

that weariness is apt to bring heedlessness, he was always ready and on the watch. And when the proper mountain work was over, and there was a residue of dull muscular toil to be got through before reaching our night's rest, he was unflinching in aid and encouragement. Let it not be supposed that I would set up Rubi as a paragon of guides: there have been and are many like him, and therefore it is no waste of words to say that in remembrance of him which many, from like experience of other men, will know to be true. But one cannot thus know more than one or two; and to lose a man thus known, even after a parting of several years, is to lose a friend.

FREDERICK POLLOCK.

NEW EXPEDITIONS.

THE Expeditions recorded in the following pages are believed to fall under the definition given in an early number of this Journal, that is to say, not to have been previously accomplished by English mountaineers, or noticed in the Journal. In the cases where foreign climbers had preceded the writers, reference has, as far as possible, been made to the original accounts.

Dauphiné District.

ECRINS, BY THE SOUTHERN FACE (4,103 mètres = 13,462 feet).—*September*.—Monsieur Henry Duhamel, with the two Gaspards as guides, starting at 4 A.M. from some huts in the Vallon de la Pilatte, an hour from La Bérarde, followed the usual route up the Glacier du Vallon to the Col des Avalanches (described as Col du Vallon de la Bérarde)* Striking up the rocks to the left they soon bore to the right, and by a difficult bit gained a snow couloir descending to the Glacier Noir. Mounting steadily they reached the snowy southern face, whence it is easy to reach the summit direct or by either the east or west arêtes. They descended by the same route, reaching La Bérarde at 9 P.M. As much snow and ice was found on the rocks owing to the previous bad weather, it seems as if the true route up the Ecrins had been found.

COL DES MASSES (c. 8,500 feet).—*June 22*.—Messrs. Frederick Gardiner and W. A. B. Coolidge, with Christian Almer and his son Christian, crossed this pass, which does not seem to have previously attracted the attention of travellers. Starting from Valloire they passed (in 35 mins.) near the village of Poingt Ravier, and in 25 mins. more kept up the right-hand fork of the valley. In 1 hr. 45 min. more the base of the final slope was reached, the ascent of which was unexpectedly steep, and occupied 1 hr. 15 mins., the col (a narrow ridge) being thus gained in 4 hrs. walking from Valloire. The view was cloudy. Steep slopes of shale and snow led down in 40 mins. to the grass slopes in the Combe de Pierre Fendue, and a point near some chalets was reached in $\frac{1}{2}$ an hr. more. The party then struck to the left up the Combe, passed opposite the chalets of La Motte in 50 min., and in 1 hr. 55 mins. (leisurely walking) gained the Base du Gerbier, whence a descent of 20 mins. led them to the chalets of Rieublanc— $4\frac{1}{4}$ hrs. from the col. Like the easier Pas du Gros Granier,† it affords direct communication between Valloire and S. Jean d'Arvea.

* *Alpine Journal*, vol. viii. 33.

† *Ibid.* vol. ix. p. 96.

CENTRAL AIGUILLE DE LA SAUSSAZ (3,321 mètres=10,896 feet).*—
June 23.—The same party, having reached the Col Lombard by the ordinary route in 3 hrs. 40 min. from Rieublanc, descended for 20 min. on the La Grave side of the col, and then, turning the buttress of the northern Aiguille, struck up the Glacier Lombard. The ascent was perfectly easy, but very wearisome. The summit of the peak was reached in 1 hr. 55 min. from the point where the route of the Col Lombard was quitted. This was the first ascent of this peak, which is the highest of the three Aiguilles de la Saussaz. Next in height comes the southern Aiguille, ascended in 1864 by Messrs. Moore, Walker, and Whympers,† then follow the northern Aiguille, and the Bec du Grenier, the latter being as distinctly the lowest of the group as the Goléon (11,251 feet) is the highest. A few of the Dauphiné peaks were seen, but the sight of the three Aiguilles d'Arves is the feature of the view.‡ The Col Lombard route was regained by glissades in 40 mins., and the descent down the Combe du Goléon resumed. Seen from Rieublanc, this peak is a double-headed summit, but the lower table is really quite insignificant.

PIC DE LA GRAVE, lower summit (3,649 mètres = 11,972 feet).—
June 25.—The same party, having ascended the highest peak of this mountain § in 2½ hrs. from the Glacier du Mont de Lans (the snow on the north face being in very bad condition), gained in 10 min. more the lower (N. W.) peak, which bore no traces of a previous ascent, the glacier being thence regained in 45 min., the Refuge de la Lauze in 50 min. and La Grave in 1¾ hr. more.

PIC DES TROIS EVÊCHÉS (3,120 mètres = 10,237 feet).—*June 27.*
 —The same party, with young Christian Almer only, ascended this peak, hitherto only reached by foreign travellers,|| and effected a new descent to Les Loissettes. Starting from La Grave, they passed through Villar d'Arène, and reached the Lac du Pontet in 1 hr. 40 min. leisurely walking. Steep grass slopes, and loose rocks led them thence in 1 hr. 45 min. to the south-east ridge of the peak, just north-west of the point marked on the map 'Villar d'Arène, 1^{er} Signal, 2,688 mètres. They kept along the crest of this rocky ridge, being sometimes forced to take to its eastern slope, and reached the lower summit (3,096 mètres = 10,158 feet), in 1 hr. 40 min., and the highest point (on which was a small cairn) in ½ an hr. more (535 from La Grave). Mist and falling snow entirely concealed the view. They had intended to descend by the north-eastern arête to the lower part of the Combe du Goléon; but, keeping too far to the right, they descended steep snow

* Cf. Whympers, *Scrambles* (orig. ed.), p. 188.

† Whympers's *Scrambles*, 189. Moore's *The Alps* in 1864, pp. 23-4.

‡ In this connection it may be mentioned that, when the above party made the second ascent of the Southern Aiguille d'Arves on July 6, it was ascertained, for certain, that it is slightly lower than the Central Aiguille d'Arves, and that consequently the French map is wrong.—Cf. *Alpine Journal*, vol. ix. p. 95. As much time was lost on the first ascent searching for the way, it may be useful to note the times of the second ascent. Col Lombard to base of hard bit, 1 hr. 20 min.; to top, 30 min. (in all, 1 hr. 50 min.). Descent to base of hard bit, 45 mins.; to Col Lombard, 1 hr. 5 min. (in all 1 hr. 50 min.).

§ Cf. *Alpine Journal*, vol. vii. p. 145.

|| *Annuaire de la Société des Touristes du Dauphiné*, vols. ii. p. 69; iv. p. 62.

slopes to the head of the Vallon du Fond (55 mins. from top). In 35 mins. quick walking, they gained the slopes directly above the châteaux of Les Rapias, and Les Losettes, whence they regained La Grave in 3 hrs. 25 min. by the Col du Goléon (1 hr. 45 min. up, 2 hrs. down). The snow throughout the day in shocking order. The name of the peak is derived from its position at the point at which the boundaries of the three dioceses of Gap, Grenoble, and S. Jean de Maurienne come together. The route which they had intended to have taken is quite easy and much shorter than that described above.

EASTERN PEAK OF THE MEIJE (8,911 mètres = 12,852 feet).—*June 29.*—The last-named party effected the second ascent of this peak, the lowest of the three summits of the Meije. Having reached the Col de l'Homme in 5 hrs. 5 min. walking from La Grave by the Glacier de Tabuchet, they traversed snow slopes for 20 min. to the bergschrund at the foot of the peak, and then cut up the slope (just where three small rocks jut out from the snow) to the eastern arête, which was followed to the top (much step-cutting being required), reached in 2 hrs. 15 min. from the bergschrund. The view was quite cloudless and most glorious. The central peak of the Meije assumed a most startling appearance, something like a paper-knife set on end, and bending over to the Etançons Valley, while behind it were seen the three cairns on the western peak. This peak had been ascended for the first time by the same route by Monsieur Henry Duhamel on August 21, 1878: * but the party were prevented from visiting the cairn he built, on a slightly lower point to the south, by the ticklish condition of the snow. The return to the bergschrund was made in 1 hr. 35 min., and La Grave regained in 2 hrs. 10 min. more (3 hrs. 45 min. from top). This peak (the precise position of which was uncertain until the appearance of M. Duhamel's excellent map, of which a revised edition will be shortly published in the Journal), is the point at which the ridge of the Meije abuts on the chain of the Bec de l'Homme. It is very well seen from the bridge between the two tunnels near La Grave.

PIC GASPARD (8,880 mètres = 12,730 feet).—*July 1.*—The same party, with both Almera, effected the second ascent of this peak, which is so striking a feature in the views from the Lautaret Hospice, and the Pic de Neige Cordier. Starting from the Refuge de l'Alp, they mounted for 2½ hrs. by the usual route of the Col des Cavales, then struck up to the right up stony slopes, which higher up merged into smooth glacier-polished rocks. In 45 min. the Glacier Supérieur des Cavales came into sight, and by mounting along it, the ridge overlooking the Glacier de l'Homme, at the eastern foot of the peak, was reached in 1 hr. 45 min. The rocky face of the mountain was then attacked, care being taken to keep on the (proper) right of the central couloir, until near the top it became necessary to traverse it and several smaller ones. The rocks were extremely rotten and fairly steep. The southern or lower summit was reached in 1½ hr., and the northern or highest in 25 mins. more by an extremely jagged and narrow ridge. The view was inter-

* *Annuaire du Club Alpin Français*, vol. v. pp. 127-131.

esting, especially in the direction of the Meije. The first ascent was made (and the peak named in honour of the well-known guide), on July 6, 1878, by Monsieur H. Duhamel, by the route just described.* In descending, the lower point was regained in 15 mins., and the glacier in 2 hrs. more, the rocks being very treacherous, and requiring great care. The glacier-worn rocks were very annoying on the descent. The level of the Vallon des Cavales was reached in 1 hr. 25 min., and the Refuge de l'Alp in 1 hr. 5 min. more. Total ascent, 7 hr. 5 min.; descent, 4 hrs. 45 min. The mountain may be counted as one of the half-dozen more difficult peaks of Dauphiné.

COL EMILE PIC (3,502 mètres=11,490 feet, Guillemin's map; 3,475 mètres=11,401 feet, Duhamel); PIC DE NEIGE CORDIER (3,615 mètres=11,861 feet).—July 8.—The same party starting from the Refuge Tuckett (which they had reached by the Col de la Roche Faurio and the Roche Faur'o) followed the ordinary route of the Col des Ecrins for 1 hr. 40 min., then struck up a lateral glacier and reached a col overlooking a steep broad couloir leading to the Glacier des Arsines in 1 hr. 30 min.† The true col (which lies at the south-western foot of the Pic Cordier, and is the left hand depression seen when mounting from the Glacier Blanc) was reached in half an hour more (in all 3 hrs. 40 min. from Refuge Tuckett) by rounding the base of the Pic Cordier. The ascent of the last-named peak was effected by the western face and rocky south-western ridge in 25 min., but a very high wind prevented more than a short halt, the col being regained in 15 min. The descent then lay down the easy Glacier des Agneaux of M. Guillemin's map. Bearing at first far to the right, then to the left, the ice was quitted in 1 hr. 5m., and the level of the Vallée de la Plate des Agneaux gained by moraine, snow slopes, easy rocks and moraine again in 50 min., and the Refuge de l'Alp in 1 hr. 15 min. more, or 6 hrs. 50 min. from the Refuge Tuckett (3 hrs. 40 min. up, 3 hrs. 10 min. down). *This col is by far the easiest between Vaillois and La Grave*, the Cols du Glacier Blanc and de la Roche Faurio being both difficult on the La Grave side. It was discovered on July 8, 1877, by M. Paul Guillemin, who named (after his La Grave guide) but did not cross it, and made the first ascent of the Pic Cordier.‡

The first passage was made by MM. Patrognat, A. Henriot, and J. Jullien, on July 17, 1877,§ and it has been crossed three or four times subsequently,|| but had hitherto remained unknown to English climbers. The ascent of the Pic Cordier, described above, is probably the third.¶

POINTE DE L'ÉGLIÈRE (3,325 mètres=10,909 feet); COL D'ENTRAIGUES (2,926 mètres=9,600 feet).—July 11.—The same party

* *Annuaire du Club Alpin Français*, vol. v. pp. 106–108.

† Possibly this is Signor A. E. Martelli's Col de Neige, cf. *Alpinista*, vol. ii. p. 120; *Annuaire de la S. T. D.* vol. i. p. 82.

‡ *Annuaire du Club Alpin Français*, vol. iv. p. 202; *Annuaire de la S. T. D.*, vol. iii. p. 177.

§ *Annuaire du Club Alpin Français*, vol. iv. p. 204. *Annuaire de la S. T. D.*, vol. iii. p. 77.

|| *Annuaire de la S. T. D.*, vol. iv. p. 53. ¶ Cf. *La Durancé*, 10 Août, 1879.

made the second ascent of this peak and the first passage of this Col. Starting from Ville Vallouise, they reached the hamlet of Puy S. Vincent in 40 min., and in 50 min. more, passing through a magnificent forest, crossed to the left bank of the stream and gained the châteaux of Narreyroux, picturesquely situated at the entrance of the valley of the same name. Following the bed of the valley for 15 min., they commenced to ascend its northern slope, and by grass and loose rocks, getting gradually steeper and looser, gained (in 2 hrs. 50 min.) the Crête de l'Eyglière overlooking the Vallon des Banca, near the stone man which marks M. Guillemin's Col d'Entraigues, apparently just to the west of the point marked 2,968 mètres in the French map. An easy ridge of rock and snow led in 1 hr. 30 min. more to the summit of the peak, which is seen from Narreyroux (but not from Ville Vallouise), and does not overlook the Vallon des Banca (5 hrs. 50 min. from Vallouise—leisurely walking). The view of the Dauphiné, Queyras, and Chambeyron groups was very fine, and the ranges of the Protestant valleys to the south were examined with interest.

The first ascent was made from Narreyroux on September 17, 1877, by MM. P. Guillemin, A. Salvador de Quatrefages, and Corbin (who named but did not cross the Col d'Entraigues), descending to the Vallon de la Selle from a point on the south-western arête.*

Returning in 30 min. to the Col d'Entraigues, the party descended snow slopes, and then a very steep and difficult rocky barrier, *keeping far to the right*. Crossing to the left bank of the stream below this barrier, they forced their way over steep slopes and through a small forest, finally striking a faintly-marked path which led them to the bridge opposite the châteaux of Les Faurées (some way below Entraigues) in 2½ hrs. from the col. This descent is very wearisome and in parts really difficult: looking back from Les Faurées, it was almost impossible to trace the route actually followed, and the natives were much astonished at the accomplishment of this descent. Vallouise was regained in 1 hr. 10 min. more by the usual path—4 hrs. 10 min. from the summit. The ascent of the Eyglière by Narreyroux is perfectly easy and admirably adapted to fill up an off-day at Vallouise, while the Col d'Entraigues offers very interesting climbing and the opportunity of returning to Vallouise by another route.

PELVOUX.—July 14.—The same party ascended all the peaks of the Pelvoux. Having reached the Pointe Puiseux (the highest point 3,954 mètres = 12,973 feet, Tuckett), in 3 hrs. 5 min., without stopping, from the Refuge de Provence (2 hrs. above the old bivouac at Soureillan), they walked in 15 min. to the Pic de la Pyramide (3,938 mètres = 12,921 feet), where a bit of an old staff was found, which had been probably left by Captain Durand, on the occasion of the first ascent in 1828. Thence in 10 min. they gained a snowy point to the south-west of the Pointe Puiseux, which is conspicuous in distant views, and overlooks the Refuge de Provence. Passing over three little knobs seen from below, the party in 30 mins. descended to the head of the

* *Annuaire du Club Alpin Français*, vol. iv. pp. 230-5; *Annuaire de la S. T. D.*, vol. iii. pp. 172-8.

Glacier du Clot de l'Homme, and remounted to the Petit Pelvoux (3,762 mètres = 12,343 feet, probably the second ascent). They then turned their steps towards a peak, composed of three rocky teeth, overhanging the Pré de Madame Carle. The southern tooth was reached in 35 mins. from the Petit Pelvoux, by a steep snow slope, and the shattered northern arête, and the central and highest tooth by the southern arête in 20 mins. more. The Refuge de Provence was regained in 1 hr. 50 min. more. As it was very early morning, the snow was still hard, which greatly facilitated the above round. The Petit Pelvoux, and the rocky peak last climbed are the two summits which tower so magnificently above Les Claux. Monsieur E. Boileau de Castelnau made on July 31, 1877, an expedition resembling, but not identical with, that just described, including what is supposed to be the first ascent of the Petit Pelvoux on record.*

CRÊTE DES BŒUFS ROUGES (3,481 mètres = 11,547 feet); COL DES BŒUFS ROUGES (nearly 11,000 feet).—*July 16.*—The same party made the second passage of this pass and the third ascent of this peak. Starting from the Refuge Puiseux (formerly known as Soureillan), they followed the ordinary route to the Glacier du Sélé for 1 hr. 35 min.; then, crossing to the right bank of the glacier in 10 mins., mounted snow slopes to the rocks forming the western boundary of the lateral glacier coming down from the desired col. These were found to be very steep, and in parts exposed to falling stones and fragments of ice, mounting rapidly to avoid which, and keeping rather to the right towards the end, they gained the right bank of the upper plateau of the glacier in 1 hr. 50 min. from the Glacier du Sélé. This route is not recommended, the proper line, descending, being to bear over the rocks on the left bank of the lateral glacier, and reach the Glacier du Sélé much higher up than was done by the above party. Forty minutes over snow led to the col, which lies to the east of the peak, and is well seen from below (in all 4 hrs. 15 min. from Soureillan). The peak was then ascended in 35 mins. by the eastern arête, the snow being very heavy. The principal feature of the view is the sight of the opposite range, including the Pelvoux, Pic Sans Nom, and Ailefroide. The Ecrins was also visible. There is no doubt that this peak is inferior in height to that to the west, marked 3,454 mètres in the French map.† Returning to the col in 25 mins., a short and easy glacier was traversed and quitted on the left bank in 15 mins. Glissades down snow slopes, and the bed of the stream led to grass on the right bank of the stream in 15 mins. more. Keeping near the stream, they descended a rocky barrier, and, bearing to the right over spurs, gained in 45 mins. a wooden cross (the upper of two), overhanging the chalets of Entraigues. The proper way lies very far to the left hand, but in ignorance of this, the party effected a very steep descent over grass slopes and smooth rocks, reaching the chalets in 1 hr. 15 mins. from the cross, or 2½ hrs. from the col. Vallouise was reached by the ordinary path. This pass is of no practical utility, but is interest-

* *Bulletin du Club Alpin Français*, 1877, p. 302.

† *Alpine Journal*, vol. viii. p. 333.

ing to a mountaineer wishing to vary his return to Vallouise, after ascending any of the great peaks in the Combe de Celce-Nière; it was first crossed (in the reverse direction) on September 5, 1876, by M. Albert Guyard, who made on the same day the first ascent of the peak,* which was again reached by M. A. Salvador de Quatrefages, on August 30, 1877.†

PIC FÉLIX NEFF (3,222 mètres = 10,571 feet).—*July 19.*—After leaving Vallouise the same party drove round to the Protestant valley of Fraissinières (a full description of which may hereafter appear in the Journal), and mounted to the highest hamlet—Dormilhouse, so well known in connection with the labours of that devoted 'pasteur,' Félix Neff. Starting from this point, they followed the path to the Col de Prelles (or d'Orcières) for 20 mins., then struck to the right up the steep mountain-side to the direct path from the village, by which, in 40 min., they gained the entrance of the Combe du Boudon. Mounting steep grass slopes on the left bank of the torrent, succeeded by stones and débris, they bore to the left on nearing the head of the valley, so as to gain the crest of a great buttress running down from a snowy summit, which was apparently the highest. On reaching this peak (2 hrs. 40 min. leisurely walking from the entrance of the Combe), situated just where the map places the figures, 3,222, they saw that the true summit lay a considerable distance more to the east. This was gained in 35 min. more (4 hrs. 15 min. from the village), by a narrowish rocky ridge. No previous ascent was known at Dormilhouse, and in exercise of their privilege, as the first on the top, the party baptized the peak in honour of the brave missionary, whose name will always be associated with this valley. There is no difficulty in the ascent, but the great quantity of loose stones in the Combe du Boudon made it very wearisome. The view was very extensive. Besides the nearer little-known ranges, a great part of the Pelvoux massif, of the Tarentaise, of the Queyras, and the Chambeyron groups was clearly seen. The fortress at Briançon and several villages on the Genève road were distinguished. Dormilhouse lay immediately below; as seen from it the peak is the central of three waves or risings in the long ridge. In reality, it is considerably higher than any other point in the range; that just to the east, marked 3,202 mètres, alone rivals it. Retracing their way along the arête to the west, the party reached in 40 min. a lower summit, whence a descent down steep rocks was effected to a rocky cirque, west of the buttress mentioned above, and the Col de Prelles path gained in 1 hr. 40 min. by bearing to the right and crossing two streams, whence Dormilhouse was reached in 50 min. more (3 hrs. 10 min. from the summit).

GRAND PINIER (3,120 mètres = 10,237 feet); **COL DE ROGNONS** (c. 9,500 feet).—*July 20.*—The same party, starting from Dormilhouse, crossed the bridge to the right bank of the Biais torrent, and mounting through a pinewood and over barren slopes, reached the frozen Lac

* *Annuaire du Club Alpin Français*, vol. iii. pp. 223-8.

† *Annuaire du Club Alpin Français*, vol. iv. pp. 209-214; *Annuaire de la S. T. D.*, vol. iii. pp. 151-4.

de Palluel in 1 hr. 50 min. Continuing the ascent over a rocky barrier and snow, they gained the south-eastern arête in 40 min., and followed it, in the face of a high wind, to the summit in 40 min. more—3 hrs. 10 min. from the village. A ruined stone man was found on the top with two names, and the word 'Eternité' engraved on it; it was probably erected by the French Engineers, but no traveller seems to have hitherto visited this peak. The view was interesting, extending down the entire valley of Freissinières (including Dormilhouse), and on the other side taking in Prapic and the course of the Drac; some houses belonging to Gap were clearly seen. Descending for a few minutes along the arête, the party descended on to the Glacier de Chaulier—a large field of névé—and keeping to the left across it, quitted the snow in 40 min. from the peak, and reached the Col de Prelles path in $\frac{1}{2}$ an hr. more. Owing to a misapprehension on the part of a porter, the party was forced to mount nearly to the Col de Prelles before finding him. Then bearing across a rocky butress and descending by snow slopes, they climbed up over steep stones and débris to the desired pass (reached in 1 hr. 30 min. from the point near the Col de Prelles), which apparently lies to the north-east of the point marked 3,052 mètres on the French map. An hour would have amply sufficed from the point where the Col de Prelles was gained on the descent from the Grand Pinier, but it is necessary to be very careful to keep sufficiently to the right (and yet not too much), in order to avoid coming into the valley of Orcières. The col was named from the valley lying to the north. Steep snow slopes, succeeded by steep rocks, on which it is necessary to bear to the right, led, in $1\frac{1}{2}$ hr., to the floor of that valley (whence the wall, which had just been descended, looks very formidable). In a few minutes the path of the Pas de la Cavale was reached, and in 30 min. more, after crossing to the left bank of the torrent, and gaining the point of junction of this side valley, with the main valley, they reached the ruined chalet at the head of the Champoléon valley, used for a bivouac by Mr. Gardiner's party in 1879. It is in a strikingly desolate situation.

COL VERDONNE (c. 10,200 feet).—*July 21.*—The same party, starting from the ruined chalet just mentioned, mounted the Vallon de la Pierre along the left bank of the torrent. Then crossing it, they gained the upper slopes of the rocky barrier at the head of the valley, and so reached the glacier in 2 hrs. 50 min. from the bivouac. Crossing the glacier in $\frac{1}{2}$ an hr. to the base of a snow couloir, they climbed up this in 20 min. to the col, which lies just to the south-west of the Pic Verdonne (the local name of the peak marked 3,324 mètres on the French map). Up to this point the route had been practically the same as that taken by Mr. Gardiner's party in 1879, in the ascent of the Pic Verdonne.* Leaving the col (whence the view is not very extensive, though including Ecrins, Pelvoux, Ailefroide, and Olan), they descended a very steep snow slope (probably ice later in the season), bearing to the right, and then worked their way down a steep crevassed glacier. To avoid the final ice-fall, the rocks on the right

* *Alpine Journal*, vol. ix. p. 360.

bank were taken to for a few minutes. The ice was quitted in 1 hr. 55 min. from the col, and the route of the Col du Loup regained in 15 min. more, near a grassy plateau, before the steep descent to the lower valley. Descending this slope in 25 min. they crossed by a bridge to the right bank of the torrent, and reached Le Clot at the head of the Val Godemar in 1 hr. 5 min. Total, up, 3 hrs. 40 min.; down, 3 hrs. 40 min. This is a fine pass connecting the heads of two valleys, but it is rather a circuitous route from Champoléon to Le Clot, or La Chapelle en Godemar.

AIGUILLE D'OLAN (3,383 mètres = 11,157 feet).—*July 24.*—The same party, starting from the châteaux of La Lavey (which they had reached from the Val Godemar by the Col de la Muande), followed the usual track to the upper plateau of the Glacier des Sellettes, along the eastern slopes of the Aiguille d'Olan (2 hrs. 30 min.) Then keeping along rocks and snow slopes, they gained the southern foot of the Aiguille in 55 mins., where a bay of snow runs up into the peak. Taking to the rocks well on the left side of this bay (the first steps are awkward), they climbed up them mainly by a couloir, gained the southern end of the highest ridge and traversed it to the northern or highest point, reached in an hour from the snow. The view was very fine and extensive, the north face of the Pic d'Olan (later climbed by Mr. Cust) being most magnificent. Returning by the same route, the snow was regained in 1 hr. 15 min., the level of the valley gained in 1 hr. 30 min., by a direct descent, and La Lavey in 50 mins. more. Total, up, 4 hrs. 25 min.; down, 3 hrs. 35 min. The ascent lies in great part over stones and moraine, and is one of the most wearisome in Dauphiné. This was the third ascent of the peak. It was first reached by Mons. E. Boileau de Castelnau on September 2, 1876, by nearly the same route described above. He effected an easy descent in an hour to the little Glacier du Fond Turbat at the head of the Val Jouffrey.* The second ascent was made on August 26, 1879, by Mons. James Nérot.† This peak is the one which towers up so finely when seen from the La Béarde path, opposite the opening of the Combe de La Lavey.

BRÈCHE GIRAUD LÉZIN (3,598 mètres = 11,835 feet); **GRANDE RUINE**, FROM THE NORTH (3,754 mètres = 12,316 feet).—*July 28.*—The same party, starting from the Hôtel du Châtelleret in the Vallon des Etançons, reached the Glacier de la Grande Ruine by the usual route in 1 hr. 30 mins. Mounting it for 10 mins. they then bore to the left, towards the steep rock wall immediately north of the peak of the Grande Ruine, reaching the foot in 40 min. Climbing up this wall (the lower rocks being the most difficult), taking to the snow gullies now and then, as the rocks were excessively rotten, they reached the ridge (at the northern of two notches) in 2 hrs. 30 min. from the snow. This is the Brèche Giraud Lézin, of which the only previous passage had been made by Mons. Henry Duhamel on August 13, 1878,‡ who named it from one of

* *Annuaire de la S. T. D.*, vol. ii. pp. 125-8.

† *Bulletin du Club Alpin Français*, 1879, p. 176. The ascent was made from the Glacier du Fond Turbat.

‡ *Annuaire du Club Alpin Français*, vol. v. p. 122.

his guides, a rising man of Villar d'Arène. The party were now at the edge of the great snow-field at the northern foot of the Grande Ruine, and proceeded to ascend that peak along the northern arête and face,* the summit being gained in half an hour from the Brèche (5 hrs. 20 min. from the starting point). The sky was cloudless and the view most wonderful and extensive: in fact, there is perhaps not a finer panorama to be had from any other peak in Dauphiné. Descending by the south-eastern ridge (the usual route), they gained the snow plateau, crossed the south-eastern ridge,† and then traversed snow slopes to the Col de la Casse Déserte (1 hr. 20 min. from the top). The descent was made on to the Glacier de la Grande Ruine, keeping far to the left. In 50 min. the bergschrund was crossed, the glacier quitted in 15 mins. more, and the Châtelleret regained in 55 min. Total, 3 hrs. 20 min. The ascent of the Grande Ruine by the Col de la Casse Déserte is quite practicable in one day from La Bérarde. It is even easier and shorter from the Refuge de l'Alp.

TÊTE DE LA GANDOLIERÈ (3,549 mètres = 11,644 feet).—July 29.—The same party made the second ascent of this peak, and by a new route. Starting from the Châtelleret, they climbed up the grass slopes on the western side of the Vallon des Etançons and took to the glacier on the north of the peak (which may conveniently be named Glacier de la Gandolierè) in 1 hr. 15 min. Circling round this they gained a snowy spur projecting from the eastern arête of the peak in 50 min., and by means of rocks and a great patch of snow on the northern face reached the eastern arête in 35 min. This was rather jagged and narrow, but the rocks were firm, and the summit reached in 40 min. The view was fine, but exclusively confined to Dauphiné peaks. With some difficulty the party gained a great gully in the southern rocky face, descended it for some time, then bore to the right, and descended on to the snow in 55 min. from the top. The rocks of this face are not altogether easy. The descent down the Glacier du Plaret was straightforward. The ice was quitted in 40 min., and the descent to the level of the Vallon des Etançons effected in 1 hr. 15 min., by glacier-worn rocks, and grass slopes on the left bank of the torrent. La Bérarde was reached in an hour more. Total (fast walking), up, 3 hrs. 20 min.; down to La Bérarde 3 hrs. 50 min. The first ascent was made on July 12, 1878, from the Glacier du Plaret by Mons. Edward Rochat.‡

TÊTE DE LORANOURE (3,299 mètres = 10,824 feet and 3,341 mètres = 10,962 feet).—August 1 and 4.—Mr. Coolidge, with the two Almers, made the ascent of both these summits. The former is the beautiful pyramidal point, so conspicuous from S. Christophe, and when descending from La Bérarde. The latter appears from S. Christophe as a long jagged arête to the right of the pyramidal peak.

Starting on August 1 from S. Christophe to attempt the former (which was apparently the highest), the party crossed the Venéon, and reached the Alpe du Pin by a steep path in 1 hr. 15 min. from the

* This route had been previously taken by M. Duhamel, August 10, 1878. *Annuaire du Club Alpin Français*, vol. v. p. 112.

† *Alpine Journal*, vol. vii. p. 140.

‡ *Annuaire du Club Alpin Français*, vol. v. pp. 152-4.

village. Here there is a fine view of the Ecrins, the Fifre, and the Pic Coolidge. Mounting over grass slopes and stones they gained in 1 hr. 15 min. the snow-field seen to the extreme left from S. Christopher, where the 'du' of the Glacier du Pierroux is placed on the map. They struck up and then across it, to the base of the rock wall in half an hour. Climbing up this wall and then bearing to the left, they mounted a narrow snow couloir well seen from the village, and so gained the crest of the north-western arête in an hour from the snow. An easy walk up this led to the summit in 40 min. On this was a ruined stone man, and, a short way below, the fragments of an ancient wooden pole. This peak was ascended by a somewhat different route on August 18, 1878, by MM. A. Carbonnier and C. Rabot, who found on the top a bluish envelope post-marked 'Grenoble, Aug. 8, 1867.'* The view from the summit is curious, as it includes S. Christophe, Bourg d'Oisans, and the bridge over the Vénéon a couple of minutes from La Bérarde. As soon as the party had gained the peak, it was evident that a higher point lay to the south-west, but the arête connecting the two was so jagged that several hours would be required to force a passage along it; and also the weather, always doubtful, had now changed for the worse, and a snow-storm began. Being thus driven down, the party resolved to descend by the Combe de la Mariande, as MM. Carbonnier and Rabot had done. Retracing their steps for 10 minutes or so, they kept to the left down stony slopes, and then, bearing to the right, descended a steep ridge, or rather mountain side (to avoid a rocky barrier) to a snow-filled basin lying below, gained in 50 min. from the top. This snowy basin is well seen from the path between S. Christophe and La Bérarde. Keeping nearly at a level to the left, they gradually traversed the mountain side, and then descending, reached Alpe du Pin in 1 hr. 15 min. from the snowy basin, and regained S. Christophe in 50 min. more. Total—up, 4 hrs. 40 min.; down, 2 hrs. 55 min. The height of this peak is marked on the Carte du Pelvoux.

After having been detained at S. Christophe two days by bad weather, they started again on August 4 for the highest peak of the Loranoire. Retracing their steps up to a point near the huts of Alpe du Pin in 1 hr. 5 min., they took to the Glacier du Pierroux immediately under 'Le Pierroux' (2,875 mètres), in 1 hr. 40 min. Keeping close under the rocks, they ascended a steep gully or couloir, which brought them to the upper plateau of the glacier, over which a few minutes walk brought them to the rocky arête in 1 hr. 35 min. from the time the glacier was reached. These rocks were easy, but then covered with much fresh snow, so that half an hour was required to reach the stone man. It was then found that the first and only previous ascent of this peak had been made on August 5, 1879, by Mons. A. Carbonnier.† The view was very fine, especially towards Mont Blanc and the Roche de la Muzelle, and included Bourg d'Oisans and S. Christophe; but from the latter village it is difficult to distinguish the highest part of

* *Annuaire de la S. T. D.*, vol. iv. pp. 88-90.

† *Annuaire du Club Alpin Français*, vol. vi. 145; *Annuaire de la S. T. D.*, vol. v. p. 120.

the rocky arête, though the stone man is perfectly visible. Twenty minutes sufficed to regain the snow, in 40 min. the glacier was quitted, in an hour Alpe du Piu was reached, and S. Christophe in 50 min. more. Total—up, 4 hrs. 50 min.; down, 2 hrs. 55 min. This expedition is strongly recommended as an easy day from S. Christophe, and as suited for those who do not feel up to the ascent of the Aiguille du Plat.

COL DE LA HAUTE PISSE (c. 3,000 mètres=9,843 feet); PIC SIGNALÉ (3,268 mètres = 10,706 feet); POINTE DE LA MARIANDE (3,162 mètres = 10,375 feet).—August 5.—The same party starting from S. Christophe climbed up to the Alpe du Pin again by the well-known path in 1 hr. 5 min., then followed a track which led them round the corner to the level part of the Combe de la Mariande in 1 hr. 5 min. more. Walking up this, they reached the great buttress marked on the map as separating the Glacier des Arias from the Glacier de la Mariande, zigzagging up which by a faint track, crossing patches of snow every now and then, they gained the final snow slope which led them up to the col in 2 hrs. 50 min. (5 hrs. from S. Christophe). The col (whence the view is very extensive) lies between the Pic Signalé and the point marked on the map 3,162 mètres, close under a bold rocky aiguille to the south of the former peak. It is one of the oldest passes in Dauphiné (there is a ruined stone man on it), and was visited by Monsieur Elie de Beaumont.* It has been more recently crossed by Monsieur Guinier on July 5, 1877.† Soon after reaching the pass, Mr. Cust's party was descried just reaching the summit of the Pic d'Olan, and their movements watched with great interest. As there was plenty of time it was resolved to try the Pic Signalé. Skirting the base of the bold aiguille, mentioned above, along snow slopes, they gained the depression between it and the Pic Signalé, and then struck up the great gully in the south face of the latter peak, keeping to its right (ascending). The rocks were perfectly easy, and the little platform forming the summit was reached in 40 minutes from the Col de la Haute Pisse. No traces of any previous ascent were found, although there were plenty of loose stones about, with which a huge cairn was built; but it is right to add that Mons. de Mons, with P. Paquet, is said to have made this ascent on August 18, 1879, though no details are forthcoming.‡ The view was interesting from the position of the peak at the junction of three considerable valleys. The col was regained in less than half an hour by the same route. As this ascent had taken so short a time the party determined to try the peak 3,162 mètres to the south-east of the col. A first attempt by some greyish rocks on the north face failed, owing to the smoothness of the rocks and the quantity of new snow lying on them. After some hunting about, the crest of the north-western arête was gained by means of a high and steep chimney in some reddish rocks nearer the col than the greyish rocks spoken of above. This ridge was very

* *Annales des Mines*, 3^{me} Série, tome 5 (published in 1834), pp. 8, 13, 23, 26.

† *Annuaire de la S. T. D.*, vol. iii. p. 68.

‡ *Annuaire de la S. T. D.*, vol. v. p. 143-4.

jagged, but the rocks were good: as soon as possible, however, a descent was made on to the snow-streaked rocks of the western face, and by these the summit was gained (after passing over a lower peak) in 50 minutes from the snow at the base of the chimney. It was here found that the peak was the northern and highest point of the mountain, a slightly lower summit lying to the south. The village of Le Désert en Jouffrey was seen from the top, as also a long stretch of the Val Jouffrey. After building a cairn in honour of the first ascent, and baptizing the peak *Pointe de la Mariande*, the descent was effected by the same route, the Col de la Haute Pisse being regained in 55 min. from the top. It may be noted that this peak is well seen from Le Clot between La Béarde and S. Christophe. Descending from the col by snow slopes and bearing across slopes of stones to the right, the party turned sharply to the left after a short steep barrier of smooth rocks, and gained a shepherd's hut in an hour from the col after a long but interesting day. They returned to S. Christophe next day in very bad weather by Les Berches and the Combe de Lanchatra.*

LE FLAMBEAU DES ECRINS (c. 8,600 mètres = 11,812 feet).—*August 9.*—The same party, starting from La Béarde, made the first ascent of this peak. Following the route of the Col de la Temple for 2 hrs. 5 min. up to the point where it bears to the right across some rocks, they then struck up to the left (the peak being in full sight), and mounted slopes of débris and rocks to a tongue of glacier seen from below, and reached in 1 hr. 30 min. Ascending this, they gained in an hour the upper snows of the extreme northern corner of the Glacier du Vallon and in 15 min. more the rocks at the base of the peak. The actual summit—a steep rock pyramid (the sole approach to difficulty of the whole expedition)—was conquered, *viâ* the western ridge, in 20 min. more. The top is so extremely sharp that it was impossible to build a cairn: so an empty preserved meat tin, enclosing the names of the party, was left in a cleft and secured with stones. The peak is not marked on the maps. It lies to the east of that marked 3,523 mètres (which is considerably lower), and is just at the point where two ridges running up towards the Ecrins unite. It thus dominates the Glaciers de la Bonne Pierre and du Vallon. The name given to it was suggested by its torch-like appearance when seen from the Roche Faurio. It is very conspicuously seen in front of the Ecrins, from the path leading from S. Christophe to La Béarde. The view is very fine.

Descending the final peak in 10 min. and following the same route as on the ascent, the party quitted the glacier in half an hour, rejoined the Col de la Temple route in 50 min., and regained La Béarde in 1 hr. 35 min. more. Total—up 5 hrs. 10 min.; down, 3 hrs. 15 min.

TÊTE DU SALUDE.—*August 2.*—Mr. Cust, with the two Gaspards, reached this summit from the Vallon de la Mariande. They struck the main ridge at a point intermediate between the Tête du Salude and the Pic Signalé, leaving at some little distance on the east the small glacier marked on the map. The ridge was too jagged to allow of continual progress, and the party mainly kept on the west side. The

* *Alpine Journal*, vol. vii. p. 315; vol. ix. p. 361.

final peak, which stands out boldly, but rocks of which afford good hold, was gained from the same side. The position of the peak on the map is incorrect. It really lies immediately south of the highest point of the Loranoire, and so close that the first impression was that the true summit of the Salude had not been reached. Between the two, however, there is a remarkable and deeply-cut chasm not indicated on the map. The figures 3,231 placed on the Carte du Pelvoux apparently apply to the lowest point in the ridge to the south. The descent was made by the Vallon de Lanchatra. Times (exclusive of halts): S. Christophe to ridge, $4\frac{1}{2}$ hrs.; to top, 2 hrs.; descent to foot of rocks, $1\frac{1}{2}$ hr.; to S. Christophe, 4 hrs.*

PIC D'OLAN (8,578 mètres = 11,728 feet).—August 5.—Mr. Cust, with Gaspard père and C. Roderon, ascended this mountain by a new route. Leaving La Lavey at 2.30 A.M., they crossed the Glacier des Sallettes to the arête running north from the mountain, and over-looking the Val Jouffrey. The ascent was made throughout by this arête, and occupied from 3.40 to 12.13. The descent to the glacier, in which the same route was followed, required 2 hrs. 50 min. The point reached was the northernmost of the two summits, which is beyond a doubt the higher (the difference amounting probably to 15 or 20 feet), and had been once previously reached,† other parties † having only ascended the southern summit. The ascent on this side, when the rocks are in good condition, is both easier and safer than that on the other. It can only be recommended, however, when the season is sufficiently advanced to clear the arête of snow.

Mont Blanc District.

AIGUILLE DES CHARMOZ.—We understand that Mr. A. F. Mummery, with Alexander Burgener and Benedict Venetz, effected on July 15, from the Glacier des Nantillons, the first ascent of the lower peak of the Aiguille des Charmoz, that seen from the Montanvert. We hear also that a pinnacle of the same peak, just south of the Col de la Bûche.‡ was ascended by Mr. J. A. Hutchinson on August 18. The rocks were very difficult.

AIGUILLE OR PIC DU TACUL (3,438 mètres = 11,280 feet).—August 6.—Messrs. Henri Pasteur, James Eccles, F. C. Hartley, and W. E.

* Monsieur Henri Vincent claims to have made the first ascent on August 18, 1879, with C. Roderon. Mr. Cust states, however, that there are several, perhaps three peaks, in the Salude ridge, of which his is the highest, and that Gaspard pointed out the central of these (i.e. south of Mr. Cust's peak) as the summit ascended by M. Vincent. I can bear witness to the fact that the point lying just south of the remarkable gulf described by Mr. Cust, is the highest in the ridge between the Loranoire and the Pic Signalé. In all probability different peaks were attained by the two parties, and this idea is confirmed by M. Vincent's account (*Annuaire de la S. T. D.*, vol. v. p. 143-5), from which it appears that he gained the ridge south of his peak by a great snow couloir, and made the ascent from the Glacier du Vallon, no mention being made of the very remarkable chasm.—ED.

† *Alpine Journal*, vol. viii. p. 331.

‡ *Alpine Journal*, vol. vii. p. 316; ix. p. 361. *Annuaire de la Société des Touristes du Dauphiné*, vol. i. p. 103. *Annuaire du Club Alpin Français*, vol. iv. 265, 270; vol. vi. 62, 65.

§ *Alpine Journal*, viii. 344.

Davidson, accompanied by Michel and Alphonse Payot and Edouard Cupelin of Chamonix, and by Hans von Bergen and Peter Anderegg of Meiringen, left the Montanvert Hotel at 4.15 A.M. to attempt the ascent of the Aiguille du Tacul.

They reached the Lac du Tacul (which exists, however, this year only in name) soon after six o'clock, and mounted thence by steep slopes and grass, shale, and snow, to the small glacier on the northern face of the mountain which is so plainly seen from the Montanvert. A short but fatiguing trudge upwards through deep snow brought them to the foot of the final rocks of the peak, at a point immediately beneath the summit. These rocks rise very precipitously for three or four hundred feet, and although it would no doubt have been possible to climb straight up them, the easier and shorter route appeared to be to reach a small gap on the north east ridge of the mountain some distance to the left of the peak, and thence to follow the ridge to the summit. This course was accordingly taken, and after a stiff and interesting rock scramble of three-quarters of an hour's duration, the summit was reached by Messrs. Hartley and Davidson, with von Bergen and Anderegg, at eleven o'clock, and by the rest of the party about half an hour later. Owing to a thunderstorm, no view was gained by the first division of the party, but the weather clearing a little the second division caught some magnificent glimpses of the range between the Grandes Jorasses and the Mont Mallet, which is probably better seen from here than from any other point. Messrs. Hartley and Davidson returned to the Montanvert at 4 P.M. by the same route. Messrs. Eccles and Pasteur descended by steep but not difficult rocks to the Glacier des Périades, joining the route of the Col du Géant immediately below the icefall.

Monte Rosa District.

COL DU LION. MATTERHORN, BY FURGGEN RIDGE.—We understand that on July 6 Mr. A. F. Mummery, with Alexander Burgener, effected the first passage of the *Col du Lion* from Zermatt to Breil, and that on July 19 the same party, and Benedict Venetz, ascended the *Matterhorn* by the *Furggen ridge* as far as the base of the final peak, and then rejoined the ordinary route near the first chain by a difficult rock traverse.

JUNGTHALJOCH. GÄSSIJOCH.—August 9.—Mr. J. Stafford Anderson, with Alois Pollinger and Alex. Leugen, explored these passes, which are either quite new or practically so. Starting from S. Niklaus, they went up the Jungthal, and gained the ridge (6½ hours from S. Niklaus) at the head of the Jungthal Glacier just where the buttress of the Festhorn joins the arête descending south from the point marked 3,206 metres. From this point (which may be conveniently named *Jungthaljoch*), Gruben, in the Turtmanthal, could be easily reached in 4 or 5 hours. The party, however, kept to the left along a snow slope, and regained S. Niklaus by a hunters' pass just south of the Güssi Spitzen, the Stelli Glacier, and Walkersmatt. This last pass may be named *Gässijoch*, and is perhaps identical with the *Rothgrat* pass of Tschudi (*Schweizerführer*, edition of 1880, p. 281), who, however,

makes it descend into the Einfeldthal! Mists prevented the party from fixing the exact position of these passes, which are both very easy of access, and, judging from the height of the Barrhorn, must be over 11,000 feet.

VARIATION ON THE ADLER PASS.—*July 26.*—Mr. T. L. Murray Browne, with Peter Bohren (who is still fit for first-class work), reached this pass from the Riffel by passing round the base of the Stockhorn by the Gorner Glacier. This variation was suggested by Mr. Ball, but appears to have been rarely, if ever, adopted.

BALENFIRNJOCH (c. 11,974 feet).—*August 9.*—Messrs. A. Caddick and W. M. Conway, with Aloys Burgener and Basil Andermatten, crossed this new pass. Starting from Saas at 3 A.M., they descended the valley to the church at Unter dem Berg, then crossed to the left bank of the stream, and reached the chalets of Alpje in 1½ hr. from Saas. In 1½ hr. more by zigzags and alopes of débris they reached the foot of a wall of rock, which they began to climb at the base of a rib dividing two gullies. It took 2 hrs. to ascend this wall, which is 1,150 feet high, the rocks being rotten below, but firm and good higher up. It is north of the rocky ridge which bounds the Bider glacier to the north. A stone man which they built at the top of the rocks is visible from Saas and from Visp. A short snow slope led to the ridge running north-east from the point marked 3,676 mètres in the Federal map. Ascending this ridge for a few minutes, the party then gained the Balenfirn glacier by glissades, and crossed it in half an hour, descending some 500 feet. They then ascended by easy rocks to the west of a snow slope, and reached the ridge about a quarter of a mile north-west of, and half an hour below, the summit of the Balenfirhorn. The view from the pass is very fine, particularly the Weisshorn. The descent was made to S. Niklaus by the Gassenried glacier. The pass was reached from the S. Niklaus side in 1878 by Mr. Conway, but the descent to the Balenfirn glacier was not then effected.*

GABELHORN BY THE SOUTHERN FACE (4,073 mètres = 13,363 feet).—*August 28.*—Dr. G. H. Savage, with Joseph Imboden and J. M. Chanton, starting from a bivouac 3½ hrs. from Zermatt above the left bank of the Arben glacier, reached the surface of the glacier in 1½ hr. by the great lateral moraine. Mounting close to a rocky rib which divides the glacier, and leaving an icefall on the right, they crossed a snow slope to the end of this rib in 1½ hr. more. Traversing the glacier in half an hour to the base of the south face of the peak, they climbed straight up this, meeting with several bits of great difficulty, to a point in the south-west ridge to the left of the summit. This point was gained in about 3 hrs. from the glacier, and the summit was gained in 2 hrs. more by steep rocks, then coated with ice, on the Zinal face. The descent was effected by an almost perpendicular slope from the centre of the 'fork' to the point where the rocks were first touched in the ascent.

* *Alpine Journal*, vol. ix. p. 116.

Bernese Oberland.

GEISSHORN (3,746 mètres = 12,291 feet).—*August 26.*—Mr. Coolidge, with Anton Walden, of Naters, as guide, made the first ascent of this peak. Starting from the Belalp Hôtel, they reached in 1.45 by the ordinary route the solitary châlet seen from the Belalp, which bears the same name as those below—Trist. Striking up behind the moraine on the left bank of the glacier just above (locally called Trist Glacier), they took to the ice, here very crevassed, in 1.20. Mounting up this, they reached the plateau between the Fushorn * and the Geishorn, and gained the rocky ridge forming the south-west arête of the latter peak, which was followed to the top (3.45 from the time the glacier was reached, owing to very heavy snow). A violent storm did not allow them to erect a cairn. Descending for a few minutes along the south-east arête, they regained the glacier in 20 minutes by a steep curtain of snow, keeping nearer the left bank of the glacier than on the ascent; they quitted the ice in 1.10, and reached the upper châlet of Trist in 1.05 more. They regained the Belalp Hôtel in 1.35 more, taking a short cut from the lower châlet of Trist, known to the initiated as the Col de la Blanchisseuse. Total (fast walking)—up, 6.50; down, 4.10. The way described is very circuitous. It would probably be possible to ascend the peak from the head of the Ober Aletsch glacier.

Lepontine Alps.

OFENJOCH; PASSO DEL FORNO.—*September 7.*—Mr. Cust, starting from the châteaux of Lebendun, ascended by a snow gully on the west side of a considerable glacier lying between the Ofenhorn and the Punta del Forno, omitted on the Swiss map, to a depression in a high ridge rising south-east from the Ofenhorn, which it is proposed to call the Ofenjoch. † A glacier at the head of the Devera valley, which, enclosed in an angle between this and another ridge of the Ofenhorn more to the west, rises to the edge of the depression, was crossed to a gap in the latter ridge considerably lower down and at the extreme head of the Binnen Thal. The descent on the other side is by snow slopes and débris. The summit of the Ofenhorn was reached in $\frac{1}{2}$ hr. from the pass. This is the only direct pass from the Lebendun valley to the Binnen Thal. Time to pass, about 3 hrs.; to second gap from pass, $\frac{1}{2}$ hr.

It is proposed to give the name *Passo del Forno* to a gap at the head of the first glacier above mentioned, offering as it does an interesting and easy glacier passage between the Lebendun and Devera valleys. From Tosa Falls it may be reached by the Nuefelgiu Pass and the Obersee without descent to Lebendun. On the south the ascent is by a slope of débris, to the foot of which a passage from the Binnen Thal may be found at a higher level than that of the Albrun Pass.

TRÄLIJOCH.—*October 3.*—The same gentleman reached Tosa Falls

* *Alpine Journal*, vol. v. p. 276.

† Not to be confused with Mr. Gardiner's pass.—*A. J.* ix. 64.

from the Hohsänd glacier by a gap between the Thällhorn and the Bannhorn, approached on both sides by easy slopes of débris and snow. A path descends from the right edge of the ravine east to the Nuefelgiu valley, whence Tosa Falls may be reached by the path across the hill in about 2 hrs. from the glacier. For this pass, offering the shortest and most direct access to the Hohsänd glacier, the above name is proposed.

PASSO DI CAVAGNOLI; PASSO DI FORMAZZORA.—September 8.—The same gentleman, starting from Tosa Falls, reached by a débris gully, near the foot of the Bocchetta di Valmaggia, a gap between the Fiorera and the Marchhorn, at the edge of the Cavagnoli glacier (time about 3 hours). From the pass, for which the above name is proposed, the *Marchhorn* (2,968 mètres) was ascended in 20 minutes. This mountain deserves a visit, from its accessibility and the beauty of a view inferior only to that from the Baodine. In less than $\frac{1}{2}$ hr. from the summit a gap was reached at the east end of the low wall of rock which bounds the glacier on the north. An easy descent down snow slopes leads to the Alp Formazzora, whence a path round the shoulder to the right may be taken, affording a beautiful view of the head of the Val Bedretto, and descending from the châteaux of Stabbinascio to the Hospice. The same gap was reached on a subsequent occasion from the Alp Robiei. The left bank of the glacier, at a level little below that of the gap, is directly and easily reached by a débris gully in the ravine at the head of the Val Bavona. As offering an easy glacier passage lower and more direct than that by the ordinary Passo Grandinagia, which connects the same ravines, it is proposed to consider the gap a separate pass, with the name *Passo di Formazzora*. By it and the Nufenen Pass the Val Bavona may doubtless be reached in one day from Ulrichen.

PASSO DI BAVONA.—September 27.—The same gentleman, starting from Airolo, and following an agreeable path ascending from Ossasco, and then traversing the hillside past the châteaux of Valeggia, reached near its summit the right bank of the glacier at the head of the Val Cavagnolo. A gully of easy rocks and débris led from the glacier to the lowest point of the ridge at the extreme head of the Val Bavona (time about $5\frac{1}{4}$ hrs.). A direct ascent may be made from the Hospice. The descent on the south was by gentle slopes of débris and snow. The Alp Robiei may be reached in about $1\frac{1}{2}$ hr. This being the lowest pass (about 8,700 feet) connecting the head of the Val Bavona with that of the Val Bedretto, the above name is proposed.

PASSO DI VALEGGIA.—September 29.—The same gentleman reached from the Glacier di Cavagnoli a débris gully (without descending below the level of its lower end), leading to a gap north of peak 2,867 m. at the head of the Valeggia Glacier. The peak is some 40 feet above the pass, and must command a good view. A lower gap was reached in the ridge east of the same peak, and at the head of the basin of the Lago Bianco, an easy descent to the latter being apparent. To this lower gap (about 9,250 feet) it is proposed to give the above name, the gap first reached (higher by about 100 feet) being a variation of the same pass. In descending from either gap it is necessary to keep high up till a shoulder further east is crossed, when an easy descent is found

to the right bank of the Vleggia ravine. From this point a gap in the rocky ridge bounding the latter, traversed by a path, and commanding good views, was crossed, and an easy descent found in the direction of Ossasco to a charming grass plateau above the châlets of Stabbio Grande, overlooking the whole upper valley. From the châlets paths lead down to Ossasco. A direct descent of the Vleggia ravine may be made, but is not likely to be so interesting as the above course.

By combining the Cavagnoli and upper Vleggia passes, a pleasant and easy glacier route may be taken from Toesa Falls to Airolo. Time to P. Cavagnoli, 3 hrs.; to head of V. Bavona, 1 hr.; to P. Vleggia, $\frac{1}{2}$ hr.; to gap, 1 hr.; to Airolo, 2 hrs. = 8 hrs. including additional half-hr. for Marchhorn. The Passo di Cavagnoli may be combined with equal ease with the Forcla di Cristallina.

Bernina District.

PIZ TSCHIERVA (3,570 mètres = 11,713 feet).—*July 13.*—Mr. Walter Leaf, with Hans Grass as guide, made the first ascent by the western arête—the rocky ridge running down towards the Roseg Restaurant. Leaving Pontresina at 4.30 a.m. the party reached the small level portion of the Misaun Glacier below the icefall at 7.40, crossed this and ascended some distance by a prominent couloir, and then took to rocks on the left, rather difficult at times, which led up to the end of the western arête, which from the Roseg Restaurant looks like an independent peak. From this point the ridge was followed to the top, the apparently formidable teeth being all turned by the south face without serious difficulty beyond what arose from the great quantity of soft snow lying on the rocks. The summit was reached at 12, say $6\frac{1}{2}$ hrs. actual walking from Pontresina—descent by the ordinary route. The expedition will be found interesting for a short day from Pontresina.

PIZ MORTERATSCH (3,754 mètres = 12,316 feet).—The following note from the 'Fremdenbuch' at the Boval hut is forwarded by Mr. W. Leaf, who repeated the expedition on July 8, 1880. Owing to Mr. Pratt's sad death a few days after his excursion, it has been hitherto unnoticed. Mr. Walford followed Mr. Pratt at a distance of about a quarter of an hour.

(No date—probably about *August 20, 1878.*)—'Arrived here 1.30 from Piz Morteratsch. Started from Pontresina 3.45. Left Roseg Glacier Hôtel 6.0. Mounted by a new way from Tschierva Glacier, going almost as far as the saddle between the peak and the Bernina before turning to left up south face. Rocks easy all the way except on arête near the top, where a little difficult, but quite firm and giving good hold. Reached top 11.20, left at 12. No view, cold wind and mist blowing about, a little snow falling.

'J. H. PRATT with HANS GRASS.

'L. M. WALFORD with ANDREAS RAUCH.'

PIZ BERNINA (4,052 mètres = 13,257 feet) FROM TSCHIERVA GLACIER.—*August 15.*—Mr. B. Wainwright, with Hans Grass and his son Christian, starting from the 'Roseg Restauration,' reached the Roseg

glacier by the usual route, then struck across to the left in the direction of the Tschierva glacier, the lower part of which is very much crevassed. Passing over an isolated patch of moraine and some rocks, they gained the upper plateau of the Tschierva glacier, and bore across it, turning many crevasses, towards a steep slope of snow which rises from it to the highest peak of Piz Bernina. After a short rest on a mass of avalanche debris at the foot of this slope, they proceeded to cut up the latter, working straight up towards a point in the north arête slightly to the left of the summit. But as the slope became gradually steeper and changed into ice, and as a mist had come on, they bore away to the rocks on their left, which rise up as a steep buttress from the glacier to the arête. Keeping along or close by these for some time, they took to the slope again when near the arête. It was here composed of loose snow, with rocks rising out of it in every direction. The climb up it and along the arête to the summit was the most difficult part of the day's work. The summit was reached at 10, the final slope having taken 3 hours. The descent was made by the ordinary route.

Dr. Tauscher, of Pressburg, and his wife, with two Sulden guides, reached the summit later on the same day by the new route.

This route joins Dr. Gössfeldt's from the Bernina Scharte* at the point where the arête is struck.

Zillertal Group.

THE OCHSNER FROM THE GUNKEL KAAR (c. 10,500 feet).—August 16.—Messrs. Marshall and R. Starr, with Johann Falkner of Sölden, Oetzthal, and Josef Kröll, the brother of the landlord, as porter, left Ginzling at 5.45, intending to ascend the Rotherkopf, described by Mr. Pendlebury—who was prevented by falling masses of snow from climbing higher than some 150 feet below the summit†—as affording a fine view of the Zillertal range.‡

About 20 min. walk from Ginzling brought them to the steep path, leading up through a fine wood to the Gunkel Kaar, a small valley high up between the Floiten Thal and Zemmgrund. Passing the Jäger's hut to the right, they followed the 'Jagdweg' for some distance, then climbing steep slopes, struck the rock ridge running down from the desired peak, about one third of the distance that it skirts the glacier descending from below the ridge connecting the Rotherkopf and Ochsner with the Gross Ingent and the mass dividing the Gunkel Kaar from the Zemmgrund. They found the rocks very steep, with but little hold in places and very loose in others. Making good progress for some time, they were at length brought up by an enormous mass of perfectly smooth rock, which effectually barred further progress. They were only a few yards above the glacier to the right, to which they descended by scant foothold. The snow proved steep, but steps were easily kicked in it; they shortly regained the ridge and made directly for the summit, which was reached at 1.20 P.M.,

* *S. A. C. Jahrbuch*, xiv. 123; *A. J.* ix. 168.

† *Alpine Journal*, vol. vii. p. 234.

‡ So too Van Sonklar (*Zillertal Alpen*, 20) did not reach the highest point.

after about $3\frac{1}{2}$ hrs. on the ridge and the glacier. The view is exceedingly fine and merits all Mr. Pendlebury's eulogium.

From this peak they noticed a lower, but conspicuous point to the left, between themselves and the Feldkamp. This they afterwards ascertained to be the real Rotherkopf, and the party had really ascended the Ochsner, the higher of the two, which had never been climbed from the Gunkel Kaar, though frequently from the Schwarzenstein Alm (6,696 feet), where the German Alpine Club have built an excellent hut (the Berliner Hütte), to which the party descended by the usual route at 5.35 P.M. Time, 7 hrs. 5 min. up; 2 hrs. 35 min. down—2 hrs. 10 min. rest. Mr. Ball speaks of the Rotherkopf (Ochsner) and, as in the case of other peaks in this group, there seems to have been some confusion as to the real name; the people were unanimous in saying the Ochsner was the highest, and they must be the best informed on the point.

THE SCHWARZENSTEIN (3,867 mètres = 11,047 feet), DESCENDING BY THE FLOITEN GLACIER.—*August 17.*—The same party ascended the Schwarzenstein by the usual route, which is quite easy, in 3 hrs. 40 min. walking. It was too cloudy for a good view, but enough was seen to show how fine it would be in clear weather. As far as the upper ice fall of the Floiten Glacier, the descent was perfectly easy, but the glacier looked very nasty, torn by immense crevasses in all directions, and for the most part falling at an excessively steep angle.

The party had considerable difficulty in threading their way through the maze, here utilising a snow bridge, there leaping the chasms; one was so wide that the rope (80 feet for four persons) was only just long enough to admit the spring without unbinding. They finally found a way down to the left, under an enormous wall of turreted ice, and reached the final icefall, then almost free from snow, down which they had to cut steps, the angle being 50° or more for nearly the whole distance. Crossing the lower glacier to the right moraine, they exchanged difficult ice work for troublesome stones—huge, loose, and numerous, extending almost to the first hut, from which the path to Ginzling (8 or 9 miles) is fairly good. The top was quitted at 12.20 and the lower glacier reached at 4, nearly $2\frac{1}{2}$ hours of that time having been consumed on the icefall, which is a magnificent one from a picturesque point of view. At 8.20 P.M. they regained Ginzling, after 11 hrs. 40 min. walking, having rested 3 hrs. 25 min.*

THE OLPERER (3,489 mètres = 11,447 feet, Sp. K.).—*September 3.*—Mr. Starr with E. Samer (known as Josele) of Breitlahner, and Martin Dech, ascended this peak, which had not previously, it is believed, been reached by an English party, from Breitlahner. It is an interesting climb; the north-east arête is long and steep and there is some stiff rock work. The view was perfect, extending far to the east of the Dolomites, all of which were quite clear: then came the Pseanella-Adamello, the Orteler, and the Bernina groups, while far away in the sunshine glittered some of the giants of the Swiss Alps.

* It would appear from a remark in the *Zeitschrift des D. & Ö. A. Vereins*, 1879, p. 103 that the ascent by the Floiten Glacier had been previously accomplished, but have been unable to find any details of the route.—ED.

Whether for the view or for the climb the mountain is the finest in the Zillertal. Properly speaking, it is in the Tuxergebirge, of which it is the highest point, and even in the Zillertal Alps proper it yields only to the Hochfeiler (11,535 feet). Time, 8 hrs. up; 4.25 down.*

FUSSSTEIN (3,380 mètres = 11,090 feet).—September 5.—Mr. Starr, with Hans Lechner of Breitlahner, and Johann Ebel, effected the first ascent of this peak, which had defied many previous attacks.†

Starting from the Zamser Alm at 5 A.M. they walked up the valley to the new Kaser Alm, 40 min. After a halt of half an hour, they mounted through a wood to a stony plateau, gradually ascending to the first moraine, which is in a singular hollow between a mass separating the Schramma and Rippen Glaciers, and the ridge descending from the Fussesstein. Beyond several streams rose a steep wall of rock partly covered with grass, in the middle of which was a rubbish shoot. Making for the hollow or crack nearest this shoot, they gained the glacier at 9 10, and at 11.5 the summit of the Fussesstein. The glacier was just steep enough not to require step cutting. The snow couloir on the east face by which the final peak was scaled, and which had been reconnoitred on the way up the Olperer, afforded good foothold at an acute angle (perhaps 70° or more) for the greater part of an hour, and from its head a steep rock scramble of a few yards led to the top. The couloir, however, is exposed to stones and avalanches. The view is much the same as from the Olperer. The south-west side falls very steeply for a short distance, and then appears to be a sheer precipice down to the Alpeiner Ferner. Further west, a ridge offers an apparently practicable route, but just below the summit is quite impracticable. Leaving a woollen glove in a stone man, the party left the summit at 1.5; in 50 min. the base of the couloir was reached, and by a rapid giasade the snow quitted in 25 min. more. At 4.20 they regained the Neu Kaser Alm, whence a rapid walk of 2 hrs. led to Breitlahner. Time—up, 4 hrs. 50 min.; down to Breitlahner, 4 hrs. 55 min. Both the guides, especially Lechner, went very well.

The ascent is not more difficult than the Triftjoch, but might be different were the couloir filled with ice. As it was, the moraine proved the most troublesome part of the ascent.

Great confusion formerly prevailed as to the nomenclature of this group, but it is now ascertained that the Olperer and the Fussesstein are two entirely distinct peaks of the Tuxergebirge.‡

* The first ascent was made by Dr. Grohmann, September 10, 1867 (*D. & Ö. Zeitschrift*, vol. ii. p. 139), from the Zamser Alm above Breitlahner; the second by the same route on July 30, 1876, by Herr F. Löwl (*Zeitsch.* 1878, p. 195); the third (?); the fourth by Herr Böhn and Zismondy, on August 1, 1879, with descent by north-west arête (*Mittheilungen*, 1879, p. 171); the fifth by Dr. Fikeis, on August 2, 1879, direct from the west (*Mittheilungen*, 1879, p. 172; cf. *Zeitschrift*, 1878, p. 195); the sixth and seventh by Dr. Chiari, from Zams, and by Herr W. Gräff, by the route of Dr. Fikeis (*Mittheilungen*, 1879, p. 172).—ED.

† Cf. *Oesterreichische Alpen-Zeitung*, 1879, p. 34; 1880, p. 250.

‡ Cf. *Jahrbuch d. Oester. Alpen-Ver.*, vol. ii. p. 96; vol. iii. pp. 105, 125; *Zeitschrift*, vol. ii. p. 135; and von Sonklar's *Die Zillertal-Alpen*, in Petermann's *Mittheilungen*, p. 11.

Oetzthal Group.

TOBARETTA-JOCH (3,264 mètres = 10,709 feet, D. u. O. A. V. map).—*August 10.*—Mr. A. Butler and the Rev. T. H. Archer-Houblon started from the Glieshof (a Bauern-Haus, about 1½ hr. above Matsch), with the view of ascending the Weisskugel by the Matscher Ferner. The weather was unfavourable, and after about two hours, snow began to fall. Their guide, Josef Spechtenhauser, thereupon suggested that they should cross to the Schnalser-Thal by a pass of which he knew, between the Aeußere Quell- and Schwemser-Spitzen, whence if the weather cleared, they might be able to reach the Weisskugel. They turned off to the north-east up the small glacier without a name on the Austrian Ordnance Map, lying between the Langgrub- and the Matscher-Ferner. It is numbered 175 on Sonklar's map; and on the map of the D. und Ö. A. V. is called Oberetter Ferner. Josef, however, declared that the right name was Tobaretta, and called the pass Tobaretta-Joch. They reached the top, marked by a patch of rocks, in about 3½ hours from the Glieshof. There was nothing to be seen, for a north-west wind was whirling the snow furiously all round them. The descent lies over the Steinschlag Ferner, keeping near the south side. After about an hour the glacier is left close to a little tongue of ice, which flows over the south rim, and is visible from below. There is a short bit of steepish rock, and then grass-slopes to Kurzras, which is reached in about 6 hrs. walking from the Glieshof. Josef, who, as a professional Jäger, knows every inch of the upper Schnalser Thal, said that, to the best of his belief, no tourist had ever crossed this pass. It deserves to be known, for in fine weather it must from its position command a view of almost the entire valleys of Matsch and Schnals. The Schwemser Spitze (11,335) can be reached from the Joch without difficulty.

Adamello Group.

BOCCA DI PRESANELLA (about 10,350 feet); **PASSO D'AMOLA** (about 10,530 feet); **PASSO DI CORNISELLO** (about 10,580 feet).—*September 6.*—Messrs. R. Gaskell and M. Holzmann, with Rudolf Kaufmann of Grindelwald as guide, established the practicability of three new glacier passes between Val Rendena and Val di Sole, of which they had obtained some glimpses three days before whilst crossing the Passo di Cercen and making the ascent of Monte Cercen. They left Pinzolo by the Campiglio road, entered Val Nambrone, and shortly after turned to the left into Val d'Amola, ascending the latter first on the right bank, later on the left, until they came to the huts in the basin of the Vallina d'Amola. Instead of proceeding to the apparent head of the valley, they turned to the right and followed a track on the left bank of the torrent to an upper recess of the valley, where they once more proceeded westward to the foot of the Amola glacier. They then ascended the moraine and walked up the almost level glacier, afterwards over a gently sloping field of *névé* to the deep gap between the Presanella and Cima d'Amola, reaching it in 5 hrs. 25 min., exclusive of halts. (The gap is known to the Pinzolo guides by the

name of the Bocca di Presanella, although none of them professed to have either reached or crossed it. Judging from Payer's map, attached to his paper on the Adamello and Presanella groups in 'Petermann's Mittheilungen,' it would appear as if he had touched the Bocca di Presanella; but he undoubtedly had mistaken the ridge which separates the Nardis and Amola glaciers for that which cuts off the latter from the Presanella glacier. The supposition that his Punta Nera might be the Cima d'Amola cannot be maintained, as there is no Monte Bianco between it and the Presanella, the summit of the latter rising immediately to the west of the Bocca.) The party descended to the Presanella glacier, and, having crossed two bergschrunds, turned to the right, and kept close under the rocks in order to avoid as much as possible the crevasses and seracs into which the upper Presanella glacier is broken up. In 1 h. 10 min. from the pass they arrived at the foot of some rocks which support the most north-easterly branch of the Presanella glacier, and cut it off from the main mass. From this point the descent to the highest châlet in Val Stavel appeared to present no difficulty. By reascending along the southern edge of that branch, they came in 43 min. to a broad depression in the main ridge on the north-east side the Cima d'Amola, for which they suggest the name of Passo d'Amola, whence an arm of the Amola glacier slopes gently down towards the principal ice stream. Instead of descending, the party once more turned to the left, and ascended towards a gap in the rocky ridge to the north, reaching in 13 min. the Passo di Cornisello (as they propose to call it), on the other side of which the large *névé* basin of the Cornisello glacier stretches down into the valley of the same name. From a little rocky eminence which forms the cornerstone of the Presanella, Amola, and Cornisello glaciers, a very fine view may be obtained. (It would be possible to gain the *névé* basin of the Cornisello glacier from the Val Stavel a little more to the north, by ascending the rocky slope south-east of the highest châteaux in the valley, without touching the Presanella glacier and without going to the Passo d'Amola.) The descent was made to the foot of the Cornisello glacier in the direction of the Lago Vedretti, thence down a couloir on the south side of the lake to a large accumulation of avalanche snow fallen from the Cima di Cornisello, and along the stream to the upper Lago Cornisello. Following the track on its north side, and past the lower lake, the party came to some châteaux at the edge of the precipice, then turned sharply to the right until they reached some lower châteaux, and bending to the left descended in steep zigzags into Val Nambrone, and returned in 3 hrs. 25 min. to Pinzolo.

Brenta Group.

CIMA D'AMBIES.—September 5.—The same party made the first ascent of this peak, the immediate southern neighbour of the Cima Toesa. Having ascended to the Bocca dei Camuzzi from Pinzolo by the Malga Bandaloro, the head of Val d'Agola and the Fiorito glacier, they moved up thence towards a couloir filled with snow, which splits the peak into two unequal halves. Mounting this couloir to within a few

feet of its upper end, they took to the rocks on the left to reach a large patch of snow on the west face of the mountain, passed just below that patch a short distance beyond it, and then went in zigzags up the rocks to the summit. Time, exclusive of halts, 5 hrs. 15 min.; from the Bocca dei Camuzzi 1 hr. 10 min. Having in 45 min. returned to the Bocca, they descended into the Val di Brenta, walked down the valley, and back to Pinzolo in 3 hrs. 45 min. more. The peak, known to the Pinzolo guides as the Cima d'Ambies, is not named on the Austrian Ordnance Map, and the height of 3,026 mètres assigned to the Punto Fiorito is evidently erroneous, as that summit is considerably lower. The figure might perhaps belong to the Cima d'Ambies, although it seems to be overtopped by the Cima Tosa (3,179 mètres) by less than 200 feet.

Dolomites.

MONTE SIARA (about 8,100 feet).—*September 23.*—Mr. M. Holzmann, with Santo Siorpaes as guide, made the first ascent of this peak, which is the most conspicuous summit on the south side of the valley of Sappada. Leaving the Stella d'Oro inn at the Borgata Hoefe of Sappada, they crossed the Seris torrent below the village and followed the track which runs up to the north base of the mountain. A path there turns to the right, enters, partly with the aid of ladders, Val Seris, and leads to a large malga close to the pass connecting Sappada with the Canale S. Canziano. Here they faced to the north-east and went up to a broad ravine enclosed by the two principal ridges which Monte Siara throws out towards the south and south-west, until they arrived at the foot of a couloir in the ridge on the left hand. Ascending either in the couloir itself or by the rocks on the right or left, as the nature of the ground required, they came to the crest of the main ridge overlooking the valley of Sappada, and, once more turning up to the left, soon reached the summit. Time, exclusive of halts, 3 hrs. 50 min. The view includes the whole chain of the Tauern, all the principal Dolomites, a considerable extent of the Adriatic, the Terglou group, &c. The party descended by the same route for 25 min., quitted the couloir on its east side, went across some sloping rocks covered with débris until progress was arrested, and then entered another couloir which seemed to offer fewer obstacles than the one followed in the ascent. The malga was reached in 1 hr. 20 min. and Sappada in 50 min. more.

TERZA GRANDE (8,472 feet).—*September 25.*—The same party ascended this peak, which is better known to the people of Sappada by the name of Pilichen. Crossing the Seris torrent below Granvilla di Sappada, and immediately after also the Rio Crum, they followed the track which leads up the left bank of the latter, leaving the path only near the head of the valley in order to get to the crest of the ridge which separates it from Val Frisone, at the point where the rocks of the Terza Grande join the ridge. They then turned nearly due north and ascended over easy rocks to the summit. Time, exclusive of halts, 3 hrs. 45 min. Having found on the top an old stoneman and a pole, they made inquiries and were told that the peak had been ascended

about sixty years ago by the Austrian engineers on the occasion of making the Lombardo-Venetian survey; but there seems to be no account published of a previous ascent. The descent was slightly varied on the lower part of the rocks by going down more towards the east, instead of returning to the crest of the ridge. Sappada was reached in 2 hrs. 35 min. from the summit.

MONTE GHEU (about 8,100 feet).—*September 26.*—The same party made the ascent of this peak, which, from the summit of Monte Siara, had appeared to be slightly higher, but which an aneroid showed to be of equal height, perhaps even by a few feet lower than that mountain. They crossed the *Seris* a little to the east of Fontana di Sappada and followed a track, the main direction of which runs south-east through the forest up to some slopes of *débris* on the eastern side of Monte Siara. They quitted the path which traverses these slopes before it reaches the base of some rocks, and went up the slope and then a couloir in which it terminates. Arriving at the head of the latter, they were surprised to find a broad valley between them and Monte Gheu. This valley, called Val Gheu, is only imperfectly indicated on the maps, and its drainage joins the Degano torrent to the south-east of Cima di Sappada. The party had to descend by a couloir into Val Gheu and to cross the valley to reach the base of a broad ledge, covered with *débris*, which runs up along the whole north face of the peak. Having mounted to the eastern end of this ledge, whence a slope of *débris* and grass stretches down into a lateral glen of the Canale S. Canziano, they turned to the right and walked up to the summit. Time, exclusive of halts, 3 hrs. 20 min. Returning by the same route to the foot of the couloir on the north side of Val Gheu, the party, instead of reascending it, turned to the right and went nearly on the same level, first to the eastern side of the rocks, and then, wheeling round to the left, to their north side, descended to the slopes of *débris*, and returned to Sappada in 1½ hr. from the summit.

CINQUE TORRI OR TORRI DI AVERAU (c. 7,700–8,000 feet).—*September 17.*—The first ascent of this bold isolated pinnacle of rock near the Nuvolau was made by Mr. C. G. Wall, with Giuseppe Ghedina di Angelo, mainly by means of a great chimney partly choked up with huge boulders on the west face.

PASSO DI CUNONEGA.—*July 11.*—Mr. D. W. Freshfield with François Devouassoud crossed the gap between Il Piz and the Sasso di Mur, leading from the head of the Val Asinozza to Val Canzoi and Feltre (see p. 69).

ALPINE NOTES.

MOUNTAINEERING IN SOUTH AMERICA.—An Extraordinary General Meeting of the Club (in place of the ordinary February meeting) will be held on Tuesday, February 1, 1881, for the purpose of receiving Mr. Whymper on his return from South America, and of hearing a lecture by that gentleman on his ascents of Chimborazo. The partial