

ATHENS LETTER.

THIS has been an important day for American students in Greece, and for the friends at home, of the American school of archeology. The corner-stone of the permanent home of the school has finally been laid, and, after five years of existence without a house of its own, the school will in a few months be commodiously and permanently accommodated. The building, in course of erection under the supervision of Mr. Trowbridge, was planned by Professor Ware of Columbia. It occupies a charming site a short distance east of the palace, on an eminence fronting Hymettus. The land, which adjoins that of the English school, is the gift of the King of Greece, and was obtained chiefly through the exertions of minister Fearn. The building will afford accommodations for the director of the school and for the students, as well as for the library and working-rooms.

This afternoon most of the Americans in Athens assembled about the new building, over which floated the flags of the United States and of Greece. Upon the platform were the United States and British ministers, and representatives of the Greek government, as well as of the English, French, and German schools in Athens. U. S. Minister Fearn, in laying the corner-stone, spoke in earnest words of the importance of the school for classical studies, and congratulated his countrymen that their school would now be on an equal footing, so far as accommodation is concerned, with its sister institutions of other nations. Copies of the Athens daily papers, and a box of Greek, English, and American coins, were put in the stone, which was then formally placed in position.

Minister Fearn was followed by Professor D'Ooge, the present director of the American school, who described its sphere, and spoke of its needs and its resources. M. Dragoumis, Greek minister of foreign affairs, spoke cordially of the work accomplished in Greece by the Americans, saying that "Greece could not forget that the first well-organized schools in Greece were established by Americans." M. Foucart, director of the French school, was unavoidably absent, as was also the well-known architect, Mr. Penrose, head of the English school, who, however, watched the proceedings with hearty interest from the window of the neighboring school, while his part in the exercises was taken by Mr. Walter Leaf of London, whose Homeric studies have made his reputation. Dr. Petersen spoke for the German school, and the proceedings came to an end with a libation in which all the assembled friends participated. The school is now fairly well established, but too little is known of it at

home. Unlike the other schools, which are well supported by their respective governments, our school depends entirely on voluntary contributions; and the responses to its appeals have heretofore been in no wise adequate to its needs. Little has been done by way of presenting its claims, save by circulars issued to the various alumni associations, and funds are urgently needed for the successful carrying-on of this most important work.

A sufficient sum has been raised to erect this new building, and nearly enough more to make provision for the permanent director, but a fund is needed for excavations. The school has just decided on uncovering some important ruins north of Corinth, but the money to prosecute the work is not at hand. Friends of classical study should contribute liberally to place this American school on a suitable basis, and enable it to go on unembarrassed with its work. Hitherto the various colleges have taken turns in sending out a Greek professor to fill the post of director for a year. But it is found that considerable time is needed for each new director to become acquainted with his work, and thus much of his year is spent to no advantage to the school. Charles Waldstein, a graduate of Columbia, and more recently director of the Fitzwilliam museum of the University of Cambridge, has signified his willingness to accept the permanent directorship, and will assume control in 1888. The students, of whom there are at present nine, assume all of their own expenses, and all that is now asked for is an amount sufficient to defray the cost of excavations and the annual running expenses. R. A.

Athens, March 12.

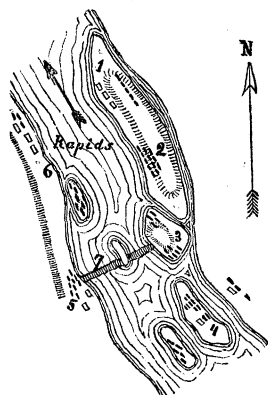
EXPLORATION AND TRAVEL.

The Stanley Falls Station.

During the past few months the Stanley Falls Station has been attracting considerable attention. According to O. Baumann, member of Dr. O. Lenz's African expedition, who staid several months there (*Mittheil. Vienna geogr. soc.*), the station is situated on the west point of a long island which is separated from the mainland by a branch of the river, about sixty feet in width. A path leads from the station to the numerous huts of Singi Singi's village. The island rises gradually from the river; but the right bank of the Kongo is formed by a steep wall like cliff of red sandstone, the strata of which lie horizontally. Its top is covered with luxuriant vegetation, which surrounds Nsaki's village. Tippto-Tippo's village is established on two islands above the seventh cataract, the houses being scattered over his extensive plantations. Be-

low the cataract, on the left bank of the river, there are two villages belonging to two of Tippo-Tip's followers, — Nasr and Mvana Nsigi. They are built in the midst of thick woods, which are said to extend three days' journey from the river, and to be uninhabited. The Kongo, which runs at Tippo-Tip's village very rapidly, forms a little above the station the famous seventh cataract which impressed itself so deeply upon Stanley on his journey across the continent. Though the fall is only about six feet high, the impression is grand, on account of the enormous volume of water and the uproar of the tumultuous waves below the falls.

The inhabitants of this district are the Wagenia (Stanley's Wenyä); but also Tippo-Tip, with his



STANLEY FALLS.

- | | |
|---------------------------|---------------------------|
| 1. Stanley Falls Station. | 5. Nasr's village. |
| 2. Singi Singi's village. | 6. Mvana Nsigi's village. |
| 3. Nsaki's village. | 7. Seventh cataract. |
| 4. Tippo-Tip's village. | |

Arabs and slaves, and the station garrison, are established here. The latter was commanded by two whites, and had one hundred and fifty soldiers and working-men. These were composed of so-called Hausa (men from the Guinea coast and the Niger) and Bangalla, men from the upper Kongo, of the same tribe who so furiously attacked Stanley on his descent of the river. Besides these, there were a number of women and children, — slaves taken by Tippo-Tip on his predatory excursions to the north, and sold to the station. Many of the women had become wives of the Hausa: others were working for the station. The men were clearing the dense woods which surround the houses of the station, filling the swamps of the island, and working on the plantations. Bananas, manioc, and maize were grown there. Sweet-potatoes, papaya, and lemons were introduced from the lower Kongo. Tippo-Tip, who has large rice-plantations on the Lualaba and at Stanley Falls, furnished the station with rice. The stock consisted of three

cows, several sheep, goats, and some poultry. The climate is very unhealthy all the year round. It appears that the natives, who were employed by the station, were kept as slaves used to be in the southern states.

The Wagenia live on friendly terms with Tippo-Tip, who uses them for boatmen in travelling up and down and in crossing the rivers. They are fishermen. By far the greater part of their food is obtained in weirs built in the rapids and cataracts of the Kongo. Baskets are fastened to a line of heavy poles, which are strengthened by cross-beams, and the fish are carried into them by the rapid current. The fish are smoked, and traded to the inhabitants of the Lindi and Bivere for bananas and other vegetables or for iron spear-heads and daggers. The Wagenia wear teeth in perforations of the upper lip, beads in the nose and in the ears, and rings of copper, iron, or brass round the neck, arms, and legs.

Their trading excursions to the tribes below the cataracts are made in their large canoes, which have a platform for the steersmen on each end. On extensive journeys, they cover the boat with a roof, under which they build a fireplace of clay. It is remarkable that no demoralization through the influence of the Arabs has thus far been noticeable. The latter are ravaging the whole district, particularly the country north of the Kongo, and it may be expected that their influence will spread out still further, now that the station has been abandoned.

Africa.

According to *Nature* of April 14, the Swedish government is preparing an expedition under the direction of Lieut. A. Wester, formerly chief of the Kongo Station, Leopoldville. At the last meeting of the Stockholm society of anthropology and geography, Lieutenant Wester reported on the subject. The expedition may probably start next summer, and will be absent about a year, making Kamerun its base of operations. The cost will be about forty thousand dollars.

Mr. Camille Douls, says *La gazette géographique* of April 14, who was sent out by the French government for exploring the Wad-Dra, has been made prisoner by the natives of Cape Bojador. Mr. Tempest, chief officer of the English post at Cape Juby, however, succeeded in releasing him from the Arabs. Mr. Douls has resumed his journey up the Wad-Dra.

America.

The field-operations of the geological survey of Canada for the coming season include some important geographical work. The Yukon expedition, of which Dr. G. M. Dawson is in command

(see *Science*, April 15), set out last week. Dr. Bell will prosecute his researches in Hudson Bay, the south-west shore of which will be examined by Messrs. Low and J. M. Macoun. Professor Macoun will visit the little-known interior of Vancouver Island, principally for botanical purposes. The surveys of Mr. Bowman in the Cariboo gold-fields and the Selkirk range will add considerably to our knowledge of the geography of that district. Messrs. Tyrrell and Dowling will proceed to Duck and Riding mountains to examine the eastern outcrop of cretaceous rocks, and Messrs. Lawson, Smith, and Barrow will survey the boundary-line east of Rainy Lake. The rest of the parties will prosecute mainly geological work in the eastern parts of the Dominion.

Dr. R. A. Philippi gives an interesting report, in *Ausland* of April 11, of an ascent of the volcano Licancaur, which is situated on the eastern boundary-line of the Chilenian province Antofagasta. Former attempts to reach the summit of the mountain have been unsuccessful. Two engineers, Muñoz and Pizarro, attempted to reach the summit of the mountain, which is between eighteen and twenty thousand feet high, in order to make some trigonometrical observations. They experienced, however, so severe attacks of the *punar* (the difficulties of respiration in the rarified atmosphere), that they were prevented carrying out their intention. Their companion, Don José Santelices, succeeded in reaching the summit, and gives the following description: "The 16th of March we reached a tambo on the north-west side of the mountain. These are houses which form a single room with a low stone bank: they were built by the Inkas at regular intervals on their roads. While part of the company could not ascend much farther on account of the rarified air, the guide and myself reached the summit after nine hours' climbing. We descended into the crater, the bottom of which is formed by a plain about thirteen hundred feet in diameter, in which a beautiful pond, four hundred feet long and three hundred and fifty feet wide, is situated. It may be about five hundred feet below the rim of the crater. On its banks there are large stone walls of the houses in which the Indians used to live. There may be about thirty of these. There was a great quantity of fuel which had been carried there by the ancient Indians. An old road of the Inkas, which led to the summit, can still be recognized." Philippi remarks that these houses were probably used by a garrison for watching the approach of an enemy, and for giving signals by lighting the wood. Similar piles of wood have been found on all mountains of that district. Philippi supposes these enemies were

the Peruvians, at the time when they made war upon the brave and warlike Calchaquis, who lived in the district of Salta, which belongs at the present time to the Argentine Republic. J. J. Tschudi was probably the first to suggest that the Calchaquis retired to the oases of the Atacama desert, in order to escape the oppressions of the Inkas. This hypothesis is very probable, as the Atacama language is spoken nowadays in some parts of the province of Salta. However, it is not impossible that the Peruvians used these piles of wood for giving notice of the progress of their conquest to Cuzco. Anyhow, the fuel found on the mountains was carried there about four hundred years ago.

NOTES AND NEWS.

THE papers read at the April meeting of the National academy of sciences were as follows: 'On chemical integration,' T. Sterry Hunt; 'Results of the investigation of the Charleston earthquake,' C. E. Dutton and Everett Hayden; 'On some phenomena of binocular vision,' Joseph LeConte; 'The vegetation of the hot springs of the Yellowstone park,' W. G. Farlow; 'On the forelimb and shoulder-girdle of Eryops, and on the vertebrates of the triassic,' E. D. Cope; 'On the rainless character of the Sahara,' Elias Loomis; 'The color of the sun,' and 'A new map of the spectrum,' S. P. Langley; 'Chemical constitution and taste,' 'On a new class of compounds analogous to the phthaleins,' and 'On the decomposition of diazo compounds by alcohol,' Ira Remsen; 'On the ancestry of the deaf,' and 'On the notation of kinship,' A. G. Bell; 'On the determination of orbits of planets and comets,' J. W. Gibbs; 'On the serpentine of Syracuse, N.Y.,' G. H. Williams; 'On the barometric oscillation, diurnal and annual,' A. W. Greely; 'On Floridian geology,' W. H. Dall; 'On the Taconic system of Emmons,' C. D. Walcott; 'Is there a Huronian group?' R. D. Irving; 'On the brain of the *Ceratodus*, with remarks on the general morphology of the vertebrate brain,' B. G. Wilder; 'Outline of the ichthyological system,' Theodore Gill; 'The effect of magnetization on the electrical resistance of metals,' Arthur W. Wright.

— The coast-survey telegraphic longitude parties of Assistants Smith and St. Clair have left for Ogden and San Francisco. Their first work in extending the regular line of standard longitudes of the coast survey will be to connect Salt Lake City with the Franklin Square observatory in San Francisco. When these points are thus connected, the chain will be complete with the Sierra Roblero, New Mexico, near Fort Selden. Assistant