

only most sincerely advise every member to make them both, and to make them in the direction in which, as chance would have it, I crossed them myself.

EXPLORATIONS IN DAUPHINÉ. By W. A. B. COOLIDGE.

AFTER a long period of neglect, Dauphiné is at last being thoroughly explored; and it is not too much to say that as virgin peaks elsewhere grow scarcer, the French Alps will attract the attention which their magnificent scenery so well deserves. We first visited them in 1870, just before the war; but sixteen days spent there on that occasion, and a week in 1872, only sufficed to stimulate our curiosity: and we determined to make a complete exploration of the district. This paper contains the results of campaigns of eighteen days in 1873 and of a week in 1874.

The rendezvous of our party in 1873 was in the valley of the Arc: we crossed the low Col d'Arve to S. Jean d'Arve, ascended the lowest of the three Aiguilles d'Arve, and reached La Grave by the long but, on the whole, beautiful pass of the Col de l'Infernet on the evening of Saturday, July 5. We had been very much excited on the way down to La Grave by seeing fresh traces on the Râteau, an important item on our list; and it was not till just as we were leaving that we learned from the *Livre des Étrangers* of the failure of Mr. Gardiner and his companions owing to unfavourable weather.

On Monday we crossed the Col de la Lauze to S. Christophe, following the route described by Joanne, which passes by the exquisite little lake of Puy-Vacher, overhung by the precipices of the Râteau, and the wonderful western peak of the Meije. The weather unfortunately was not very fine; but it was not till we had reached the desolate Vallon de la Selle that the thunderstorm which had long been brewing burst upon us, rousing fine echoes in the gigantic cliffs around. Next day we strolled up to La Bérarde, where we found the Rodiers expecting us. The first 'course' on our list was the Sommet des Rouies; and though we had been anticipated in making the first ascent, it was resolved to repeat the expedition in order to clear up two points. First, did the Aiguille d'Olan, marked 3,883 mètres on the French map, really exist; next, could the Râteau be ascended from the head of the Vallon des Étançons. I am happy to say that the splendid view gained from the summit enabled us to solve both questions. The lofty Aiguille d'Olan turned out a complete delusion, and a way

up the Râteau was easily traced. It struck us that it might be possible to return to La Bérarde by a new way, descending to the Glacier du Vallon and through a lateral valley to Les Étages; but when we reached the apparent col at the head of that glacier, the descent looked so uninviting, in fact so nearly, if not quite impracticable, that we resolved to stick to our old route, which we regained by some delightful glissades.

Our report as to the Râteau was joyfully received by the rest of the party; and the day following we went up to the head of the Vallon des Étançons to camp out. Mr. Gardiner, in his most interesting article, recommends the 'oasis' as the best site for a bivouac. I venture to differ from him. We tried that spot in 1872 (being compelled to halt by a storm when descending from the Brèche de la Meije), and found it very much exposed. Our bivouac in 1873 (which I used again in 1874) was under an overhanging rock forming part of the E. wall of the valley; it can be easily identified by a broad yellow streak in the rocks just about this place, and by traces of a platform for the tent and of two cooking-places. It is entirely sheltered from rain.

Next morning we started betimes to make our long-contemplated attack on the Râteau. As seen from the valley, the summit seems to be an immense cornice of snow; but this is really on the great SE. arête. We climbed up some rocks seamed with waterfalls, and then hurrying across a great basin overhung by this cornice, gained the SE. arête after a short steep climb. The work was now perfectly straightforward; all we had to do was to follow the ridge, but the immense quantity of fresh snow made it very fatiguing. As we toiled along, passing over or very near the great cornice, the true summit, a rocky crest, came into sight; but I do not think that any one of the party dreamed how well-nigh impossible it would prove to be to gain the highest point of this crest. We soon stood at the lower end, and saw that a very narrow ridge of rocks stretched up to the summit, overhanging on one side a Glacier, not named in the French map, and on the other the Glacier de la Selle. Fortunately, however, the rocks which fell sheerly towards La Grave were not so steep on the other side, and proved to be just practicable. We worked our way along them with difficulty, grasping the sharp crest with our hands, our feet (I am not exaggerating) resting on absolutely nothing. The mode of progression was by wriggling forward, and was slow in the extreme. At length we reached the hitherto virgin summit of the highest tooth of The Comb (another name for the

Râteau being Le Peigne), which was scarcely large enough to accommodate the whole party. The day was glorious. The view of the W. pinnacle of the Meije alone was enough to reward us; words cannot give an idea of its magnificence. Suffice it to say that I have never had a better view of it. The point of the Meije, which we ascended in 1870, overhung the Glacier des Étançons in the most extraordinary manner, looking as if it would soon break away altogether. We could clearly see the houses in La Grave, and a few days later had the pleasure of seeing our cairn and flag from the village inturn. It seemed quite possible to reach the Râteau by the ridge falling towards the Brèche de la Meije, the route which Mr. Gardiner's party was following when they were forced to turn. I also suspected that it would be possible to reach the SE. arête from the Glacier de la Selle, a surmise which an expedition to be described below completely justified. Thus the Râteau may be taken as a pass from La Béarde, or S. Christophe, to La Grave, two of the three lines of ascent being partly new. Mr. Tuckett, in his reference list of heights (*Alpine Journal*, i. 182), on the authority of the French engineer, gives the height of the Râteau as 3,770 mètres, mentioning a minor peak of 3,754 mètres; on the published map of the *Etat Major*, the latter height is alone given. I merely mention the discrepancy, and cannot explain it; but I know that we reached the 'Allerhöchste Spitze.'

After an hour's stay on the summit we turned to descend, and Tschingel was very glad to get off that horrible final ridge. We followed the same route as before, save that from the great basin we kept to the right, and reached the valley by sliding down snowslopes partly covered with moraine. We sent the porters to the bivouac to pack up the things left there, and reached La Béarde that evening.

Next morning the weather was really bad; but Sunday was a lovely day. We spent it in a very romantic spot, under the shade of an extemporised arbour of fine trees at the junction of the Vallons de la Pilatte and du Chardon.

On Monday we crossed the Col des Écrins, and bivouacked on a patch of moraine at the foot of the Col du Glacier Blanc, which we hoped to cross next day. We had scarcely set up the tent when the weather became very threatening, and soon after falling asleep we were all aroused (except Tschingel) by a terrific storm. The thunder crashed grandly among the cliffs of the Pelvoux, the Ailefroide, and Écrins: the intense darkness was frequently broken by flashes of lightning: and to crown all, such a violent wind sprang up that we were com-

pelled to hold the four poles of the tent to prevent it and ourselves from being carried off. Most fortunately, however, the canvas did not give way. We were all very thankful when the storm passed off in about an hour; and awoke next morning to find everything covered with several inches of fresh snow, which the wind whirled in delicate wreaths round the splintered crags of the Écrins. We did not dare to start till nearly noon, and had to crouch among the rocks at the summit of the Col du Glacier Blanc for shelter against the wind. Here we found a bottle with Mr. Tuckett's account of the first passage of the col, which had been left there eleven years before all but a day. The descent of the precipices to the Glacier d'Arsine took a good deal of time, owing to the fresh snow; and while walking to the Châlets de l'Alpe the Crête du Glacier Blanc came out so finely that I resolved to bag it. Accordingly next day Almer, Roth, and myself walked up from La Grave to the Châlets de l'Alpe, where we slept, though the people were at first very unwilling to give us shelter. The interior of the hut proved to be far better than the very repulsive exterior had suggested. We started next day, July 17, at 3.25 A.M., and without much difficulty reached at 8.55 A.M. the beautiful snow peak which had been the object of my admiration, mainly by the westernmost of the two arêtes which stretch down to the Glacier d'Arsine. Beyond this appeared two higher points. These all are shown on the French map, and figured by Mr. Bonney in Plate V. of his valuable 'Sketches.' We easily gained the nearer one in ten minutes; but the other, or Allerhöchste Spitze, was only attained by crossing over to the face above the Glacier du Casset. The day was perfect, and the view one of the finest I have ever enjoyed. Of course the great Dauphiné peaks were the principal objects. We saw also the whole Pennine range, being able to identify Mont Blanc, the Dom, the Matterhorn, Monte Rosa, the Weisshorn, the Dent Blanche, and countless other old acquaintances. Nearer to us was the chain of the Graian Alps, which we had not visited at that time. From one of the three points we saw Monestier and a village in the Vallouise, supposed to be Puy S. Vincent. After fifty minutes of intense enjoyment, we set out on the homeward journey, and in three hours from the snow peak regained the châteaux. Here we found the other detachment of the party which had come up by agreement from La Grave. We all bivouacked that night at the junction of the valleys descending from the Glaciers des Cavales and de la Plate des Agneaux, just opposite the ruined baraque which proved such a source of

vexation to Mr. Gardiner's party. Our intention was to examine the Grande Ruine from all sides, to ascend it if possible, and then to reach La Bérarde by some pass wholly, or in part, new.

We started early next morning, July 18, and walked up the long Glacier de la Casse Déserte. On the way we saw a possible col to the Glacier de l'Encula, the Col de la Roche Faurio of Messrs. R. Pendlebury and C. Taylor, who crossed it this last summer for the first time. After some time we halted to examine the map and to consult about the route to be taken. Immediately in front rose a steep wall of rocks broken by a notch up to which a narrow snow couloir was the obvious way. This notch (though we were not aware of it at the time) is the Brèche de la Charrière, crossed by Mr. Gardiner's party a few weeks before. The French map is, it seems to me, very inaccurate just about here; still we could make out that the Grande Ruine lay high up to the right. Accordingly we mounted some slopes of grass and *débris*, cut steps up a very steep little glacier, and found ourselves in a glacier basin commanded by the pinnacles of the Tête de Charrière and Grande Ruine. The latter peak, it was clear, could not be climbed from this side. To get round to the other side there were apparently two ways: the question was which should we take. The col to the left of the Grande Ruine was the Col de la Casse Déserte. We turned to the one on the right. The ridge was soon gained, but it only led us to another branch of the Glacier de la Casse Déserte, at the head of which appeared another notch. We immediately made for this; but that day we were very unlucky, for this new col overlooked the Glacier des Cavales, and did not suit us for two reasons: it seemed quite impossible to reach that glacier; and, even if possible, it would not have taken us to the Vallon des Étançons, where we wished to go.

We were naturally very much discouraged as the day was getting on, and we did not know where we should bivouac. This last question, however, was soon decided, for on looking at the Grande Ruine we saw that it was possible to ascend it from this side by an easy arête; and Almer now announced that his eyes had entirely given out, and that he could not go on any farther. All this made us resolve to camp where we were, on the snow, at the estimated height of 11,500 feet. The remaining hours of daylight were employed in trying to find a way to the Vallon des Étançons after we had climbed the Grande Ruine next day. But the extremely steep rocks baffled all attempts. We spent a very cold and miserable

night in the tent. We had no water with which to brew soup. Fortunately we had a little wood ; but it was with some trouble that a fire was lighted in a crevice of the rock above us. Indeed it required a certain amount of care to keep one's balance in order to look at the wine simmering in a saucepan, which was the only thing we could warm. We started late next morning, leaving Tschingel asleep in the tent. The arête was very easy and broad, being composed of large fragments of rocks and patches of snow ; so that in fifty minutes we all stood on the summit of the Grande Ruine, a peak which had not been even tried before, owing to its formidable appearance : in fact, it is probably only accessible by the route we followed. Clouds concealed the greater part of the view, though they broke away enough to afford glimpses of the neighbouring peaks, and to satisfy us that we were on the true top. This last summer I had the pleasure of seeing the stone man on what was evidently the true summit, from the Tête du Replat, a little peak on the W. side of the Vallon des Étançons. Just as we were finishing the stone man, we heard a loud bark ; Tschingel ran out of the tent, and in a few minutes we welcomed him on the top, the old dog having thus made the ascent ' without guides.'

After staying three-quarters of an hour on the summit, we returned to the tent, broke up the encampment, and retraced our steps to the glacier basin mentioned above. A few minutes' climb up a steep snow couloir brought us to the summit of the Col de la Casse Déserte. This was reached from the La Grave side in August, 1863, by Messrs. Bonney and Mathews ; but threatening weather prevented them from attempting the doubtful descent to La Béarde. Mr. Mathews's observations make the height 11,516 feet. A cold wind was blowing when we arrived, so that we only halted long enough to leave our names in a bottle, which was deposited in the rocks on the left. A snow couloir led down to a small but very crevassed glacier, which we quitted as soon as possible for the moraine on the right bank, succeeded by steep grassy slopes by which we reached the Vallon des Étançons in about $2\frac{1}{2}$ hours' leisurely walking from the col. At last we found water, and that in the shape of such a delightful spring in this barren valley that we spent no less than two hours in concocting soup and lazily discussing future plans. We had to tear ourselves away in order to get to La Béarde that evening, where we found to our joy and surprise two letters which had been sent up from S. Christophe. Such was the end of the intricate wanderings in which we had been engaged for the last two days.

The French map curiously separates the name Grande Ruine

and the height 3,754 mètres. The topography is very confusing, and is besides badly laid down in the map. The conclusion I have come to is this—if we transfer the name Grande Ruine to the point occupied by the height 3,754 mètres; and if, at the same spot, we place the culminating point of the great spur represented on the map as dividing two branches of the glacier, the topography will be roughly correct, though I cannot undertake to give the exact relative position of the ridges. The 'arête' by which we reached the top of the Grande Ruine was not the watershed, but a ridge which projects to the NW., and which is probably identical with the spur mentioned above.

Besides the letters, we were greeted by two more surprises at La Bérarde, one of which was far from unpleasant, but the other the very reverse. We found Italian workmen from the Val d'Aosta whitewashing the interior of the Rodiers' house, a reform probably due to the profits made off the unusual number of strangers who had as yet visited La Bérarde that summer. I have not been there since, and am therefore unable to pronounce an opinion on the improvement in the house when completed. To our horror we found that some shepherd had slept in our grange, and the hay was *not* rendered sweeter and cleaner thereby; on the contrary, the next two nights were unusually disturbed.

We spent Sunday quietly by the bank of the Vénéon, discussing plans. My idea had been to reach Vallouise by the Col de Sais and Col du Célar; but Almer suddenly proposed the Col de la Pilatte. Now the passage of that col, as described by Mr. Moore, and illustrated by Mr. Whymper, had always made me rank it among those Alpine expeditions which are done once and never repeated; consequently I hesitated long before acceding to Almer's proposal. We had all our mountain luggage with us, there was a dog in the party, and the col had never been done *from* La Bérarde. But Almer was bent on doing it, and as he would naturally have the lion's share of responsibility and labour, I finally gave in to him, very gladly I must say, as I had sometimes, though only in my wildest dreams, entertained the idea of crossing it. As our plans were thus changed, I resolved to seize the opportunity of going up the Mont Giouberny, a little peak of 3,350 mètres, just S. of the Col de Sais.

Early on the morning of July 2, we all started up the Vallon de la Pilatte; in a little while I pushed on with Almer and Blauer. We soon reached the glacier, and attained the base of our peak. Here we left a note for the others, naming

this spot as our rendezvous and bivouac. We climbed straight up, struck the NE. ridge of one peak, and gained the top without the slightest difficulty. There were no traces of any previous ascent. The view was of course fine and specially interesting, as giving a sight of the Val Godémar and of the southern slope of the range from the Cime du Vallon to our stand-point. The return journey was effected by a slightly different route, and was so much shortened by glistades that we rejoined the others in three quarters of an hour from the top. The rest of the afternoon was spent in shifting our quarters a little higher up, in arranging a platform for the tent, and a cooking-place, and in trying to get rid of the consequences of two nights on that hay at La Bérarde.

We started early next morning, and reached the Col de la Pilatte after winding through a good many crevasses. As we were crossing one, the bridge suddenly gave a great crack, and from the general appearance of the crevasse I concluded it must be the scene of the famous leap. The view from the top was very fine, but it was rather cold waiting for the guides, who went on to make steps some way down the couloir, the upper part of which was ice. At length, after a halt of two hours, we started, and after descending in the steps for 35 minutes took to the rocks on the left. These were followed by a snowslope, and in another 35 minutes we reached a level shelf on the rocks to the left of the couloir.* The bergschrund was utterly impracticable, the two lips being separated by a wide gap filled by smooth rocks and exposed to showers of stones. It was very hard to decide what we had better do. Finally, Almer resolved to try to force a way down the rocks immediately below us, i. e. on the left of the couloir; this proved to be a very difficult operation; each member of the party (Tschingel included), had to be let down by a rope to a crack in the precipitous face of the rock; it was then necessary to traverse the rocks at a level, and the snow was reached by a second process of letting down. All this took a long time, and, to say the least of it, was very disagreeable. The height of the rocks was estimated at about 100 feet. After everybody and everything had been got down safely, we went down the glacier some way, then striking to the right, traversed a rocky face to a long snowslope, proceeding down which we soon gained the route of the Col du Célar. Giraud's inn at Ville Vallouise, which we had visited in 1870, had been closed

* In the notice sent to the Journal, vol. vi. p. 292, for 'right' read 'left.'

in 1872 (owing to some political intrigue, we were told), and we had been forced to spend the night in a filthy hole at La Bessée. But in 1873 we had learned from the omniscient Pic, 'le guide' of La Grave, that it was again open, and a note had been sent to announce our arrival. We were therefore expected, and it was pleasant to find ourselves once more in the well-remembered voûte after all the excitement of the day, though the walk down the Vallon des Bancs was pleasant enough in itself. Next day we drove to Briançon by a rough char road, which falls into the 'grande route' at Prelles, after passing over a hillside, made fragrant by the wild lavender which grows profusely all around, and quitted Dauphiné that evening by the Mont Genève.

In 1874 we began operations far from Dauphiné, and only reached S. Michel in the valley of the Arc on July 6, after passing through the Tarentaise. We then crossed over to Valloire, ascended the central Aiguille d'Arve, descending to S. Jean d'Arve, and reached Bourg d'Oisans by crossing over the highest peak of the Grandes Rousses. My plan was to keep at the highest châteaux above Freney, walk up the Glacier du Mont de Lans, ascend the Pic de la Grave, and descend to S. Christophe by the Brèche of the same name. Mon. Martin of the Hôtel de Milan, at Bourg d'Oisans, advised us to mount directly from La Rivoire on the high road, pass through the village of Mont de Lans, and join the path from Freney to the châteaux. We followed this advice; but the walk up to Mont de Lans was very hot; we then took the wrong path and found ourselves at the village of l'Alpe, not very far from the Col de Venosc. We were told here to climb a steep grassy ridge, which took an hour and a quarter; and on reaching the crest, the only châteaux visible were in the far distance; so we literally took to our heels, and at 8 P.M. reached the Granges de la Roux after a walk of more than four hours from La Rivoire. We found tolerable quarters here, though the woman was at first very averse to receiving under her roof a party of strangers armed with ice-axes and arriving after nightfall.

We started early next morning, and soon after passing the last hut had the luck to see two chamois browsing only a few yards from us; I had never seen them so low before. A much longer climb than I had imagined was necessary to reach the great glacier of Mont de Lans. We walked up it a little way and left most of the provisions, &c. just below the point marked 2,810 mètres on the map. We then went up the glacier to the Col de la Lauze; there was much fresh snow and

many pools of water; clouds gathered, and were at one time so thick that we were almost driven back from sheer inability to see where we were going. At length we reached the col, and immediately scrutinised the object of the expedition—the Pic de la Grave. Now I had always disbelieved in the existence of this peak, *i. e.* I thought it was merely the end of the ridge of the Râteau. But I then found that it was a perfectly distinct peak, separated from the Râteau by a well-marked depression. We circled round to its northern face and mounted up to the bergschrand. This gave us a great deal of trouble, the upper lip being of hard ice, almost perpendicular and moderately high. Once over it there were no more difficulties. We went up to the notch between the two points, turned up to the left, and gained the eastern or highest point in an hour and ten minutes from the col. There were a good many clouds, but we saw most of the Dauphiné peaks, especially those on the southern side of the valley of the Vénéon. The height given on the French map is 3,673 mètres, only 81 mètres lower than the Râteau. It is quite worth the while of anyone crossing the Col de la Lanze in fine weather to make the détour up the Pic de la Grave, as a much more extensive view is gained. After building a stone man, we returned to the Col de la Lanze in forty minutes, and walking fast regained the place where we had left our provisions in a little over 1½ hour more. After a short halt we descended to a lake-dotted plateau, and reached a depression NE. of the Tête du Toura. A rocky 'vallon' opened out towards the Vallon de la Selle, but we were in happy ignorance as to whether we could reach the latter valley by this route. We however determined to go on and see how it looked. The ground was rather rough, but we did not meet with any real difficulty, till, after we had followed the course of a stream some way, it suddenly sprang over the cliffs into the valley below. We had no great desire to make such a speedy descent, and so had to seek a passage to the left; a very curious one it turned out to be—steep rocks, and then a long and extremely narrow gully, succeeded by steep grass slopes. Things were again beginning to look rather desperate, when all at once we struck a little path which wound round the cliffs on the left, became larger, and finally brought us down to the lonely group of châteaux in the Vallon de la Selle in an hour and a half from the col. We then followed the ordinary path to S. Christophe, which was reached in exactly 14 hours from La Roux, including numerous halts.

The curious little path which we came across so opportunely is apparently the one mentioned by Mr. Bonney at pp. 29, 40,

of his 'Sketches,' as leading down from the Brèche de S. Christophe, which I therefore conjecture to be the name of our pass. The short notice of an expedition made in July, 1865, by Messrs. R. W. Taylor and W. G. Adams, which appears in the *Alpine Journal*, ii. 206, also mentions this little path. Mr. Ball, when speaking of the Brèche de S. Christophe, adds that the descent to S. Christophe is said to be somewhat difficult, a description which tallies very well with our pass. Next day was spent in a quiet stroll to Les Étages, to admire Les Écrins; a violent thunderstorm forced us to return quickly, soon after reaching the village. Early on the morning of July 16 I left S. Christophe with Almer and Michel. My intention was to reach La Grave in two days by high passes, spending the intervening night in the Vallon des Étançons. The first pass was one I had long meditated: it lies over the lowest point of the ridge between the Râteau and the Tête du Replat. Retracing our steps up the Vallon de la Selle, we walked rapidly up the glacier of the same name; the great ice-fall which from a distance seemed so formidable was turned by climbing the rocks on its right bank. We thus reached a vast field of névé, at the head of which lay our pass. It was evident that the SE. arête of the Râteau could be reached from this side. The weather, as usual, was very unsettled; but we could not lose the opportunity of bagging the Tête du Replat. Therefore, leaving the knapsacks under a great sérac, we turned up the snowslopes to the right, wound through some crevasses, and gained a depression SW. of our peak, which might be used as a pass to the Vallon des Étançons. We then climbed a nameless peak on the right under some misapprehension as to its height, and built a cairn; but finding out that the one to the left of the col was the true Tête du Replat (3,432 mètres), we went back to the col, and scrambled up it with some little trouble. Snow was already beginning to fall, and the prospect was very limited; but the view of the great S. face of the Meije was very grand indeed. After building another cairn, we hurried back to the knapsacks, and succeeded in getting under the shelter of some rocks at the foot of the pass just as the storm burst on us in all its force. Thunder, lightning, snow, hail, rain, were our lot for the next two hours. At length we could not stand being cramped up any longer, and resolved to make a desperate attempt to cross the pass and reach a bivouac on the other side. We raced up a small snow couloir to the summit of the pass, and down a precisely similar one; but were again forced to wait some time under a rock. The storm, however, began to abate, and we effected a rather exciting descent

through a gully between a small crevassed glacier and the rocks on its left bank, down which it was plain showers of stones were in the habit of coming. We made great haste to get past this dangerous spot, and were fortunate enough to escape a cannonade. We then rejoined our old route up the Râteau, and descended to the bivouac we had discovered the year before. Some wood we had left scattered about was still there; luckily quite dry, being protected by the overhanging rock. Next morning the weather was still doubtful, and we did not get off till near seven o'clock. We wished to cross the Col des Cavales; but we must have descended the valley too far, for on mounting the slopes to the E. we found ourselves in the amphitheatre through which the route from the Col de la Casse Déserte passes. It was too late to retrieve our error, so we kept up to the left over *débris* and smooth rocks till, in three hours and a half from our bivouac, we reached a col just N. of the Grande Ruine. This led us to a branch of the Glacier des Cavales. We kept under the rocks to the right, but were much exposed to falling stones, and encountered considerable difficulties. Future travellers are recommended to keep to the left, so as to join the route of the Col des Cavales as soon as possible. La Grave was gained by the ordinary route through the Clos des Cavales. The first of these two new passes, which we propose to name Brèche du Râteau, is interesting as having cleared up a somewhat obscure point: it had been before *suspected* that the Glacier du Col of the French map had no existence. By making this pass we have *proved* that it does not exist, though *névé* extends very high on either side, and two snow couloirs lead up to the summit of the pass, which is itself of snow. The other new pass we propose to call Col de la Grande Ruine. It is quite distinct from the Col des Cavales: on the E. side it is reached from a different point; and on the W. side the way lies down a branch of the Glacier des Cavales, only joining the route of the Col des Cavales an hour from the top.

We spent two or three days more in Dauphiné doing nothing: the weather was hopelessly bad; the larder at La Grave could not even supply fresh eggs; that at Monestier was nearly as bad; so in despair we resolved to leave the country, and took the night diligence to Grenoble, where we were able at last to satisfy our ravenous hunger. We then travelled to Chamonix by Albertville and Megève, a very charming route.

Such, up to this time, have been the results of our explorations in Dauphiné. Of our wanderings around the Aiguilles d'Arve I hope to speak more fully in another paper. In con-

clusion, I would urge those who wish to test the accuracy of my statements as to the magnificence of the mountain scenery of Dauphiné, to go and see it for themselves. I do not think they will be disappointed.

LA GRANDE AIGUILLE. By W. M. PENDLEBURY.

[*This Paper forms a Supplement to Mr. Gardiner's Paper published in the last Number, p. 80.*]

HOLDING it a waste of power for all of us to spend a day in inspecting the Roche Faurio, my brother had proposed to fill up his time by an ascent of the Grande Aiguille, of which the summit can be seen from La Bérarde. The mountain itself rises at once and precipitously from the opposite bank of the stream, and occupies the angle formed by the main valley of the Vénéon and that of the tributary which descends from the Glacier de la Pilatte. Cox and I decided to join my brother, and it was settled that we should have two of the guides, Peter Baumann and Lochmatter. Having crossed the little rickety bridge leading to the left bank of the river, we followed a narrow path, which, turning down the valley, mounts rapidly along the hill-side; where or how we lost it I cannot tell, but finding ourselves at an elevation of some thousand or fifteen hundred feet above La Bérarde, struggling through brushwood, with no traces of a path any longer to be seen, we turned sharply to the left, and ascending obliquely in the opposite direction arrived in front of a small cirque overlooking the valley of the tributary Vénéon—a sort of amphitheatre with a gently rising floor, filled with snow, encircled by precipitous walls of dark rock, and crowned by the peak itself. Having surmounted this wall to the right, we halted for breakfast, the summit above us looking so near and easy of access that Baumann cried out in glee, 'An hour and we are on the top.' Lochmatter objected; 'I know what rocks are: three hours will not do.' A lively debate ensued, closed by a wager. The guides were to drink I know not how many bottles of wine and lemonade on their return to Rodier's, to be paid for by Lochmatter if we got up within two hours, by Baumann if we did not. I fancy we all looked upon Lochmatter as a victim to an exaggerated estimate of difficulties; but we were wrong, or he was lucky; it took us, as nearly as I can remember, two hours and three quarters to reach the top, though Baumann, who led, did his best to win. Our road led along a ridge, suggestive, in the rottenness of its rocks, of a moraine, one of several converging upon the summit, all laden with masses of most miserable snow that tumbled if only looked at. Every half-dozen steps were marked by an avalanche; a stone dislodged by the foot started a rivulet of snow, which, growing in size as it slid down the slope, curled out of sight with a hiss, followed a second or two later by a roar amongst the rocks below. To avoid the snow was, however, our only difficulty, though now and then we found ourselves obliged to cross patches of greater or less extent, and at noon exactly, six hours after leaving La Bérarde, we stood upon the top, a