

A WEEK AMONGST FRENCH DOLOMITES.

BY FREDERICK GARDINER.

THE town of Grenoble is spoken of by Mr. Ball, in his 'Alpine Guide,' as being one of the most beautifully situated of European cities, and after a fairly familiar acquaintance with it during the last fifteen or sixteen years I think my friend Mr. Coolidge and myself are quite prepared to endorse his opinion. Grenoble is the starting point for many places of interest, whether the Grande Chartreuse, with its lovely forests and famous convent, or the splendid glacier regions of Upper Dauphiné, or the sanctuary of Our Lady of Salette, or bathing places such as Uriage, La Motte, and Allevard, or the wonderful limestone district lying west and south-west of the town, the weird and fantastic mountains of which form the western ramparts of the Alps, and may, by reason of their geological peculiarities, not inaptly be called the Dolomites of France.* I met Mr. Coolidge in the beginning of September 1888, at our old rendezvous, St. Michel de Maurienne, and after a fortnight in the Grandes Rousses, Oisans, and Val Gaudemar districts, we arrived at Grenoble on September 17, having been fairly fortunate in our weather, considering the very unsettled state of the weather during most of the mountaineering season of 1888. Our plans were to explore the districts (hitherto almost untouched save by Mr. Coolidge) of the Vercors, the Royannais, and the Dévoluy. (I am speaking, of course, of English travellers, as the Royannais district, especially, is much visited by tourists both from Grenoble and Lyons.) Christian Almer, the younger, who had been with Mr. Coolidge all summer, did not accompany us, but we had old Simon Barnéoud, of Vallouise, my faithful porter and companion of many past seasons. Our first day

* I may mention in this connection that the Marquis de Dolomieu (born 1750, died 1801), who in 1790 practically discovered the mountains in South Tyrol which now are known as 'The Dolomites,' lived at Dolomieu, which is situated at a distance of five miles from La Tour du Pin, about half-way between Lyons and Grenoble, and is forty miles from the district which I have ventured to call French Dolomites. There are Tyrolese Dolomites, and there are Swiss Dolomites. Why, therefore, should the description not be used in France for mountains whose geological formation justifies the name, and which are situated almost within sight of the home of the *savant* from whose title the name has been coined?

(September 19) was entirely by carriage, and took us from Grenoble to Pont en Royans viâ Villard de Lans and the wonderful gorges of Engins, and of Les Grands Goulets. The diligence started for Villard de Lans at 6 A.M., but the season was already so far advanced that it did not go farther than that village, which is, roughly speaking, about half-way to Pont en Royans. Crossing the fruitful valley of the Isère to Sassenage (the present resting-place of the celebrated Lesdiguières), a steep road passing through limestone gorges led us up to the fertile valley, or rather tableland, of Lans, in which the village of Villard de Lans is situated at a height of 2,710 feet above Grenoble. The scenery so far had not been of a very remarkable nature, but nearly all the way from Villard to Pont en Royans it presented a most extraordinary series of limestone gorges in the gigantic cliffs towering above, the whole forcibly reminding me of the pictures I have seen of the cañons of North America, though, of course, on a smaller scale, and not so gorgeous in colour. Trees, consisting principally of beech and pine, are everywhere abundant, and exist wherever they can hold on. The most remarkable spot in the day's journey was the entrance to the Grands Goulets, where the gorge is so narrow that there is barely room for the carriage road and the stream, so that in places the road is carried over the edge of a precipice on short iron bridges, while here and there 'head room' has had to be hewn out of the side of the gorge itself. Lower down, the gorge widens out into a valley of some breadth, remarkable for the quantity and luxuriousness of the box-tree, which I have not hitherto seen in any great quantities in Alpine regions. At one place, apparently the house of the local curé, the box-trees had been cut into quaint shapes, after the Dutch style. Further on, the valley again contracts into a narrow gorge (les Petits Goulets), very grand, but of comparatively small dimensions as compared with the upper one. On emerging from this we shortly reached the village of Sainte Eulalie, and in half an hour arrived at Pont en Royans, a wonderfully picturesque village, or small town, perched on both sides of the entrance to the rival gorges de la Bourne, and connected by a bridge high over the stream. I can scarcely exaggerate the extreme picturesqueness of this place: the houses are shored up from below, and rise tier over tier on the side of the gorge with one narrow main street running through them. In passing along this street to our inn, we noticed that we were on a level with the roof of the church, which was situated immediately below us,

while on the other side we were overshadowed by the tall houses; in fact, the whole place looked as if it were stuck on to the hillside limpet fashion. Pont en Royans may be described as the extreme western doorway to the Alps, as immediately to the east rise the fantastic limestone crags of the 'French Dolomites,' while to the west the fruitful hill country and plains of the Drôme spread away towards the Rhone. Fresh trout is the great specialty of Pont en Royans: one inn we saw had the sign 'Hôtel de la Truite Fraîche,' while in a conspicuous position at the Hôtel Bonnard fils, where we put up, 'messieurs les gourmets' were informed that fresh trout were to be had and served at any time, and upon the shortest notice. Grenoble may be reached in a couple of hours by rail from the station of Saint-Hilaire Saint-Nazaire, to which omnibuses run in correspondence with the trains, so that the wonderful gorges may be seen in one day out from Grenoble, starting very early and returning very late, a most interesting excursion, which I can highly recommend.

At daybreak next morning we left Pont en Royans, and, retracing our steps through the gorges of the Goulets, reached the upper entrance to them. They seemed almost more wonderful under the early morning light of a lovely autumnal day than on the previous afternoon, and were well worth a second visit. From the inn at the entrance to the gorge we proceeded along the road through the village of La Chapelle en Vercors to St. Agnan, where we lunched. Our destination was the village of Gresse, which is situated N.E. of the Grand Veymont, and lies at a short distance from its foot. Immediately above St. Agnan to the N.E. there is a large forest, through which we had to pass, beyond which lay a dry and desolate tableland, with the low range of limestone peaks culminating in the Grand Veymont between us and our night quarters at Gresse. This forest, which is very dense, and covers an immense tract of country, is said to contain more bears than any other district in France. Judging from the map, there are springs here and there, but otherwise it is quite destitute of water, and we saw no running water from the time we left St. Agnan until quite close to Gresse. We should, indeed, have fared badly in that respect had it not been for the kindness of a 'garde forestier' we met, who not only gave us water, but set us in the right path for Gresse, which we had lost among the bewildering tangle of forest paths; for the trees were so high and thick that we had great difficulty

in ascertaining our exact position. A good path leads up the hillside from St. Agnan to the great plateau for about 2,300 feet, and so far our way was clear enough: it was beyond that, where the paths diverged in so many directions, that our troubles began. It was nearly 4 P.M. when we at last emerged from the forest and saw the peak of the Grand Veymont rising beyond a wilderness of stones, as well as the Pas de la Ville, the pass we had to cross to reach Gresse. We put on steam, however, reached the pass at 5.10 P.M., and literally raced down on the other side, as we were almost frantic from want of water, and were, besides, anxious to get in before it got quite dark, which we just succeeded in doing. At Gresse (3,950 feet) we were most hospitably received by a delightful old landlady (the Veuve Mouttet), who did her very utmost for us, so that (considering the district) we were comparatively well lodged and fed. She was very curious about us, asking many questions, and had very vague and old-fashioned ideas as to our nationality. I quite won her heart by presenting her with a small medal I had purchased at La Salette, and the bill next morning was so moderate as to be almost absurd. Coolidge declared that my gift to her was a diplomatic action with that end in view—a most vile aspersion, which I shall not take the trouble to refute. The Grand Veymont, as seen from Gresse, is grand indeed, being formed, on this side, of immense precipices and jagged towers of limestone rock, looking curiously like one of the great Dolomite peaks. It is the loftiest point of the Vercors, being 7,697 feet high (rising 3,700 feet above Gresse), and although perfectly easy to climb when taken from the Pas de la Ville, I think it would puzzle the best of cragsmen to tackle it direct from below. Starting as soon as it was day next morning (Friday, September 21), we returned to the Pas de la Ville after a quick steep climb, and, keeping more or less near the N. arête, arrived on the top without difficulty in 2½ hrs. walking from Gresse. The day was fine, and we were rewarded by a splendid view, embracing the wonderful forest and plateau we had crossed the day before on the one side, and the great Dauphiné mountains on the other; but by far the most extraordinary feature was the marvellous Mont Aiguille (6,880 feet) below us, with walls all round steep as a house, though it is flat at the top, which is covered with grass and a few trees. The Mont Aiguille is, I believe, really a detached portion of the great plateau, and has been justly termed one of the Seven Wonders of Dauphiné.

The history of the Mont Aiguille is perhaps more singular than that of any peak in the Alps, or, one might say, it is as singular as its shape and appearance. In 1492 (the same year that America was discovered) one Julien de Beaupré, Chamberlain to the King, by order of Charles VIII. of France, and in order to comply with what (at that period at any rate) must have seemed a remarkable whim on the part of that monarch, ascended (June 26) the 'Eguille,' or, as it was locally called, the 'Mont Inaccessible.' Julien de Beaupré was accompanied by a number of followers, and made the ascent by the aid of ropes and ladders. I venture to give a condensed account of the wonders seen by the party: 'On June 26, 1492, I, François de Bosco, almoner to the said Seigneur Julien de Beaupré, in company with other hardy adventurers, ascended the Mont Eguille, or Mont Inaccessible, and the day following, having said Mass on the said mountain, ate, drank, and reposed thereon. The Seigneur Julien de Beaupré changed the name of the mountain from Eguille, or Montagne Inaccessible, to Eguille fort, causing it to be solemnly baptised, in the name of the Holy Trinity, by a certain Sébastien de Carect, one of the royal chaplains, and afterwards chanting the Te Deum, Salve Regina, and many other anthems.' They remained six days on the top, which de Bosco said consisted of a lovely meadow. He also tells of 'une forte belle garenne de chamois,' which, he further adds, could never leave the summit. If they ever got there at all their imprisonment would scarcely surprise anyone who has seen this wonderful mountain. Many wild sparrows of three different colours, red, black and grey, ravens with red feet, and other extraordinary and unknown birds, as well as lovely flowers, some of a hitherto unknown kind, are among the wonders described. They built a hut, and planted three crosses, one on each of the three highest points; but, as he remarks, the mountain which was horrible to ascend was still more terrible to descend. The next ascent one hears of was made on June 16, 1834, by one Joseph Thiollier, curé of Chichiliane, a village close by, and Eugène de Rochas, avocat, of Gap, accompanied by some local men, and with the aid of ropes and ladders and masons' hammers. After considerable difficulties they reached the top, and found the lovely meadow described in the account of the ascent of 1492, but no traces of animals, either living or dead. On the highest point they found what seemed to be the fragment of a stone wall, probably the

remains of the hut built by Julien de Beaupré. They also were immensely impressed by their experiences, and speak of the Mont Aiguille as one of the seven wonders of Dauphiné. The first ascent by a tourist was made in 1877 by Monsieur E. Rochat, who found on the summit a small iron cross, with the record of an ascent made, on July 28, 1849, by one J. Mouttet and two men from Gresse. In 1878 the Section de l'Isère of the French Alpine Club had chains placed in the most difficult parts of the mountain, which were renewed in 1880. This mountain has been frequently ascended by M. Felix Perrin of Grenoble.* The depth of the fissure by which it is separated from the great tableland is, according to the map, about 450 mètres (1,329 feet). 'Joanne' says that the ascent requires five hours and a good guide, and states that it is an expedition he recommends to nobody. Coolidge sends me the following notes of his ascent on August 29, 1881 †:

After waiting several days at Clelles, and making one attempt, which was defeated by bad weather, I started at 6.5 with young Emmanuel Ferrat, the son of the landlady of the Hôtel de la Gare. We followed the path of the Donnière valley (to the south of the peak) as far as the hamlet of La Richardière (halt 7.5-7.10), and thence making a great détour mounted to the base of the S.W. corner of the peak. After a halt for breakfast (8.45-9.30) we started off again along the base of the mountain for ten minutes, and then began the real climb. The way lies through several deeply-cut fissures, or, rather, hollows of the most extraordinary nature. At one moment we seemed to be in the very bowels of the mountain in a great cavern, whither scarcely any light penetrated. The rock is very smooth, and bad to climb, so that I was glad to avail myself of the iron chains, of which there are five in eight bits, one being broken at that time. At 10.45 we gained the upper plateau, which is really quite an extensive sloping grassy meadow, with at least one stunted pine tree, and many flowers. In ten minutes more we gained the iron cross planted in 1849. The view was most splendid, taking in on the north all the Dauphiné peaks, beyond which rose the Grandes Rousses, Belledonne, and Mont Blanc himself. To the south the higher ridge of the Grand Veymont limits the view. Most wonderful of all was it to look down the sides of the huge block on the top of which we were, for they seemed one sheerer than the other, while Clelles and the railway were at our very feet. I seem to recollect the remains of a stone erection, which I identified with the hut built in 1492, but I can find no mention of them in my notes, and the recollection is probably a mere fancy. We spent two hours roaming about

* See his detailed narrative in *Annuaire du Club Alpin Français*, 1878, pp. 630-6.

† See *Alpine Journal*, vol. x. p. 347.

the meadow, and started on the homeward journey at 12.55. We regained the base of the peak at two, then skirted along it as far as a spring at the N.E. corner of the peak, where we halted from 2.20 to 3.10, regaining La Richardière at 3.45, and Clelles at 4.45, after one of the most curious and interesting ascents I have ever made. I was quite satisfied with my young guide, who asked 25 francs for the expedition, a fee which seems rather high until one remembers how absolutely essential local knowledge is to anyone who does not know the one well-hidden and intricate way which has yet been discovered to the summit of this freak of nature.

Following the S. arête of the Grand Veymont in its entire length, we made for a green oasis near the Pas de la Fouille, where we had seen some mules grazing, in the hope of finding some water, of which we were sorely in need, but we were doomed to disappointment. We then crossed the Pas de la Fouille, fairly scorched by the intense heat reflected from the dry limestone rocks; such drought and barrenness I have rarely seen. At last, to our intense delight, in crossing a tiny gully Barnéoud espied a small trickle of water, which we flew to with delight. After a descent of 2 hrs. from the summit of the Grand Veymont, we reached the village of La Bâtie, where we took a rest and wasted an hour pleasantly, wondering all the time at the extraordinary effect the Mont Aiguille presented as seen from this point—more like a paper-knife set on edge than anything else I can think of. The Grand Veymont from this point has also a very fine appearance. Our destination was the village of Clelles, on the railway which runs over the Col de la Croix Haute, between Grenoble and Gap, and in order to reach it we had to cross the little Col de Trézanne, at the foot of, or rather skirting the base of, the Mont Aiguille. It only involved a rise of a few hundred feet; but to take a pass in the afternoon after a peak in the morning is a proceeding I always detest. However, it had to be done, and the changing views we got of the Mont Aiguille formed a redeeming feature throughout. We had some little difficulty in finding our way through the beech-trees on the S. side of the pass, but after reaching Trézanne we followed a good mule road to the railway viaduct which crosses the entrance to the Val Donnière. Passing under it we reached the high road, and soon afterwards Clelles, where we were comfortably entertained at the little inn (*Hôtel de la Gare*) near the railway station. From Clelles the Mont Aiguille is very conspicuous, but it had not the weird appearance it presents from the Col de Trézanne or the top of the Grand Veymont.

Saturday was a mixed day of travel. We began by going in the train to St. Julien en Beauchêne. Here I may remark that St. Julien remains, but unfortunately the 'beaux chènes,' from which it is popularly said to take its name, have disappeared. As, however, the name can be proved by documents* to be taken from the stream in the valley, the Büech, this matters little. From there we ascended the charming valley of Durbon, to visit the ruins of a Carthusian monastery (founded in 1116), from which the monks were expelled at the time of the Revolution. The buildings have been suffered to fall into decay, and little now remains except the four walls. From the monastery we crossed the little Col de Rioufroid, and so reached the valley of Rioufroid, from which we descended to Lus la Croix Haute, a picturesque village. We arrived at the rough country inn, chez Armand (Café de la Poste), opposite the church, just in time to escape a shower of rain. The evening set in wet, and torrents of rain fell during the night.

Next morning (September 23) the weather had somewhat cleared at daybreak, and although threatening we decided to start for the ascent of the Grand Ferrand (9,085 ft.), the second peak of the Dévoluy district, than which there is said to be not a poorer region in the whole of France. This we could well believe, for a more sterile country I have rarely seen: limestone rocks everywhere, scanty soil, and, like many districts in the W. and S.W. Alps, entirely overgrazed by sheep. It seemed to us very sparsely inhabited: I suppose it would scarcely support more inhabitants. Another undesirable feature of this district is the number of wolves it contains in the forests above St. Disdier: there are said to be a greater number than in any other part of France. The rivers and streams in this district in fine weather are most insignificant, but owing to the nature of the limestone rocks and the rapid manner in which the water runs off and through them, a few hours' heavy rain and a sudden storm will turn these innocent-looking streams into fierce torrents which devastate all the lower parts of the valleys and almost convert the district into a wilderness. It is indeed a poor country, although highly interesting to the traveller from the very picturesqueness of its ruin and the wonderful and fantastic forms of the limestone rocks and precipices. Leaving Lus la Croix Haute at 6.15 A.M. we drove for 1½ hr. along the Büech valley

* See the different forms of the name, ranging from 1135 to 1575, collected by Monsieur J. Roman in his valuable *Dictionnaire Topographique du Département des Hautes Alpes* (Paris: 1884), p. 11.

in a rough country cart as far as the foot of the Col de Charnier, which we had to cross before attacking the Grand Ferrand. A rough sheep track leads over the col, to which we mounted rapidly, as the weather became more and more threatening and we were anxious to get a view on the other side, as we had no local knowledge and had only the map and some notes to guide us. We fortunately got a view before the clouds descended, but not a very satisfactory one. Crossing over ridges of rock and sharp *clapiers* of limestone (which cut our boots and tried our tempers sadly), we reached the base of what we thought was the highest peak, which we proceeded to climb from the Crête de l'Etoile. Much to our disgust, we found ourselves on a lower, though cairn-crowned point, the highest peak being some way off, and round its top a storm of wind and hail already raging. We had no time to lose, so rushing down the slope towards the main ridge we attacked the main peak and were soon enveloped in the storm of hail, rain, and wind. We almost flew up the peak, being most anxious to climb it in spite of the weather, and momentarily fearing that we should be driven back, taking note of the main features of the ridge meanwhile so as to guide us on our return. I need scarcely say that our stay on the top (crowned by several diminutive stone men) was of short duration, but we were fortunate enough to get a glimpse of the view through a break in the storm, and to satisfy ourselves that we were really on the highest point. We had abandoned poor old Barnéoud on the way up. As we had climbed the mountain against time, he had not been able to keep up with us; and as we had been absolutely swallowed up in the mist he had not a very clear notion as to where we were, while the noise of the wind was too great for a "jödel" to reach him. We managed to retrace our steps without mishap in spite of the mist, and near the point where we had left the false peak for the arête of the true one we chanced upon him. He looked like a deserted hound, giving vent from time to time to a feeble howl or 'jödel,' hoping to attract our attention. He was unfeignedly glad to see us return all right. Then, joining forces, we made for a cave we had seen on the way up, where we were sheltered from the weather and made a good meal, of which we stood in need and which we much enjoyed in spite of the absence of water to drink, which was a certain drawback; but 'que voulez-vous?' as Barnéoud philosophically observed: 'if we wanted water to drink, the Dévoluy district was not the

place to come to for it;’ it certainly was a great hardship, as the wine we had taken from Lus was, to me at any rate, an impossibility. The rest of the day the weather continued very stormy, and after leaving our cave we descended some way down the valley des Adroits, and turning due S. over a little col leading to the villages of Maubourg and La Combe, reached the village of Agnières, situated on the high road which runs due N. and S. between Corps and Veynes. We found the inn very uninviting, and so determined to proceed to St. Etienne en Dévoluy over the Col de Giers, expecting to find better accommodation. On our arrival there, just before nightfall, we inquired for and found the chief village inn, where the landlady, after eyeing us suspiciously, said very abruptly, ‘The beds are engaged.’ I then asked her, in some dismay, where we were to seek accommodation for the night; she replied contemptuously that perhaps they might let us in at the hospital opposite!! Would she at least cook some supper for us? we were willing to pay. ‘No, she would not;’ upon which she turned upon her heel and left us staring somewhat blankly at each other. It was quite a new experience. Both Coolidge and myself have visited more out-of-the-way places in the Alps than most men, but we had neither of us hitherto found ourselves in a spot where the natives ‘against the houseless stranger shut the door.’ I imagine she thought that we were Piedmontese workmen, who were not good customers; certainly nothing could be more dragged or disreputable than our appearance. Shortly before entering the village we had noticed a most miserable cantine, apparently of the poorest type (Auberge Marcellini), to which we retraced our steps in the lowest possible spirits; but fortunately we met here with an entirely different reception. The hostess gave us her own supper, which merely consisted of some garlic-flavoured mutton and dry bread; but we were so thankful to get food and shelter in this inhospitable region that we actually enjoyed it. Heavy rain during the night and early morning caused us to abandon our intention of ascending the Pic de Bure or Arouse (8,898 feet), so we determined to descend to Corps and finish our mountaineering for the season. Anything more desolate than the valley of the Souloise between St. Etienne and St. Disdier I have never seen. The devastation on all sides and the almost absolute sterility are something to be seen, not imagined. The position of St. Etienne itself is comparatively fertile, and the basin in which it is situated is cut off from the lower valley by an impressive gorge, through which the

road. has been cleverly engineered and in part tunnelled. At the village of St. Disdier we got a charrette and a most obstinate mule to drag us to Corps, which it did in a most leisurely manner, protesting violently with its heels over the splashboard when the driver urged it forward. As the road was extremely narrow, in very bad repair, and often overhung precipices in a narrow gorge, the effect upon our nerves was most trying, so Coolidge and myself walked a considerable part of the way, but Barnéoud, to whom riding in a vehicle of any kind was a dignity and pleasure, apparently under any circumstances, stuck to the carriage like a man. From St. Disdier to La Posterle, about halfway, the road is extremely picturesque, the rocks on either side rising up in true fantastic Dolomitic forms, until we reached the main valley of the Drac. Just before nightfall, and in pouring rain, we arrived at Corps, a village (under the shadow of the Obiou—9,164 feet—the highest peak of the Dévoluy, climbed by Coolidge on August 31, 1881 *), where we had been ten days before on our way to La Salette. Next day we returned to Grenoble *viâ* La Mure and the new railway between La Mure and St. Georges de Commiers, the latter place being a junction on the main line between Gap and Grenoble. The manner in which the line turns and twists in the descent, and finally overhangs the precipices above the river Drac, is something appalling, and that short railway journey was certainly to be considered as one of the many strange experiences we had passed through during our week amongst the French Dolomites.

THE GROWTH AND SCULPTURE OF THE ALPS.

By PROF. T. G. BONNEY, D.Sc., F.R.S.

(The Tyndall Lectures for 1888, delivered at the
Royal Institution, London.)

No. 3.†

It is now twenty-six years since Sir A. Ramsay attributed the excavation of many, perhaps I may say of most, lake basins to the erosive action of glaciers. He applied this explanation not only to the numerous lakelets of Scandinavia, Canada, Scotland, and the mountain

* *Alpine Journal*, vol. x. pp. 347-348.

† Some introductory remarks are omitted in which the author indicated that the erosive effect of glaciers must needs be considered before discussing the history of the minor structural features of the Alps, and expressed regret that on this point he was obliged to differ from Professor Tyndall.