician of the district and port of Antivari. In 1870 he became attached to the household of Ismael Hacki Pasha, whom he followed to Trebizond, Erzerum, Constantinople, and Yanina. When his patron died, toward the close of 1873, he accompanied his family to Constantinople. After a short visit to Germany in 1875, he returned to the Orient, and obtained an appointment as surgeon in the Egyptian army. Subsequently he served under Gordon Pasha, who appointed him surgeon-general, and, in 1878, governor of the Equatorial Province. His principal researches, besides his explorations and the administration of his province, were ornithological; and

among his collections which were sent to Germany are twenty-six new species. It is to be hoped that the gallant explorer will soon be saved from his perilous position, and succeed in taking with him his collections and the valuable results of his many years' researches in equatorial Africa.

Asia.

The observations of E. Michaelis on the signs of an ice-period in the Altai Mountains, mentioned in *Science*, Feb. 11, 1887, are confirmed by A. Bialoveski, who found glacier deposits, remains of moraines, and glacial striae in the southern part of the Altai (*Nature*, March 31, 1887).

La gazette géographique says that Sarat Chandra Das, an Indian explorer, who was sent out by the English government in order to study the religions of Indo-China, has arrived at Bangkok. He pretends to have explored the upper course of the Bramaputra and Jamdok-Tso (Palte Lake), which is situated about fifty miles south of Lassa.

Africa.

The new expedition of Lieutenant Wissmann left Luluaburg Nov. 16, 1886. The proposed field of exploration is the district between the Sankuru and Nyangwe. He went by steamer to the place where the Lubi discharges into the Sankuru. From there he will try to go north and to explore the unknown region where the Lulongo, Juapa, and Lomami have their sources (*Mouv. géogr.*, No. 7). During his stay in Luluaburg, Wissmann was not idle. He and de Macar, the new commander of the station, made a reconnaissance in the land of the Baluba and the basin of the Lubilash. They visited the residence of Mona Tenda, near the river Lukula. The country is inhabited by the Bashilange, and densely populated, the villages being built on the summits of the hills. The eastern bank of the Lukula belongs to the Baluba. While the country west of the river is very fertile, the Baluba country forms an undulating prairie. Though its appearance is barren and desolate, the population is very numerous. Unfortunately the visitors were attacked by the natives and forced to return to Luluaburg (*Mouv. géogr.*, No. 7).

In his letter to the London *Times*, Stanley criticises the methods of colonization of the Germans in eastern Africa. He advises them to penetrate the Somali peninsula instead of establishing scattered stations in the most unhealthy regions of equatorial Africa. He proposes that they should establish a permanent post or fort at the mouth of the Jub or Rufiji, and advance by degrees inland. In fact, the German East African association follows a similar course to the Kongo association by establishing factories on the coast and inland.

The district they selected for their operations is one of the most important in Africa, and includes all the caravan routes from the upper Kongo and Nile to the harbors of the east coast. Stanley's observations in Zanzibar on the predominant influence of the Germans and the decreasing power of the English do not confirm his criticism.

America.

The Brazilian and Argentinian commissions for determining the disputed boundary of the territory of the Missions were going to meet in the beginning of April. Important additions to our knowledge of the geography of that district may be expected from their surveys.

Antarctic regions.

The cable informs us that Nordenskjöld is planning an Antarctic expedition, and that he assumes eighteen months for accomplishing it. The interest in Antarctic exploration is rapidly increasing everywhere. The Royal geographical society of London, the Scotch geographical society, the German Geographentage, the Australian royal society, have expressed themselves in favor of Antarctic explorations, but since Lieutenant Bove's unsuccessful journey, this is the first attempt of organizing an expedition.

NOTES AND NEWS.

THE Elizabeth Thompson science fund, which has been established by Mrs. Elizabeth Thompson of Stamford, Conn., "for the advancement and prosecution of scientific research in its broadest sense," now amounts to \$25,000. As accumulated income is again available, the trustees desire to receive applications for appropriations in aid of scientific work. This endowment is not for the benefit of any one department of science, but it is the intention of the trustees to give the preference to those investigations *which cannot otherwise be provided for*, which have for their object the advancement of human knowledge or the benefit of mankind in general, rather than to researches directed to the solution of questions of merely local importance. Applications for assistance from this fund should be accompanied by a full statement of the nature of the investigation, of the conditions under which it is to be prosecuted, and of the manner in which the appropriation asked for is to be expended. The applications should be forwarded to the secretary of the board of trustees, Dr. C. S. Minot, Harvard medical school, Boston, Mass., U.S.A. The new grants will probably be made in May, 1887. The following grants have been made: 1. \$200 to the New England meteorological society for the investigation of