

NEW EXPEDITIONS IN 1911.

Graian Alps.

PUNTA DEL TUF OF THE NEW C.A.I. MAP (3392 m.=11,129 ft.), CRESTA DEL TUF, PUNTA INFERNO (3392 m.=11,129 ft.).—August 12, 1911. Mr. G. Yeld with Benjamin and Andrea Luigi Pession of Val Tournanche, left the Lauzon chalets (2508 m.) at 4.25 A.M., and reached the summit of the peak mainly by the E. ridge at 8.47—*i.e.* in 3 hrs. 27 mins. (as 55 mins. were spent in halts).

The mountain as seen from Lauzon shows a conspicuous snow slope to the right (in ascending) of the E. ridge. They climbed this snow slope for about half its length and then followed the E. ridge: the N. side of it was unpleasant, the sunny S. side was in many places a garden of flowers; they then came to a flowery couloir, and then regaining the rocks of the ridge reached the summit quite suddenly, so to speak. The party found no trace of previous travellers on the summit.

In the descent they followed the N. ridge for some distance, and then, as it became more troublesome, descended to a big patch of snow on the Lauzon side (on the Val Savaranche side the mountain is a series of precipices), and traversed some distance below the ridge till they were near to the Passo del Tuf, when they finished the descent by the N. ridge. The descent, which took 47 mins., as a whole was unpleasant owing to the rottenness of the rocks. From the Passo del Tuf they ascended the great mass of yellow rocks which, from Lauzon, looks like a separate mountain, and for which they propose the name Cresta del Tuf. They went over the points of this Cresta, and then ascended the Punta Inferno 3392 m.=11,129 ft, first climbed by S. P. Paganini from the Col de Lauzon on July 28, 1881. From the Passo del Tuf to the Punta Inferno took 1 hr. 24 mins., but much of this time was spent in halts of which unfortunately no notes were taken.

From the Punta Inferno to the Col de Lauzon took 17 mins. The expedition was most interesting. The party returned to Cogne.

TOUR ST. ANDRÉ (3650 m.=11,976 ft.) FROM THE N.E.—August 14. The same party leaving the end of the King's hunting path in the Valeille at 7 A.M. reached the top at 3.30 P.M. Halts amounted to about 2 hrs. 30 mins., so that the climb took 6 hrs. actual walking. The party originally intended to make for the great snow-crowned hollow between the Tour St. Ours and the Tour St. André, but were deterred from attempting this route by its obviously dangerous character as a good part of it was raked by stones. They therefore kept to the left side (in ascending) of the great hollow, and went up in a slanting direction towards the summit of the Tour St. André.

The rocks were mostly loose and rotten, and there were many steep faces. The party passed along one beautiful snow-ridge, but the

feature of the climb was a steep slope of thin snow on hard ice where careful steps had to be made as the slope was so '*raide*' as to be only just negotiable. It was about 300 ft. in length and took a long time. There was some risk from falling stones. Eventually the party reached the top via the last bit of the ridge, which falls in an easterly direction from the summit to a conspicuous rock tower above the Valeille Glacier.

The party descended a little way by the route by which they had ascended and then followed the ridge, which falls N. towards the Cresta Paganini to its lowest point, and then descended direct over stones, snow and a bergschrund to the Monei Glacier. Passing round the foot of the Cresta Paganini they reached the end of the glacier in 1 hr. 50 mins., fairly fast walking from the top of the Tour St. André.

The party virtually effected a new pass from the Valeille to the Valnontey, though not the pass which they had intended to make. It may be called the Col. St. André.

A great many flowers were found on the rocks on the way up, and some close to the summit of the St. André.

POINTE D'HERBETET (3778 m. = 12,396 ft.) BY THE W. ARÊTE.— August 9, 1911. Messrs. R. L. G. Irving, G. H. L. Mallory, and H. E. G. Tyndale. Left V. E. hut at 4.45 but owing to delay caused by forgotten rucksack did not reach Col du Gd Neiron till nearly 9. Began climbing the W. arête after a halt and kept to the crest for 200 or 300 feet over good easy rocks. We then had to make a traverse on to the S. side and regained the arête over steep rocks that needed careful testing. We then found ourselves underneath a huge red gendarme, which might have been climbable if turned upside down. A long traverse over the S. face would have taken us to the S. arête, but there were some very doubtful-looking passages on it. We made a horizontal traverse under the W. face of the gendarme. This was the hardest bit of the climb, for there were few places where one could hold a man and the drip from the gendarme above had covered the rocks which protruded from the steep ice with a glaze which was only beginning to melt shortly before noon.

In an average season I can imagine this traverse being very unattractive. 150 feet or so along this traverse we turned a corner into a steep ice-couloir with a small patch of glazed rock in it. It gave me cover and a hole in the ice gave a firm place while the others finished the traverse. The far side of the couloir was protected from falls of stones but none of these occurred except across the broad portion of the couloir below us. Once across the couloir we climbed up by the edge of the ice and finally by steep rocks till we reached the S. arête at a nick just below a great tower. This we traversed on the E. side and found it, and the rest of the S. arête, particularly the final difficulty, quite hard enough for an already somewhat tired party. None of us had brought a watch, but I

should say we reached the S. arête about 2, and the top about 3.30. The N. arête was in delightfully easy condition and we passed the Herbetet chalet soon after 6 o'clock and reach Cogne before 9.

R. L. G. IRVING.

[The route followed on the W. arête is most probably new or does not appear to have been previously recorded.]

COL DES CLOCHETTES (3462 m. = 11,355 ft.). See Grivola by N. arête, under VARIOUS EXPEDITIONS, p. 745.

Dauphiné.

TRAVERSE OF DÔME DE NEIGE (3980 m. = 13,058 ft.), PIC LORY (4083 m. = 13,396 ft.), AND LES ECRINS (4103 m. = 13,462 ft.).—On July 31, 1911, Messrs. H. O. Jones, R. Todhunter, and G. Winthrop Young, with Henri Brocherel, Laurent Croux, and Josef Knubel, climbing on two ropes, left the bivouac on the Glacier du Vallon de la Pilatte at 3.10 A.M. and reached the upper glacier near the Col des Avalanches at 5.45. The glacier was traversed in a westerly direction to the base of an obvious snow couloir which descends from a point high upon the W. ridge of the Dôme de Neige. The snow of the couloir was in bad condition, and later in the day there might be risk from stone falls. The ridge was reached at 9.10. From here the rock arête was followed, mainly by interesting slabs on the S. face, to the summit of the Dôme de Neige at 9.55. The two parties then descended to the Brèche Lory, crossed the summit of Les Ecrins at 11.15, and after a none too easy descent of the glacier reached La Béarde, *via* the Col des Ecrins at 4.25.

Total time, excluding halts, approximately 10 hours.

Mont Blanc District.

MONT BLANC (4810 m. = 15782 ft.): ASCENT OF THE BROUILLARD RIDGE FROM THE COL EMILE REY.—After an exploration of the Glacier de Mt. Blanc on the previous day, Dr. Karl Blodig, Messrs. H. O. Jones, and G. Winthrop Young, with Josef Knubel, left the Quintino Sella Hut at 1.10 A.M. on August 9, 1911, and with the aid of crampons and magnificent moonlight reached the Col Emile Rey at 4.22. The interval of waiting between the disappearance of the moon and sunrise was utilised in part by the two last-mentioned members of the party for an ascent of Mt. Brouillard, which took nine minutes from col to summit. The ascent of the steep and hitherto unclimbed gully which begins at a point slightly below and to the E. of the Col was begun at 5.15 A.M. The rocks were found to be dry and fairly easy, and the only real difficulty encountered was one steep slab about 30 ft. high, with small holds which might prove impossible after snow or rain. The snow-field above the gully was reached at 6.40 and the ascent was continued for some time by the low rock rib on its E. side, until the

main ridge was reached at 7.50 and the summit of Pic Luigi Amedeo at 8.5. The route followed from here to the summit of Mt. Blanc was presumably the same as that followed by the Signori Gugliermi in 1901.* One section alone, at the foot of the Mt. Blanc de Courmayeur, presented any difficulty, and here an alternative route on the left (*i.e.* W.) of the ridge, up a chimney in firm rock, was selected in preference to the easier but less sound route on the right. The leading members of the party, proceeding for a great part of the ascent unroped, and headed by one of the amateurs, reached the top of the Mt. Blanc de Courmayeur at 11.25 and Mt. Blanc at 12.5. The descent was effected by the Dôme route with exceptional difficulty owing to the condition of the glacier. The Dôme Hut gave passing shelter at 5.30, and the long tramp to Courmayeur ended at 10.30. The expedition took 21 hrs. and 20 mins. in all, but the times occupied, excluding halts, were as follows:—

Hut to Col Emile Rey	..	..	..	2 hrs. 57 mins.
Col Emile Rey to Pic Luigi Amedeo	..	..	2	„ 33 „
Pic Luigi Amedeo to Mt. Blanc	..	..	3	„ 15 „
Mt. Blanc to Dôme Hut	..	..	3	„ 5 „
Dôme Hut to Courmayeur	..	..	4	„ 5 „

15 hrs. 55 mins.

The expedition was repeated two days later by Herr H. Pfann and Count Ugo di Vallepiana. Starting at midnight they reached the Col Emile Rey at 4, left the col at 5.45, after having ascended Mt. Brouillard, reached the summit of the Pic Luigi Amedeo at 10, Mt. Blanc de Courmayeur at 3.15 P.M. and Mt. Blanc, where the night was spent, at 5 p.m.

It was again made on August 18 by Dr. Pühn with the guide Adolfe Rey and a porter Melica. Starting at 3 A.M., they reached the Col Emile Rey at 8.30, Pic Luigi Amedeo at 12.30, and Mt. Blanc at 6.30. In fact the expedition already threatens to become popular. In a good year it provides a splendid route, and, apart from its length, offers no special difficulty when the couloir and gully are free from ice. The rocks are on the whole sound and there would appear to be no danger from stone falls, if the couloir and gully be ascended early in the day.

LES GRANDES JORASSES (4205 m. = 13,797 ft.): DESCENT OF THE EAST ARÊTE TO THE COL DES HIRONDELLES.—It was only after several years of exploration, which culminated in a long expedition lasting 21½ hrs. on August 6, 1911, had reduced the presumably unclimbable part of the E. arête to a small section of about 30 ft. that it was decided, since these 30 ft. could not be ascended

* *Boll. C. A. I.* 1902, xxxv. 244 *et seq.*

without artificial aids, that a descent of the arête would be justifiable. On August 11, therefore, Messrs. H. O. Jones and G. Winthrop Young, with Laurent Croux and Josef Knubel, set out from the Grandes Jorasses Hut at 3.5 A.M., and by the ordinary route reached the summit at 7.38 A.M.

The descent was begun at 8.40 and for the first hour required great care on account of the rottenness of the rocks. After about $\frac{1}{2}$ hr. the relics left by Mr. Tunstall-Moore's party in 1902* were passed. A short but difficult descent over a steep nose of rock coated with ice landed the party on a long succession of steep slabs and projecting bosses which provided sound rock-climbing of the true Chamonix aiguille type. At about 11 o'clock the party found themselves above some 250 ft. of really difficult climbing. For the greater portion of the descent of these formidable slabs a supplementary rope was used as additional security. The slabs ended in a jutting forehead about 150 ft. above and overhanging the famous V-shaped notch in the ridge, the effective bar to any ascent. The descent of this was begun at 12.10, first by rough traverses down the wall to the S., then by a slanting chimney which curved back towards the N. to a small platform, 60 ft. above and slightly to the S. of the V-notch. Hence, with the aid of two pitons and a doubled rope, the party landed severally, after considerable muscular exertion, at the bottom of the cleft at 1.20. After a rest of 40 mins. the remainder of the steep descent to the Col des Hirondelles was completed at 3.58, and, after much glacial tribulation, Courmayeur was reached at 8.45 P.M.

The times taken, exclusive of halts, were as follows :—

Hut to summit	..	..	..	..	3 hrs. 50 mins.
Summit to the V-notch	..	..	..	..	4 „ 40 „
V-notch to Col des Hirondelles	..	..	..	..	2 „
Col des Hirondelles to Courmayeur	..	..	..	..	4 „ 30 „

15 hrs.

LES GRANDES JORASSES (4196 m. = 13,767 ft.). : ASCENT OF W. RIDGE FROM THE COL DES GRANDES JORASSES.—On August 14, 1911, Messrs. H. O. Jones and G. Winthrop Young, with Josef Knubel, started from the Grandes Jorasses Hut at 2 A.M. and reached the Col des Grandes Jorasses at 7.10 A.M. The ascent to the sharp peak on the W. ridge which stands between this Col and the Punta Margherita was made mainly up the steep slabs of its northern face. These slabs are difficult, and the minute holds they afford could only be used if free from ice. Several rope rings left by previous parties were noticed. This peak was reached at 9. From this point it was seen that the Punta Margherita could be ascended by a couloir which descends in a S.W. direction from the gap between its two summits.

* *A.J.* xxi. 425.

The problem to be solved was to find a route to the lower end of this couloir.

Starting from a point slightly below and to the W. of the peak the S. face was descended for some 100 ft. Then the couloir which descends from the gap E. of the peak was traversed. There followed about 120 ft. of very difficult traverse for two parts of which there was hold for the hands alone. Easy rocks then led to the bottom of the couloir at 10.30. The couloir proved at first unexpectedly simple. Higher it narrowed into a chimney some 80ft. in length, which led to the ridge between the two summits. The lower, to the W., was first climbed and cairned, and the Punta Margherita itself was reached at 11.10. The Col to the E. of the Punta Elena was passed at 1, and from this point Pic Whymper was reached, by the two last-mentioned members of the party, in 25 mins. On the return Courmayeur was entered at 7.5 P.M.

The times occupied on the expedition, excluding halts, were as below :—

Hut to Col des Grandes Jorasses	..	4 hrs. 20 mins.
Col to first peak .. .. .	..	1 ,, 20 ,,
First peak to Punta Margherita ..	..	2 ,,
Punta Margherita to Pic Whymper	..	1 ,, 45 ,,
Pic Whymper to Courmayeur	..	4 ,, 30 ,,

13 hrs. 55 mins.

AIGUILLE DE GRÉPON (3489 m. = 11,447 ft.): HIGHEST PEAK DIRECT FROM THE MER DE GLACE.—On August 19, 1911, the same party, with the addition of Mr. R. Todhunter and Henri Brocherel, left a comfortable bivouac on the N. side of Trélaporte, at 3.5 A.M., and toiled up on to the Glacier de Trélaporte by 4.10. Having crossed this, and turned the impossible bergschrund by awkward rocks on the right, they started upon the base of the peak at 5.35, climbing very rapidly, over ground already familiar, and inclining towards the S., they passed the level of the 'Red Tower' about 6.15. Thence the route followed the line of least resistance up towards the end of the rib that curls down, from immediately below the highest summit. First bending to the left, then upward to the right—a passage containing a difficult hand-traverse—thence over to the left, and so on to the edge of a deeply cut chimney lying just below the base of the enormous sweep of yellow slabs, which descends from the summit ridge. On the S. side of this chimney the traverse of a wide slabby couloir, accomplished with the aid of the doubled rope, proved the key to the ascent. For it appeared to be possible at this point alone to win over on to the great rib. The well-known 'Crag on the Grépon' now became conspicuous above and to the left (8.25). The great sweep of slabs provided climbing of excessive severity. Vertical flake and slab and corner followed in breathless succession, with often only 'underholds' for the hands and friction for the feet. The

soundness of the rock and the flat dividing ledges alone made progress possible or safe. Among notable features, a vertical crack of 60 ft. leading to a remarkable triangular platform named 'la niche des amis,' which in turn was left by an even more theatrical rift, survives conspicuously in the memory. At 10.30 a small col close to the great 'Crag' was reached, and here shouts were exchanged with a party on the summit. Higher again, after a false essay up to the right, a broad level traverse round a corner to the left led to the foot of an abnormally steep chimney (small cairn built). This chimney appears to be the single breach in the hopeless sweep of terrific slabs. It is about 200 high, overhangs in its upper portion, and gives out upon a slab steep and smooth as a house-roof. From the upper half of this it proved just possible for Knubel to pass under a second overhang and across a corner on to an equally 'holdless' slab above on the right. This he climbed by means of the 'ice-axe' method of holding which he and Franz Lochmatter have reduced to a fine art. The rest of the party were glad of each other's heads and every available rope (12 noon).

▶ A steep chimney of about 120 ft., slabs, cracks, and corners, all continuously severe, but forming the direct and only possible line of advance to the summit, brought the party, at 1.30, to the little notch in the main ridge that lies immediately to the S. of, and some 30 ft. below, the actual summit. This notch is the one reached, on the usual descent from the peak, by a steep little couloir which reascends from the foot of the 'Dunod' chimney. As the party were vague as to the nature of the 'rope-throwing' operations found indispensable on an ascent by the 'Dunod' chimney, and were desirous not only of solving the old 'C. P.' problem, but also of making a complete route to the summit by the Mer de Glace face, they left the notch by the edge of the split flake that slants up the Mer de Glace wall of the final tower, and which ends below an overhanging crack descending directly from the highest point. This crack is in fact the same flaw which reappears as the crack of customary ascent on the exactly opposite Nantillons face. Knubel's ascent of the overhanging portion (it is only a few feet) with Brocherel as anchor, and his own ice-axe as only attachment, was, in the opinion of the party, the most extraordinary feat of strength and pure cragmanship they have ever witnessed (2 P.M.). A leisurely descent, tea at the Plan des Aiguilles, and a gorgeous sunset saw the party into Chamonix at 7.45.

The ascent of the 800 metres of rock took nearly $7\frac{1}{2}$ hours of very rapid climbing, not counting the halts.

The climb was unique, in the experience of every member of the party, for its severity, its length, and above all for its soundness. It is matter for great regret that the hazard of the ascent of the slabs above the 200 ft. chimney—unless a rope were to be fixed above—removes the climb outside the class of those that can be justifiably, or even sanely, led by more than two or three men now living.

Aiguilles
de Balfour
Highest peak
Lower peak
Charmo-
z-Grepon Co
Charmo-
z.



The late W. F. Donkin, photo.

"Great Red Tower."

Swan Electric Engraving Co., Ltd.

(Mummery.)

AIGUILLES DES CHARMOZ, GREPON, ETC., FROM AIG. DU MOINE.

*Route followed by Messrs. Young, Jones, and Todhunter, on left.
" " " Mr. Ryan, on right.*

Mr. Mummery made his first attack on the Grépon from the Mer de Glace* and a number of parties have explored this face subsequently. The summit ridge was first reached from this side by Mr. Ryan with Josef and Franz Lochmatter, and this expedition has been repeated once only, by Mr. A. Stuart Jenkins with Jean Bournissen and Léon Tournier (July 1908). In both cases it was found necessary to carry out an elaborate rope-throwing operation in order to effect the passage of a difficult slab, and the ridge was reached near the top of the 'Mummery Crack.'

The route followed (with the possible exception of a short section near the ridge) by these parties was apparently the same and has been indicated on the accompanying photograph by Mr. Stuart Jenkins.

Mt. GRUETTA (3686 m. = 12,090 ft.).—This mountain, described by Dr. Claude Wilson as being 'with the exception of the Aiguille Noire de Peutéret by far the most important sentinel' on the ridges descending to the S. from the main Mt. Blanc chain ('A. J.' xxv. 506), was ascended on August 12, 1911 by Mr. R. Todhunter, with H. Brocherel and R. Laurent, from the Gruetta Glacier, the ascent being apparently the first made from this side. The route taken was that by which Dr. Wilson's party attacked the mountain, on the occasion of their first expedition to the Gruetta Valley, when they were stopped by bad weather, viz. by the couloir at the head of the glacier, the rocks above leading to the col between Gruetta and the minor peak, called by Dr. Wilson, Mt. Rouge de Gruetta; and the E. arête. Under this season's conditions the chief difficulties encountered were in getting across the bergschrund and effecting a landing on the rocks from the head of the couloir, the upper part of the climb, above the point reached by Dr. Wilson's party, being relatively easy. The actual crest of the E. arête is very shattered, but a route affording excellent climbing on sound rock was found on the S. side. Both the couloir and the traverse below the arête are somewhat exposed to the risk of falling stones. Times (exclusive of halts): from a bivouac below the glacier to the col about $4\frac{3}{4}$ hrs.; from the col to the summit $1\frac{1}{4}$ hrs. The descent was made by the E. branch of the Frébouzie Glacier.

AIGUILLE DE LA BRENVIA (3207 m. = 10,519 ft.) TRAVERSE from S.E. to N.W.—On July 20, 1911, Mr. A. Stuart Jenkins with Jean Bournissen and Jean Ravanel succeeded in traversing the Aiguille de la Brenvia from S.E. to N.W. The route to the summit was the ordinary one, i.e. S.E. ridge. From thence the ridge running N.W. was traversed in 2 hrs. 20 mins., without much difficulty, the spare rope being, however, used twice. A precipitous gap separating the last crag from the foot of the sharp pinnacle, locally known as

* *My Olimbs in the Alps and Caucasus*, p. 121 et seq.

'Le Père Eternel,' seemed at first impracticable, but, the retreat over the ridge having been cut off by the two 'Abseilungen' and, moreover, the erroneous thought that the latter had been completely traversed, spurred on the party to attempt the descent. After 4 hrs. very hard work—now on the slabs of the western face, then keeping close to the ridge—the little col was attained. Roughly judged, the pitch exceeded 200 feet. Spare rope was used four times, and on one occasion for a descent of 54 feet with insufficient friction on the rocks to take weight off the arms.

The repetition of this descent is not recommended. The party would have avoided it had it been possible.

Pennines.

TRAVERSE OF THE VUIBEZ ARÊTE, Arolla.—On July 28, 1911, Mr. J. P. Osler and Canon A. Sloman with Pierre Georges as guide made what is believed to be the first traverse of this arête. Crossing the Pièce Glacier from its left bank as low down as crevasses permitted the party ascended the most northerly peak of the arête, which they then followed over numerous pinnacles in a southerly direction till a square tower of white rock was reached, which seems to be the point marked 3084 on the Siegfried map. The descent of this tower on to the razor-like edge of the Serra de Vuibez was only possible by lowering oneself down its precipitous side by the rope, nor did there seem a reasonably safe hitch for the last man; moreover, the saw-like teeth of the Serra itself appeared quite impracticable. The party therefore descended at this point to the glacier and returned by the Pigne route. At a point not far N. from the Serra the arête is interrupted by a small snow col, the descent to which had to be turned. Time from hotel to first summit 4½ hrs. including 1 hr. lost in trying to force a way through the crevassed snout of the glacier; from this summit to the final tower 3 hrs. In point of difficulty this expedition may be compared to the traverse of the Egginer-grat at Saas. A. SLOMAN.

Bernese Oberland.

GLETSCHERJOCH (? circ. 12,400 ft.)—The first passage of this pass between the Gletscherhorn and Ebnefuh (the Roththal side never having been previously either ascended or descended) was made by Dr. O. K. Williamson with the guides Jean Maitre and Heinrich Fux on August 8, 1911. The party left the Roththal hut in perfect weather at 3.25 A.M. and crossed the level Roththal glacier to the avalanche debris at the foot of the snow couloir, which descends from the col. They crossed this with the intention of reaching the foot of the rocks as far as possible to the true right of the couloir in order to avoid the risk of avalanches, but were obliged to cross the bergschrund at the actual foot of the couloir. After traversing steep ice and ascending a band of snow they reached at about 4.30 A.M. the rocks on the true right of the couloir. These

rocks formed a broad ill-defined rib which the party ascended. These rocks were for a considerable height loose but easy. The party halted from 7.3 till 7.25 A.M. The rib had at this point lost itself in the face of the mountain. The rocks now steepened considerably, they were sounder than those below and afforded more interesting climbing. After a few hundred feet up these, the angle again diminished, and about this time the party witnessed a terrific avalanche from séracs high up in the couloir. The rocks now narrowed again to a rib or arête, and at a point where this became nearly level the party halted from about 9.30 till 9.40 A.M. Further upward progress from a point a few yards above this was barred by an overhanging ice-wall which could not be turned on the left. In consequence a long nearly horizontal ice traverse had to be made in order to reach a rock rib which stretched downwards from the col into the middle of the couloir. This traverse across the exceedingly steep slope of the couloir occupied $3\frac{1}{2}$ hrs., and was for about three quarters of the distance on ice, the remaining quarter being on snow which was fortunately in perfect condition. The rock rib was reached slightly above its foot, and was followed at first on the true right of its crest. The rocks here were very steep, and, owing to their looseness and the fact that the holds were in great part filled up with snow, were exceedingly difficult. At a point perhaps about 200 feet above the point where they had struck the rib, the party reached its actual crest close to the point where, during a previous exploration from above, they had fixed a spare rope. The angle of the slope now eased off considerably, the climbing became much less difficult, and at 3 P.M. the party reached the rocks on a level with and close to the col. A halt was made till 4.35 P.M., after which two of the party made a digression up the Ebnefuh. Leaving the pass once more at 6.27 P.M. the gentle slopes of the Gletscherhorn glacier were descended, the Concordia inn being reached at 9.35 P.M. The conditions under which the climb was made were probably as favourable as are ever likely to be met with. No falling stones were seen during the ascent, although, owing to the character of the rock and the fact that a great part of the climb is up a steep face of rock, it is probable that there is some risk from this cause; but no danger was run from falling ice. The members of the party desire all of them to insist earnestly on the importance of three conditions for any mountaineers who attempt the climb in the future, viz.: (1) that the rocks should be as far as possible free from snow, (2) that the weather when the expedition is attempted should be settled and really fine, and (3) that the foot of the rocks should if possible be reached without crossing the lower part of the couloir.

NEW ROUTE OVER THE FIESCHERWAND.—July 27, 1911, M. Finch, A.A.C.Z.; F. Obexer, A.A.C.Z.; J. C. Case. Leaving the Strahlegg hut at 3.40 A.M. we crossed the Oberes Eismeer and climbed

up the most south-easterly branch of glacier below the Fiescherjoch (steep and badly crevassed), till close under the huge séracs, with which it is crowned. We now crossed the easy bergschrund on the left (right bank), cut up a steep snow and ice-slope (50°, ca. 300 ft.) to some rocks, up which we climbed without difficulty, arriving at 6.30 A.M. on the main glacier above the big ice-fall. Higher up, that branch of the glacier on which we now stood is divided by a prominent rock ridge, descending from the non-quoted point to the E. of Pt. 3758 m.—I shall call it *Pt. ca 3700 m.*—of the main watershed. We walked up the easy glacier on the N.W. of the dividing rib till ca. 3300 m.

Hence a westerly direction over easy glacier would bring one in 1 hr. to the foot of the Fiescherjoch. But this easy glacier is imminently exposed to ice-avalanches. The whole tremendous ice-cornice of the watershed between Pt. 3758 m. and Pt. ca. 3700 m. had that morning fallen right across the comparatively level portion of the glacier, and poured over the séracs on to the glacier by which we had commenced the ascent.

We here crossed the difficult bergschrund on our left, and climbed a difficult, extremely steep wall of unreliable rock (falling stones!) interspersed with green ice, of some 1000 ft. in height (3 hrs), arriving at 11.15 A.M. on the above-mentioned dividing rib of Pt. ca. 3700 m. Further N., where the wall is lower, it is capped by séracs. Following the crest of the steep rock rib (which is composed of unpleasantly sharp crystalline schist, affording interesting but mostly not difficult climbing, though everywhere demanding great care, on account of unreliable handholds), we arrived at 4 P.M. on *Pt. ca. 3700 m.*

Thence we followed the watershed to the Fiescherjoch (1½ hrs.) descending *via* the Grünhornlücke (9 P.M.) to the Concordia (10 P.M.).
M. F.

[The lower portion of this route was followed in descending from the Ochs by Daniel Maquignaz's party on July 23th, 1897, as communicated to Dr. Coolidge at the time. The ascent of the rib which ends in Pt. 3700 as well as the approach to it cover new ground.]

Bregaglia Group.

FERRO OCCIDENTALE (3273 m., = 10,739 ft., Lurani) by S. arête.—On July 30, 1911, Messrs. J. H. Wicks, E. H. F. Bradby, and C. Wilson ascended this peak by the S. arête. As no reference to this route is made in Major Strutt's *Climbers' Guide* (1910), it was supposed to be a new expedition. It appears, however, that the upper portion of the route was made on July 17, 1910, by Sig. A. Bonacossa and Herr C. Prochownik, who reached the ridge from the Porcellizzo side at a conspicuous snow patch about 500 ft. below the summit. On the present occasion the ridge was gained—again from the W., some 600 ft. lower down—

by way of a couloir leading to a well-defined gap.* The climb up the arête from this point to that where the previous party reached it, is not less interesting than the upper portion. A still finer expedition would probably be possible by attempting the whole length of the arête from the Camerozzo pass, and on this lowest and as yet unclimbed third, it is not unlikely that the most difficult passages of the ascent would be encountered. The present party started from and returned to Masinobagni, the descent being effected by the W. arête and the Passo di Bondo.

PIZZO DI ZOCCA (3081 m., = 10,109 ft., I. map) and PUNTA QUALIVO (Strutt) or FERRO ORIENTALE (C.A.I., Guida) (3207 m., = 10,522 ft., I. map).—On August 2, 1911, Messrs. E. H. F. Bradby and C. Wilson started from the Allievi Hut and crossed the Passo del Averta into the Val Qualivo. Thence they ascended the Pizzo di Zocca † by its S. arête, and descended its W. ridge to the Colle Masino (C.A.I. Guida). Thence they traversed the sky-line of the Punta Qualivo of Strutt (the Ferro Orientale of the C.A.I. Guida), to the sharply cut gap at the end of its W. arête, and descended thence into the Val Ferro. This is doubtless the first traverse of the Punta Qualivo, and probably the first climb up or down its W. arête. The long summit ridge has two cairned points, a lower (E.) and the true top (W.). Between the two there rises, on the level sky-line, a formidable rock tower which overtops the Eastern summit, and which had apparently not been ascended till the present party climbed it. The sharply cut gap—a *coup de sabre*—which separates this peak from its Western neighbour, marks an unnamed and uncrossed Col of some interest, as it is the only practicable pass between the Ferro and Albigna valleys, and one which would, in good conditions, not be difficult. It might not inappropriately be called the Bochetto del Ferro.

MONTE DISGRAZIA (3678 m. = 12,067 ft.), *It. map.*

By the *entire* S.E. arête. Signori Aldo Bonacossa and P. T. Torti, July 23, 1911. †

From Chiareggio past the Ventina huts, the party mounted the Ventina Glacier, taking to its right margin high up, to the snowy basin at the actual N. base of the Passo Cassandra (3034 m. *It. and Wilson maps*). The double bergschrund turned to the left (E.) and the pass soon attained (6 hrs. 50 mins.). The great S.E. arête of the mountain was now mounted with ease, at first rather below its crest, then by the crest itself. Rocks always easy, here and there crest snowy, but never affording difficulty owing to perfect

* This gap marks a possible pass, between the upper stretches of the Porellizzo and Ferro valleys, which might be used as a route from the Badile Hut to the other peaks of the Ferro Group.

† This is the first recorded ascent of the Pizzo di Zocca, but an old cairn was found on the top.

‡ *Verbatim*, from courteous note of Signor Bonacossa.

conditions ; Point 3475 m. (*It. map*) eventually attained (2½ hrs.) From this spot a descent was made into a snow basin [well shown on *Wilson map*], seamed by a crevasse, then up the other side to the rocks of the arête. Along and below the crest by good rocks, furrowed sometimes by small ice gullies, till below the great tooth forming the junction of the S.W. and S.E. arêtes (1 hr. 50 mins.). Tooth * partly turned on its N. face, by a short steep ice slope. Descent into following gap dangerous on account of the enormous and unavoidable corniche. Then right over the following teeth [Stewart's description † is admirable], rocks perfectly dry, but corniche beyond the second tooth again very bad, to the top (2¼ hrs., or including many and prolonged halts, 14 hrs. 35 mins. from Chiareggio). Descent at first by the N.E. arête, ‡ 1882 route, then a traverse E. into the great snowy gully ; surface of (upper) Ventina Glacier attained at height of about 3200 m.—conditions admirable (2 hrs. 25 min.). Thence down glacier to Ventina huts (2½ hrs.).

This route is, of course, only new from the Passo Cassandra, to a point at or near the intersection of the S.E. and S.W. arêtes, but as a combination is of much interest. §

Bernina Group.

PIZ ARGIENT (3942 m.=12,934 ft. *S. map* ; 3941 m.=12,930 ft. *It. map*.)

By the S.E. and S.W. arêtes. Signori Aldo Bonacossa || and Rino Rossi, September 11, 1911.

The entire S.E. arête from Point 3076 m. (*It. map*) can most certainly be climbed, but as the hour was late the party took to the rocky buttress (well indicated on the map) to the N.E. of that point, and by a fine climb attained its junction with the main S.E. arête. A great vertical rocky step turned to the right (E.), then always by rocks somewhat on the E. slope of the arête, up to the point of intersection of the S.E. and S.W. arêtes. The rocks below the crest are difficult but very firm ; on the crest, however, the hand-holds are bad, and the rocks dangerously unstable. Then by the S.W. arête, Meade's ¶ 1907 route, to the top—the last bit very unpleasant, and the rocks dreadfully loose (7¼ hrs.).

The party first attempted to climb the peak's W. face, but being defeated by glazed rocks, crossed the little gap, 3237 m. (*It. map*), and took the above route.

* This is the 'S.E. summit' of the 1874 party, *Alpine Journal*, viii. p. 28. It is now most erroneously and unfortunately named by Italians, Punta Speranza, cf. *Bolletino*, 1909, p. 316.

† *Alpine Journal*, xxiv. pp. 686-7 ; xxv. p. 22.

‡ *Ibid.* xi. pp. 244-6, 248-252.

§ Cf. *ibid.* i. p. 5 ; viii. pp. 20-30 ; xxiv. pp. 16, 236.

|| *Verbatim* from Signor Bonacossa.

¶ *Alpine Journal*, xxiii. pp. 652-3.

Norway.

TVERAABRAESKAR (6400 ft.)—This pass which leads directly across the range of Galdhøpiggen from Spiterstulen to the Leirdal appears to be little known, and local inquiry, supplemented by a reference on the point to Mr. Slingsby, has elicited no evidence of a previous passage of the col, a pass on the southward of it being generally used.

Mr. V. H. Gatty and the Rev. R. P. Dansey, accompanied by Olav Ofigsbo, left Spiterstulen at 10.15 A.M. on July 20, 1911, and reached the foot of the Tveraabrae (4600 ft.) at 11.45 after a leisurely ascent, during which the low-lying clouds which were responsible for so late a start gradually cleared away. From here the way lay up the centre of the glacier, passing the icefall by a wide ledge, which divides it into two parts, and avoiding a much crevassed region of the upper glacier by a wide detour to the left, beyond which easy snow slopes lead up to the col, which was reached at 2.8. A narrow ridge of broken rock alone divides the Tveraabrae from the Illaabrae beyond; (the Hjemseke Illaabrae it is locally named to distinguish it from another Illaabrae on the same side of the range); lunch, photography, and the ascent of a small rock peak to the S. of the col filled in the time until 4.30, and the foot of the Illaabrae was reached an hour later. Below this a long and slippery traverse along the loose, steep side of the lateral valley leads to the slopes overlooking the Leirdal. Here a long delay occurred through the total disappearance of our Norseman who had gone on ahead, a problem on which light was at length thrown by the appearance of a column of smoke rising from a hollow far behind the point we had reached, and the recollection of Olav's regrets on the col that there was no fuel with which to make coffee. The Ytterdals Saeter was reached just after nine, much milk consumed, and then the stolkfærre we had arranged should meet us deposited us at midnight exactly at the door of the inn at Roisheim, where the un hoped-for luxury of a supper of freshly cooked trout awaited us.

FROM MARADALSBRÆ TO MIDTMARADAL THROUGH THE GAP BETWEEN THE TWO PEAKS OF THE EASTERLY MARADALSTIND (Manden and Kjærringen).—This gap had never been reached from the N. side till August 14, 1911, when Miss K. Field, Mr. R. Bicknell and Peder Bjerk ascended the couloir which connects it with the Maradalsbræ. They left the hut at Skogadalsbøen at 7 A.M., and crossing Gjertvasnaasi, reached the snout of the glacier at 9.50. At the foot of the couloir, reached at 12.15, there were two formidable bergschrunds. The second of these was crossed at about 1.30, and the next 8½ hrs. were continuously occupied in cutting up the ice to the gap, reached at 10.10 P.M. When it became sufficiently light the next morning a descent was made into Midtmaradal, and so down the valley to Vormelid and Skogadalsbøen.