

HIMALAYAN EXPLORATION IN 1912.

FURTHER EXPLORATION OF THE SIACHEN GLACIER.

MRS. BULLOCK WORKMAN's expedition to the Siachen or Rose glacier, the largest and longest in Asia, has been carried out with complete success. During nine days of July she, with Dr. Hunter Workman and three Italian guides, made the first ascent of four important snow cols at the two sources of this glacier, at heights varying from 19,500 ft. to 21,000 ft., which constitutes a record in glacial exploration. On two of these ascents Mrs. Bullock Workman established the relation of the North-East Karakoram water-parting with Kashgar; on the two others she discovered two passes to the large unknown Kondus glacier. A fifth important climb made during the nine days by the same party was to the great Silver Throne plateau lying at over 21,000 ft. directly east of the main peak of this massif.

From the north-eastern Siachen col a pass to Kashgar was found, and a new group of high peaks discovered beyond the east Siachen boundary on the Kashgar side. The highest of these is probably over 25,000 ft. A sixth ascent of a high peak towering to the north-east of the Bilapho Pass, * which is crossed in reaching the Siachen, was made by Mrs. Bullock Workman and guides on July 11. On the last 800 ft. of this peak the angle was fifty degrees, and each step had to be cut in a surface of black ice. The expedition, the results of which are to be published later, will place the hitherto unexplored Siachen in the unique position of being the most thoroughly examined and scientifically worked up of all the Himalayan glaciers.

On the crossing of the Bilapho Pass, about 18,000 ft. high, Mrs. Bullock Workman and an Italian porter named Chenez, who had been with her on four Himalayan expeditions, left the caravan in order that Dr. Hunter Workman might take a photograph of them from a picturesque standpoint. After the picture was taken, Chenez, who was carrying the rope and his rucksack, strode ahead, taking another route to join the caravan. Mrs. Bullock Workman followed him at about three steps when, suddenly, without warning, he disappeared from view, carrying with him the rope and thus preventing his own immediate rescue. Mrs. Workman was left standing appalled on the brink of a blue hole in the ice. She called to the others, who hurried to the spot. The head guide had gone an hour in advance to look up a route and had with him the extra rope. The remaining guide called down into the crevasse and a faint reply came from Chenez far below that he was still alive. Six men started at once after the guide who had the remaining rope, and in one hour he returned. After one and a half hours in the frigid crevasse,

* Saltoro Pass.

buried at 80 ft. in the glacier, the porter was brought out on the rope, conscious, but without pulse and nearly frozen. He was carried down to a camp, where everything possible was done to rescue him, but he never recovered and died the same night from shock.—From the *Morning Post*.

In connexion with this report Dr. Longstaff's paper and map in 'A.J.' xxv. p. 485-488, should be studied. It would appear probable that the 'new group of high peaks discovered beyond the eastern Siachen boundary' are those mentioned by Dr. Longstaff on p. 313 of the present volume, and that these peaks are the true Teram Kangri. A picture of these peaks appears in 'A.J.' xxv. p. 485. See also 'Geographical Journal,' vol. xxxv. p. 636, plate p. 640, and vol. xxxvii. p. 94.

Mrs. Fanny Bullock Workman has under date Bombay, October 28, kindly furnished the following note :

On my 1912 Karakoram Expedition the following exploration and ascents were carried out by Dr. Hunter Workman, myself, and three Italian guides. The 48-mile long Siachen or Rose glacier and its large affluents were first explored in entirety. First ascents were made to the following points, viz. to N. Siachen apex or col, which forms the water-parting between this part of Eastern Karakoram and Chinese Turkestan, height about 21,000 ft. To E. Siachen col, height 19,300 ft., from which a group of very high peaks on the Kashgar side was discovered. To ridge on E. Siachen, 19,800 ft. Two cols at W. Siachen source were ascended, heights 19,700 and 18,705 ft., and from latter a new passage to great Kondus glacier found. Another ascent was to large snow plateau, 21,000 ft., lying above W. Siachen source. On July 11 I ascended with three guides a difficult snow peak N.E. of the Bilaphon La, height 21,000 ft.

All our camps for five weeks were at heights of from 16,700 to 19,000 ft. On August 21 we made the first traverse from Rose to Kondus glacier with caravan of 66, and descended the Kondus to Kondus valley.

The Siachen glacier and its affluents were completely surveyed by Mr. C. Grant Peterkin, assisted by Sarjan Singh, plane tabler, loaned me by Col. S. G. Burrard, R.E., Surveyor-general of India.

PROPOSED SCIENTIFIC EXPEDITION TO THE KARAKORAM.

IMPORTANT SCHEME OF RESEARCH.

DR. FILIPPO DE FILIPPI has submitted to the Council of the Royal Geographical Society a plan for a scientific expedition which he has projected to the Western Himalaya and Karakoram, and for which he has already obtained a large proportion of the funds that will be

necessary. The Council has expressed its approval of Dr. de Filippi's plan.

Dr. de Filippi's name is well known in connexion with the great expeditions which have been so successfully accomplished by the Duke of the Abruzzi to Mount St. Elias in Alaska, and to the Karakoram Mountains. The expedition now proposed, if carried out on the plan which he has drawn up, will probably be the most important from the scientific point of view that has ever entered the Himalayas. The problems under investigation concern topography, geology, gravity, magnetism, and the various forms of radiation (thermal, photochemical, photoelectrical, light polarization, &c.), atmospheric electricity (potential gradient, electric conductivity, induced radio-activity, penetrating radiation and ionization of the air). To these subjects would be added studies in meteorology, with the special view of investigating the higher atmosphere with kites carrying self-registering instruments sent up from stations of high altitude. The special physical characteristics of the Himalaya-Karakoram region, added to the comparative facility with which high altitudes can be reached in it, to the dryness of the atmosphere, &c., afford unique opportunities for these researches.

It is proposed to carry on the investigations from Kashmir, over the Himalaya range, and through Baltistan and Ladakh into Chinese Turkestan. Dr. de Filippi intends to take advantage of the occasion afforded by the expedition to explore and map the still unknown portion of the Karakoram between the Siachen glacier and the Karakoram Pass. It would be a matter of the greatest interest in this district to look for a continuation of the great sedimentary (limestone) formation discovered by the Duke of the Abruzzi in the Baltoro basin and by Dr. Longstaff at the head of the Siachen glacier. The plan entails wintering in Baltistan or in Ladakh, and the expedition would extend over a period of something more than a year.

The amount necessary to cover the expenses of such an enterprise is about £10,000. Of this sum £8000 has already been contributed (£4800 in Italy). It is hoped that the amount necessary to complete the sum may be subscribed.

THE ALPINE CLUB ANNUAL PHOTOGRAPHIC EXHIBITION.

THE Annual Photographic Exhibition, held at the Alpine Club in May last, was marked by an unaccountable diminution in the number of exhibits. The falling off was all the more extraordinary seeing that the preceding summer season was probably one of the finest on record. However it was, to a great extent, compensated by the uniform quality of the work shown. We should have preferred a little more variety in tones of the printing, the prevailing tint being a cold grey, which somehow conveyed an impression of