

accident, would be at a twofold disadvantage in the event of a sudden jerk on the rope; but in any case the rock here is so steep and smooth that at many points the use of a rope gives no protection to the leader, and if anything goes wrong then the larger the party the wider is the area of disaster. When a climb answers this description, surely it cannot be justified. The risk is one which no degree of skill can control, and no true friend of climbing should attempt it or encourage it.

W. P. H.-S.

#### OTHER ACCIDENTS.

We do not propose to give here a list of accidents, but we cannot pass by in silence the accident to SS. Casati and Facetti on August 25, whereby the Italian Alpine Club, with whom we heartily sympathise, has lost two well-known members, climbers of 'eccezionale valentia.' Dr. G. Casati was the conqueror of one of the peaks of the Dames Anglaises, and S. A. Facetti had made amongst many other climbs a new ascent of the Monte della Disgrazia. The two climbers had started from the Colle d'Olen, and their bodies were found about half an hour from the Capanna Gnifetti. They had fallen from some rocks to the Indren glacier. The accident is inexplicable, as both the climbers were men of exceptional ability and experience, and there was nothing in the difficulty of the climb or the general conditions to make such an accident in the least degree probable. Death was instantaneous.\*

Another accident on the Rocca Bernauda (10,594 ft.) on September 7, in which S. G. Pollano was killed by the fall of a block of ice, is chiefly remarkable for the courageous endurance of one of his two companions, S. G. Cornaglia, who, with the help of S. A. Perotti, the third member of the party, managed, though in great pain from a broken leg, to descend a great part of the mountain till a spot was reached where he could be left while help was being obtained.

Another very sad accident on Piz Blas to a party of pupils of the Higher Gymnasium of Zurich, who were accompanied by several professors, in which owing to an avalanche two travellers were killed on the spot, whilst a third died whilst being conveyed to Piora, and a fourth succumbed to his injuries three days later, shows how dangerous the mountains may be in June. The accident happened on June 26. The number of mishaps to gatherers of edelweiss shows no sign of diminishing.

### NEW EXPEDITIONS IN 1903.

#### *Valpelline District.*

TOUR DE CRÉTON (BECCA DE CRÉTON Italian map) 3,583 m. = 11,756 ft.). *August 29.*—Mr. G. Yeld, with François Pession, of Val Tournanche, left Prarayé at 8 A.M. They passed by the highest

\* See Rivista Mensile, C.A.I., September 1903, pp. 344-6.

Bellaza chalet (called apparently *Les Caves*), and leaving the Grand Glacier de Bellaza to the left reached the glacier which descends between the Tour de Créton and the Château des Dames. Above the glacier to the left there is a conspicuous chimney in the rocks, which they thought of trying, but which proved on a nearer acquaintance very undesirable. By continuing up the glacier and then mounting to the left over very unpleasant but not really difficult ground, they reached the ridge by which the ascent is usually made from Val Tournanche, the ridge which runs from the Tour de Créton to the Mont Blanc de Créton. Part of their route up to this Tour de Créton—Mont Blanc de Créton ridge—appears to be new. They reached the summit in a little less than 6 hrs. actual walking from Prarayé. They then descended to the gap between their peak and the Mont Blanc de Créton (c. 11,221 ft.), ascended that peak, and then after a short descent ascended the Château des Dames (11,447 ft.). From it they went down to the Col de Vofrède (10,279 ft.), crossed the hollow which contains the Dragone lake, mounted to the Col de Valcournera (10,325 ft.), and so returned to Prarayé, which was reached at 6.35 p.m.—i.e. in 15 hrs. 95 min. after leaving it. Of this time more than 8 hrs. was spent in halts. The day was fine, and the expedition proved most interesting and enjoyable.

#### *Zermatt District.*

**ROTHHORN FROM THE TRIFTJOCH.** *August 22, 1903.*—Mr. Edward A. Broome, with Alois, jun., and Heinrich Pollinger, made this new route. Starting from the Trift Inn, they ascended to the Triftjoch, traversed the Trifhorn (12,261 ft.), the long nameless rock ridge (12,608 ft.) between the Trifhorn and the South Rothhornjoch, also the slabby little aiguille called the Pointe de Mountet (12,728 ft.) down to the true (N.) Rothhornjoch, and thence up the S.W. arête of the Rothhorn to the 'Gabel,' where the usual S.E. route to the summit (13,855 ft.) was joined.

The long Grat, which was in good order, was practically followed throughout the expedition; the rocks of the Trifhorn are good, and always worth climbing; those of the 12,608 ft. ridge are easy, but continuous; the Pointe de Mountet by no means easy, especially the N. descent; while the arête from the Rothhornjoch up to the Gabel (believed to have been done now for the first time) is quite first rate, the numerous big red towers being decidedly difficult, and affording much longer and more continuous sport than either of the other ridges of this popular peak.

The descent from summit was down the same rocks as far as the 'Gabel,' thence by the S. couloir (in very bad condition) and the usual S.E. arête to Eseltschuggen and Zermatt.

Times (actual going): Trift Inn to Triftjoch, 9½ hrs.; Triftjoch to true Rothhornjoch (N.), 4½ hrs.; Rothhornjoch to Gabel, 2¾ hrs.; Gabel to summit, ¾ hr.; summit to Zermatt, 4½ hrs.; door to door time, 18½ hrs.

THE LYSKAMM (14,889 ft.) BY THE S.E. WALL. *September 5.*—Miss Grace Filder, with the guides Pelissier and Antonio Curta—made this ascent by a route believed to be different to that followed by Mr. P. W. Thomas on September 1, 1878.\* They left the Gnifetti hut at 4 A.M., made for the plateau of the Pyramid Vincent, and, afterwards, turning to the left, for the snow basin on the foot of the S.E. wall. After crossing the bergschrund and a bit of steep ice, they took to the rocks at the fourth arête from the Cresta Sella, and climbed straight up for 1 hr. 30 mins. After crossing a couloir (liable to falling stones), they continued straight up, and eventually set foot on the Swiss side, about 150 ft. from the S. arête, or Cresta Sella. The summit was gained at 12 noon.

*Bernese Oberland.*

KLEIN NÄSSIHORN (3,686 m. = 12,094 ft.). *August 6.*—Messrs. R. W. Broadrick and A. E. Field, with Alphonse Simond and Pierre Joseph Ravanel, both of Chamonix, left the Schwarzegg Hut at 4.50 A.M., roped on the Nässi Firn at 6.10, and climbed the rock arête leading from the point marked 3,295 m. to the summit marked 3,686 m., which was reached at 9.30. This summit is just N.W. of the Nässihorn, and the name suggested seems most suitable. The party descended the main arête running to the Little Schreckhorn for some distance, but, when this was found to be much broken up into rock towers, they traversed across the face on the side overlooking the Nässi Firn, regained the ridge lower down, and followed it down some steep snow to the col marked 3,420 m. just S.E. of the Little Schreckhorn. They left this col at 12.45 P.M., descended easy snow-slopes to the Nässi Firn, unroped on the moraine at 2.20, struck the Schwarzegg path, and went leisurely down to Grindelwald, which was reached, after various halts, at 5.15 P.M.

WELFHORN (3,196 m. = 10,485 ft.). DESCENT OF W. FACE. *August 9.*—The same party left the Dossen Hut at 2.15 A.M., crossed the Rosenlaui glacier, and ascended the Wellhorn by the E. arête—the usual route. The top was reached at 4.44, and after a halt of 20 min. they started down the S. arête. This was soon quitted, and a divergence made to the right down a long scree couloir which brought them on to the W. face of the mountain. This face, which is opposite the Wetterhorn, was descended to the Schwarzwald Firn, which was reached at 8 A.M. The rocks were rather rotten and much care was necessary, and frequent traverses had to be made. The rocks ended in a precipice about 200 ft. high running down to the snow below, and some time was lost in finding a way down. The descent was finally effected by climbing down a short chimney and looping a spare rope 80 ft. long round a rock at its base. The party descended this double rope, and were thus able to get into a couloir which afforded an easy descent to the snow.

\* *Alpine Journal*, vol. ix. p. 109; *Climbers' Guide to Eastern Pennines*, p. 15.

Having thus traversed the Wellhorn to the Schwarzwald Firn, they ascended the snow slopes of the latter till they struck the ordinary Wetterhorn route from the Dossen Hut. They reached the Wettersattel at 10.12 A.M., ascended the Wetterhorn, and went down to the Gleckstein Hut and Grindelwald.

JUNGFRAU. FIRST DESCENT BY THE N.E. RIDGE. *September 2.*—Mr. C. F. Meade, accompanied by the brothers Ulrich and Heinrich Fuhrer, of Innertkirchen, started from the Concordia hut at 1 A.M., and reached the top of the Jungfrau at 6.15 A.M. No halt on the summit was possible owing to a high wind blowing from the S., so the party proceeded at once to descend along the crest of the N.E., or Jungfraujoeh, arête. Only one gendarme (and that a comparatively insignificant one) was turned during the whole descent. The descent of the first big gendarme was accomplished by 7.45 A.M., that of the fourth by 8.30 A.M.

Half an hour's halt was made for breakfast at 9.30, and the snow peak with the cairn on it reached at 10.30 A.M.

At 11.15 a snow arête running down to the Jungfrau glacier was passed. This deviation would doubtless afford an easier descent than the main arête which the party followed leading down to the Jungfraujoeh.

The descent from the last of the conspicuous snow tops was begun at 11.45, and on the edge of a giant gendarme (fondly imagined to be the last big one) another meal was taken (2.15 till 2.50 P.M.). But the last gendarme of all proved the toughest, and involved a 'rappel' with a sheer drop of 80 ft.; and was not finished with till 6 P.M. In photographs this cliff is distinctly visible as the last obstacle to be encountered in the descent of the arête. The party again ate below this great gendarme, and a rope which could not be pulled down off the top had to be left hanging. Another rope had also to be abandoned on a gendarme higher up the arête. (In all during the whole day, all ropes included, about 350 ft. were used.) From this point the arête was followed for a short distance, and then the descent was finished by the rocks of the S.E. face, the bergschrund being crossed at 8.15. The Concordia hut was reached at 10.15 P.M.

During the descent no ice was encountered, but loose snow arêtes. The rock was in many parts very rotten, and the whole descent was of continuous difficulty.

KLEIN TORRENTHORN (3,001 m.).—This is the striking rocky summit as seen to the N.E. from the Torrenthorn (3,008 m.). The first ascent was made on August 1 by Mr. G. Hasler (alone). A steep rock wall leads up from the Majing Glacier to the highest gap in the S.W. arête, which is followed to the top in 20 min. from the glacier. The arête is very rotten and narrow.

MAUERHORN (2,948 m.) AND MANNLHORN (2,932 m.).—Of both points the Oberland 'Climbers' Guide, on p. 11, gives 'No information.' The former is easily accessible in  $\frac{1}{4}$  hr. from the Oberferden Pass; thence descending in a S.E. direction over débris slopes on August 2, and traversing obliquely N.E., the latter

summit was reached by Mr. Hasler in  $\frac{3}{4}$  hr. from the Mauerhorn. The descent was taken by a difficult couloir direct to the Oberferden Glacier.

**KLEIN RINDERHORN (3,007 m.).**—According to an old 'Jahrbuch of the S.A.C.,' the summit of this peak was crowned with a cairn in 1882, but the first ascent has never been recorded. The summit was reached for the second time on August 6 by Mr. G. Hasler (alone). From Schwarenbach follow the way up the Gross-Rinderhorn to a few minutes below the Rindersattel (2,921 m.), where a steep, staircase-like gully leads up from the S. to the E. arête of the peak. The crest of the ridge, which is extremely rotten and narrow in parts, is followed, with one traverse on to the N. side, in  $\frac{3}{4}$  hr. to the top. No names could be found in the old cairn.

**TSCHINGELHORN (3,579 m.) BY THE S.W. ARÊTE.** *August 27.*—Fräulein H. Kuntze and Mr. G. Hasler, with J. von Allmen (Lenihans) made this ascent. From the snowy plateau of the Petersgrat the lower part of the rocky ridge is followed without special difficulty up to a conspicuous rocky summit, the *Klein Tschingelhorn* (c. 3,510 m.). Hence, by a difficult descent on to the N. side of the mountain, the ordinary route is joined shortly below the summit ( $4\frac{1}{4}$  hrs. from the Mutthorn Hut).

**TRAVERSE OF THE SPITZHORN (2,214 m.).** *August 28.*—This summit is easily reached by the S.W. arête in 1 hr. from the Ober Steinberg. The descent was taken to the Tanzboden (2,136 m.) over two perpendicular rock walls by the same party.

**MORGENHORN (3,629 m.) BY THE E. ARÊTE.** *August 31.*—The same party accomplished this climb. From the Mutthorn Hut the neighbourhood of the Tschingel Pass was reached from the S. foot of the Mutthorn in 20 min. By some steep snow and a gully the arête was gained at a point immediately to the W. of a conspicuous level snowy bit of the ridge, about 1 kilomètre E. of the summit. Thence the crest of the arête was followed throughout over many rock towers, some of which are not easy, to a snowy summit, the *Klein Morgenhorn* ( $5\frac{1}{2}$  hrs. from the hut), whence by a snow arête the summit was gained in  $\frac{3}{4}$  hr. more.

**EIGERHÖRNLI.**—As seen from Grindelwald the rocky N.E. end of the Mittellegi ridge consists of five distinct summits, viz. No. 1, which is the peak on the extreme left, or N.E. end of the ridge. Then follows to the right (S.W.) a deep cleft and No. 2, a double-headed rocky peak; after which the ridge rises steeply to No. 3, shaped like a pyramid, immediately followed by a very conspicuous rock tower, No. 4, to which the term 'Hörnli' is generally applied in Grindelwald. To the right of this we see the last, apparently lower, summit No. 5, after which the ridge changes into a snow arête rising gradually, without any more significant gaps, to the summit of the Eiger. With the exception of No. 1, of which point several ascents have been made, the other four peaks were not visited before; the best starting point is Alpighen, though it is possible to mount straight up from Grindelwald to the foot of the

rocks. According to the Federal Topographical Survey at Berne, where investigations were made, the following figures of the Siegfried map belong to the respective summits:—No. 1, 2,706 m.; No. 2, no quotation; No. 3, 2,866 m.; No. 4, 2,929 m.; No. 5, 3,004 m. and 3,069 m. It is to be remarked that, as seen from Grindelwald, the striking tower No. 4 is not the highest summit. This lies behind it, and is passed on the way to the tower, which in a north-westerly direction forms a vertical outwork of the main range, as can well be seen from Alpiglen.

No. 1 (2,706 m.). [The first ascent of this peak was made by Sir Seymour King in 1887.\*] *September 2.*—From Alpiglen follow a small path across meadows to the hut marked 1,725 m. on the Siegfried map. Then traverse upwards in an easterly direction, first over grass, débris and then by surmounting several steep and smooth rocky flights, till you get to the foot of a conspicuous cave, at the top of which a hole gives access to easier ground (2 hrs.). By débris-covered ledges and rocks, which are generally smooth, mount almost straight up towards the summit, till you reach a gap 5 min. to the W. of the latter (1½ hr. from cave to summit).

DOUBLE-HEADED ROCKY PEAK. *September 11.*—From Alpiglen follow the above route to the summit of the cave (2 hrs.), then traverse upwards across the mountain-face to the right till at a saddle you strike the main ridge between the pyramid-shaped summit No. 3 and your peak (1½ hr.), the nature of the ascent being very much like that described above. Hence two perpendicular rock walls must be climbed to reach the more western and slightly higher of two summits (25 min.).

PYRAMID-SHAPED SUMMIT, No. 3 (2,866 m.). *September 11.*—From the saddle described above, follow the N.W. side of the crest of the ridge in ¾ hr. to the top.

'HÖRNLI,' No. 4 (2,929 m.). *September 6.*—To the right, S.W. of the tower there is a deep-cut crack, which is the key to the ascent. To reach this, go from Alpiglen across meadows to the hut marked 1,725 m., and then traverse steeply upwards over débris and some smooth, difficult rocks, till you get, from left to right, convenient access to the upper part of the crack, by which you now ascend. Before coming to its end traverse rocks to the left, thus reaching a higher summit behind the rock tower, whence you follow the ridge leading over to this. It is interrupted by a difficult cleft, into which one has to descend by an extra rope, an extremely rotten and narrow arête finally leading up to the summit. Reckon 6 hrs. from Alpiglen or more, on account of the continuous absence of really easy ground.

No. 5 (3,004 m. and 3,069 m.). *September 4.*—From Alpiglen and the hut marked 1,725 m. mount straight up to the E. side of the Hoheneis Glacier. Then mount by débris-covered ledges, interrupted by some smooth rocks (following more or less the route up to the Mittellegi Pass) till you reach the Mittellegi Ridge slightly to

\* *Alpine Journal*, vol. xiii. p. 416.

the right. S.W. of the highest peak, 3,069 m., over which the lower, 3,004 m., is gained by following the long, almost level and easy crest of the arête to the left, N.E., in 5 hrs. The above ascents were made by G. Hasler and J. von Allmen (Lenihans).

GRÜNECKHORN (3,869 m.). *September 26.* (Mr. G. Hasler, with Peter Bernet.)—According to the diagram in his own account,\* Herr von Fellenberg did not reach this summit in 1864, as is stated in the new 'Studer,' vol. i. p. 281, but merely accomplished the first ascent of a lower summit marked 3,810 m. From the depression between the Gross Grünhorn, 4,047 m., and the Grüneckhorn, 3,869 m., the latter summit can be reached in  $\frac{1}{4}$  hr. by following the crest of the rocky ridge.

PLATTENHÖRNER. (Point 2,837 m. = 9,308 ft.).—Of these peaks, situated between the Gemmi and the Alte Gemmi, the 'Climber's Guide to the Bernese Oberland,' vol. i. says: 'The N. side of this chain is a series of inclined rock slabs, topped by many rock needles. They were attempted in January 1868,† and later, but do not seem to have been yet scaled. Probably they would be best attacked from the N.W.' On August 14, 1903, Mr. G. Yeld, with François Pession, of Val Tournanche, ascended the eastern peak of the Plattenhörner. It has two heads: on the western head a cairn was found, obviously of considerable age; it took about five minutes to reach the eastern head, on which the party built a stone man. Whether this point had been visited before or not the party do not know. It seemed to them that the E. head was about two mètres higher than the Western. The points, 2,848 m. = 9,344 ft., and 2,859 m. = 9,380 ft., both had cairns upon them. The ascent took about  $2\frac{1}{2}$  hrs., the descent a little over 1 hr. The view was very fine, the precipices terrific.

TSCHINGELHORN (3,579 m. = 11,743 ft.), BY N.W. FACE *July 14, 1903.*—Dr. Oliver K. Williamson, with Jean Maître and Raphael Lochmatter, leaving the Mutthorn hut at 7.50 A.M., ascended snow slopes in a S.E. direction towards the col between the Lauterbrunnen Wetterhorn and Tschingelhorn, and reached the foot of the N.W. face of the latter peak at 8.50 A.M. They ascended this at first by a very steep ice slope, then by loose but not very difficult rocks. Halting on these for  $\frac{1}{2}$  hr., snow lying at an easier angle was soon reached, and a short wall of snow led to the summit at 11.2 A.M. Leaving this at 12 noon, the descent was made by the ordinary route to the S.W., the hut being again reached at 2.30 P.M.

#### *Ofen Pass District.*

PASS BETWEEN PIZ PLAVNA DADAINT (3,169 m. = 10,397 ft.) AND PIZ DELLAS PLATTAS (3,033 m. = 9,950 ft.) FROM THE VAL PLAVNA TO THE VAL SAMPUIR (about 3,000 m., or 9,842 ft.).‡—On

\* *Jahrbuch, S.A.C.*, vol. iii. p. 316.

† *Alpine Journal*, vol. v. p. 65.

‡ See *S.A.C. Itinerarium für die Silvretta und Ofenpass-Gruppe*, p. 210.

August 24, 1903, Mr. J. J. Withers, with the guides Adolf Andenmatten and Andreas Anthamatten, of Saas, left the village of Tarasp at 3 A.M., and went up the Val Plavna by the ordinary path till opposite the opening on the W. leading up to Pischadadora (5 A.M.). Here they turned W. on the left bank of the stream coming down from Pischadadora, and mounted grass slopes, crossing the stream afterwards, to a grass patch under a waterfall (5.45 A.M.). After a  $\frac{1}{2}$  hr.'s halt a route was taken across scree to the foot of a large snow couloir coming down from the N.W. ridge of Piz Plavna dadaint. This couloir was entered, but, as there was danger of falling stones, after a few minutes the difficult rocks were taken to on the W. side of the couloir. These were mounted by very steep and difficult gullies to a snow couloir bearing off to the right of the party, which couloir was cut up until it ended on a subsidiary ridge coming down from the face of the mountain (8 A.M.). Here a traverse was made W. for about 100 ft., and then difficult slabs were climbed straight up till another snow couloir was struck, which was cut up till it too ended on a subsidiary ridge (9.30 A.M.). This subsidiary ridge was climbed over steep and rotten rock till the main N.W. ridge of the peak was gained at 11 A.M., at a point considerably to the S.E. of and higher than the lowest depression between the summits of the Piz Plavna dadaint and Piz dellas Plattas. There a small cairn was built. The whole climb from the first rocks was exceedingly trying, owing to the general steepness of the rocks and their nature. They were either steep slabs or very rotten. The party descended the easy rocks to the glacier lying to the S. of the ridge (20 min.), and, bearing round the head of the Val Sampuoir, mounted to the snow col between Piz Laschadurella and point 3,050 m., crossed into the Val Flur, and reached the Ofen Inn at 5 P.M.

CIMA DI PIAZZI (3,489 m. = 11,155 ft.) FROM THE NORTH.\*—The same party left Bormio on August 27, 1903, and reached the upper chalets in the Val Borone, or Elia, in 3 hrs. There they stayed the night. Next morning at 2.30 A.M. they left their night quarters and followed the path up the valley on its E. side till (3.30 A.M.) above the moraine on the E. side of the more eastern of the two great glaciers which come down from the mountain on this side. (This glacier is the true N. glacier of the peak, the more western being the true N.W. glacier.) They then crossed the stream, mounted the moraine to its crest, and followed the crest and easy broken rock on the E. side of the N. glacier to a point where the glacier can be reached above the broken ice (5 A.M.). The N. glacier was crossed in a S.W. direction, and steps cut up ice slopes to a plateau under a great icefall. This plateau was again followed in a S.W. direction past the second great icefall, which looks impassable from the valley (6.30 A.M.). Just to the W. of this last

\* See *Alpine Journal*, vol. xix. pp. 227, 228; and *S.A.C. Itinerarium für die Silvretta und Ofenpass-Gruppe*, p. 267; also *Rivista Mensile*, 1901, pp. 437-45.



icefall a turn was made S.E. and then S. up moderate slopes, and at last under a very fine ice cliff till the party reached the crest of the snowy ridge which comes down NN.W. from the summit and divides the N. and N.W. glaciers at their head (7 A.M.). This ridge, which is set at a comparatively steep angle, was cut up direct to the summit (8.5 A.M.). After an hour's halt the party descended by the ordinary route to the Casa d'Eita, which they reached at 11.45 A.M.

*Alps of Uri.*

GALENSTOCK (3,597 m. = 11,801 ft.) BY THE S.E. BUTTRESS.\*—On September 5, 1903, Mr. J. J. Withers, with the guides Adolf Andenmatten and Andreas Anthamatten, of Saas, left the Furka Hotel at 4.40 A.M., and went down the Furka Road to the Furka Blick Hotel. Here they turned left over grass, stones, and snow to the Siedeln Glacier (5.40 P.M.). The glacier was mounted to the N. till a ridge coming down from the Galenstock divided it into two parts, roughly N.E. and S.W. The latter branch was followed at first, and then a course was taken N.E. over slopes to the snowy top of the dividing ridge above mentioned (6.45 A.M.). The snowy ridge was followed N.W. till it ended in a prominent rock buttress coming out from the eastern face of the mountain. On reaching the rock buttress the rocks were mounted on its *right* or N.E. side till progress was stopped by a long, steep, narrow couloir running up from the N.E. branch of the glacier. A little difficulty was found in getting into this couloir, but once entered the couloir was climbed easily to a curious notch at its head on the crest of the buttress itself. There the crest is very steep and narrow. The party mounted the ridge over firm rock for about 50 ft., till further progress was barred by a perpendicular and smooth rock. At this point a traverse was made to the left (W.) over rocks, steep at first, to a little plateau on the E. face of the mountain (8.20 A.M.). After  $\frac{1}{2}$  hr.'s halt the easy rocks above the little plateau were climbed in a N.E. direction to a snow ridge at the head of the above-mentioned buttress, which led up to the main S. ridge of the mountain. There the usual route was joined and the summit reached at 9.30 A.M. The ordinary way was taken in the descent. The route taken in the ascent is shorter and much more interesting than the usual circuitous trudge by the Rhône Glacier, and can be confidently recommended.

CAUCASUS.

*Laila Group.*

LAILA, N. PEAK (3,976 m. = 13,045 ft.).—On July 16, 1903, Miss C. von Ficker, H. v. Ficker, W. R. Rickmers, F. Scheck, and A. Schulze made a descent into Suanetia which is new after leaving the ridge. They followed the N.W. ridge and the snow-fields on its N. flank to the last glacier which flows from it to the N. Going

\* See *S.A.C. Jahrbuch*, 1901, p. 309.

down this glacier (steep ice later in the season) they came into a valley with a high waterfall formed by the stream from the lower pass. A path traversing round a low divide brought them to the shortest road to Tskhomari. This village may thus be reached from the N. peak in 4 hrs. walking. As to nomenclature, it may here be mentioned that by 'Laila' the Suanetians mean the lower pass, while the high one is known as Pichkhan. The N. peak is called Lakwra, the S. peak Gvadarashi.

SKIMERI PEAK (about 8,600 m.=11,811 ft.).—On July 15, 1908, Messrs. F. Scheck and A. Schulze left the Skimeri Valley in order to climb the nameless peak W. of the high Laila Pass. It is a rocky pyramid at the junction of two ridges, one of which leads to the Larakhanis Chabi, the culminating point of the Laila chain W. of the pass. The two climbers followed the path until where the grass ridge joins the rocks, thence they struck off in a north-westerly direction, and climbing for 3 hrs. over the S. face of the peak attained its summit. They went down its E. ridge to the pass in 2 hrs. The rocks were moderately difficult. The name given was chosen because nothing better could be elicited from the natives.

#### *Shtavler Spur.*

SHTAVLER (8,995 m.=13,107 ft.).—This peak was first ascended on July 29 by Miss C. v. Ficker, Messrs. H. von Ficker, W. R. Rickmers, F. Scheck, and J. H. Wigner. From a camp in the Nakra Valley close to the termination of the side valley which runs from the col S. of Shtavler, a path was followed through the forest high above the (true) left of this valley. From the top of the wood they continued upwards in the same direction through high grasses and flowering plants to the nearly level grassy ridge from which the E. ridge of Shtavler may be considered to spring. A traverse in an easterly direction led to the lowest portion of the moraine and snowfields below the E. face of the peak, where on a comparatively level piece of moraine was found a huge boulder which had been converted into a hunter's refuge. Leaving this the next morning at 8, the party walked straight towards the col as far as a fairly level snowfield some 500 ft. below it. Here they turned off to the right (N.W.) towards a conspicuous buttress of rock between two snow couloirs and followed the right-hand one of these and then very easy broken rocks to the wall of the peak. Crossing a shallow gully they worked diagonally upwards and struck the S. arête considerably above the col. This arête was followed to the summit, and afforded a very interesting climb, the upper few hundred feet being in places rather difficult. In descending the same route was taken as far as that portion of the snow ridge from which unbroken snowfields lead down to the camp. These afforded a magnificent glissade down the face of the peak for fully 3,000 ft., and under good conditions of snow this route would probably be the best way of attaining the S. arête. Times: Nakra Valley to upper camp, 4½ hrs., excluding halts; camp to base of peak, 2½ hrs.; to ridge,

$\frac{1}{2}$  hr. ; to summit,  $2\frac{1}{4}$  hrs. ; or total from valley to summit,  $9\frac{1}{4}$  hrs. actual going, descent about 6 hrs.

*Kuish Group.*

DONGUSORUN (4,468 m. = 14,659 ft.) FROM THE S.—On July 19, 1903, Dr. R. Helbling, Dr. F. Reichert, and A. Weber started at 3 A.M. from their camp, situate at the end of the Kuish Glacier between P 2212 and 2239 of Merzbacher's map. They followed the glacier, turning towards the N. and passing between Ledesht and 3980, at 6.15 found themselves on the snowy plateau S. of Dongusorun, and 2 hrs. more brought them easily to the col which leads from the Dolra Glacier to the Upper Kuish. The snow had been fairly good so far, but then became disgusting, so that the summit was not reached before 1 o'clock. The S. ridge is composed of snow, with a few outcrops of rock near the top; it is certainly the most comfortable route to the mountain. The descent to camp lasted 5 hrs. As may be expected the view is splendid, and, on that particular day was enhanced by glorious atmospherical conditions.

LEDESHT TAU (3,826 m. = 12,552 ft.).—Messrs. O. Schuster and J. H. Wigner made the first ascent of this peak on July 20. The route followed was the same as that to Hewai as far as the point on the upper glacier plateau at which Dongusorun comes into view. From here they gradually bore round to the S., and worked up gradually steepening snow-slopes to the saddle between their peak and its S.E. spur. Some rocks just above the saddle were passed over a bergschrund on their left (S.W.), and from this point the ascent was continued in a northerly direction over very steep snow to the heavily corniced summit ridge. The true summit was found to lie considerably farther to the W., and was reached at 11 A.M. (4 hrs. 55 min. actual going from the camp). On the descent they found it possible, by keeping first to the W. and then crossing to the E. of their line of ascent, to reach the glacier plateau at the foot of the peak by two long glissades in less than half an hour's actual going. Descent from here to the camp as before.

KUISH PASS (about 11,000 ft.) AND LEIRAG.—This snow saddle lying between Leirag and Ledesht at the head of the Kuish Valley was crossed on August 19 by Messrs. O. Schuster and J. H. Wigner, who also made the first ascent of Leirag *en route*. From the camp below the Kuish Glacier the latter was followed without difficulty to the saddle. Leaving luggage here they attacked the peak, not directly upwards from the col, which would be very difficult, but by traversing round to the E. face, which affords very enjoyable scrambling until the upper and easy portion of the N. ridge can be attained. This is then followed without difficulty to the top. The peak is well worth ascending for its superb view of the finest side of Zalniag. Descent to the col was made by the same route.

From the lowest depression it was found best to go to a clump of rocks a few yards to the north, and thence descend the glacier at first rather towards its right bank, and then back again to the left.

They were, however, compelled to choose the very easiest ground, being accompanied by two Suanetian porters. A stronger party could descend more directly. At the lower part of the glacier they took to the trough filled with snow to the right (N.) of the right moraine, and finally descended the moraine itself till they came to the streams from another and more northerly glacier on Ledesht. These were crossed without difficulty, and a further descent of  $\frac{3}{4}$  hr., the last  $\frac{1}{2}$  hr. through very unpleasant thicket, led to the Dongusorun Pass path.

This pass makes an agreeable variant to the Betsho Pass for travellers bound from Betsho to Elbruz. Good porters may be taken over it, and no part of the going except the last  $\frac{1}{2}$  hr. is anything but enjoyable. It would also be of service to anyone ascending unclimbed peaks in the upper part of the Nakra Valley, and in addition to this it forms a direct connection with passes leading W. from that valley. Approximate times from Betsho to camp 4 hrs., to col  $7\frac{1}{4}$  hrs., to Nakra Valley  $10\frac{1}{4}$  hrs. excluding halts.

The height of Leirag is quoted on the map at 3,521 m. = 11,549 ft., and the neighbouring peak of Lakra 3,715 m. or 12,188 ft., but there is certainly nothing like this difference of height between the two. In all probability the error is in the former measurement.

LAKRA (OR LAKVRA, 12,188 ft., Merzbacher).—Messrs. L. W. Rolleston and T. G. Longstaff, starting at 4 A.M. on August 1 from a bivouac close to the snout of the Kuish glacier (7,250 ft., M.), followed a faint track along the left bank for  $\frac{3}{4}$  hr. and took to the glacier well above its lower stony and crevassed portion. The glacier was then followed for 4 hrs. to the col between Lakra and Leirag overlooking the Nakra valley. The final slope leading to the col is steep. From the col they followed the northern ridge to the summit in about 2 hrs. over a succession of rock towers, alternating below with narrow snow ridges. The final peak was gained by means of an oblique crack on the W. face and a short scramble up very steep rocks. The same route was followed on the descent, the bivouac being reached in 4 hrs.' quick going. The climbing was always interesting and the views magnificent.

CHARINDÁ (3,579 m.=11,742 ft.; called Bak on Freshfield's map and Charinda by the 1 Verst map. Rickmers calls it Gt. Charinda).—On July 21 Messrs. O. Schuster and J. H. Wigner ascended and descended this peak by new routes. The camp below the Kuish Glacier was situated just at the foot of the peak, but unfortunately cut off from it by the main stream. To cross this the valley was ascended as far as the tongue of the glacier, across which steps were cut to the other bank. A fairly direct ascent through rhododendron bushes and steep grass was followed by a long traverse to the E. which led into the valley at the foot of the peak, and this was followed over moraine and glacier to the foot of the N.W. arête. From here a fairly steep ascent over snow led to the saddle between Charindá and the conspicuous lower peak with two rock towers to the N.E. From the col a traverse was made to the right to the

N.W. ridge over snow which at the last was extremely steep, and this easy ridge followed over various intermediate tops to the rocky summit, on which they found the cards of Mr. and Mrs. Rickmers, who had made the ascent from Ezeri three years before. (Arrived 9.45 A.M.; 4 hrs. 30 min. actual going from camp.) The summit was left at 11 and the same route taken to the col. From here they turned off in the opposite (*i.e.* S.E. direction) and glissaded a matter of 1,000 ft. Keeping all the while to the right bank of the stream they descended about as far again over grass and rhododendron to the forest. The latter offered the greatest difficulty, being extraordinarily dense and the ground in places very steep. The passage through it lasted hours, and not till arriving almost at the main valley did they strike a path which led first by the right and then by the left bank of the river to Betsho (about 7.30 P.M.). The route, although apparently very direct between the peak and Betsho, is not to be recommended.

HEWAI (3,980 m. = 13,058 ft.).—This peak is situated to the N. of the Kuish Valley, near Betsho, and is almost surrounded by the Kuish and Dolra Glaciers. The height is quoted on Merzbacher's map, but no name is given on either his map or Freshfield's. On the Betsho Pass, from which it is very conspicuous, it was called Hewai by the Suanetian porters.

On July 18 Messrs. Oscar Schuster and J. H. Wigner left Betsho at 1.40 P.M., and followed the ordinary Betsho Pass route till it leaves the Kuish Valley. They camped at 7.15 P.M. at a height of about 7,200 ft., a little short of the tongue of the Kuish Glacier.

Camp was left next morning at 8.15, and the left bank of the glacier, a little above its tongue, reached at 4. After an hour's walk up the glacier they turned to the northern tributary icefall, and reached the right moraine of this at 5.15. Seventy minutes' actual walking up this excellent moraine and easy snow-slopes led past the icefall to the upper glacier plateau. From this point the mountain presents the appearance of a large rock-mass, with a high summit ridge running roughly E. and W., and from below it was impossible to tell which of the two highest points was the summit. From each of them ran an ill-defined ridge of rock and snow, the two ridges gradually converging and plunging steeply into the snow-slopes of the lower portion.

They descended a few feet and made towards the S.W. base of the peak, and ascending obliquely to their right, close below a small hanging glacier and over a rocky rib, reached the point at which the lower snowfields penetrate highest into the rocks. They ascended the rocks to the true right of the waterfall with some difficulty for about 30 ft. From here upwards they mounted over mixed snow and rock, gradually bearing to the right, and crossing a rib between two couloirs which almost seemed an arête. Hence they went on directly up over snow and rocks to the westerly and highest summit 11.40 A.M. The actual time taken (6 hrs. 50 min.) was considerably longer than the normal, owing to the excessively bad condition of the snow. The second summit to the E.S.E. is but

slightly lower; they went on to this also, and built a stone-man on each. Descent was by the same route as far as the small arête which they had struck from the W. side on the ascent. This they now followed straight down, then down another steepish snow and rock rib facing about S.E., and finally glissaded down the avalanche-trough in the couloir to the true left of this out on to the open glacier. A slight variation of this route would probably be more suitable for the ascent than their own line of ascent more to the W. They reached the lower Kuish Glacier by an almost unbroken glissade in the gully to the right of the moraine they had ascended, and camp about 7 P.M. after many halts, about 3½ hrs.' actual going from the top.

*Baksan Sources Group.*

**TSENTSI TAU** (8,860 m.=12,644 ft.).—This is P. 3,860 N. of the Ushba Glacier on Merzbacher's map. On August 5, 1908, Miss C. v. Ficker and Mr. W. R. Rickmers left a camp at the end of the Ushba Glacier at 11 A.M., and climbing over the icefall of the northern branch found a couloir which led to the summit ridge of the peak. The top, a beautiful snow-roof, was reached at 4 P.M. One enjoys a superb view of the steep and icy flanks of the Mazeri Peak and of the difficult pass S. of Ushba, which connects the Ushba and Gul Glaciers. The descent was by the same route, and lasted 2 hrs. This summit is recommended for surveying the unclimbed points on the ridge between Dongusorun and Shekhildi Tau.

**SHEKHILDI TAU** (4,920 m.=14,173 ft.).—On August 1, 1908, Messrs. R. Helbling, F. Reichert, A. Schulze, and A. Weber began the ascent at 4.30 A.M. Their camp was at the tongue of the Ushba Glacier, and after 1½ hr. they came to the rocks of the S.W. ridge of Shekhildi. Continuing over the N. branch of the glacier, which flows from the pass between P. 3,860 (Tsentsi Tau) and P. 4,229, they found a convenient couloir which enabled them to attack the rocks of the S.W. ridge at a height of about 3,800 m. At three-quarters of its height an icefall in the couloir must be circumvented by a snow arête abutting on the ridge (9 A.M.). Here the apparent proximity of the summit tempted the party to rest a long time. Starting again at 10 they encountered a deep notch splitting the ridge to a considerable extent, and requiring a very giddy, though not difficult, descent. It was noon when they found themselves at the foot of Shekhildi's lower peak, which, however, is not much inferior to the true summit. Owing to the conditions it was impossible to traverse round the corner, and the Vorgipfel had to be surmounted. The ascent was easy, but the descent into the chasm between the peaks demanded hard work in a chimney. A very much-exposed scramble up the eastern wall of the main block brought them to the S. summit (viz. of the main mass), thence 300 yards of rather rotten and dangerous arête led to the final top. It was then 6.30 P.M., and they spent ¾ hr. in admiring the grand surroundings. On their return, darkness fell upon them while

still in the exposed wall of the main peak; but the moon came out and allowed them to progress slowly, until it went out at midnight. Then they had to wait till 6 A.M. before being able to continue their way home. This time they chose, as a variation, a couloir descending from the S.W. ridge due S. to the Ushba Glacier. Camp was reached at 10 A.M. on August 2.

USHBA, S. PEAK (4,698 m.=15,418 ft.).—On July 26, 1903, Messrs. R. Helbling, F. Reichert, A. Schulze, O. Schuster, and A. Weber followed the route indicated by the reconnoitring party which had been on the mountain a few days before. By ascending the great couloir in the S.E. wall nearly to its top and making a somewhat ticklish traverse to the right, one reaches the entrance to a narrow snow gully, which is the whole but hitherto undiscovered secret of getting to the Lower Field (the snow slope under the summit wall of Ushba's S. face) in about 4-5 hrs. from the Gul Glacier. From the notch at which this gully terminates a short but steep descent by rock and ice along the edge of a precipice leads down to the Lower Field. This offered no difficulty. The S.W. corner (the Red Corner) of the crowning structure was rounded, and a few hundred feet more over snow on the W. face brought the mountaineers to the final wall close to the S.W. ridge. It is an extremely difficult series of cracks, and altogether about 500 ft. high. The most difficult bit is the last, and it was here, 20 yards from the upper snow, that the leader, Schulze, had fallen on July 21, notwithstanding which he joined the victorious party. After having surmounted the rocks, no further obstacle was encountered, and a walk over the Upper Field brought the conquerors to the summit. But it was 7 P.M., and a thunderstorm added to the darkness. A very uncomfortable night with rain, thunder, and electricity had therefore to be spent not far below the vanquished summit after a climb which had lasted 17 hrs. The descent to the Gul camp next morning took 14 hrs. These times are explained (apart from the difficulty of the rocks and the snow of the couloirs) by the size of the party. A characteristic feature of this route are the views down the perpendicular precipices of the W. side, notably the one which drops from the western rim of the Lower Field. Early in the season Ushba as far as the final wall is a pure snow climb, undoubtedly a curious feature in so mighty a rock peak.

*Note.*—The rock climb on the last wall took from 1 P.M. to 7 P.M. The times given for the whole of the ascent and descent (17 hrs. and 14 hrs. respectively) are inclusive of halts. During the descent the party rested for some time at Rickmers's sleeping-place (west edge of Lower Field), and in the notch of the small couloir. Camp was reached at 8 P.M.

USHBA, FROM THE N. TRAVERSE OF BOTH PEAKS.—On August 10, 1903, Messrs. L. Distel, G. Leuchs, and H. Pfann left a high camp on the Ushba Glacier for the N. ridge. Progress was difficult and slow, and the party were obliged to sleep out just under the summit of the N. peak. They then descended into the Ushba Gap and

attacked the rocks leading up to the S. peak, before reaching which they again bivouacked. Completing the traverse and passing over the S. summit on the 13th, they went down by the way of the first ascent. However another night in the open was their fate (on the Lower Field, probably somewhere near Rickmers's sleeping-place) before the pastures of the Gul Valley were trod. As the high camp was one without tents the three men had what is probably a record series of four nights without shelter in the glacier regions.

*Suanetian Group.*

**BSHEDUKH (4,271 m.=14,013 ft.).**—On August 2, 1908, Messrs. L. Distel, G. Leuchs, and H. Pfann made the first ascent of this peak from the N. camp (2,200 m.) on the Shekildi glacier. They reached the summit from the N.E. by the snows of the Bshedukh glacier after many hours' step-cutting. During the descent they had to sleep out at a height of 3,800 m. This mountain affords a very difficult ice and rock climb.

**UNNAMED PEAK (3,429 m. = 11,250 ft.) IN DALLA KORA RIDGE.**—This small peak is situated in the angle between the southern and western portions of the Leksür Glacier, and commands a magnificent view of the Leksür peaks and of Ushba and Chatuin Tau. On July 5 Messrs. Oscar Schuster and J. H. Wigner left a low camp at a *kosh* (Suanetian 'Pokh') about 1 hr. above the tongue of the Leksür Glacier, proceeded up the Mestia Pass route as far as the confluence of the two great arms of the glacier, and crossing the lower portion to the W. arrived at the N. foot of the peak. Ascent was made by snow slopes to the W. of the snowy summit which from below appears to be the highest point. The true summit lies to the S. of this, and was attained by following the ridge from the slight depression separating the two, the last portion of the ascent being over rather unpleasant but not difficult rocks. On the summit there appeared to be the remains of a stone man, not improbably built by a hunter, as the peak is almost certainly more easily accessible directly from the lower parts of the valley. No previous ascent by tourists is known.

**LATSGA W. PEAK: ULLU TAU TSCHANA OF MERZBACHER (13,790 ft.).**—Messrs. L. W. Rolleston and T. G. Longstaff, starting at 3.10 A.M. on August 13 from a bivouac on the S. bank of the E. arm of the Leksür glacier, on the lowest slopes of Margyan-Na, crossed the glacier to the opposite bank and reached in 1 hr. the foot of the westernmost of the two big gullies under Freshfield's Gumachi. Going very slowly they mounted from terrace to terrace, keeping always well to the right side of the gully until opposite the upper level of the small glacier at its head. Crossing on to this and ascending a snow slope they reached the double col between Freshfield's Gumachi and W. Latsga (Merzbacher's Lazga and Ullu tau Tschana respectively) (2½ hrs.). The easy N.W. buttress was followed over rock and snow slopes for nearly 3 hrs. to the foot of the final ridge, which sweeps round to the N. and consists of a



remarkably narrow crest of rock surmounted by several pinnacles which have to be climbed over. This occupied 50 min. From the summit a long ridge stretched away in an easterly direction, culminating about a mile off in Freshfield's E. Latsga, which appeared to be more than 13 ft. higher than the W. peak.

Owing to numerous gissades the descent to the bivouac occupied only 4 hrs.

**BASHIL TAU** (18,685 ft.).—On August 15 the same party, starting at 12.10 A.M. from the Leksür bivouac, followed the main stream of that glacier, and turned the first icefall by its right bank in 3 hrs. very slow going. Leaving the route to the Mestia pass on their left, they continued along the glacier and through the upper icefall, and reached the col at the foot of the N.W. ridge in 3¼ hrs. This ridge was followed over difficult rock until it ended at the foot of the final crags in a steep slope of ice. This was crossed diagonally, and a way forced up the very steep rocks of the final ridge to the summit, which was gained at noon in 4 hrs. from the col. On the descent most of the difficulties of the lower part of the ridge were avoided by a long traverse across the W. face of the mountain, the col being reached in 3 hrs., and the bivouac at 7 P.M. in a little over 3 hrs. more.

**TIKTINGEN** (15,276 ft.).—On August 5 Messrs. L. W. Rolleston and T. G. Longstaff ascended the southern and what they believe to be the highest point of Tiktingen.\*

Starting at 8.30 A.M. from a bivouac on the left bank of the second icefall of the Zanner glacier (10,500 ft., M.), they made their way towards the Tiktingen pass, and reached the foot of the mountain in 2½ hrs. Taking to a series of rotten rock ribs on their right, they gained the crest of the ridge connecting Tiktingen and Salyinan bashi in about 2 hrs. This ridge, consisting of a series of rocky bosses, separated from each other by relatively deep depressions, was followed with considerable difficulty to the very well marked notch at the foot and to the S.E. of the final peak (3½ hrs.). The descent into this notch had to be made down a steep ice slope, as the rocks were too insecure. The final ridge proved a little easier, and the S. peak was reached in 1½ hr. It appeared to be higher than the N. peak, which, owing to the unsettled state of the weather and the lateness of the hour, was not attempted.

The summit was left at 2.30, and the bivouac reached by moonlight at 9.30 P.M. (halts, about 30 min.). The weather was very trying during the whole day and may have exaggerated the difficulties of the climb.

**NASHKODRA, HIGHEST POINT** (about 3,950 m.=12,959 ft.).—On August 22, 1903, H. von Ficker and the Suanetian porter, Mito, climbed the highest summit of the Nashkodra Ridge. It is separated from the overwhelming mass of Tiktingen by a snowy pass.

\* See *Alpine Journal*, vol. xvii. p. 173, and Freshfield's *Caucasus*, vol. ii. p. 249.

Leaving camp, near the second ice-fall of the Zanner, at 10 A.M., they got to the summit at 1.30 P.M. over an uncommonly rotten arête, which however was not very difficult. The view of the Kitlod Glacier and its surroundings is magnificent. They descended *via* P. 3,698 of Merzbacher's map.

*Central Group.*

LIALUER (Lyaler of Freshfield's map, Ljalwer of Merzbacher, 4,850 m.=14,271 ft.).—On August 23, 1903, A. Schulze started from the camp at the upper icefall of the Zanner Glacier and succeeded after  $5\frac{1}{2}$  hrs.' walking along the N.W. ridge in reaching the summit of Lialuer. A cornice which had to be hewn through proved a serious obstacle, and rendered the ascent difficult.

GESTOLA, 15,982 ft. Freshfield (4,860 m.=15,945 ft. Merzbacher).—On August 23, 1903, A. Schulze climbed Gestola by the N.W. ridge from Lialuer in 3 hrs., after much hard work in the ice. The return was made by the same way.

JANGA (5,051 m.=16,571 ft. Merzbacher) FROM THE S.; FIRST ASCENT OF HIGHEST POINT AND TRAVERSE OF ALL THE SUMMITS.—On August 7, 1903, Messrs. R. Helbling, F. Reichert, A. Schulze, and A. Weber, accompanied by the Suanetian porter, Mito Arkhulian of Tskhomari, left a camp in the Khalde valley. They intended spending a night at a height of about 3,600 m., and accordingly started late (10.15 A.M.). An hour was the time from the end of the glacier to where it bends E. At 1.45 they reached the rocks of the ridge which comes from the highest peak of Janga down to the letter 'e' of Chalde on Merzbacher's map. The rockwork was not very difficult, and at 4.30 the party found a place which offered some shelter for the night (about 3,500 m.). Bright moonlight encouraged them to start at midnight, and at 4.30 the last gendarme of the great summit-wall was conquered. But then a heavily-corniced Messergrat obliged them to turn back and to enter the small snow-valley E. of the ridge. Here Mr. Holder and Almer had also gone. Thick mist retarded the advance, and the last wall could not be attained before 3 P.M. Bad, rotten slabs, covered with ice and snow, required careful work, and at 6.30 the five men had to prepare for a second night which falling snow rendered far from luxurious. Leaving again at 4.45 A.M. on August 9 a steep ice-couloir was tackled but exchanged for rock after it had been used for 300 ft. The porter here became mountain-sick and thus caused delay. At 7.30 the snow ridge was trodden, and at 10.30 the highest summit had fallen. Severe cold and mist drove the climbers from the top. Traversing the entire summit ridge to the last pinnacle S. of P. 5,038 (the 'fourth summit' of Janga) they then descended S. over steep snow arêtes. An icefall stopped them again and forced them to use the rocks descending from P. 3,989 to the Khalde Glacier. Many difficult bits were encountered, and three times the climbers had to be let down by the rope. At midnight the glacier was reached;

there they had to wait for dawn, and camp was gained at 4 A.M. on August 10.

SHKARA W. PEAK (16,592 ft.).—Messrs. L. W. Rolleston and T. G. Longstaff ascended this peak from the S. on August 24. They slept at a bivouac above the point marked 3,043 m., and at the foot of that marked 4,310 m. on Merzbacher's map, at a height of between 10,500 and 11,000 ft. The night was showery and the start was delayed until 5.20 A.M. Descending on to the W. branch of the Skhara glacier they ascended some spurs of the peak 4,310 m., and then descended into and crossed the deep ravine below the hanging glacier which lies between this peak and the great southern buttress of Skhara. Mounting this buttress by a succession of rock ridges and narrow snow arêtes, they climbed with difficulty on to the prominent snow-capped point on the main southern ridge which is opposite to but higher than the peak 4,310 m. (7½ hrs.' quick going). It seems possible that the ridge between these two points may be practicable, in which case the peak 4,310 m. might be traversed in its entirety and a considerable amount of time saved.

From this point an almost continuous snow ridge, at first very narrow, leads to the summit in 2 hrs. 40 min. (4.40 P.M.). It occupied 1½ hr. on the descent. The next 300 ft. took nearly 1½ hr., and the party were benighted at a height estimated at 14,500 ft. The descent was continued at 5 A.M. next morning, and the bivouac reached after several halts before noon.

The weather and the snow conditions were perfect during both days.

#### *Kasbek Group.*

MAILY KHOKH.—Mons. N. de Poggenpohl writes that in 1892 he made the first ascent of the peak to the E. of Kasbek, left nameless but marked with the figures 4,620 m.=15,157 ft., on Merzbacher's map, and also indicated in the Russian maps. He proposes the name Maily Khokh for the summit he reached, and promises to furnish an account of the expedition for a later number.

### NORWAY.

#### *Jostedalubre.*

LANGEDALSBRÆ.\*—Messrs. H. C. Bowen and C. W. Patchell, with Joh. Vidgal, made the first passage of this glacier *en route* for Nordfjord on August 6, 1903. The weather was very thick all day. A start was made at 5 from Tunesæter, where there is now a small hut for travellers, and a fair cow track on the left bank of the river was followed to the foot of the glacier (6.45). A route was found over moraine, slabby rocks, and old snow on the E. side of the glacier. The last part of the ascent was steep. The ice scenery at the head of the valley is magnificent. The rocks

\* *Alpine Journal*, vol. xii. p. 422; vol. xiv. p. 507; vol. xvii. p. 356.

on the Langedal side were left about noon. There was a great quantity of new snow on the glacier. Owing to the breaking of a strap on Vigdal's rucksack nearly all the provisions of the party disappeared into a narrow but deep crevasse at 12.30. A careful and correct course was steered by compass, with the aid of Mr. Slingsby's invaluable map, for the head of the Melkevoldsbræ. The fog was so dense that we passed close to the rocks of Kattenakken without being able to find them. A long cast eastwards round the head of another glacier amongst enormous crevasses brought us again to rocks about 5. These we descended until stopped by impossible, ice-worn precipices. Another attempt still further E. was also unsuccessful, and we finally passed a rainy night under a rock near the head of a deep valley running E. and W. We had one hasty glimpse, just before sunset, of a huge ice-fall below us, but it did not last long enough to enable us to say for certain where we were. A slight clearance in the morning showed us that we were on the S. side of Brixdal. After a light breakfast of kola biscuits we retraced our steps at 8.35 round the head of the hanging glacier in Brixdal, and descended by the rocks of Kattenakken to the little inn, which we reached at 8.35, none the worse for our night in the open. In fine weather the route *via* Langedal to Brixdal presents no serious difficulties, and can be highly recommended as a variant to those who have already seen the neighbouring Austerdalsbræ. It ought not to take more than 13 or 14 hrs. at the most.'

#### *Söndmöre.*

ROMEDALSHORN.\*—The correct route up this mountain was found by Messrs. H. C. Bowen and C. W. Patchell on August 15, 1903. From the head of the Romedalsskar the easy snow field was crossed to the col at the foot of the W. arête, which was followed to the cairn. This avoids all the difficulties experienced in the first ascent. The top was reached in 5 hrs. from Kolaas. A small fragment of a handkerchief built into the cairn by Dr. Simpson on the first ascent in 1894 was discovered and returned to the owner. The descent by the same route took about 3½ hrs.

KJÆRRINGA.—This fine cirque of rocks at the head of the first side valley on the W. as one ascends Romedal from Kolaas was traversed from N. to S. by Messrs. W. P. Haskett-Smith, H. C. Bowen, and C. W. Patchell on August 17. The whole arête is narrow but generally easy, with one or two interesting passages. The views are very fine. The expedition occupied some 9 hrs., including halts.

BLAATIND.†—The twin peaks of this mountain were traversed from N. to S. by the same party on August 21. The descent was made by the S.E. arête. The S. arête, which is extremely steep,

\* *Alpine Journal*, vol. xvii. p. 357; *N.T.F. Aarbog*, 1895, p. 93; Rander's *Söndmöre*, 2nd edition, p. 120.

† *Ibid.* vol. xviii. p. 51; *N.T.F. Aarbog*, 1896, p. 116.

with slabby and overhung rocks, was tried from the col without success. Time from Kolaas and back about 8 hrs.

SVERDALSTIND.—This is the name given on the amtskart to the striking cirque of rocks, with a sharp peak at its S. extremity, facing Stenstøl Sæter, near the head of Romedal. It was traversed from N. to S. on August 24 by Messrs. Bowen and Patchell. The climbing was similar in character to that on Kjærringa, but easier. Time from Kolaas and back about 8 hrs.' easy going.

NOTE.—From an experience extending over many years we can recommend Kolaas as a centre for rock-climbers. The expeditions are varied enough to suit all tastes. There is very fair trout-fishing close to the house. The place is easy of access from Aalesund, either by way of Ørstenvik or Store Standal, and nothing could exceed the kindness and hospitality of Nils Kolaas and his family. A few words of Norsk will be of great assistance to the visitor.

BRUNSTADHORN.\*—From the N. and W. this mountain rises in splendid and wonderfully pinnacled precipices from Brunstaddal, but on the S.E. it sends a long and gently sloping shoulder into Habbostaddal at Engesetsæter. It was ascended from Øie on August 27, 1903, by Messrs. W. P. Haskett-Smith, H. C. Bowen, and C. W. Patchell. At the head of the Brunstadskar the col between S. Brunstadhorn and Bolten was reached by grass slopes, and the shoulder of the former mountain rounded into the wild valley between S. and N. Brunstadhorn. The only difficulty was the crossing of a narrow but very steep snow gully, where half an hour's step-cutting was necessary. From the col steep but easy slopes led to the top in 6½ hrs. from Øie. The shoulder was followed down to Engesetsæter, and Øie reached in 4½ hrs. *via* Habbostaddal and the Skylstadbrekke. It must be owned that the route was laborious and uninteresting. The climber's way up Brunstadhorn must be looked for on the N.

#### *Romsdal.*

GJURATIND.†—The N.W. arête, which is so impressive as seen from the pass between Grövdal and Hoem, was climbed from the glacier on September 8, 1903, by Messrs. Bowen and Patchell. There are several fine rock towers on the ridge, all of which were crossed. The rock is everywhere firm and good, and the route is recommended as being much more interesting than the ordinary way on the N.E. arête. Time from Morstøl to the top, 5½ hrs., exclusive of halts. The arête itself took exactly 2 hrs.

TROLDTIND.‡—The schrund at the foot of the great snow couloir, by which Hr. Carl Hall made the first ascent, and which has hitherto been believed to afford the only possible route up the mountain from Naes, is almost invariably impassable except early in the summer. In August and September the couloir itself is

\* *Alpine Journal*, vol. xix. pp. 608-9.

† *Ibid.* vol. xv. p. 152; *N.T.F. Aarbog*, 1885, p. 31, 1891-2, p. 19.

‡ *Alpine Journal*, vol. xiv. pp. 394-5. *N.T.F. Aarbog*, 1893, p. 35.

usually full of hard ice. A short distance to the W. a much narrower gully runs up to the sky line from the glacier. The great gap at its head is well seen from Naes. It was used as a line of ascent for the first time on September 9, 1903, by Messrs. Bowen and Patchell. The gully was entered at its foot and immediately left by steep but good rocks on its E. side. Higher up the rocks in many places are very loose and require great care. The gully was re-entered above the second great pitch and followed for about 100 ft. up very steep snow. Rocks, still at a severe angle, close to the W. side of the gully led up to the flat shoulder of the mountain. The smaller gully was crossed at its head, and the shoulder again reached by a long and easy traverse to the E. along a broad ledge. The descent to the head of the great gully was made on the N., and the usual route on the side of Isterdal followed to the cairn. The mountain is thus proved to be accessible at all seasons when the rocks are free from ice or snow; and the route is probably preferable at any time to the long and arduous ascent of the exceedingly steep snow or ice in the great couloir. Time from Nora to the top, 6 hrs. 45 min. The descent to the glacier took 2 hrs. 40 min.; to Nora, 2 hrs. more. Total time, exclusive of halts, 11 hrs. 25 min.

#### HIMALAYAS.

ASCENTS AND EXPLORATIONS IN THE CHOGO LUNGMA DISTRICT.—The upper end of the Chogo Lungma glacier is separated from one of its branches by a massive mountain wall about thirteen miles long, of a height varying from 17,000 to 20,000 ft., the top and a large portion of the sides of which are covered with snow, ice, and glacier. From one end of this wall rise three splendid snow peaks connected with each other by snow arêtes, the second higher than the first and the third than the second.

The first and third are steep, the second less so, but all fall away on one side in precipices thousands of feet deep. The third peak, which dominates the whole region, is measured by the Indian Trigonometrical Survey at 24,486 ft. The flanks of these peaks tumble down to the glacier on three sides in a bewildering succession of sharp snow slopes, icefalls, and avalanche-scored inclines.

During their expedition of 1902 Dr. William Hunter Workman and Mrs. Fanny Bullock Workman determined, if possible, to attempt the ascent of one or more of these peaks, to accomplish which continued fine weather for several days would be necessary, but the weather proved so unfavourable that this intention had to be abandoned for that season.

In July 1903 Dr. and Mrs. Bullock Workman again ascended the Chogo Lungma glacier, and camped at a height of 14,000 ft., opposite the base of the wall leading to these peaks, to await a suitable opportunity to attempt them. Here they were detained a month by bad weather, meanwhile exploring a large upper branch of the Chogo Lungma, ending in a snow wall over 19,000 ft. high.

Towards the middle of August the weather turned fine, and they

immediately set out with Mummery tents and light camp equipment to carry out their purpose. The first camp was made on the snow-covered surface of a branch glacier below the slopes of the first peak, at a height of 16,200 ft. The second was on a small snow plateau on the mountain-side at 18,600 ft. An attempt was made to take the third camp to a height of over 20,000 ft., that the party might be in a position to attack the third peak with a hope of success; but the coolies acting as porters, who can always be depended on to fail at critical moments, were prostrated by mountain sickness, and the third camp had to be pitched at the base of the cone of the first peak at 19,355 ft., and the final ascents made from this camp.

At 8 A.M., in a temperature of 15° F., Dr. and Mrs. Bullock Workman, with two guides and a porter, started by the light of a waning moon to ascend the steep snow slants of the first peak, rising at angles of 60° to 70°. The entire ascent of this had to be made in zigzags and by traversing. At 7 A.M. they stood on the summit, a snow cornice, at an altitude of 21,770 ft. The temperature here was 16° F.

Stopping only to take readings of hypsometer, barometer, and thermometer, and some photographs, a descent of some hundreds of feet was made to the snow arête leading to the second peak. This was traversed, and the ascent of the second peak made in soft snow ankle deep. Its top (22,567 ft.) was reached at 10 A.M.

To reach the summit of the third (24,486 ft.) in the rarefied air after the fatiguing 7 hrs.' work already done was manifestly out of the question on this day. Nor would it be possible for persons of ordinary strength on any other day, unless a camp could be established on the plateau at its foot at 21,000 ft. or over, which with coolies would be impossible, and in any case in the variable weather of this region, exposed as it is to sudden storms, would be a hazardous experiment.

A point on the S.W. arête of the third peak about a thousand feet higher, commanded a much desired view towards Nagar. To obtain this Dr. Workman with two guides, leaving Mrs. Bullock Workman and the porter on the 22,567 ft. summit to await their return, descended to the second connecting arête, and traversing this crossed the ascending plateau to the peak. After a sharp scramble up its steep snow flank the desired point on the arête was reached at 12.30 P.M. The average of calculations by three different tables, based on the hypsometric and barometric readings here taken and those of the Government mercurial barometer at Skardo on the same day and hour, places the height of this point at 23,394 ft., 311 ft. higher than the summit of Aconcagua (23,083 ft.).

The view from here, as from the two other summits, was indescribably grand. Prominent among the countless peaks rising in all directions were, to the E., those bordering the Biafo glacier, Masherbrum, Gusherbrum, the Mustagh Tower, and the sharp pyramid of K<sub>2</sub>, towering far above any ridges and summits near it. To the W. Haramosh and Nanga Parbat stood out grandly as a

background for other imposing spires more to the front. Across the Chogo Lungma glacier the party looked down upon the summit of a beautiful snow needle, measured by the Indian Survey at 22,810 ft. Over the Pertal Singh col, at the head of the Chogo Lungma, a glacier was seen descending into a valley which stretches away directly towards Nagar and Hunza.

Camp was reached at 6 P.M. The ascents were made none too soon. The next morning, with falling barometer and gathering storm clouds, a retreat was made to the base camp. The whole five days' work from start to finish was done on ice and snow.

From the Chogo Lungma glacier Dr. and Mrs. Bullock Workman ascended and explored a large branch called the Balucho, discovered and crossed a snow pass 17,200 ft. high, which descends by an avalanche-gullied snow wall of about 70° incline 1,000 ft. to a glacier leading to the Kero Lungma.

They also explored to their origin the Hoh Lumba and the Alchori glaciers, the upper parts of which at least have never before been visited. The Hoh Lumba divides into two large branches of about the same size and length, each terminating in a snow col some 18,600 ft. high, surmounted by a huge cornice curling over a precipice 6,000 ft. to 7,000 ft. high, which in each case drops to a moderate-sized glacier, which takes its course towards and appears to join the Hispar glacier, W. of the Zong La. Both cols were ascended. To reach one of them the party had to cross a large bergschrund and traverse a series of steep ice slopes of about 60° incline, covering the shoulder of a mountain which just below terminated in a high precipice. Five and a half hours were occupied in this ascent. The other col was ascended directly from the glacier up fairly steep inclines, the worst feature of which was the new snow, which near the top was waist high. All camps on this glacier had to be made on the snow-covered ice, as the whole region was deeply covered with snow left by the storms of the long and late winter.

The Alchori glacier begins with an icefall accessible at only a single point beneath a steep snow and rock col above. This col (18,200 ft.) was ascended by Mrs. Bullock Workman and guides, and the other (N.) side was found to drop by a precipice almost directly upon the Hispar glacier. The courses of both the Hoh Lumba and Alchori glaciers proved to be quite different from those represented on the Survey maps.

Dr. and Mrs. Bullock Workman were accompanied by the guides J. Petigax and C. Savoie (who were with the Duke of Abruzzi on his Polar expedition, and the former of whom ascended St. Elias with him) and the porter L. Petigax, all of Courmayeur; also by Mr. B. Hewett, of London, as surveyor. Measurements were made by Mr. Hewett to determine distances, heights, and movements of glaciers.

Thermometric, hypsometric, and barometric readings were taken at all points, and during the absence of the expedition similar readings were taken at the lower station of Skardo three times



daily by the Government official in charge of the observatory, for the purpose of calculating the heights attained. Sun temperatures were also taken with the black bulb thermometer. Above 13,000 ft. the temperature of the sun's rays was found to average considerably higher than in the Indian plain in the warm season. Readings were obtained at altitudes above 17,000 ft. as high as 204° F. Many photographs of the regions visited were secured.

#### CANADIAN ROCKIES.

MT. GOODSIR (circa 12,000 ft.).—This, the highest peak of the Ottortail group, was ascended in July by Messrs. C. E. Fay (President of the American Alpine Club) and H. C. Parker, with the guides Christian Kaufmann and Christian Häslér.\*

#### 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 3s., can be obtained from all booksellers, or from Messrs. Stanford, Charing Cross.

THE LIBRARY CATALOGUE is now printed, and may be obtained, bound in cloth, on application to the Assistant Secretary, 23 Savile Row. Price 3s.; postage, 4d.

THE ALPINE CLUB OBITUARY.—R. W. Broadrick (1902), W. D. Freshfield (1858), Rev. James Robertson (1864).

DISCOVERY ON THE GREAT ALETSCHE GLACIER.—We have received from the Rev. A. Fairbanks the following note, which, if no mistake has been made, indicates a very unusually rapid movement in Alpine ice:

On August 9, 1902, a hat and an alpenstock were lost in a crevasse on the Great Aletsch Glacier, their owner being fortunately recovered unhurt with the help of a rope. The crevasse—certainly 20 ft., probably 25 ft., deep—was situated in the lower part of the broken ice immediately above the upper crossing place from Rieder to Bel Alp, about 500 yards from the E. bank of the glacier.

On September 2, 1903, this hat and stick were found lying on the surface of the glacier in a depression among the lumpy ice at the foot of the 'Fall,' probably about 300 ft. below the spot where they were abandoned the previous year. As I have not been able personally to verify the exact point at which they were found, I cannot make any deductions as to the rate of the glacier movement; but this astounding fact *does* seem to be made clear—that the ice on which they were found (on the surface of the glacier) was, a year before, *below* the place in the crevasse where they were lodged.

\* *The Boston Sunday Herald*, August 6, 1903.