

which may be found practicable can well be worse, I think I may venture to predict. At 7.15 we floundered over the glacier torrent into the Val Ferrex, and in thick darkness reached Courmayeur, where Bertolini provided me with his best frockcoat and his warmest welcome. At the entrance into Courmayeur the gendarme whose business it is to guard against the entrance of cholera in all its forms stopped us and suggested fumigation—as if my guides, who never allow their lips to be guiltless of a pipe except under the direst necessity, could be more thoroughly fumigated than they were already. Balmat evaded the difficulty by a ‘*suppressio veri*,’ which came so very near an ‘*expressio falsi*’ as hardly to be distinguishable from it, while Ducroz and I, who though we disdained to lie ourselves, were not too proud to profit by the misrepresentations of another, stalked on in a dignified silence.

Of the pass itself I may perhaps be permitted to add a few words. It is one that can never become popular. I will not venture to assert that it cannot be done under seventeen hours’ hard walking; but I do think that it will always be a very long business. The view is undoubtedly a fine one; but it comprises no distant panorama, and though the weather unfortunately prevented me from seeing much of the Glacier de Triolet, I think it questionable whether there is very much to see. In short on a calm retrospect of the expedition, and a comparison between its results and the trouble taken to secure success, without expressing an opinion upon the wisdom of such undertakings, I will venture upon a prediction that it will be a very long while before the brilliant anticipations of Balmat will be realised, and the Col de Pierre Joseph rival the Col du Géant even in the estimation of the Alpine Club.

EXCURSIONS IN THE GRAIANS (No. 3).* ASCENT OF THE ALBARON. By R. C. NICHOLS, F.S.A.

THE morning was bright and fine as I walked down to Aosta on the 23rd of August, 1866. After a fortnight of bad weather in Switzerland I began to hope that a change for the better had taken place. My guide, J. V. Favret, had met me at Martigny, and I had pushed on across the St. Bernard to St. Rémy the evening before, in order to arrive early at Aosta and to have time to make my arrangements to

* Two previous expeditions are narrated in Vol. II. of the *Alpine Journal*.

start next day. At St. Rémy I was questioned first by the douaniers as to my nationality, and, being an Englishman, found that I could not be admitted into the kingdom of Italy without undergoing a fumigation on account of the cholera. It was in vain to urge that my stay in Switzerland had done away with any contagion I might have brought with me from England. Fumigated I must be; so with my baggage I was marched into a sort of dungeon where some kind of devils'-broth was mixed in an earthen pot for my benefit. The vapour was not very considerable or much more disagreeable than the natural earthy flavour of the place, and after about five minutes I was supposed to be sufficiently purified. Then came the visite—all the contents of my knapsack were rummaged and examined, my packets of soup were scrutinised and weighed, and I was told that if they had amounted to half an ounce more, I should have had to pay duty on them. We were interrogated as to what tobacco we had with us. Favret produced a small packet—all he had—weighing about 3 ounces. This was ruthlessly confiscated; I more prudently said nothing about the small modicum I carried for my personal consumption, and escaped being plundered. I had brought this with me from England, well knowing from previous experience that the 'mundungus vile' with which the Italian Government supplies its faithful subjects is simply detestable.

I had been disappointed in the hope of being joined by any of my party of the preceding years, and I had not been successful in obtaining any new recruits. I had therefore no companion but Favret. A porter was however necessary to us, as beside my baggage there was a considerable weight of provisions to be carried. We accordingly engaged one, named Honoré Duc, who would have been a very good man for us, only that he was 'almost damned in a fair wife' who would not part with him for more than two or three days. On the following morning we walked up to Combœ. The sky was overcast, but the barometer had risen during the night. On reaching Combœ we found that we had made an omission in not inquiring for Canon Carrel before leaving Aosta. He was down in the city and his house was locked up, so we had to make ourselves as comfortable as we could in the chalet. What was worse than this was that it began to rain as we arrived, and continued to do so all night and the next morning. I was disappointed of ascending the Becca or deriving any benefit from having taken this route instead of proceeding by the valley; but I resolved to push on to Cogne, and hoped that the next day might be more propitious. We started for

Arbole, but taking the right of the valley instead of the path on the left, found the ascent continually becoming more steep and difficult, until when on a level with the chalets we saw that there was a great gulf between us and them, so that we must either return the way we had come or mount the ridge on the right. We chose the latter, and on reaching the top, instead of attempting the descent to Arbole, we traversed the hill side above a little lake till we reached some deserted huts in the little valley leading to the Col de la Vallette. Here my guides got some wood, and we made a fire and waited some time, rather hesitating between proceeding and returning to Aosta. But the rain ceasing about 11 o'clock, we went on in the clouds and reached the col at 12.45. There is scarcely a perceptible track, but the route leads up a long extinct glacier moraine on the right of the valley (going up), and finally by grass slopes to the top. The descent to Cogne is not so easy to find or follow, though more so than the ascent from that place would be.

My hypsometrical apparatus consisted of a sympiesometer and aneroid by Casella. The readings of the first were generally too high, but especially so at high altitudes and low temperatures. The latter, at first correct, became gradually depressed by successive ascents until it had a considerable error in the opposite direction. Still, knowing the faults of my instruments, I was able to obtain between them results which may be taken as fairly approximate. I found the height of the Col de la Vallette by comparison with St. Bernard 9,272, with Aosta 9,246 ft. We did not stay long at the summit, but halted for half an hour a little lower, where, the clouds having risen, I had a good view of the Grivola, and made out the connection of its glaciers with the streams below. As we descended further the sun shone out with scorching heat. On leaving the col it was necessary, in order to avoid the precipices, to keep well to the left, and descend for some distance in a little steep ravine just under the Pte. de la Vallette. Then keeping well round to the left, a path is found which joins the route to the Col d'Arbole at a bridge below a waterfall. At six o'clock we reached Cogne. We found the little inn somewhat improved. In the evening I had a visit from the curé, M. Chamonin, who gave me some valuable information about the passes in his native valley of Grisanche. The vicaire also came in and told us something about the Col de Telleccio which we were to pass on the next day, and which he had ascended on this side, though he had not been further.

We supplied the place of our porter by another, named Joseph Gentête, who engaged to accompany us for a fortnight if we desired. How he kept his engagement will appear. We left Cogné at 5 A.M., and ascending the main valley to Lilaz, turned to the right up the long straight desolate valley called the Combe de Valeiglia. Here there is not a chalet or a hut, and scarcely a blade of grass; but, to my surprise, a capital road which led to nothing but the foot of the glacier. This I found was one of the king's hunting roads, and it certainly is a great boon to the few travellers who have occasion to traverse that stony defile. We reached the glacier at 7.40. It was steep and very hard and slippery. We halted for three quarters of an hour beside a moraine, for breakfast, at 8.35, then ascended a steeper portion of the glacier, after which we were on snow slopes for nearly three hours, till near the top, where we had a scramble up some rocks to the arête on the left of the col, and with a little difficulty made our way along it to the top at half-past one. I found the height by comparison with Aosta 11,281, and with St. Bernard 11,274 ft., the results being unusually accordant.

We had had a brilliant morning, but found, as is too often the case in crossing the Alps towards Italy, that the valley below us on the south was full of clouds. We had an unknown, and, as we had been told, a difficult route to follow. Immediately before us was a gently-inclined snow plateau, which, however, ended abruptly not far below. On the right this plateau continued for some distance, gradually narrowing until it became a mere ledge upon the precipices of the Tour du Grand St. Pierre, which towered close above us. We had been told that by keeping to the right we should find the only practicable descent. We did so, but not far enough, and had to traverse some unpleasantly steep snow slopes above the very verge of the precipice. On getting to the end of the snow we saw a couloir, which was evidently our line of descent; but before we reached it we witnessed such a tremendous shower of stones falling from the mountain above, and raking the couloir, that we were not desirous to incur the risk of finding ourselves in the line of another such cannonade. We therefore crossed the couloir to some slopes of snow and débris beyond, in the hope of finding a safer, if not an easier, descent. Finally Favret got down one way, the porter and I another, and rejoined on a wider shelf below, where some snow slopes helped us on by a long glissade. This brought us to another line of precipices, and we had to bear to the left to find a descent near to the main glacier which descends from the col. This glacier

is completely intersected by the first line of cliffs, over which it falls in avalanches. We now came to some grass slopes, then to more precipices, and finally over a stony plain to the chalets of La Miranda at 6.15. The height of these chalets I found to be about 7,530 ft. After half-an-hour's halt, we proceeded down a rough and steep path, to the chalets of Telleccio, where we arrived just as it grew quite dark, at 7.45. The height of the Piano di Telleccio is about 6,400 ft.

The mists were still about us when we rose next morning, but we set out at 8.15 to try to find our way over into the next valley on the west, the Val Noaschetta, where we were told we should come upon one of the king's roads leading direct to Ceresole. We were not successful; and, after wasting the morning, thought it best to return to the Val Piantonello, which we had left. We found a sort of goat-path, which led us by a somewhat difficult passage down to the foot of the Scalare di Telleccio, at 2 P.M. We had to make a halt of nearly an hour for dinner, and then pushed on as rapidly as we could. The valley trends eastwards, and compelled us to a long détour, which we should have avoided by crossing to Noaschetta. We could only get to Noasca by nightfall, and had to put up with the worse than indifferent accommodation of its wretched inn. We will draw a veil over the horrors of that night.

Next morning we ascended in the rain to Ceresole, a walk of about two-and-a-half hours. Of course we stopped at the 'Stabilmento dei Bagni,' the roughest specimen of a watering-place I ever saw. There was one visitor there of whom we saw little. As a specimen of the resources of the Establishment, I may mention that it possessed one dinner-knife, with a blade worn down to a length of three inches. I considered myself fortunate to have a more useful article in my pocket. The rain continued all day and all night, and I was not sorry to have a good long rest.

On the following day we ascended a ridge of the Levanna to a point called the Col de Nel, where I made a panoramic sketch. I was rather disappointed with the view of the Paradise range, a better point for which would be found further east, or on the spur, which extends southwards from the Paradise towards the Scalare de Ceresole. This point would also be better for the view of the Levanna, to which I was too near. The sky was not clear, and heavy clouds kept rising over the mountains at the head of the Val de Rhêmes, and never permitted me a clear view of them. Just as we were about to leave, our departure was hastened by a slight fall of snow.

The height of this point is about 8,700 feet, and that of the Baths of Ceresole about 5,000 feet.

When I rose on the 30th, soon after three o'clock, there were threatening clouds about and a watery moon. The barometer, moreover, had fallen, and I hesitated much about proceeding. However, we made our preparations for departure, and called for the bill. This was sufficient to decide me on not remaining. For the two days I was charged 33 francs 50 cents, and the guides 10 francs. I taxed my bill, to the great disgust of my landlord, down to 29 francs, being about twice as much as I ought to have paid.* The landlord said he had had several Englishmen there before, and that I was the first who had done such a thing, from which I concluded, either that from other nationalities he was accustomed to such a measure of justice, or that he avoided it by charging them on a more reasonable scale. The charge to the guides caused a strike on the part of my porter, at which, or perhaps more at his manner of doing it, Favret was so indignant that though I was disposed to accede to the man's demands, he would not allow me to do so, and vowed he would rather carry all the things himself. We accordingly set out in heavy marching order at five o'clock, as far as the village of Ceresole, where we secured the services of a young fellow, who undertook to accompany us as far as Tignes. We had to wait twenty minutes till he was ready. We passed Ciapini Sopra, or Chapis, at 7.45. It was now raining, and a little further on we took shelter in an empty chalet for half-an-hour. A violent wind was blowing from the west, the rain ceased, and we went on, turning off almost immediately from the mule-path, which leads to the Col de Nivollet, and crossed the pastures to the chalets of Serue, or Cerra, which we reached at 9.5. The wind had risen to a hurricane, and it was snowing a little. We waited till 9.50, when the snow having ceased we went on. A tolerably marked track on the hill-side led us to the foot of the Petit Coluret, a steep couloir, filled with loose earth, which, however, we did not find any difficulty in ascending, though Mr. Ball's guide states that it is necessary to take to the rocks. Then crossing the foot of a little glacier above, we mounted steep snow slopes to the Grand Coluret. Here we were a good deal sheltered from the wind. There was very little snow in the couloir, except what had fallen in the morning, which was not more than an inch in depth.

* I have been glad to learn that a complete change has this year been made in the management of the Baths of Ceresole, under the auspices of the Italian Alpine Club, and a reasonable tariff adopted.

We found the ascent rather troublesome. Near the top the couloir divides into two. The one going direct to the cross at the top seemed almost impracticable. We took that to the left, and traversed the rocks to the other, just below the summit. On reaching it we met the full force of the wind, but it was much less violent than it had been; still we could not stand upright before it, and without delaying a moment more than to look at my watch (it was 12.25) we hurried on to a more sheltered position. The height of the col, by the measurement of the French engineers, is 9,836 ft. We then put on the rope, as the glacier was strange to us, but it was hardly necessary. We kept to the right, near the rocks, and soon left the glacier, descending slopes of débris to the valley. The weather had become brighter, the sun shone out, and we sat down under a rock to dine, resting an hour and a quarter. We then proceeded by a path requiring some caution, on a steep bank overhanging the stream to Fornet, which we passed at 4.20, and Laval at 4.50. About half-way to Tignes we met two douaniers, by whose advice we turned back to take up our quarters for the night at Laval, chez Gillie. We did not find the accommodation equal to that at Tignes, and the charges were certainly extortionate, but we gained a good two hours' start for the next morning. I was afterwards informed that we should have been better lodged chez Bonnevie, in the same place.

The night was fine, and the morning also bright. I intended to have made an early start, but by some mistake I was not called till half-past five, and we did not get away till seven. The sky was clear above, but a white haze overspreading the heavens to windward betokened the coming rain. As yet the mountains were clear, and as it was evident they would not long remain so, I stopped for an hour on the path up to the Col d'Iseran, to sketch this side of the Ste. Helène. When we reached the top of the pass it was already shrouded in mist. I had intended to ascend the peak of Mt. Iseran, which, with all deference to Mr. Mathews, I must maintain to have a real existence, as 'I've seen, and sure I ought to know.' Had the weather been more favourable I would have gone to the top and brought it home with me for his inspection. I can, however, quite understand how he happened to overlook it when casting his eyes about in search of a mountain of 4,045 mètres. From the most careful estimation I could make of its height, I believe it to be nearly 11,300 ft., wanting only about 2,000 feet of that attributed to it by the Italian engineers.* Notwith-

* Since the above was written, and just before going to press, I have obtained, by the courtesy of General Blondel and the staff of the French

standing the weather, my ambition might have prompted me to become the hero of this famous peak, but I recollected to have heard that it had been already conquered by a French mountaineer, who has published a narrative of the ascent. Apart from the glory, I am sure it would well repay the trouble of ascending by the view which it would command.

Our view was speedily extinguished by the clouds. We descended without loss of time in the rain to Bonneval, and I was glad to find decent quarters at the house of the Maire, M. Jean Culet, himself a good guide and mountaineer. I feel that in recommending this little inn I am performing a public duty at perhaps a personal sacrifice. It is clean and the food good as far as it goes. The Alpine traveller will not of course raise too high his expectations of a mountain inn at an elevation of 6,000 ft. The charges are very moderate. But there are only two beds, and if I go there again and find those beds both occupied in consequence of this recommendation, I must content myself with clean hay in the loft. The place is a capital centre for excursions, and is only $4\frac{1}{2}$ hours from Lanslebourg on the Cenis road. I hope that M. Culet's two beds will be so often occupied in future as to encourage him to increase the accommodation of his inn.

It continued to rain all the rest of the day and nearly all the next. I sent the porter (a new man, Nicolas Boch, whom I had engaged at Laval) down to Lanslebourg for letters, and myself sallied out with Favret to go up to the chalets of les Arses north-east of Bonneval to reconnoitre the Albaron, if the clouds should allow us to see it. The rain ceased about mid-day and the clouds lifted a little, sufficiently to allow us to examine the rocks at the foot of the Glacier du Vallonet, which would be the main, or only, difficulty in an ascent of the mountain from this side. We thought we saw our way up them, but there was too much danger of falling stones to make me feel quite comfortable at the prospect. We descended to l'Ecote and returned along the valley to Bonneval.

The next morning, Sept. 2, Favret woke me at two o'clock with the intelligence that the weather looked doubtful. I rose and dressed however, and on consideration of maps, &c., resolved to start for the Col du Collarin. If the weather should

Dépôt de la Guerre, through Mr. Reilly, much valuable additional information relating to this district. The height of the point which I identify with the Mt. Iséran of the Sardinian map, is given by them as 3,451 mètres, or 11,322 ft. But they have given the name of Mt. Iséran to the lower hill, called on the Sardinian map the Pte. du Vallon, whose height is only 10,640 ft.

improve we could try the peak from that side, or if not, pass the col and reserve it for our return to Bonneval. We started at 3.25 and at 4.40 reached the opening of the Val d'Averoles. The sky looked better and we determined on making the attempt. We kept the valley towards Averoles for fifty minutes, and then turned sharp to the left up grass slopes till we reached the last chalet about seven o'clock. We had intended to leave the knapsacks here, but were told that there was another chalet further on. The other chalets, however, though further on, proved to be far below us in the little valley which descends from the Glacier d'Albaron. This was fortunate for us, as if we had left our luggage behind we should have had to return far out of our way to recover it. We might easily have made a cache of it by the side of the glacier, but we began to see that if we took it to the foot of the last arête, we might try to make a descent from thence direct to the col, and so save much time. We reached the foot of the rocks on the S. side of the glacier at 7.30 and halted nearly an hour for refreshment. We then took to the glacier, which proved very easy of ascent, and reached the arête at 11.5. Leaving our knapsacks here we proceeded along the arête, which was all snow, except about 25 ft. of rock, where the climbing was rather difficult. Even this might have been turned, and we avoided it in our descent; but we must then have cut a good many steps and lost some time. At 11.50 we stood upon the summit. The view would have been magnificent, but that nearly all the highest summits were hidden in cloud. Ours was fortunately free, as was the Pte. de Séa, of which I made a hurried sketch. It appeared, however, on a background of cloud, and for want of an horizon it was difficult to be certain of its relative height. We were all, however, of opinion that it was not so high as the point on which we stood. My observations compared with Aosta and St. Bernard give 11,977 and 12,103 ft. for the height of the Albaron. By the measurement of the French engineers it is 3,662 mètres, or 12,014 ft.* The thermometer stood at 30°, and after ten minutes we were glad to descend, and got back to our knapsacks in twenty minutes. On the way I pointed out to Favret a place where we could get down on the south side of the arête, but he declared it was too steep, and after a short halt we made the descent at the point where we had left the luggage, where a short snow slope led us to the top of a

* The French engineers have called this peak the Pte. de Chalanson; this I believe to be altogether a mistake.

precipice of rock in which we found a steep snow couloir, down which we cut our way to the glacier below. Then keeping to the left we reached in about an hour the point to which we should have come had we followed the route I pointed out, and Favret admitted that we should have had a much easier descent and saved at least half an hour by taking it. Thence we traversed the glaciers nearly on a level to the Col du Collarin, and reached it at 2.20. The wind had risen and was blowing very cold from the west, and we were glad to hurry down the easy and broad though steep snow couloir to the other side, where we took shelter under the rocks at 2.30 and rested till 3.10. The height of the col is 10,623 ft. We then descended the Glacier du Collarin, which is for some distance broad and gently inclined, and not crevassed, but quitted it on the left hand side, contrary to my judgment and to the indication of the map. We crossed some extensive moraines and another branch of glacier, which comes down from the Séa, and after a short descent came to precipices down which it was not easy to find our way, as we were again among the mists and could see nothing before us. However a way was found, and at half-past five we passed the chalets of Venoni, and soon got upon a path which took us down to la Balme in another hour. We ought to have left the glacier by the right bank, and we should then, as we afterwards saw, have found an easy path to descend. The little inn at la Balme is indifferent, but I got a clean bed and had nothing to complain of but the awful noise some convivial natives made in singing over their cups a song, or rather refrain, in which the words '*Quando siamo stanchi*'—and '*discorrer dell' amor*' pierced the ears with a most painful effect. Being somewhat weary myself, I could have desired that the worthy gentlemen would have discoursed of their love in a lower key or at a greater distance.

During the night there was a storm of lightning and rain, but next morning was fine, and we started at seven to cross to the chalets of Séa in the next valley to the north. We retraced our steps for just an hour, up the Val d'Ala, to the plain of Mussa, and then commenced a steep ascent up a path to the right, which led us to the chalets of Roussa. Here we ought to have kept on in the lowest ground till we reached a little valley which descends towards the west, joining the main valley just below the glacier; but instead of doing so we turned up the hill to the east. The wind was so violent that I could not expect to be able to do any drawing at the top of the pass, so at 9.50 we took shelter among some rocks, and I made a

sketch of the head of the valley. At 12.30 we went on ascending, but found it at last necessary to descend into and cross the little valley before mentioned. We then got up the opposite side to the arête overlooking the Val Groscavallo, at a point rather to the east of that where we conjectured rightly the true col to be situated. It seemed quite possible to descend here, but we thought it better to go along the arête to the col, as we did not know what course we ought to take in descending, and the precipices were evidently steeper below than near the top. It was as well that we did so, for though we should have crossed the path it is probable that we should not have been aware of it, as it is very slightly marked, and to have attempted to descend further directly might have led us into serious danger. The col crosses a step or zigzag of the ridge, in a direction nearly from west to east. It is called on the Sardinian map Ghicet di Séa, which is patois for Col de Séa.* But as the name of Col de Séa is appropriated to the more important col leading from the Alpe di Séa to Bonneval, I prefer to call this the Col de Ciamarella, Ciamarella being the name of the pastures in the little valley on its south side.† The height of the col I calculate to be about 9,025 ft.

An easy couloir led us down for some distance on the northern side. Then the path traverses a long way to the east along a natural ledge in the precipices, ascending and descending a great many times. Its course is indicated by little piles of stones on each elevation, and without these would not be easy to follow. In a mist such as that in which we had come down from the Collarin on the previous day we should have had much difficulty in finding a way down. At length a great slope of débris is reached, where the path is lost, but the descent may be effected anywhere. We now turned again westwards, and reached the chalets of Séa at 4.55, having left the col at 2.30. The chalets, or rather chalet, afforded the minimum of accommodation even for a chalet. It was very dirty and very small. The wind, which was bitterly cold, blew down from the glacier right through its dry stone walls, and we had for our couch only some knotty stumps of rhododendron bushes, which had been gathered for fuel.

The next day we started at 6.40 for the Col de Séa. We

* Ghicet. Fr. Guichet; *Anglicè*, Wicket.

† Mr. Bonney has stated that the name of Ciamarella has been improperly given to the Pointe de Séa, and that it belongs to the Albaron. This is not correct. Uja di Ciamarella and Punta di Séa are two names for the same peak, borrowed from the alps on its southern and northern sides respectively.

had been told at Bonneval that we should not find the path without a local guide, and Mr. Bonney appears to have missed it; and done very well without. We were lucky enough to hit upon it. The point where it is likely to be missed is at the rocks at the foot of the glacier on its northern side. My attention, however, was attracted at some distance by a few stones built up into a little wall or step at the foot of the rocks, and this proved to be the indication of what may be called by courtesy a path, but is only a place where the rocks may be climbed without difficulty. Ascending by the side of the last fall of the glacier, we came to its more level portion, and went upon it at 8.45. At nine we left it again for the rocks on the north, and an easy ascent brought us again to the glacier above another ice fall in twenty minutes. We reached the head of the glacier over easy snow slopes at 10.5, and in five minutes more were on the top of the col. The wind was still so high as to make drawing difficult, but I got as much shelter as I could, and worked till 2.35. The height of the col by my observations compared with Aosta is 10,330 ft., and with St. Bernard 10,290 ft. By the French engineers it is given as 10,154 ft. We found the descent of the Glacier des Eivettes perfectly easy, and reached the foot of it at 3.30. We made a halt of nearly an hour, and then crossing a little col to the left traversed the mountain side to near Bonneval, where we arrived at 6.25.

We left next morning to return to Aosta by the Col del Carro. We had some arrears of sleep to make up, so we did not get off till half-past seven. The mule-road follows the left bank of the Arc for about an hour to beyond l'Ecote, where the stream is crossed, and after forty minutes more the path turns up a lateral valley to the left, to the chalets of l'Echauges, one of which belongs to our host of Bonneval. Here we took shelter for a short time from a blazing sun, and made another halt of a quarter of an hour under the shadow of a rock farther on. We reached the col at twelve o'clock. The ascent is entirely over rock and snow slopes, there being no glacier on the southern side. The view from the summit was much finer and more extensive than I had been led to suppose, and I much regretted not having made an earlier start that I might have more time to work. But we had a long way to go and another col to pass to the chalets of Nivollet, and I was obliged to content myself with sketching a part of the panorama to the south. It is stated in Mr. Ball's Guide that this pass commands but little view, being commanded to the east and south by the mass of the Levanna. Now the fact

is that the mass of the Levanna, as seen from the col, occupies only an angle of about 50° , and from the great breadth of the pass the view is otherwise remarkably extensive and uninterrupted.

According to my observations, the height of the point on which I stood, a little above the col, compared with Aosta, is 10,590 ft., and with St. Bernard 10,540 ft. This point is marked by the French engineers 3,202 mètres, or 10,505 ft. The height of the actual col, by the same authority, appears to be 10,292 ft.; but I think that these figures must refer to a point below the summit. We left at half-past three. The descent, over a snow-covered glacier, was at first very steep, for a few feet indeed almost vertical, but soon became easier. We bore to the left under the Cima del Carro, and after a short distance traversed the glacier nearly on a level to an arête of rocks, which we reached at 4.25, where we cast off the rope, and I took off my gaiters, thinking that we had done with the snow for the day. But on the other side we came to a snow couloir and another glacier, which we descended for twenty minutes, and after a short further descent over rocks and grass, reached the head of the Val Locana, just below the foot of the Petit Coluret. We now got into mists again, which caused us some loss of time in traversing the hill-side to gain the road to the Col de Nivollet. It was five minutes to seven when we reached the top of the col, and we did not get to the chalets till 7.50, when it had already been all but dark for some time. We found here wonderfully good accommodation for a chalet, and I should prefer it for night quarters to the inn at Val Savaranche. I had a comfortable bed and slept well.

The next morning, September 6th, I returned to Aosta. I had an appointment at Martigny for the 10th, but had still two days to spare. I dismissed my porter, and started the next day with Favret only, to go up the Val de St. Marcel, with the intention of trying from the head of it to ascend the Pta. di Tersiva, a peak about 11,600 feet high at the head of the Val de Grauson. Our walk up the valley of St. Marcel was hot and fatiguing. The valley is one of those little lateral valleys on the south side of the Val d'Aoste, which are passed on the road from Aosta to Chatillon. It is narrow, steep, and straight. At some distance up the valley, on the eastern side, a copper mine has been opened, and a most elaborate road, with infinite zigzags, has been nearly, but not quite, completed, to lead to it from St. Marcel. But I conclude that this great effort, to use an expressive Americanism, 'bust up' the Company, and

the road and works are all going to decay. The neighbourhood of the mine is indicated by two streams, which flow down side by side in different channels, the bed of the one being stained a deep blue, while that of the other is a brilliant yellow. The effect is startling. I wonder what the public would say if an artist were to venture to exhibit a faithful representation of the scene at the Royal Academy.

About four-and-a-half hours' walking brought us to the chalets of la Chaz, belonging to the Syndic of St. Marcel. The chalet was small and crowded, but we got a tolerable couch near the door, and were not badly off, though, with ourselves, the occupants for the night numbered eighteen persons. The beds were arranged in two tiers, one above the other, and as there were, as we were told, two *ménages* in this one chalet, there were two fires and two huge cauldrons to help fill up the space.

The next morning Favret was to have called me at three, but I roused him at half-past four. The sky was covered, and we were for some time in doubt about starting. After five, things looked a little better, and we set off at a quarter to six. We ascended the valley to the col at its head, keeping to the right of the little glacier (which is larger than it looks), and partly on its moraine, which is only distinguishable from the rest of the hill-side by the fact that under the loose stones there is hard black ice. We reached the col at 7.25, and now came for the first time in sight of the Pte. de Tersiva. But it was evident that the ascent ought to be made from the Val de Grauson. The arête, from the point where we stood, was far too long and difficult, and moreover the weather, though brighter, was still threatening. We resolved to limit our expedition to the Pte. de Tessonnet, which seemed close to us to the left, but which required rather a difficult scramble of about an hour to reach. When we arrived at the top the view for the moment was all but clear, and certainly very magnificent. Clouds were however rising from behind the range on the south, and before I had time to do much had obscured so many points that my sketch was very imperfect. At 10.55 everything was hidden. I made the height of this point about 10,840 ft., and that of the col 10,060 ft.

We descended the arête to the north, thinking it would prove easier, but it was rather worse than the other. It led us on to the little glacier, which was very steep, and we descended in the clouds to the valley, and reached the chalet again at 12.30. After an hour's rest we went on down the valley, and arrived at the bridge of St. Marcel at 4.45, where a carriage

from Aosta met us. It had rained more or less during our walk down, and came on in torrents as we drove in to Aosta.

I must add a few words respecting the map which illustrates this paper. In compiling it, I have derived most valuable assistance from information obtained by Mr. Reilly from the French Dépôt de la Guerre. The glaciers at the head of the Val de Tignes are from my own observations, and on the Italian side I have followed the Sardinian map, correcting it as far as I have been able. The portion immediately to the south of the Levanna, at the head of the Val Groscavallo, I have not seen; and as the position of the Levanna, as determined by the French engineers, is considerably to the NE. of that given in the Sardinian map, this part is not at all satisfactory. I have not ventured to give the head of the Val de Viu further south. The line of watershed in the French survey differs so much from that shown in the Sardinian map, and the latter is altogether so vague and unsatisfactory that I could make nothing of it. The heights marked in the map on the Savoy side are given on the authority of the French engineers. Those on the Italian side must be taken as only approximate, being from my own observations, except the Roche Melon, the height of which is stated in the '*Opérations Géodésiques pour la mesure d'un arc du parallèle moyen*,' to be 3,535·7 mètres, or 11,600 ft. The French measurement of this point is 3,548 mètres, or 11,640 ft. In the names of the peaks and glaciers I have generally followed the Sardinian map. The French engineers appear to have rechristened most of them; but in some instances, as in the case of the Albaron itself, certainly not correctly. Nomenclature is apt to be the weak point in most great surveys, to which our own Ordnance survey is no exception; while nothing is more uncertain than the local appellations of masses of rock and ice, in which the inhabitants of the country generally take no interest, and which are as yet rarely or never visited by strangers.

THE TIBETAN ROUTE FROM SIMLA TO SRINÁGAR. Notes of a Himalayan Ramble in the Summer and Autumn of 1859. By J. F. CHEETHAM, F.R.G.S.

‘ ——— antres vast and deserts idle,

Rough quarries, rocks, and hills, whose heads touch heaven.’

I HAD lingered on at Simla until my acquaintance at the club there, in their idle intervals between whist and waltzing, began to show symptoms of a disposition to make