

OTHER ACCIDENTS.

We do not propose to give an exhaustive list of this season's accidents, but we may briefly mention three deaths which befell travellers when climbing alone. On July 8 Herr Closs, after climbing the Cimon della Pala, was overtaken by an avalanche on his way down; on August 18 Dr. Largin, of Bern, perished on the Nadelhorn; on August 28 M. Emile Dunant, of Geneva, was killed on the Mont Pleureur, after successfully accomplishing the ascent.

NEW EXPEDITIONS IN 1902.

Eastern Graians.

COLLE FIORITO (*circa* 10,900 ft.). August 13.—Mr. G. Yeld, with François and Sylvain Pession, of Valtournanche, left Cogne at 6.15 A.M., and, having reached the Arpisson chalets by the usual route, went up the Arpisson glen to a col between the Tour d'Arpisson and the Punta Garin. The col was reached at 12.50 P.M., much time having been spent in halts. The col is named from the Fiorito torrent of the Italian Government map. The little peak to the E. of the col was climbed, and a fine view of the Valnontey enjoyed from it. The party having descended into the Luzert glen returned to Cogne by the Grauson huts and the Grauson track.

Mont Blanc District.

COMPLETE TRAVERSE OF THE AIGUILLE SANS NOM (3,989 mètres = 13,088 feet) and AIGUILLE VERTE (4,127 mètres = 13,541 feet). August 24.—Messrs. R. W. Broadrick and A. E. Field, with Joseph Ravel and Joseph Démarchi, left the usual Dru gite on the Charpoua glacier at 12.2 A.M. They proceeded up the glacier, which was in good condition, and after an hour the moonlight enabled them to extinguish the lanterns. At 1.30 they took to the rocks of the Aiguille Sans Nom, and climbed up broken rocks and a simple chimney on to the S.W. ridge, which was followed up easier and more broken rocks till it became very narrow, when they traversed a short snow-slope on to rocks again. They followed these rocks round the big snow-slope to a point about the middle of the face where the rocks steepen and form the great wall of the peak. They then ascended a depression forming the channel of a small stream, which brought them to easy rocks, followed by a short snow-slope. Above this they climbed a very steep couloir about 10 ft. wide, which was rendered extremely difficult by being coated with verglas. At the top of this the leader traversed round an awkward corner to the right, taking a shoulder, and then went up snow to easier rocks. The others then climbed straight up, this way being difficult enough, but probably better because clearer of verglas. A divergence to the left up simpler rocks led to the ridge again, where at 6.0 they halted 25 minutes for breakfast.

A short and steep but not difficult chimney led up to a window on the arête which runs from the summit of the peak towards the Dru. This window looks towards the N., and from it the Mont-envers is first seen. They now followed the arête, where a gendarme was climbed from a shoulder, but on its farther side there was a perpendicular drop of about 25 ft. This was absolutely smooth, and was descended on a doubled rope, which was left here in case the party should find it necessary to return by the same route. The arête consists of enormous blocks, many of them 40 or 50 ft. high, and its climb was simple and pleasant, except at one point where a gendarme had to be turned by a steep ice-slope. The summit of the Aiguille Sans Nom is a gendarme about 18 ft. high, with a top only about 8 in. square. A small cairn of three stones was built on the top, which was reached at 9.13 A.M.

The Aiguille Sans Nom was first climbed by H.R.H. the Duke of the Abruzzi (see 'Alpine Journal,' vol. xix., p. 243) in 1898 by the great couloir between it and the Aiguille Verte. Its second ascent was made by M. Emile Fontaine by a route up the rocks which was practically that followed by the present party, who made the third ascent of the peak, and were indebted to him for information concerning the route to be taken.

After a halt of 7 minutes they climbed down the far side of the summit gendarme, which was nearly perpendicular and almost destitute of holds. Another short halt of 7 minutes was made a little farther on, and they then followed the arête, which consisted of gendarmes and snow intermixed. Two gendarmes had to be turned on the Argentière side by cutting round very steep ice, which took so long that great fears were aroused of the party not having time to complete the climb. At 10.30 they halted 27 minutes for a meal, and soon afterwards they found that a snow arête could be followed almost the whole way to the top of the Verte. It was very steep and narrow, and in places the condition of the snow was by no means too good; but in time it improved, progress became quicker, and the summit of the Aiguille Verte was reached at 1.26 P.M.

The Aiguille Sans Nom was thus traversed for the first time, the two previous parties having each descended by the same route by which they had ascended.

After a halt of 19 minutes on the summit of the Aiguille Verte, mostly spent in admiring the wonderful view—for the day was clear and cloudless—the descent was commenced by the Moine ridge. This was soon found to be covered with snow, and in the worst possible condition, and the party had to put forth their utmost exertions to get off the rocks before dark. At 4.35 they halted 20 minutes to feed, and then much step-cutting was necessary, and they had to kick steps backwards down steep and rather bad snow for a long time. They got off the rocks at 7.25 P.M., had to traverse a trough which was twice raked by stones—two of the party being hit by small ones—and crossed the bergschrund almost in darkness. They lit the lanterns at 7.45, came quickly down the snow which

was extremely soft, and unroped on the moraine at 8.32. They then had a meal, started again at 9.8, soon struck the track from the Jardin, got on to the Mer de Glace, and reached the Montenvers at 12.5 A.M.

Total time, 24 hrs. 9 min., of which 2 hrs. 11 min. was spent in halts, making the net time 21 hrs. 52 min.

MONT BLANC DU TACUL (4,249 m. = 13,940 ft.). **FIRST ASCENT FROM THE SOUTH AND FIRST TRAVERSE.** *September 2.*—Signor Adolfo Hess, Dr. A. Ferrari, and Dr. F. Santi, with the guides L. Croux and L. Mussillon and the porters J. Brocherel and A. Berthod, having reached the foot of Mont Blanc du Tacul, on the Géant glacier, climbed first by the great rocky couloir which runs up the face of the peak to the summit (it was much exposed to falling stones), then by the rocks on the (true) right of the couloir, which afforded very interesting climbing to the S.W. ridge of the mountain, whence the summit was reached in 20 min. Times: From the Rifugio Torino to the bergschrund, 1 hr. 30 min.; thence to the top, 6 hrs. 30 min. They descended by the usual way to the Col du Midi.*

LE TRIDENT DE LA BRENVA (12,470 ft. ?). *August 21.*—Mr. G. Yeld, with François and Sylvain Pession, of Valtournanche, climbed the beautiful rock peak, which forms so conspicuous a feature in Dr. Tempest Anderson's view of Mt. Blanc from the Géant glacier, which appeared in the May number of this 'Journal.' They left the Rifugio Torino at 7.55 and reached the foot of the great ridge which separates the Géant and Brenva glaciers at 9.10. They climbed to the crest of this ridge by the rocks to the W. of the Trident. The crest was reached at 12.30. Owing to the state of the snow the ascent was laborious. A short halt was made for a meal (perhaps 20 min.), and then the party moved on to the Brenva side of the Trident. A distinctly difficult and exciting climb, in which two long ropes were employed, brought them to the summit at 2 P.M. They descended on the Géant side to their previous track on the ridge between the Géant and the Brenva glaciers (2.25), and left at 3 P.M. The mist gave them much trouble on their way home. They traversed to the Col de la Tour Ronde, and, descending by it (by no means an easy matter this year), crossed the bergschrund at 6, regained their track of the morning and reached the Col du Géant at 7.55. Actual walking, about 10 hrs. 50 min. The party take the Trident to be the point marked 3,801 m. on Kurz's map, in which case it is 12,470 ft. high; if it be not 3,801 it is that marked 3,694 m. = 12,119 ft. The climb can be strongly recommended.

AIGUILLE DU MOINE (3,413 m. = 11,198 ft.) **BY THE N. ARÊTE.**—Fräulein H. Kuntze and Mr. G. Hasler, with Joseph Ravanel and Eugène Simond, left the Montenvers on August 19, at 2.30 A.M., following the usual Couvercle route as far as Les Moulins. Then they bore E., ascending over grass and débris slopes to the foot of

* Extracted from *Rivista Mensile C.A.I.*, September 1902, p. 303.

the long, steep couloir which comes down from between the peak and the Nonne (4.50-5.20). The couloir was ascended to the saddle between the Moine and the Nonne, overlooking the Taléfre glacier, and then by a series of very difficult cracks, some of which were jammed with enormous loose boulders, always keeping on the Mer de Glace side, the summit of the Moine was gained at 9.50 A.M. Montenvers was reached by the ordinary route at 3 P.M.

Champéry District.

LE DOIGT DE CHAMPÉRY, 10,589 FT. BY THE N. FACE. *August 23.*—Count O'Gorman with Emile Joris and Célestin Oberhauser of Champéry left the chalet of Anthémoz at 1.30 A.M. In 1 hr. 15 min. they reached the arête de Selléze. They then climbed the couloir of the Choix glacier, which ascends directly between Le Doigt and the Dent du Midi (from 500 to 600 steps had to be cut in the ice). After crossing the bergschrund they reached a little higher up a large crevasse, into which they descended for shelter from falling stones which flew over their heads in great numbers, some small, some large. At 4.15, as nothing but little stones then fell, they left the crevasse, where they had found it very cold. For 30 min. they climbed straight up the couloir, cutting steps, but stones again began to fall, and it was dangerous to remain longer in it, so they took to the ridge on the left (in ascending) and followed it to the summit. In places the climbing was easy, but in the steepest parts the rock was very rotten. Very often they had to be on the look-out for falling stones, and now and again the rocks were covered with verglas, which made the work disagreeable. At 9.20 they reached the top, the rocks of which were anything but firm. The view was very fine. After a stay of two hours they descended by the S.E. side, passing over the Pointe Durier, and thence by the plateau of Sunsanfe to Bonaveau and Champéry.

Arolla District.

DENT PERROC. *August 14.*—Messrs. E. A. Aldridge and W. Wickham King, with the guide Jean Maitre, left Arolla at 4 A.M., climbed the central peak by the ordinary route, and then proceeded to the northern peak. The descent from the latter was over the steep snow on the crest of the N.N.E. arête. This was possible, as there was no cornice.* It was necessary to adhere closely to the crest of the arête, owing to the possibility of the snow sliding on the steep slabs which form the Glacier de Zarmine side of the mountain. Upon reaching the second pinnacle below the northern summit the couloir on the eastern side of it was crossed. Then the slabby slope which here forms the eastern side of the N.N.E. ridge was descended, passing close to a rock mass standing up above the general level of the slope, to a point a short distance below this rock tower where there is a chimney on the

* Compare *A. J.* vol. xv. p. 303.

right. This chimney proved to be quite easy, but very wet, and brought them to an arête leading to a prominent pinnacle towering above the bergschrund. From this arête they descended into the couloir that had been crossed above, and effected the passage of the immense bergschrund at the head of Montay or Perroc glacier without difficulty on the right-hand side of the couloir. Very little alteration in the ice masses might render this bergschrund impossible, unless the slope on the other side of the couloir was ascended for a considerable distance. The remainder of the descent was made by way of the eastern end of the ridge dividing the Montay and Fontonay glaciers, and then by keeping well above the Mt. Miné glacier until the easy grass slopes, interspersed with some small precipices, were reached which descend to the end of the latter glacier. Arrived at Ferpècle 7 P.M. This route is probably easier than those described in 'A. J.' vol. xiii. p. 173.

Pennine Alps.

E. POINTE DE MOURTI (3,570 m. = 11,713 ft.) BY THE S.E. ARÊTE, DESCENDING BY THE N.E. ARÊTE. *July 24.*—The Rev. A. C. Downer and Messrs. G. E. Gask and J. Walter Robson, with Louis Theytaz and Elie Vianin, left Zinal at 5.10 P.M. on July 23, and reached a herdsman's hut on the Alpe de l'Allée at 7.15 P.M., where they slept. Leaving this at 3.30 A.M. on the 24th, they arrived at the Col de l'Allée at 4.50 A.M. After breakfasting here a southerly course was taken, keeping high up on the snow slopes under the Pigne de l'Allée and the Bouquetin, towards the head of the Moiry glacier, which was crossed in a westerly direction, opposite the Pointe de Bricolla. After half an hour's going on the névé upon the W. side of the glacier the party crossed the bergschrund at a point directly below the lowest dip of the ridge between the Dents des Rosses (3,620 m.) and the E. Pointe de Mourt. The ridge itself was gained at 9.23 A.M., the snow slope leading to it being fairly steep. From this point, which was left at 10.4 A.M., 35 minutes' good scrambling took them to the summit. The ridge is sharp, and in one or two places requires some care, the rock being rotten. A small gendarme, half-way along the ridge, was avoided by circumvention, and the last 100 ft. of rock was steep, but not difficult. At 11.30 A.M. descent was made by the N.E. arête, on snow, for 20 min., and then to the right, down steep snow slopes, to a point just above the icefall of the Glacier de Moiry. After crossing the glacier in an easterly direction the W. slope of the Col de l'Allée was ascended, and the Col reached at 12.43 P.M. From here they returned to Zinal.

The party has not been able to discover any notice of an earlier ascent or descent of the E. Pointe de Mourt by the N.E. arête. Time from Alpe de l'Allée to summit, including halts, 7 hrs. 10 min.

Zermatt District.

WELLENJOCH (about 12,200 ft.) BETWEEN THE OBER-GABELHORN AND THE WELLENKUPPE. *July 24.*—Mr. Godfrey W. H.

Ellis, with Ulrich Almer and Alois Biner as guides, made the first traverse of this col from Zermatt to Zinal.

Leaving the Trift Inn at 8.45 A.M. they followed the usual Ober-Gabelhorn route to a short distance beyond the couloir, arriving at the bergschrund at 6.45. Starting again at 7.30 they crossed the schrund, and traversed easy rocks back to the couloir in 50 minutes, then ascending over snow and ice for 1 hr. 10 min., reached the top of the col, which is just on the right or Wellenkuppe side of the big gendarme, at 9.30.

Leaving the summit at 10 o'clock they proceeded over snow for half an hour, and, always bearing to the right, descended the steep ice-slope for 6 hrs., reaching the higher ice-fall of the Glacier du Durand at 4.30, and the Mountet hut at 5.30 P.M.

WEISSHORN PASS (ABOUT 12,950 ft.) BETWEEN THE WEISSHORN AND THE BIESHORN. *July 30.*—The same party traversed the above col from Randa to Zinal, no previous passage of which seems to be recorded.

Starting from a bivouac on the top of the Freiwänge rocks, about 5 hrs. above Randa, they crossed the Bies Glacier just under the Biesjoch to the rib of rock which forms a part of the Bieshorn, crossed this to the snow-slopes opposite, and arrived at the bergschrund below the col in 2½ hrs. from the sleeping place.

Climbing up the right side of the steep snow-couloir till the first rock was reached, they crossed to the left (or Weisshorn) side of the col, and continued to mount over snow, ice, and occasional easy rocks to the top of the pass—3¼ hrs. from the schrund.

The descent of the glacier on the Zinal side took 5 hrs. 10 min. to the bergschrund, and thence to the Col de Tracuit ½ hr. Thence the usual path to Zinal was followed. The above times are exclusive of halts.

There appears to be a slightly lower and less steep depression in the ridge between the two peaks (nearer the Bieshorn), but this col is liable to falling stones.

THE LYSKAMM (WEST SPITZE) FROM THE N.W. *July 19.*—Mrs. Roberts Thomson, with Chr. Klucker and Chr. Zippert, left the Plattje hut at 1 o'clock A.M. Having traversed the Grenz glacier and the séracs of the Zwillinge glacier the weather became very uncertain, so they waited for nearly two hours on the Zwillinge glacier to see whether it would clear up. Threading a way through the icefall, the Zwillinge glacier was traversed. It was now about 6 A.M., so second breakfast was taken. Then a scramble over steep snow and ice with séracs brought them to the bergschrund. The schrund was not open, but the snow overhung very much. A steep ice slope was then surmounted, which brought the party to the rocks. These were steep, but good. This part took 1½ hr. At this point the weather was very bad—strong wind, cold, and a thick fog.

A sharp snow grat followed, which took 2 hrs., owing to the bad weather. The top was reached at 1 P.M.

Owing to the weather it was impossible to traverse the summit to

the Lys Joch, so a descent was made by the grat which leads to the Felik Joch. This was first a steep snow slope, and then a very narrow arête. From the Felik Joch the usual route was followed, the Plattje hut being reached at 6 P.M. During the descent, till the Felik Joch was reached, there was a very stormy and cold wind, and showers of snow at intervals.

Bernese Oberland.

NESTHORN (S. 8,820 m. = 12,538 ft.), SOUTH ARÊTE.—The unsatisfactory condition of the ice-couloirs, by which the ascent is usually made from the Ober-Aletsch hut, has for some years recommended the search for a new route, other than the difficult S.E. arête descended by the Messrs. Slingsby and Hopkinson. Previous attempts in 1898 and 1900 to reach the S. arête from a *gîte* on the Unterbächhorn rocks were defeated by weather. On August 8 Mr. G. Winthrop Young, with Clemenz Ruppen and a local *Jäger*, left Bel Alp at 2.20 A.M., and at 4.50 (2½ hrs.) crossed the Gisighorn ridge by a notch just S. of the Dame Alys. The descent to above Auf den Gändern, the upper levels of the desolate Gredetschthal, down steep and broken crags, took some 50 min. Bearing thence up to the right, some long moraines led on to the edge of the Gredetsch glacier (6 o'clock). The Siegfried map does not clearly define the eastern of the two outcropping ridges of rock in this glacier. The largest lies south-east, the second directly south of the S. ridge of the Nesthorn. The course followed lay under the nose of the largest, and up the glacier under its west wall; thence west between two glacier falls to the second rocky ridge. From its flat top a snow-slope leads to the foot of the S. arête. The lower part of this arête is set with formidable red spires; on its east is a sheer wall, on its west an easy broken face uniting it with the S.W. ridge. A smooth wall, some two to three hundred feet high, parts face and ridge alike from the upper edge of the glacier. In view of unpromising weather conditions conclusions were not attempted with the actual foot of the arête, and a so-called couloir, 15 min. up the snow in its west wall, preferred (7.50 A.M., 5½ hrs.). This was left at once by traverses on its south side, and a zigzag up difficult rocks led ultimately to the easy angles above. The arête was quickly rejoined (above the big gendarmes), and followed without let to where it merges in the face just W. of the summit. A few steps in surmounting the cornice and on the final dome, and the top was reached at 10 (7 hrs. 40 min., with halts). A heavy gale and snowstorm, which had checked the ascent, hurried the descent by the usual route, where the séracs kept up their decadent reputation. The glacier was reached at 11.50 and Bel Alp at 2.15—in all 12 hrs., including 1½ hr. rest. The only drawback to the S. ridge must always be the difficulty in reaching it.

ZENBÄCHENHORN (8,978 m. S. = 11,083 ft.). [Siegfried unnamed; 'Climbers' Guide' marks 'no information.']. August 4.—Mr. G.

Winthrop Young, with Clemenz Ruppen, leaving Bel Alp at 4.30 A.M., reached the Ober-Aletsch glacier at 5.30, and crossed the glacier and the lower slopes of the Fusshörner just below the rocks of the S. peak. [It is well to cross these crags fairly high.] Striking N.E. across the smooth grey slabs below the Triest glacier, and then over a point of the ice itself, the Geissgrat was transected at a conspicuous notch (Geisslücke?), about the point marked 3,096 m. in S. (6.40 A.M., 2½ hrs.). The northern division of the Triest glacier (unnamed in S.) is practically distinct, and is locally entitled Unterbächen glacier. It would avoid much confusion if the name *Zenbächen Glacier* were to be accepted for it. Turning N. up moraine and easy ice, followed by toilsome but straightforward snow-slopes in the shade of the Zenbächen rocks, and the red, serrated edge of the *Zenbächenlücke* (S. 3,283 m. = 10,771 ft.; 'Climbers' Guide,' 'no information') was reached at 8.45 (4¼ hrs. from Bel Alp). The descent hence to the Mittel Aletsch glacier looks very feasible. The N.W. arête of the Zenbächenhorn, which rises from this pass, is of reddish granite, sharp and rotten. The last 30 ft. to the summit overhang slightly, and the start here has to be made from a supporting cranium; but above the holds are good. The top was reached at 10.10 (40 min. from the pass, and 5 hrs. 40 min., with halts, from Bel Alp).

UNTER ZENBÄCHENHORN (S. 3,274 m. = 10,742 ft.).—Siegfried unnamed; Dufour calls it Sattelhorn, and the local hunters Rothhorn. Neither of these can be termed distinguishing, and the name suggested has the merit of continuing the class name of the ridge. The title Triesthorn, also suggested, might be reserved for point 3,096 of the Geissgrat. The same pair, descending the easy S.E. ridge of the Zenbächenhorn to the depression between the peaks, mounted the long arête to the lower summit. The ridge is longer than appears, sharply cut, and set with innumerable needles that have to be dodged, embraced, or escaladed. Just below the final rocks the edge flattens out, and a small cairn marks a hunters' pass from the Mittel-Aletsch to the Zenbächen glaciers. The top is a fast hour and a quarter from the Zenbächenhorn. Beyond this follow some three or four minor points of about the same height, the connecting ridge being in several places 'letter-boxed' to a remarkable extent. The last summit marks the junction of the S. and E. arêtes. The insidious slabs in the depression between these two were at first mistakenly followed in the descent. The S. arête and its west side should be kept to throughout. After some 30 min. on the ridge, an easy couloir, starting from between two large towers, led in 20 min. to the Zenbächen glacier. Thence over gentle slopes, past the Triest chalet to the Aletsch glacier, and Bel Alp was reached at 4.40, a comfortable 3½ hrs. from the last summit. Several hours might be saved for these peaks or the pass by sleeping at the highest Zenbächen chalet.

GESPENSTERHORN (3,784 m. = 12,415 ft.).—This is the snowy peak between the Roththallhorn and the Lauithor. The name was

given to the summit as it dominates the Roththal, which, according to legend, is haunted by spirits.* On the occasion of crossing the Lauithor Mr. G. Hasler ascended this peak alone in 20 min. from the pass by gentle snow slopes.

ELLSTAB (2,826 m. = 9,272 ft.).—This rocky peak, which is such a feature in the view from Ober Steinberg, is said to be inaccessible in the 'Jahrbuch' of the S.A.C., vol. xxviii. pp. 338-4.† The depression between the peak and the Kudelhorn (2,427 m.), which is called 'Schneeige Lücke' by local chamois hunters, was easily gained from the E. by Mr. G. Hasler, with Johann (or 'Lenihans') von Allmen and a porter, on September 4, whence the Kudelhorn was ascended in $\frac{1}{4}$ hr. The Lücke regained, the party proceeded by a series of débris-covered ledges and filled couloirs up to the point marked 2826, which was reached in a little over 2 hrs. from the Lücke without any difficulty. The ledges are completely hidden from below; thus the peak is so repulsive-looking at first sight. The summit consists of three peaks, of which the highest, or most southerly, offers some good scrambling.

WETTERHORN BY S.W. ARÊTE AND WEST FACE. *July 5.*—Messrs. T. H. Wicks, E. H. F. Bradby, and C. Wilson, with Ulrich Almer and Henri Rey, ascended the Wetterhorn by the S.W. arête and W. face. The intention was to try to make a route up the S.W. arête, but, being forced off it, they traversed the W. face of the mountain above the Hühnergutz glacier to a point almost directly under the summit, whence they cut straight up the very steep slope and rejoined the S.W. arête at a small col three or four hundred feet below the top. The traverse occupied 2 hrs., and the ascent thence to the summit took 3 hrs. more. The route has but little to recommend it. Whether the ascent can be made by the S.W. arête remains an open question, as the rocks were too much ice-covered to give them a fair trial. Those which were tried were found to be extremely rotten and of a less interesting character than had been anticipated.

SCHRECKHORN BY S.W. ARÊTE. *July 26.*—Messrs. J. H. Wicks, E. H. F. Bradby, and C. Wilson ascended the Schreckhorn by the S.W. arête (the right-hand sky-line of the mountain as it is seen from the Lake of Thun, from the road to Grindelwald, or from the Schwarzegg hut). Starting from Grindelwald at 10.40 P.M. (July 25), the Schwarzegg was reached at 3.15. Leaving the hut again at 4.30 the ordinary Schreckhorn route was followed to the upper level of the Schreck glacier (8.15). Here a steep rock buttress running due west was climbed to where it joins the main S.W. arête at a point about 500 ft. below the level of the col between the Schreckhorn and Lauteraarhorn (11.15), whence the true arête was closely followed to the top, which was reached at 3 P.M. The descent was made by the ordinary route, Grindelwald being reached at a late hour. The expedition is a very fine one, and affords one of the best and longest rock climbs in the Oberland.

* See *Climbers' Guide to the Bernese Oberland*, vol. i. p. 127. † *Ibid.* p. 57.

The climbing is very similar to that on the N.W. arête, but there is much more of it and the wearisome ascent to the N. ridge is avoided. If ice-free no real difficulties are met with, and future climbers—to whom the route is strongly recommended—will probably effect a considerable saving of time.

THE LAUTERAAR-SCHRECKHORN-ARÊTE. — FIRST TRAVERSE. *July 24.*—Fräulein H. Kuntze, with the guides Peter and Rudolf Bernet, left the Schwarzegg Hut on the 23rd at 11½ P.M., and followed the ordinary Schreckhorn route to the bergschrund at the foot of the upper couloir. They ascended by the rocky buttress, the lowest point of which is marked 3,494 on the Siegfried map, and by its difficult rocks gained the main arête at 6.25 A.M., a little to the right or E. of the Schreckhornsattel. They now followed the crest of the arête, and easily climbed over the first two rock towers. The next one, however, with a big slanting slab at its foot, offered some difficulty. To turn this tower, they descended a few steps on its N. face towards the Lauteraarfirn, and from a tiny ledge climbed over an overhanging rock to a small foothold at the utmost end of the slab, and continued by a smooth chimney to the top. This climb was difficult and very much exposed. They now kept continually to the crest of the arête, and thus met another tower, which was climbed by the W. face. Then followed the central part of the arête, consisting of three summits, and culminating in the point marked 4,080 on the S. map (at 8.45–9.05 A.M.). Thence the arête gradually descends to a deep gap, followed by a small tower, the summit of which was also gained by the W. face; then in a last gendarme (offering no difficulty) it suddenly rises again to about the height of the central summit (at 10.40 A.M.–11.20). The conquered arête here reached its end. They continued their way down to the depression between the arête and the final summit of the Lauteraarhorn, which was reached at 12.30 (–1.15) P.M. The descent was made by the usual Strahlegg route. Miss Gertrude Bell made the same expedition in the reverse direction on the same day.

HÜHNERSTOCK (3,348 m.=10,984 ft.).—Mr. G. Hasler left the Gauli Club hut, accompanied by Chr. Jossi and Ulrich Fuhrer, on September 23, at 2.40 P.M., and followed the Hühnerthäli pass route up the Hühnerthäli glacier to the foot of the E. buttress of the peak (6.50 to 7.30). The buttress is well marked on the Siegfried map; its foot is immediately N. of the 'o' of the word 'Hühnerstock.' By good rocks the N. arête of the peak was struck a few minutes below the summit, and the latter reached at 8.20 A.M. They continued to the lower Hühnerstock summit, marked 3,310 m., in 25 minutes, and followed the entire crest of the ridge on to the Hubellhorn, 3,256 m.

GROSS DIAMANTSTOCK (3,151 m.=10,338 ft.).—On September 25 the same party ascended the Hühnerthäli glacier to near the figures 2,783 of the S. map, whence they ascended by a difficult couloir to the N.W. arête of the peak (4½ hrs. from the hut), and following the crest of the latter reached the summit in 1½ hr. more.

In the descent they followed the S. arête for a short time, and then by well-defined ledges reached the Bächli glacier and the Untere Bächlilücke in $2\frac{1}{2}$ hrs. from the summit. Thence the Klein Diamantstock (2,790 m.) was ascended by following the S. side of the so called 'Diamantgrat' in $\frac{3}{4}$ hr. The descent was taken to the Gruben glacier and to the Handegg.

BERGLISTOCK (3,657 m.=11,998 ft.) BY THE E. FACE.—The same party, on September 28, left the Gauli hut at 2.50 A.M., and ascended the Gauli glacier, the upper part of which was much crevassed, to the foot of the E. wall of the mountain, and partly by steepish snow and partly by easy, though loose, rocks went straight up to the crest of the ridge connecting the peak with the Ankenbälli. The arête was struck between the summit of the Berglistock and the figures 3,622 m., a few steps below the point where the couloir from the Grindelwald Firn, which forms the ordinary way of access, comes up to the arête. The summit was reached in 5 minutes more (in 6 hrs. from the hut), and the descent taken to the Berglioch, keeping along the crest of the very pleasant rocks of the N. arête ($1\frac{3}{4}$ hr.) and by the Gauli glacier to the Gauli hut.

STRUBELEGG PASS (9,613 ft.), BETWEEN THE GROSSSTRUBEL AND THE STEGHORN.—The only previous record of the crossing of this pass appears to be that of Herr Gerster (S.A.C.), who with Hans Pieren, of Adelboden, crossed the ridge (from the N.) nearer to the Steghorn than the Grossstrubel in July 1894.

The Strubelegg Pass, as shown on the map, is a narrow, steep couloir *close under the Grossstrubel*, and is easily visible from Adelboden. It was first ascended on July 14 last by Mr. Godfrey W. H. Ellis with the guides Ulrich Almer and Alois Biner.

Starting from the Engstligen Alp Inn at 4.30 A.M., they crossed the slopes under the Thierhörnli, and reached the bergschrund in $2\frac{1}{2}$ hrs.

Crossing this and making some use of the loose wet rocks forming part of the wall of the Grossstrubel, they proceeded up the steep snow couloir, and reached the top of the col in 50 min.

The descent of the Lämmern glacier to the Gemmi took 2 hrs.

Lepontine District.

FINESTRA DI BOCCARECCIO (c. 2,880 m.=9,450 ft.). July 10.—Mrs. G. Broke, Miss I. M. Milman, Mr. C. H. Malden, and the Rev. G. Broke, after 4 hrs.' actual going from Binn, reached the frontier ridge of the Kriegalp pass at a point three to four hundred yards W. of the pass. They then turned to the right and ascended the long, steep couloir which goes up from the extreme S.W. corner of the Kriegalp glacier between the Pizzo (2,927 m.) and the Punta (3,212 m.) di Boccareccio in $1\frac{3}{4}$ hr. to the pass, a deep-cut notch with straight sides, which is very conspicuous from both Veglia and Devero, and visible also from points as far apart as the Ofenhorn and the Weissmies. The snow was in very good condition, and a

bergschrund nearly half-way up was only just open. On the W. side a very similar couloir, bending sharply to the left half-way down, and not so steep, led down to the Regione le Caldaie, still thickly covered with snow. Veglia was reached by the right bank of the Frova in 2 hrs. from the pass, which, though known to one or two, had not been crossed before, and is of interest as offering an alternative route from Binn to Veglia. Possibly it might give a little trouble later in the season if the couloir were ice instead of snow or the bergschrund very large, though this latter could probably always be turned by the rocks on its N. side. As a matter of fact, two ridges are crossed, the Finestra di Boccareccio lying wholly in Italy, so that the route is not absolutely direct from valley to valley, and may be more fairly compared with the combination of the Steinenjoch and Bocca Mottiscia, which has also been used as a way from Binn to Veglia.* But in the case of the Finestra di Boccareccio, the first ridge (which is both the frontier and the watershed) is so gently marked on either side that many have crossed the Kriegalp pass without noticing it, and have believed the Kriegalpstock to be on the watershed and frontier, whereas, together with the ridge connecting it with the Pizzo di Boccareccio, it is entirely in Italy, the frontier ridge descending from the Punta di Boccareccio.

Ofen Pass District.

PIZ PISOC† (3,178 m. = 10,426 ft.) BY THE S.E. FACE.—On August 19, 1902, Messrs. J. J. Withers and G. Lowes Dickinson, with the guides Heinrich Zurflüh and Albert Jaun, of Meiringen, left Scarl at 5.20 A.M. and followed the Schuls char road to a point on the right bank of the Clemgia, opposite where the slopes at the foot of the gully between the Piz Pisoc and the S. point come down to the left bank of the stream. Here a bridge is shown on the Siegfried map, but it had been carried away by a flood. After some waste of time the stream was forded, and the opposite side gained at 6.35 A.M. The slopes above mentioned were ascended, and the gully between the Pisoc and the S. point was entered at 7.10 A.M. Thence the gully was followed over snow to a waterfall, which had to be surmounted by the difficult rocks on its S. side (8 A.M.). Above this obstruction the gully or the rocks on the S. side of it were followed after 20 min. halt till 9.15 A.M. Then the gully was left for the steep grass slopes on the N. side, and a course was taken bearing round N. and mounting under the S.E. face of the main peak just to the right (N.) of a very prominent snow couloir which runs down across the face, well seen from Scarl and also well shown on the extreme right edge of the photograph facing p. 16 in the 'S.A.C. Jahrbuch' for 1899-1900. The last patch of

* *Rivista*, April 1899, pp. 124-132.

† Freshfield's *Italian Alps*, pp. 105, 106. Studer, p. 267. *S.A.C. Itinerarium für die Silvretta und Ofenpassgruppe*, p. 211. *S.A.C. Jahrbuch*, 1899-1900, p. 15. *Alpina*, 1900, pp. 45-6.

grass on the N. bank of this couloir was passed at 10.10 A.M., and the rocks on the same side of the same couloir were climbed for another $\frac{1}{2}$ hr. Here the party were forced into the snow couloir, which was mounted (past a subsidiary snow couloir on the left) for 20 min. (11 A.M.). At this point on the left (S.) of the party there appeared a marked fault in the face of the mountain, and a series of couloirs appeared to run up this fault direct to the final peak. The party accordingly turned left (S.) and began to ascend these couloirs, which proved practicable, though very steep in places and not free from falling stones. Emerging from the final couloir the party found themselves on the easy rocks to the N. of a conspicuous tower of rock and just under the final peak, which was reached at 2 P.M. Leaving at 2.45, the party returned over the easy and usual route by the S. ridge and Zuort glacier, reaching Tarasp at 6 P.M. Although the slopes on the Scarl side appear absolutely precipitous, and certainly have a very steep average inclination, the S.E. face is much more broken than would appear possible from below.

Titlis District.

WINDEGG HUT TO GÖSCHENERALP BY AN ARÊTE OF THE THIERBERG, WITH DESCENT BY THE KEHLEN GLACIER.—On August 22, 1902, Messrs. Legh S. Powell and Walter Larden, without guides, crossed the Trift glacier to the place where the Thierberg glacier joins the former. The moraine, rocks, and grass slopes on the right bank of the Thierberg glacier were then ascended to a point, reached in 2 hrs. from the hut, opposite the terminal buttress of the W. arête, which descends from the foot of the Thierberg summit. 3,419 m. The glacier was crossed without difficulty, and the ascent of the buttress proved safe and easy, the top of the latter being gained in 1 hr. from the time of reaching the glacier. The arête was now ascended without any difficulty. The slopes on either side were strewn with stones, but it proved easy to keep close to the arête the whole way. In 2 hrs. more the rocks ceased, the arête being continued by a rather sharp snow-edge. This was followed, the watershed being reached in 1 hr. more, or a total of 6 hrs.' leisurely climb from the hut. No cairn or other sign of a previous ascent was seen in following the ridge.

An easy circuitous traverse of a few minutes leads from the part of the watershed gained to the spot whence the descent to the Kehlen glacier is made. The descent to Göschenalp occupied 3 hrs. 40 min., a good deal of time having been lost in crossing a rather awkward schrund.

The Thierberglimmi, or Kehlenjoch, as it is locally called, is ordinarily used for reaching Stein, on the Susten pass, but the variation here described affords a direct and safe route to any one at Göschenalp wishing to reach Meiringen, or *vice versa*.

In some seasons the snow arête mentioned might be corniced, or icy, in which case considerable step-cutting might be needed. On

the occasion of the expedition described the snow was throughout in good condition.

It may be remembered that Herr Hoffmann Burkhardt approached the Kehlenjoch in 1864 from the Trifthal, apparently by way of the Zweischen Thierbergen pass and a circuit on the Stein glacier, and made a descent by the Kehlen glacier to Göschenalp.*

In 1865 Mr. Wm. Trotter crossed the pass in the reverse direction, and states that he descended by difficult rocks to the Thierberg glacier—a course which probably lay between the one described above and that of Herr Burkhardt.†

MEIEN TO ENGSTLEN ALP BY THE WASSENHORNJOCH AND THE TITLISJOCH.—Between the Wassenhorn and the summit on the ridge dividing the Meienthal from Engelberg, called Grassen, is a well-defined and easy snow pass to the Wenden glacier, to which the title of Wassenhornjoch may be appropriately given. By combining this pass with the Titlisjoch ‡ a direct and interesting route from the Engstlen hotel to Meien or Wassen, or *vice versa*, may be effected.

On September 5 the same party, without guides, starting from Meien, crossed the two streams descending from the Sustlialp, and followed a path to that alp. Grass and stones were thence ascended, at first to the W., and later traversed to the N., as far as the Stossenfirn, which latter was struck at a considerable altitude. In this way all the lower part of the Stossenfirn was avoided, and no difficulty due to steep ice or crevasses was encountered. The glacier and snow were easily mounted to the top of the pass, the time taken to reach it from Meien, easy going and exclusive of halts, being 4 hrs. 10 min. The descent to the Wenden glacier from the pass was equally easy with the ascent. The glacier was then crossed to the rocks near the E. end of the Klein glacier. It was now necessary to traverse and descend ledges of shale and rock until a spot was reached whence, partly by a staircase of ledges sloping to the right, partly by a watercourse, the Klein glacier was attained. The watercourse in which the upper part of the ascent was made is the most easterly of any descending from the Klein glacier. The time taken to reach the glacier from the Wassenhornjoch was 2 hrs. 10 min., but fully $\frac{3}{4}$ hr. was lost before finding the spot by which the cliff could be ascended. The Klein glacier was soon mounted, and the rather formidable-looking (but actually easy) rock cliff at the head was climbed, a point lying a little to the W. of the true joch being reached in 1 hr. 10 min. from the foot of the glacier. The descent hence to Engstlen lies by the ordinary Titlis track from this quarter, and occupied rather less than 2 hrs. The total time from Meien was thus about 9 hrs.' easy going and exclusive of halts. In the reverse direction the expedition should take materially less time.

RHONESTOCK (11,821 ft.). August 4. -The Rev. J. M. Gordon,

* See *S. A. C. J.* pp. 31, 59.

† See *A. J.* vol. ii. pp. 268, 411.

‡ Cf. *Ibid.* vol. xv. p. 73.

with J. J. M. Tresch and Basil Andenmatten, left the Göscheneralp at 4 A.M. They followed the route over the Damma Firn, which is usually taken for the Dammastock, turning off to the left just before they reached it, and, passing along below the mountain chain, kept close to the bergschlund. They crossed this just before reaching the Rhonestock itself and mounted diagonally over snow and rock till they arrived at the central rib of the mountain. They then mounted the central rib as nearly as possible in a straight line till they came over on the snow cap just below the summit at 1.40 P.M. The rocks were very steep, but absolutely firm and free from loose stones. The times were slow, and halts are included. The party descended to the Furka.

Ortler District.

ORTLER (8,902 m. = 12,800 ft.) BY S.W. RIDGE FROM ORTLER PASS. July 18, 1902.—Mr. A. W. Andrews and Dr. O. K. Williamson, with J. M. Lochmatter and Jean Maitre, accomplished this climb, part of which is believed to be new.

Leaving the Capanna Milano at 4.50 A.M., the Ortler Pass was reached at 6 A.M. The first pinnacle was turned on the Zebru side, the second on the Trafoi side by a slope of loose rocks and ice. A second traverse was then made on the Zebru side by steep rocks, followed by a second on the Trafoi side. A small 'gendarme' on the ridge itself was next climbed over. A great tower here barred the way, and had to be turned by a long traverse on the very steep Trafoi side. This was the hardest part of the climb. Having again reached the ridge the difficulties were at an end; rock soon gave place to snow, and at 8.25 A.M. the party reached the point of junction of the S.W. ridge with the ridge leading from the Hochjoch to the summit (the so called southern Ortler Vorgipfel). From here the ordinary Hochjochgrat route was followed to the summit (11.45 P.M.). Here a halt of 2 hrs. was made, Trafoi being afterwards reached by the ordinary route at 5.25 P.M. There was a considerable amount of snow and some ice on the rocks. The party was unanimously of opinion that the S.W. ridge is markedly harder than the Hochjochgrat, the rocks being everywhere loose.

HIMALAYAS.

CHOGO LUNGMA GLACIER DISTRICT.—Dr. William Hunter Workman and Mrs. Fanny Bullock Workman have returned to India from their third expedition among the higher Himalayas. On this occasion they followed up the Chogo Lungma glacier, the upper half of which has never before been visited, from its termination at Arandu to its origin, some 30 miles to the N.W., in a snowy col about 20,000 ft. high.

They also explored throughout their entire length three large tributary terminal glaciers, one of which, passing under the snowy N. flank of Mount Haramosh (24,280 ft. in height), ends in a pass which drops steeply down on the W. side to valleys leading to

Gilgit. The N. side of Haramosh is snow-clad from base to summit, and so far as the slopes are concerned the mountain could probably be ascended from this side by a properly equipped party, whilst the S. side presents inaccessible rock precipices. Besides Haramosh there are four other imposing peaks around the head of the Chogo Lungma of 24,000 ft. and upwards.

The surface of the Chogo Lungma and tributaries is much broken in all directions, the séracs and crevasses in many places forming intricate labyrinths through which it is difficult to find a path. Many inaccessible icefalls exist in the side glaciers.

Four peaks and two cols were scaled, one of the last (over 19,000 ft. high) crowning an ice wall with slopes varying from 45° to 60° as measured by the clinometer, which offered a climb of unusual difficulty and considerable danger. The descent was particularly hazardous, on account of the softening in the brilliant sunlight of the snow which covered the ice.

The weather was unfavourable to high climbing, it being seldom that two days in succession were clear. New snow was constantly falling, giant avalanches were seen and heard in all directions, and it would have been foolhardy to have attempted peaks of above 20,000 ft. where 3 or 4 high snow camps would have had to be made.

The party was detained at one high camp 60 hrs. by a severe snow storm. Many days and nights were passed at snow camps on the glacier at altitudes of 16,000 to 18,400 ft. Much new snow was met with on the higher parts of the glaciers, and rendered progress slow and difficult. Its depth at one point measured 85 centimetres, which represents the average depth over considerable distances traversed.

A large number of photographs were secured.

The explorers are greatly indebted to the British authorities at Srinagar for assistance in obtaining transport, as well as to H.H. the Maharaja of Kashmir and his brother, General Raja Sir Amar Singh, who took a most friendly interest in the expedition and issued orders to all officials along the route to promptly furnish coolies and supplies, and render any other assistance needed. In recognition of their kindness the col at the end of the Chogo Lungma was named the Pertab Singh La, and the pass under Haramosh the Amar Singh La.

Dr. Karl Oestreich, of Frankfort-on-the-Main, accompanied the expedition as topographer, and Mattia Zurbriggen and Giuseppe Müller acted as guide and porter.

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 book-sellers, or from Messrs. Stanford, Charing Cross.