

NEW EXPEDITIONS IN 1906—*continued.**Dauphiné District.*

THE RÂTEAU (8,754 m.=12,817 ft.) BY THE W. ARÊTE. FIRST TRAVERSE.—On July 17, 1906, Mr. H. Scott Tucker, with Christophe Turc père et fils of La Bérarde, the former as guide and the latter as porter, left the Refuge Chancel at 2 A.M. They reached the Col de la Girose, at the foot of the S.W. arête, at 6.15. Keeping on the north-western side of the arête for about an hour, they passed on the left of the first gendarmes, which are quite small, and soon climbed to the crest of the arête itself to attack the first peak, on whose summit they arrived at 7.45. After building a pyramid they descended into the *brèche*, where there are two small gendarmes. These they passed to the right, i.e. on the S.E. slope. Next came a difficult descent by broken rocks into a couloir, followed at 9.15 by a further descent, to allow a large pointed gendarme to be turned in the same way. Afterwards reascending somewhat and passing several gendarmes, in the same way they found themselves in full view of the great *brèche* which marks roughly one-third of the journey across the mountain. In it are two small gendarmes. Descending by broken rocks, crossing two or three couloirs, and then gradually ascending, they stood in the narrow base of the *brèche* itself. On its northern side are enormous precipices. The views of La Grave and the surrounding country are terrifying. Passing a little to their right along the base of the peak which forms the eastern side of the *brèche* they climbed to its summit by a difficult fissure. Here they placed a second pyramid. Descending by a more easterly route they reached some slabs of rock—wet in places—forming a sloping platform. On the left the rocks rise precipitously to a considerable height. Below the beginning of this platform is a hole in the mountain, through which La Grave can be seen, a proof that the whole of the upper part overhangs at this spot. Passing a small *brèche* on the left, they climbed along the arête to the summit, which was gained in a thick fog at 3.45 P.M. This part of the arête is extremely narrow and steep. At times it was necessary to sit astride and at others to advance on all fours. Led astray by the fog, which had become very dense, they missed the road to the Promontoire Club hut and were forced to follow the arête to the Brèche du Râteau. The welcome shelter of the Châtelleret Club hut was reached at 9.30 P.M. Early in the day the peak on which the second pyramid was placed seemed higher than the reputed* summit; it was unfortunately hidden from the latter by the fog. The weather was, until the later part of the day, extremely good. The halts were very few and short, and it was felt that although familiarity with the route might lessen the time taken it must remain a very long and

* Mr. Coolidge's party had no doubt in 1873 in perfect weather (*Alpine Journal*, vol. vii. pp. 137-8).

trying climb. Of course under ordinary circumstances one would descend direct from the summit to the Promontoire Club hut, thus saving at least two hours. Want of time made it impossible to follow the arête the whole way, but most of its points seemed climbable. For comparison it may be said that two days later the same party crossed the Meije from the Promontoire hut to the rocks N. of the Bec de l'Homme in less than 13 hours.

Mont Blanc District.

AIGUILLES ROUGES DE DOLENT. 'LA MOUCHE' (8,582 m. = 11,750 ft. by aneroid).—On July 12 Messrs. W. N. Ling and Harold Raeburn, without guides, left a *gîte* on the left bank of the Neuvaz glacier, above the moraine, at 9 A.M. Mist and rain had prevented an earlier start. Descending to the moraine they crossed it, and numerous torrents, in the direction of the great S. buttress of the Tour Noir. Climbing some steep slabs and a short ice cliff above they got on to the Neuvaz glacier at 10, just to their left, W. of the end of the S. buttress of the Tour Noir. Traversing below the cliffs of the Tour Noir they reached the bergschrund, a large double one, at 11.17. This was crossed in 10 min., and after ascending a snow-slope a few hundred feet a rocky ridge was reached. This route had been prospected the previous day from the Ferret chalet, and led up to the foot of the aiguille, on easy but somewhat loose rocks and short arêtes, sometimes of deep, soft snow, sometimes of ice. The aiguille is the second peak to the E. from the point marked 8,691 (Kurz map, 1905), and is marked 'Vierge' in a sketch given to Mr. Raeburn by Monsieur Marcel Kurz.

The foot of the final tower was reached at 2.15. This final peak is about 850 ft. in height, and is exceedingly steep, a miniature Petit Dru. It is divided into three prongs, of which the S. is the highest. A chimney about 200 ft. high runs up to the col separating the S. from the central prong. This was mainly kept to on the ascent. At one place a traverse out on the face of the central prong proved necessary. A return to the chimney was effected higher by a species of hand traverse over a projecting nose. Near the col the chimney was again left, and the ascent made up the slabby wall of the S. prong. This passage was considered better done without boots. The col is very like that below the *mauvais pas* on the S. Aiguille d'Arves, but the drop here on either side is steeper. From the col an upward traverse to left, with good handholds, but very little foothold, led to the foot of an overhanging crack about 80 ft. high. At the top of this was a good platform, and a ledge then led to right on to the final arête. The top spike was slightly overhanging and only 2 or 3 ft. in thickness. No trace of a previous ascent was seen.

The top was reached at 8.45 (11,750 ft. aneroid). Leaving at 4.40, the same route was followed on the descent, the last man using a rope ring and a light 80-ft. safety cord over the worst part.

The glacier was reached at 7.20 and the *gîte* at 9, darkness and rain coming on on the moraine about 2 hrs. earlier.

ARGUILLE D'ARGENTIÈRE. TRAVERSE OVER S. PEAK, 'FLÈCHE ROUSSE.'—The same party, without guides, left the Saleinaz *cabane* on July 15, 1906, at 8 A.M. Descending to the glacier they walked up its centre towards the foot of the great E. buttress of the Aig. d'Argentière. Turning to the left before reaching this, they skirted along below the S. peak and S.E. ridge. This ridge stretches, with many gendarmes, from La Flèche Rousse, or S. Peak, to the Col du Tour Noir. About midway between these two points two ribs of rock, separated by an ice couloir, run from above the bergschrund towards the top of the ridge.

The largest or more northerly of these runs right to the ridge, where it finishes in a steep gendarme; the S. rib dies out under the ice slope rather more than halfway up. The bergschrund, reached at 5 A.M., below the larger rib, was impassable. It was passed below the smaller, and after some step-cutting in hard ice the rocks were reached. They proved icy and difficult, and a lot of cutting was required. Cutting across the couloir after breakfast, 8.30 to 9, to the larger rib, better going was found on somewhat loose but ice-free rocks here, and the gendarme on ridge gained at 10.55.

Thence the ridge was followed, the last tower before the S. peak of the Argentière being traversed on the Glac. des Améthystes side. The steep rocks of the final peak, a double one, were then attacked, and difficult and varied climbing led first over the lower or southern point, through 'letter boxes' and along an ice arête to the foot of a steep chimney somewhat iced, at the top of which easy scrambling led to the final peak.

The party were under the belief that the peak had never been before ascended, as Messrs. Morse, Wicks, and Wilson's party in 1898,* and Mr. G. L. Stewart, in 1899,† had both skirted the peak, the former on the Saleinaz side, the latter on the Argentière side. A small cairn was, however, found close to the top. It was placed there by Monsieur Kuhlmann's party,‡ who ascended the peak from the central col on August 18, 1901. The actual summit is formed by a huge spike of red rock, 'La Flèche Rousse,' projecting many feet over the ice wall above the Saleinaz glacier.

Its top was gained at 3.7 P.M., 3,885 m. = 12,746 ft. (Kurz map, 1905). The aneroid made the height 12,700, allowing for error. Leaving the top at 3.25, a very steep wall led down to the ridge. Then the easy arête was followed to the central peak, 3,907 m. = 12,818 ft., at 4.10. Leaving at 4.25, the ordinary route was followed to the N. peak and down to the Glacier de Chardonnnet. Ascending this glacier to the col, 6.25, the party then descended the Saleinaz glacier to the *cabane*, which was gained at 8 o'clock.

* *Alpine Journal*, vol. xviii. p. 207.

† *Ibid.* vol. xx. p. 45.

‡ *L'Echo des Alpes*, 1903, p. 95.

Zermatt District.

ASCENT OF THE PIC TYNDALL (ON THE S.W. RIDGE OF THE MATTERHORN) BY A NEW ROUTE.—On August 10 and 11 SS. Ugo De Amicis Ferraris and Augusto Ferraris, both of Turin, made, without guides, the first ascent of the S.S.W. buttress and arête of the Pic Tyndall.

Extract from the Italian Matterhorn Hut Book (kindly sent by Mr. C. W. Nettleton).

They left the hotel at Giomein about midday on August 10, and when I reached the hotel about 5 p.m. they were plainly to be seen by telescope well up on the S.S.W. buttress. They stopped about 8 p.m. for the night, on a small and rather exposed rock platform, situate almost on a level with the highest snows of the Glacier du Lion as seen from Breuil. The light from their lantern was visible until I retired, about 11 p.m. and I subsequently heard that the party were not able to get much, if any, sleep, owing to their exposed position and the cold.

Next morning I left Giomein with my wife for the Italian hut *en route* for the ordinary traverse of the Matterhorn, and during the rest of the day we were much interested in watching the ascent. Soon after the *gîte* had been left we could see that the difficulties began and that the huge smooth slabs of the arête tried the party to the uttermost. Generally speaking the arête was kept to all the way, it being impossible to traverse to the right, and the few short traverses that were made to the left (*i.e.* in the direction of the ordinary S.W. ridge, which we were on) were dangerous, as this S.S.W. face is raked by stonefalls. Owing to a snow storm we did not see the party actually arrive on the Pic Tyndall, but next morning we saw their tracks on the final snow-ridge leading up to this point. I mention this as I subsequently heard it had been stated that the party did not climb the very severe part of the arête, but that, on reaching about the level of the hut on the S.W. ridge, they went across the face direct to the hut. This was not so.

If time and weather had permitted the Messrs. Ferraris could, of course, have proceeded *via* the Tyndall Grat to the summit, but they were content to descend to the Italian hut. They spent the night there, and I was glad of the opportunity to congratulate them on their first climb and to hear some details. They assured me that the climb was an exceedingly difficult one, and, as it was not free from danger, they could not recommend it.

THE TÄSCHHORN (4,489 m.=14,758 ft.) BY THE SOUTH FACE.—On August 11 Mr. G. V. Ryan and Mr. G. Winthrop Young, climbing with Joseph and Franz Lochmatter and Joseph Knubel respectively, made the direct ascent of this face. The times were not taken in detail and would be of little value. The Täschalp was left about 1.45 a.m. Ascending the north bay of the Weingarten glacier, the central buttress of the face, of guileless appearance and insidious commencement, was selected, in preference to the great couloir to its

east, then full of ice. The rock throughout was bad, deciduous and downward-sloping. The first half, however, went satisfactorily, and at about 7.30 breakfast was taken on a wide snowy ledge overhanging the big couloir. This was the last voluntary halt, no subsequent resting-place offering standing room for more than one. Above this the angle and the conditions grew steadily more severe, the insufficient ledges being coated with snow or ice. A short distance below where the great couloir turns right across the face to join the S.W. arête, the perpendicular rocks necessitated a difficult traverse upward and eastward to join it. The couloir offered, however, no relief even when entered, and the upward traverse was continued across iced slabs of exceptional difficulty to a second small couloir, cutting precipitously up the centre of the face. Some 600 ft. below the summit—the height was difficult to estimate in the driving mist and snow—this chimney splayed out in a wide-angled corner, some 100 ft. high and almost sheer, ending in an overhang. Climbing with remarkable brilliance and nerve, Franz Lochmatter ultimately succeeded in forcing his way over this, and from very small holds reunited the party with the simple but painful rope. For a time the difficulties and uncertainty continued with small abatement, but at last—and with surprising suddenness—a shout announced that a way had been forced on to the S.E. ridge, some 60 ft. only from the highest point. The top was reached at 5.30 p.m. Descending rapidly by the ordinary (Kien glacier) route, the moraine was reached before dark, but the subtle evasions of the old Randa path prolonged the pleasures of a candle-light descent to Randa until 11.30 p.m., and Zermatt was finally regained, by a section of the party, at 3.15 a.m. (21½ hrs. to Randa, or 25½ hrs. to Zermatt, with halts). Time and fair weather are apt to prove fatal to most alpine first estimates, but in the opinion of all the party the climb was the most continuously exacting of their experience. Some nine hours were spent on the last 900 ft. At a cautious estimate the ascent could not be considered likely to become a popular competitor to the comparative luxury of the *Teufelsgrat*.

THE DOM (4,554 m.=14,941 ft.) BY THE SOUTH FACE.—On August 28 Mr. G. Winthrop Young and Mr. R. G. Mayor, with Gabriel Lochmatter and Joseph Knubel, left the new Kien glacier hut at 3.50 a.m. Ascending the northern bay of the Kien glacier, the bergschrund was negotiated at the eastern edge of the huge central couloir. Striking up the broken slabs directly below, and in the shelter of, the great yellow buttress that projects almost into the centre of the couloir from the S. arête, and thence by steep chimneys up the face of the buttress itself, the open couloir was rejoined. Its eastern side was again quickly mounted, until it opened out on the big amphitheatre of worn slabs, where the four or five branch chimneys which descend from the upper portions of the S. and W. arêtes join. The few stones that had fallen had confined themselves to the extreme western side of the couloir, and had been discharged exclusively by the largest and western-

most of the branch chimneys above (that by which Messrs. Seiler and Eckenstein reached the W. arête in 1887*). But as a precautionary measure these exposed *Platten* were taken at a racing pace until the shelter of the ridge, descending from the summit slightly westward into the amphitheatre, was gained. A short distance up this ridge occasion was made for breakfast and for the first halt permitted by policy, at 10.20 A.M. Starting again at 11.20 the ridge gave excellent climbing—smooth curves with infinitesimal but firm holds alternating with broken crags—to the foot of the final wall. This, taken direct, proved partially overhanging, and made a very sporting finish exactly on to the highest point, at 1.10 (9½ hrs.). Resisting the temptation, a strong one in the then remarkably favourable condition of the mountain, to descend upon Saas Fee, the descent by the Festi glacier was begun at 1.45. The almost unendurable heat counselled an early escape from the snow-glare, so no halt was encouraged, and Randa was reached at 4.33 P.M. (2 hrs. 50 minutes), the whole climb occupying 12¾ hrs. In its comfortable angle, firm rock, variety of possible routes, and in its general conditions the climb was in marked contrast to the corresponding ascent on the Täschhorn. The circumstances, however, can rarely be so favourable. A slight covering of ice or snow, which might conceal the pleasant rugosities of the slabs, would at once double the difficulty of the climbing, and the consequent check on pace would introduce a risk from falling stones on the one or two places where it is found necessary to leave the shelter of the ridges.

THE WEISSHORN (4,512 m.=14,803 ft.) BY THE SOUTH FACE.—On August 21 Mr. G. Winthrop Young and Mr. R. G. Mayor, with Joseph Knubel, left the Weisshorn hut at 8.15 A.M., and, following the usual route across the eastern bay of the Schalliberg glacier, ascended, with some little difficulty in the ice chimney, to the top of the great dividing buttress, the starting-point of all ascents on this face. After examination it was decided to attempt the easternmost of the principal ribs. This forms the western wall of the wide snow couloir by which Mr. Mathews all but reached the E. arête in 1860. It is also the next rib on the east to that by which the ascent, made direct to the summit on August 28, 1905,† was begun. Steps in hard snow, with occasional ice, led on to the ridge, whose firm slabs gave delightful and straightforward climbing. At two-thirds of its height the rib turns north-west and joins the second rib in some big ochre-coloured gendarmes. Above the junction it continues to slope slightly westward and upward until it merges in the E. arête. As the ridges converged a certain melancholy pleasure was added to the sunny comforts of the climb upon this southern rock-face by the contemplation of the sufferings of several parties on the ordinary route, who were battling with the arctic conditions of a northern gale. The E. arête was finally joined a normal 20 minutes from the summit, which was surmounted, in bitter weather, at 10.15 A.M. (7 hrs.). The descent

* *Alpine Journal*, vol. xiii. p. 413.

† *Ibid.* vol. xxii. p. 616.

was made to the hut in two hours, and Randa reached in another 65 minutes. The climb affords a pleasant variant. With the exception of the little chimney on to the buttress, which is apt to be iced in the early morning, there are no difficulties and no risk of stones. When a north wind is blowing it might well be followed, to avoid the step-cutting and tribulation frequently induced upon the greater part of the east-ridge route.

Bernese Oberland.

MORGENHORN (8,629 m.=11,907 ft.). E. ARÊTE BY A VARIATION. *July 18.*—The 1903 party* reached this ridge by a couloir a little S.W. of the Tschingel Pass, and on the E. side of a rock spur well marked on the Siegfried map, in which there was considerable danger from falling stones.

Leaving the Mutthorn Club hut at 2.25 A.M. on July 18, Miss Marie Hampson Simpson, with the guides G. Hasler and Fritz Kaufmann, of Grindelwald, proceeded in a westerly direction, leaving the pass and the 1903 couloir on their right, till they reached another conspicuous couloir descending on the W. side of the above-mentioned rock spur. After cutting up the steep snow of this they climbed up the very steep rocks of a gully, reaching the ridge close to the spot which the 1903 party reached from the E. The rocks of the western gully are sound and no stones fell during the ascent of the couloir. The E. ridge, the traverse of which has not been repeated since 1903, is a magnificent climb containing great variety and three pitches of considerable difficulty. Summit reached 12.15 P.M.

N. SUMMIT OF THE TRUGBERG (8,938 m.=12,904 ft.) BY THE N. ARÊTE. *August 7.*—The same party, with Heinrich Fuhrer instead of F. Kaufmann, left the Bergli hut at 12.50 A.M.

From the Ober Mönchjoch they followed the N. ridge, which was at first ice, much step-cutting being necessary. The first pitch of rock-work was rather difficult, but short; then, after turning a gendarme on the W., the rock ridge was followed throughout its length and over the three summits (the central peak of which is the highest, not, as the 'Climbers' Guide,' vol. i. p. 149, says, the N. summit).† The first two summits were reached from the western side of the ridge; the third by a slight descent on the E. side. The ridge is a long climb, and its rocks, which are much steeper than they appear to be from below, are interesting. Third summit gained 6.55–7.40. Descended short time down S. ridge, then by E. face to the Ewig Schneefeld. Bergli hut 11.15 A.M.

GROSS GELMERHORN (2,631 m.=8,632 ft.). DESCENT BY THE S. FACE. *August 16.*—The above party left the Grimsel Hospice at 3.5 A.M., walked past the Gelmeralp towards the head of the

* *Alpine Journal*, vol. xxi. p. 560.

† Miss Simpson clearly refers to the three *points* of the N. summit. The Siegfried map says the N. peak is the highest (3,933 m.); the others are 3,660 and 3,513 m. .

Diechterthal. Crossing the Diechterthal torrent just below the first waterfall, they climbed a long, easy gully to the saddle N. of the Gross Gelmerhorn. From this point the climb was completed over the rocks of the N. face by a series of cracks, slabs, and ledges. (This climb, though unrecorded, had been done once before by G. Hasler, July 27, 1904.) Reached summit at 10.15. Left at 11, went down the S. face, which contains three 'Abseilstellen,' to the saddle (Gelmersattel) between the Gross and Klein Gelmerhorn, and then to the W. through a steep, smooth couloir, which contained four pitches, necessitating the use of a spare rope. Its foot was reached soon after 3 P.M., and the Gelmeralp track rejoined close to the Gelmersee by traversing above the Gelmer Garwidi pastures. The couloir on the E. side of the Gelmersattel can also be descended direct to the Gelmeralp, and is of much the same character as the western couloir. Reached Grimsel Hospice 7.30 P.M.

Tödi District.

BRIGELSERHÖRNER. August 30.—Messrs. A. E. Measures and A. L. Mumm, with Heinrich Schiesser, of Linthal, and Johann Stoller, of Kandersteg, reached the ridge of the Brigelserhörner from the Puntaiglas glacier by a route which does not seem to have been previously taken. They climbed a couloir at the head of a great slope of scree, a little to the N. of the arête which descends from Crap Grond. At the top of the couloir the way was barred by a broad chasm, and the slope leading to the summit ridge was reached by ascending small chimneys and rock-ribs to the right. The ridge was attained in $4\frac{1}{2}$ hrs. (exclusive of halts) from the sleeping-place at the foot of the Puntaiglas glacier, at a point a little to the north of Crap Grond, from which it took $1\frac{1}{2}$ hr. more to get to the top of Kavestrau Grond.

Dolomite District.

TSCHAINER SPITZE, ROSENGARTEN GROUP (9,155 ft.), BY THE W. FACE. August 9.—Mr. E. A. Broome, with Agostino Verzi, made the first ascent from the W. or Bozen side of the peak. It was made chiefly by the big, conspicuous chimney which cuts the face of the peak into fairly equal halves. At the foot of this couloir (about $2\frac{1}{2}$ hrs.' walk up grass and steep scree from the Karersee) the nail-boots were left. From here the main chimney was followed for 800 ft., then a very smooth traverse to the right (or S.) into a subsidiary *Kamin*, which was climbed for perhaps another 200 ft. to a *Fenêtre* 200 ft. below (and to the right of) the summit. The difficulties in both chimneys were considerable, the principal ones being near the bottom, then at the traverse, and again in the upper one, particularly at one point where some huge stones had to be removed piecemeal. At the *Fenêtre* a thunder storm came on, and the rain and lightning being blinding, and the position doubtful (as it had not been visible from below) shelter in a cave was sought for $1\frac{1}{2}$ hr. When the storm ceased the further

route was seen and followed without difficulty to the top. Time, 8 hrs. to the *Fenêtre* and 20 min. to the summit. The descent was by a slight variation of the usual way on the E. or Vajolet Thal side, and back over the Vajolon Pass. The climb can be recommended.

TEUFELSWAND-SPITZE (about 9,000 ft.) BY THE W. FACE. August 21.—Messrs. E. A. Broome and H. K. Corning, with Agostino Verzi and Antonio Dimai, made this new route. A walk of 2 hrs. from the Karersee took them to the steep *Gerölle*-strewn ledge running up diagonally across the perpendicular wall of the peak. The real climb began from the top end of this ledge, up a series of chimneys running right up to the lower point of the double-headed summit. Several of these afforded scope for the leader's climbing powers; but the real crux was just half-way up, and consisted of a black, damp, smooth, and narrow *Kamin* 40 or 50 ft. high, with very little hold and an exceptionally difficult overhang near the top. Dimai led up this, and pronounced it 'molto pericoloso'; Verzi led up the others. The black *Kamin* took a good hour, and the whole climb (from the ledge) 2½ hrs., providing excitement enough for 2½ days. It was said to have baffled previous attempts. The descent was down the E. side (rope not necessary) to the new Ostertag Hütte.

NORWAY.

Justedalsbræ.

BLAANIPA. August 12.—This mountain, which is so conspicuous a feature of the scenery on the W. side of Bøiumsdal, was ascended by a new route by H. A. Holl and C. W. Patchell, with Mikkel Mundal. The beautiful lateral valley of Tverdal was followed as far as the Sæter. Looking N. from this point one faces a deep gorge, cutting far into the mountain mass, and running roughly parallel to the main valley of Bøiumsdal. The route chosen kept pretty close to the E. side of this gorge. The slabs were so steep and the holds so obscured by vegetation that the rope was used for some distance before the wood was cleared, and the safest anchorage was often provided by a friendly tree. The climb was full of interest all the way. At the lower shoulder the difficulties were practically over, and it was easy to follow the skyline to the cairn. The magnificent sweep of overlapping slabs which forms the upper half of the mountain on the side of Bøiumsdal is a sight not to be forgotten. The top was reached in about 7 hrs. from Fjærland, exclusive of halts, and the descent by the ordinary route over the glacier to Kvitevarde, and so to Bøiumssæter and Fjærland, took about 4 hrs. more.

C. W. PATCHELL.

KASHMIR.

Mrs. Fanny Bullock Workman and Dr. William Hunter Workman have successfully completed their exploration of the Nun Kun mountain group in Suru, Kashmir, the expedition having occupied

10 weeks. They were accompanied by the Italian guide Cyprien Savoye, who was with them in Baltistan in 1903, and six porters.

The entire circuit of the Nun Kun group was made for the first time, this involving a rough journey of between 90 and 100 miles, from Suru just north of the mountains out and return. The distance was considerably increased owing to the necessity of making three extra marches up the Rangdun valley to find a fording place over the glacier-fed Suru River, greatly swollen from the unusual melting of the ice, due to the prolonged fine weather and great heat.

In making this circuit three glaciers were ascended and two descended, three snow cols of over 17,000 ft. and one of 16,500 ft. crossed, and one steep pathless rock mountain traversed, undoubtedly never before trodden by human foot.

The central portion of the Nun Kun massif rises sharply above the precipitous jagged peaks that guard the approaches to it on all sides. At an altitude of over 20,000 ft. it culminates in an oblong glacial basin, three miles long by two wide, enclosed by five rock and snow summits, three of which tower to heights of over 23,000 ft., the highest having been measured by the Indian Survey at 23,447 ft.

To explore this portion a base camp was established above the north lateral moraine of the Shaffat glacier, at an altitude of 15,100 ft., from which two snow camps were pushed up on the wild, broken glacial slopes above at altitudes of 17,657 and 19,893 ft., and two others pitched in the high glacial basin at altitudes of 20,682 and 21,800 ft., the last being the highest altitude at which mountaineers have camped.* On the two nights passed at this camp the temperature fell to -4° and -6° Fahr.

The highest peak having been found to be inaccessible from this basin, an ascent was made of the next highest—23,264 ft., its steep, broken, ice-covered slants demanding hours of step-cutting and the exercise of the greatest caution. At a height of 22,656 ft., as clouds were beginning to obscure some important landscape features, Dr. Workman and one porter stopped to make observations and photograph desired points before they should be hidden from view, while Mrs. Bullock Workman, with the guide and one porter, went on to complete the ascent, which gives her a place in the small list of those who have passed 23,000 ft.

The continued daily exertion in rarefied air, the loss of sleep owing to disturbance of respiration by the altitude, and the effect of the great cold upon the vital powers thus weakened, proved trying to all, and after five sleepless nights at 19,900 ft. and above, all felt the need of returning to lower altitudes.

Later from the Barmal La, 17,228 ft., ascents were made of two sharp snow peaks, one on each side of the head of the Barmal glacier, whose final slopes rose at from 70° to 73° . The first has

* Our informant is here in error, as in 1864 Mr. W. H. Johnson, when surveying in Ladak, passed a night at 22,600 ft. See *ante*, p. 256.

an altitude of 18,750 ft. and the second—D 41 of the Survey—that of 20,168 ft. On the summit of the latter the party was enveloped in a dense fog accompanied by an icy wind, which lasted for several hours. In this the descent was accomplished by following the trace which had been made in ascending. The topographical features of the region were found to differ materially from those shown on any existing map.

ALPINE NOTES.

'THE ALPINE GUIDE.'—Copies of Vol. I. of the new edition of this work, price 12s. net, and of 'Hints and Notes, Practical and Scientific, for Travellers in the Alps' (being a new edition of the General Introduction), price 8s., can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C.

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SKI-RUNNING.—During the coming season Mr. W. R. Rickmers will be found at Kitzbühel (Tyrol), where everybody eager to learn is cordially welcome. No fees.

THE FIRST APPEARANCE IN ART OF MONT BLANC.—The visitor to the Public Gallery at Geneva known as the Musée Rath will find in the rooms on the basement floor two fragments of the old altarpiece, painted on panel, which stood, up to the time of the Calvinistic Reform, in the Chapelle des Macchabées, adjacent to the Cathedral. They form the upper and lower right shutters of a large triptych, representing events in the life of St. Peter, which was erected in A.D. 1444 by François de Mies, Bishop of Geneva and nephew of his predecessor in the See, Jean de Brogny (†1426), the builder of the chapel. The panel bears the inscription, 'Hoc opus pinxit magister Conradus Sapientis de Basileâ, MCCCCXLIII.'

The following account of this artist is borrowed from Bryan's 'Dictionary of Painters and Engravers,' new edition, 1905:—'Conrad Witz, of Rothweil, in Würtemberg, was probably one of the painters who were invited to come to Basel to adorn the churches and other buildings in honour of the Council to which prelates from all parts of Europe flocked in 1438. Witz (to use the unlatinised form of his name) was one of the most important of that group of painters of Swabia and Upper Germany, who were the pioneers of realistic tendencies in the art of South Germany and exercised an important influence on the development of painting in the first half of the fifteenth century. He is an artist of grace, originality, and powerful endowments.' Mr. Coolidge informs me that Professor Daniel Burckhardt in an essay on Conrad Witz, published in 1891, has reproduced (Plate XXI., opposite p. 288) the mountain background of the Geneva picture, and identified it (p. 289) as the chain of Mont Blanc, but this essay