across the face of the tower. I mounted guard on the tower, while Raeburn, in a most uncomfortable and sensational position, cut splendid steps in the ice across the face up to the ridge again. There was still more cutting on the ridge from rock to rock—the mountain was really in bad condition—and the situation was very sensational, but higher up the work became easier, and at 10.40 each in turn, carefully hitched by the other, stepped on to the corniced summit of the Gabelhorn. The view, embracing the Dauphiné, Tarentaise, and Chamonix peaks, to say nothing of the glorious range around us, was superb.

We descended by the ordinary route to the Trift Inn at 3.10.

Our holiday was over, and though we had suffered many disappointments on account of the weather, the traverses of the Grépon, Monte Rosa, and the Gabelhorn, as well as the frustrated attempt on the Verte, will always remain as bright memories of the season of 1909.

The Expedition of H.R.H. the Duke of the Abruzzi to the Karakoram Himalayas.

By Dr. FILIPPO DE FILIPPI.

THE following contains a brief summary of the mountaineering work accomplished by H.R.H. the Duke of the Abruzzi last summer in the Karakoram range. I shall not deal with the geographical results of the expedition, which have already been given in the 'Geographical Journal.'

The Duke aimed at solving the problem of the highest altitude attainable by climbing. K2 was selected as being the second highest mountain in the world, and the highest which the political conditions prevailing in the Himalayan regions render it possible to approach. The only European expedition* which had seen the mountain at close range appeared to admit the possibility of an attempt.

The members of the Duke's expedition were Lieut. March, F. Negrotto, aide-de-camp to the Duke (R.I.N.), Vittorio Sella, and myself. The guides were J. Petigax, A. and H. Brocherel, besides four porters, all from Courmayeur, and Mr. Sella's photographic assistant, E. Botta.

We left Srinagar in Kashmir on April 23, crossed the Zoji-La,

* The Anglo-Austrian-Swiss Expedition of 1902, of which Dr. J. J. Guillarmod published the report: 'Six mois dans l'Himalaya,' W. Sandoz, Neuchâtel.

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and reached the Baltoro Glacier by the valleys of the Indus, the Shigar and the Braldoh. One month after leaving Srinagar the expedition reached the confluence of the Godwin Austen Glacier with the Baltoro, at the foot of the western buttresses of the Gusherbrums, and in full view of the huge mass of K2. Three days had been spent at Rdokass, a grassy slope on the southern side of the Baltoro. At this point a base camp was established, as had been done by the Anglo-Austro-Swiss expedition, to provide supplies for the party. During these three days (May 20–23) snow fell continuously.

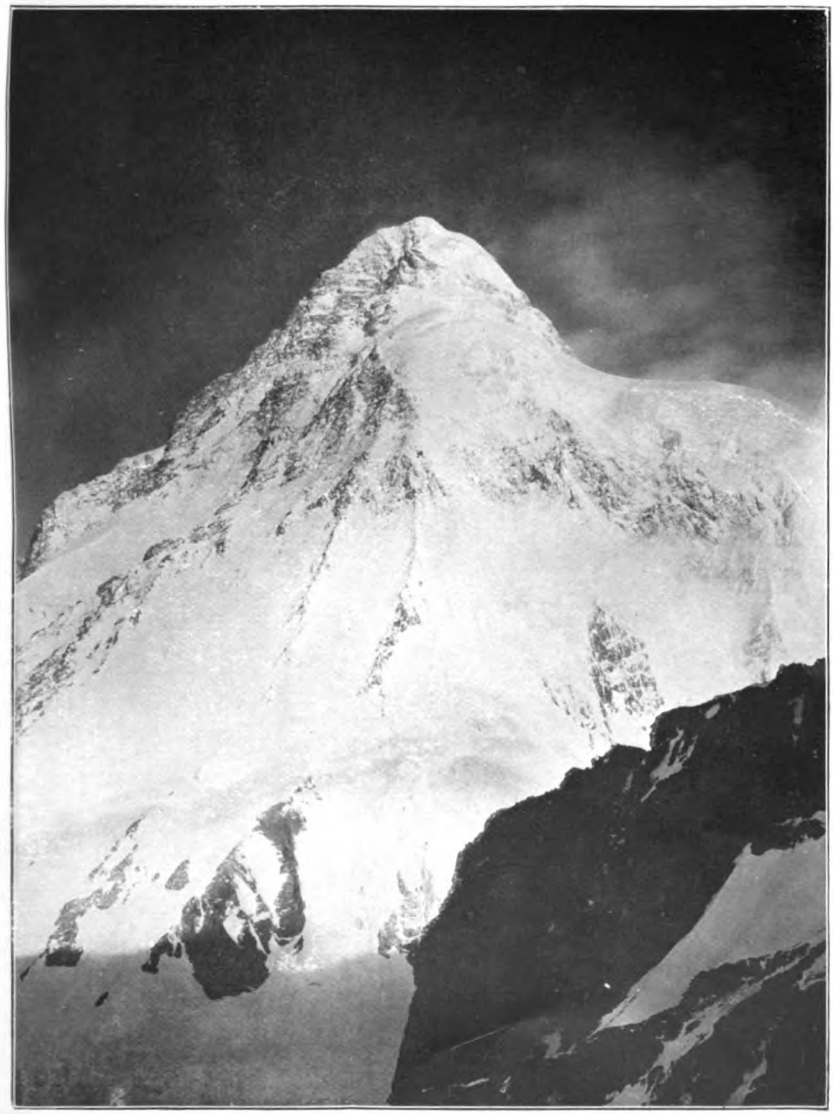
On May 26 the whole expedition was encamped with the equipment at the foot of the S. wall of K2. From this point exploring parties searched the glaciers to the S., E., and W. of the mountain, in order to discover the most promising point of attack. Notwithstanding the extent of ground covered by this exploration, the results were not encouraging. On every side the walls and ridges offer impossible angles. Precipitous arêtes are flanked by couloirs glittering with pure ice, above which at from six to ten thousand feet hang glaciers broken into tottering séracs.

The Duke, however, decided to make the attempt, and fixed upon the rocky S.-E. ridge, which leads up to the great southern shoulder of the peak, full 3,000 ft. below the summit. This was the only ridge which in its lower part at least appeared to offer a chance of success. On May 30 the Duke, with all the guides and porters, and ten coolies, set up a light camp on the ridge at about 1,500 ft. above the glacier. For three whole days the guides searched for a way up on the rotten crumbling rock of the ridge and by the ice couloirs. They succeeded in going only a short way above the camp, placing fixed ropes for the porters. The difficulties increased as they progressed. The impossibility under these conditions of carrying the necessary equipment further up made it necessary to give up the attempt.

The expedition now proceeded to the hitherto unexplored glacier to the W. of K2. From this glacier, on June 7, the Duke ascended a col on the watershed at the foot of the N.W. ridge of K2 (21,870 ft.), whence he expected to be able to see the N. side of the mountain. This ascent took 12 hours, eight of which were employed in climbing a steep ice wall covered by a thin layer of snow. On the N. side the pass drops sheer down to a wide valley, bounded by a range of lower mountains. A big cornice almost entirely cuts off the view of the N. wall of K2.

The expedition now returned to the Godwin Austen Glacier, with the purpose of exploring its upper part. This exploration

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V. Sella, photo. *Swan Electric Engraving Co., Ltd.*

K2. FROM THE SOUTH.

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took from June 14 to 28. On the 15th the Duke ascended a col (Sella Pass, 20,207 ft.) to the left side of the Godwin Austen Glacier, E. of the Broad Peak. Mr. Sella crossed the same col on the 27th to photograph the mountains and the valleys to the E. of the Gusherbrum.

A light camp was carried as far as Windy Gap, the saddle at the head of the Godwin Austen Glacier, already reached by some members of the Anglo-Austrian expedition, who were unable to see beyond owing to bad weather. The further side of this col is occupied by a very steep glacier, which might be descended by a mountaineering party, but down which a camp equipment could not be carried without difficulty.

On June 25 the Duke started from a high camp on the southern ridge of the Staircase Peak above Windy Gap, for the purpose of attempting the Staircase Peak. He reached the height of 21,657 ft., where he was obliged to turn back owing to two impassable bergschrunds. The illness of two guides also deprived him of necessary assistance. From this point, however, he was able to take a panorama of geographical interest, including the region to the E. of Windy Gap and a foreshortened view of the precipitous rocky northern wall of K2.

The end of June was close at hand. The exploration of the glaciers round K2 was now complete. The weather so far had been very uncertain, and a grave hindrance to mountaineering, as well as to topography and photography. A wind, bearing every character of a monsoon, blew unceasingly from the S.W., shrouding the peaks and high ridges with mists and *tourmente*, and adding to the toil and difficulty of ascents. The Duke was bent upon once more trying to reach a great height upon some peak of this group. Not one of the highest summits around the Baltoro glacier looked as if it could possibly be climbed under any conditions whatsoever. Only two mountains seemed promising, the Golden Throne and the Bride Peak, both at the upper end of the Baltoro Glacier. The Bride Peak, the higher of the two (25,110), offered snow slopes which appeared possible. To the Bride Peak therefore the Duke now directed his efforts.

On July 2 a camp was established at the foot of the big crevassed glacier which flows down between the Golden Throne and the Bride Peak. Between the 3rd and the 10th, the weather being mainly very bad, with heavy snowfalls, and the snow on the glacier always in the worst condition, the Duke, with the assistance of the guides and coolies, succeeded in carrying a light camp over the cascade of séracs up to the

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Chogolisa Saddle, to 20,778 ft., between the Golden Throne and the Bride Peak. At this height, and in still higher camps, the Duke and the guides spent nine days in an incessant struggle against obstinately hostile weather.

On July 12 he started, with the guides J. Petigax, H. and E. Brocherel, from a camp at 21,667 ft., and made his first attempt to ascend the Bride Peak by its S.E. arête. They reached an altitude of 23,000 ft., and were then forced by dense fog and threatening weather to return to the Chogolisa camp. Here they were blocked by a snowstorm which lasted five days.

On June 17 they again camped at the foot of the crest at 22,483 ft. At daybreak on the 18th they began the ascent in foggy but calm weather. At 6.30 they had reached 23,000 ft. and at 7.45, 23,458 ft. They now crossed a steep slope covered with insecure snow. By 11 o'clock they reached a point where rocks begin, about two-thirds of the way up the ridge, 24,278 ft. Here, after a short halt, they climbed up the rocks to where they end and the ridge becomes snowy again. It was now 1.30 P.M., and the barometer read 312 mm. This reading, when referred to the observation of the three base-stations of Skardu, Leh and Srinagar, gave an altitude of 24,583 ft.

The fog was very dense, the temperature mild, the snow in a shocking state. There still lay before them 500 feet of snow ridge to climb between a cornice and the precipitous wall. The Duke judged that the danger of proceeding under such conditions was too great, and at 3.30, after waiting vainly for two hours for a lifting of the fog, he was forced to give up the attempt to reach the top. By 5.30 they were back to the camp which they had left in the morning, and reached the Chogolisa Saddle at 8 P.M.

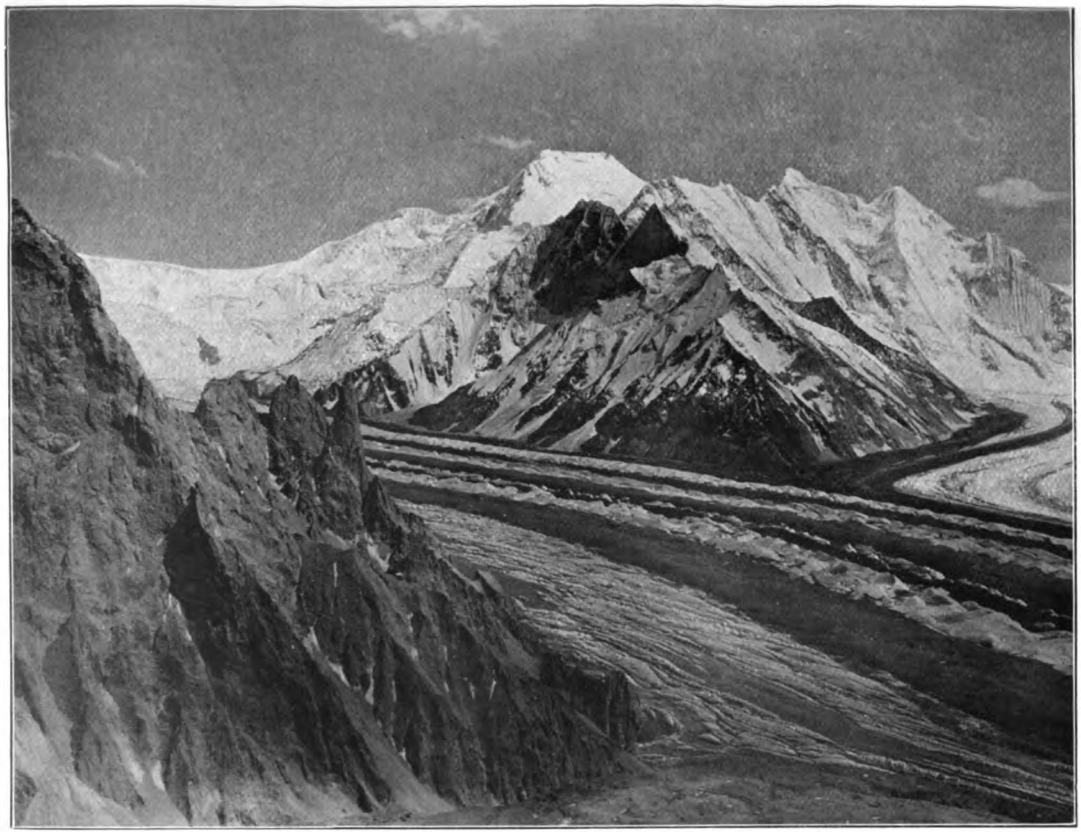
Notwithstanding the great height, the steep slope and the masses of soft snow, none of the party suffered from mountain sickness or over-fatigue.

For the latter three weeks the bad weather had been practically incessant. The climbing season was evidently over, and all agreed that the moment had come to return.

On July 22 the expedition reached Rdokass, and on the 27th the village of Askoley. From here, by the short cut over the Skoro La, Skardu was reached in four days. The summer route across the Deosai plains was then followed, and Srinagar was reached by August 11.

The survey (Paganini method) carried out by Negrotto led to the construction of a map of the Godwin Austen Glacier which differs considerably from the one of the Anglo-Austrian Expedition published by J. J. Guillarmod. Among the many

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V. Sella, photo. *Swan Electric Engraving Co., Ltd.*

THE BRIDE PEAK, FROM THE NORTH.

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height measurements I will only mention that of the Broad Peak, of 27,133 ft.

Sella took a great number of photographs, both single and panoramic, which will copiously illustrate this region in the detailed account now in course of preparation.

The Teufelsgrat.*

By H. SYMONS.

'The rock answers with the vicious notes
Of volleying stone-falls.'

MANY are the pleasures of the climber's life, but few perhaps excel the quiet feeling of bliss with which he strolls out on a fine off-day, to fill the interval between late breakfast and lunch with memories of ascents just happily accomplished and plans for a week of unbroken climbing, in which fatigue is unknown and an occasional cloud only appears just where it will add an artistic finish to a photograph. August 1, 1908, found me outside the Monte Rosa Hotel at Zermatt in this enviable state. I had just avoided the reproach of a too-confirmed 'centrism' by a dash to Zinal over the Weisshorn N. ridge and the Bieshorn and back over the Rothhorn. (I do not mean that this was the work of a single day.) It was a Saturday, so no anticipations of a sweltering walk up to a hut cast their shadows (or want of shadow) before them. Suddenly a hand was laid on my shoulder and a familiar voice sounded in my ears. It was Williamson the indefatigable, just returned from a flying visit to England, and eager to try his luck for one week more—the inevitable week of perfect weather that still figured in his plans, after all his experience of the atrocities of 1908. With that contempt for the air of 5,000 ft. which characterises the newcomer from London, just released from a night's journey in a railway carriage, he suggested lunch in the higher, purer air of the Schwarzsee Hotel. With a sigh I put on my boots, wondering why an ascent of 3,000 ft. in the hottest hours of a blazing day—in England a strenuous achievement—should at Zermatt rank as a gentle relaxation for weary limbs. Even so the cyclist (according to a theory now defunct with the death of the fixed wheel) was supposed to rest his tired muscles after a stiff hill by vigorous back-pedalling on the other slope.

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* The S.W. ridge of the Täschhorn (4,498 m. = 14,758 ft.).

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