



THE CASTLE OF LA PETRA.
FROM A SKETCH BY MR. J. GILBERT.

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THE PEAKS OF PRIMIERO. A Paper read before the Alpine Club on January 25, 1870. By LESLIE STEPHEN.

AT some distant period, when the Alpine Club is half forgotten, and its early records are obscured amongst the mist of legends and popular traditions, there is one great puzzle in store for the critical enquirer. As he tries to disentangle truth from fiction, and to ascertain what is the small nucleus of fact round which so many incredible stories have gathered, he will be specially perplexed by the constant recurrence of one name. In the heroic cycle of Alpine adventure, the irrepressible Tuckett will occupy a place similar to that of the wandering Ulysses in Greek fable, or the invulnerable Sivrid in the lay of the Niebelungs. In every part of the Alps, from Monte Viso and Dauphiné to the wilds of Carinthia and Styria, the exploits of this mighty traveller will linger in the popular imagination. In one valley the peasant will point to some vast breach in the everlasting rocks, hewn, as his fancy will declare, by the sweep of the mighty ice-axe of the hero. In another, the sharp conical summit, known as the Tuckettspitz, will be regarded as a monument raised by the eponymous giant, or possibly as the tombstone piled above his athletic remains. In a third the broken masses of a descending glacier will fairly represent the staircase which he built in order to scale a previously inaccessible height. That a person so ubiquitous, and distinguished everywhere by such romantic exploits, should have been a mere creature of flesh and blood will, of course, be rejected as an absurd hypothesis. Critics will rather be disposed to trace in him one more ex-

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ample of that universal myth whose recurrence in divers forms proves, amongst other things, the unity of the great Aryan race. Tuckett, it will be announced, is no other than the sun, which appears at earliest dawn above the tops of the loftiest mountains, gilds the summits of the most inaccessible peaks, penetrates the remotest valleys, and passes in an incredibly short space of time from one extremity of the Alpine chain to the other.

Fortunately, my readers know that Mr. Tuckett is a flesh and blood reality—no empty phantom of the imagination, but a being capable of consuming even Alpine food and being consumed by Alpine insects. Possibly, like Sivrid or Achilles, he may have one vulnerable point, though I am pretty sure that it is not his heel; but, if it exists, it has not yet been betrayed to his followers. When, therefore, I read in that great collection of facts and stories founded, it is to be hoped, on facts—Mr. Ball's 'Guide to the Alps'—that the mighty Tuckett himself, and the equally mighty Melchior Anderegg, had pronounced the peaks of Primiero to be inaccessible, I felt something of the thrill felt by

Some watcher of the skies
When a new planet swims into his ken,
Or like stout Cortes, when with eagle eyes
He stared at the Pacific, and all his men
Looked at each other with a wild surmise,
Silent upon a peak in Darien.

I stood silent before the peaks of Primiero, and saw in them a new land, still untouched by the foot of the tourist, and opening vast possibilities of daring adventure and deathless fame for some hero of the future. To me, alas! those possibilities were closed. I was alone (at 6.45 A.M. on a brilliant morning of last August) in the quiet street of the lovely little town of Primiero. I was prepared indeed for a day's mountaineering, but a day how unlike to those when, with alpenstock in hand and knapsack on back, with a little corps of faithful guides and tried companions, I had moved out to the attack of some hitherto unconquered peak! Before me, indeed, lay mountains most exciting to the imagination. Above the meadows of the Primiero valley there rises a long slope, first of forest and then of alp, to the foot of the mighty peaks which spring at one bound to a height of some ten thousand feet. The two conspicuous summits in front are called the Sas Maor, and resemble, if I may be pardoned so vulgar a comparison, the raised finger and thumb of a more than gigantic hand. Behind them, I knew, lay a wilderness of partially explored summits, with sides as steep as those of a cathedral, and surrounded by

daring spires and pinnacles, writhing into every conceivable shape, and almost too fantastical to be beautiful. Mr. Tuckett had made two passes through their intricate valleys and ridges; yet even Mr. Tuckett had shrunk, as I have said, from an attempt to reach their loftiest points. They seemed to be a kind of enchanted fairyland; some strange magic had held even the Alpine Club at a distance, and, what was more provoking, had cast a profound drowsiness over the dwellers at their feet, and almost prevented from raising their eyes to these wild summits, or bestowing names upon them. Yet I could not flatter myself that I should be the first to break the charm or to plant my feet on those daring peaks which had remained undisturbed since they first rose, by some strangely mysterious process, to break the softer scenery around them. I had a Spanish wine-bottle slung round me, a crust of bread in my pocket, and an axe in my hand; but alone, and determined to come back in one piece, I could only hope to open a path for more daring adventurers, and, like a church spire, to point to Paradise without attempting to lead the way. The present paper, therefore, must be prefaced with a warning to true mountaineers that they must expect from it no records of thrilling adventure, and that I shall not even assert (for the perhaps insufficient reason that it is not true) that at any given point a false step might have broken my neck.

My way led at first along a good road, to the foot of the castle of Pietra. I cannot imagine a more enviable dwelling-place for a baron of a few centuries back. From his rocky fortress he looked down upon the little village lying at his feet, and, having the power of life and death over its inhabitants, was doubtless regarded with universal respect. The most practicable road into this secluded country lay immediately beneath his walls, and must have enabled him conveniently to raise such duties as were compatible with the commercial theories of the epoch; that is, he could take whatever he liked. The rock is so precipitous that a few landslips have rendered it literally inaccessible without the use of ladders. But the most eligible part of the estate (to use the dialect of auctioneers) must have been that the lovely little side valley, the entrance to the col, was covered by the castle. This valley, called the Val di Canale, stretches north-eastward into the heart of the mountains. The stream which waters it, sparkling with the incomparable brilliancy characteristic of the Dolomite regions, flows through a level plain of the greenest turf, dotted with occasional clumps and groves of pines that have strayed downwards from the bounding slopes. In the comparison between moun-

tainous and lowland countries, it is an obvious advantage to the former—though I do not remember to have seen it noticed—that it is only amongst the mountains that you can properly appreciate a plain. Such a meadow as that I was crossing would have been simply a commonplace pasturage in Leicestershire. Contrasting it with the mighty cliffs that enclosed it on every side, it was a piece of embodied poetry. Nature had been a most effective landscape gardener, and had even laid out for the benefit of the lords of Castel Pietra a kind of glorified park. I apologise for the expression. I have, indeed, heard true British lips declare that one of the loveliest bits of Alpine scenery was really parklike, and serenely condescend to flatter the mountains by comparing them to the deadly dulness of the grounds that surround a first-class family mansion in our respectable island. Here, however, there was undoubtedly a faint resemblance; only it was such a park as we may hope to meet in the Elysian fields; a park as much like its British representative as an angel to a country gentleman. The difference lay principally in the system of fences adopted in the two cases. Here it was formed by one of those gigantic walls which almost oppress the imagination by their stupendous massiveness. I was evidently contemplating one of the great scenic effects of the Alps, not, to my taste, rivalling Grindelwald, Macugnaga, or Courmayeur, but yet in its own style almost unique. The huge barrier before me was the defence of that fairyland into which I was seeking entrance. The cliffs rose abruptly and with tremendous steepness, though their bases were joined to the valley by long slopes of débris that had accumulated in countless ages. It is impossible to paint such scenery in words, or to give any notion of the force with which the bare rocks, a deadly grey in some places, and tinged in others with the ruddy hue common in the Dolomites, contrasted with the rich Italian vegetation at their feet. The only comparison I can think of is somewhat derogatory to their dignity. I must ask you, however, to imagine a gigantic raised pie, such as sometimes makes the circuit of a table before any audacious guest makes an inroad into its contents. At last appetite gets the better of modesty: a sacrilegious hand is raised, and a few bold gashes with the knife make terrible rents into its solid sides, and heap piles of ruined paste in the dish below. Even so had some mysterious agent sliced and hacked the great Dolomite wall, and though the barrier still rose as proudly as ever along a great part of the line, there were deep trenches and gullies hewn through it at various places, masses had evidently given way at some distant

period, and others were apparently threatening to follow them. I was still in utter darkness as to the geography of the district, but on reflection I thought it best to enter the broadest and most accessible of these gashes, which lay immediately behind the Sas Maor, and is known as the Val Travitale. It was what would be called a ghyll in the English lakes, that is, a steep lateral gorge enclosed by precipitous rocks on each side, and it appeared to terminate at a distinctly marked col, from which there would probably be a descent to the other fork of the Primiero valley. By following this route I should at least pass through the very heart of the mountains.

My climb was interesting from the strangeness of the scenery, but not in any sense difficult. The Dolomite rocks have this disadvantage, that the débris are generally formed of small hard pebbles of dazzling whiteness, from which the water drains off rapidly, and which have therefore little power of cohesion. The foot rests on a bed of loose stones, which in other formations would give firm hold, but which here crumbles away, to the imminent risk of your equilibrium. Not a drop of water is to be had; the sun strikes down with tremendous force, and its rays are reflected with almost unabated power from the blinding stones. In the gully which I was speedily climbing, there was not a breath of air. I was in good training, but without the stimulating effect of company. I began to think of a passage in which Mr. Lecky has argued that a utilitarian moralist has no sufficient reason for being good in solitude; when no eye is upon him he may as well devote himself to his own selfish pleasures. I am a utilitarian. I began to think that there was a good deal of force in arguments which I had always hitherto repudiated as a gross misrepresentation of my case. What if I should sit down in the first bit of shade I could find, eat a crust of bread, and have a pull at my wine-flask, and then, with the help of tobacco, contemplate the beauties of nature? Why this incessant toil to rise, when there is nobody to race me, and nobody to expose my indolence? A languor stole over me, and though I resisted the tempter, I raised my feet slowly and sleepily; I groaned at the round, smooth, slippery pebbles, and lamented the absence of water. At length I reached a little patch of snow, and managed to slake my parched lips and once more to toil upwards. A huge boulder, in colour and form resembling a gigantic snowball, filled up the gully, and gave me a little amusement in surmounting it. A few minutes more and I entered a very remarkable grassy plain, of which I shall again have occasion to speak, and after about five hours' walk from Primiero, sat down on the

col I have mentioned to determine my future course. Here I was in the position of that celebrated gentleman who could not see the town on account of the houses. I was fairly perplexed and bewildered. On every side there were gigantic cliffs, soaring pinnacles, and precipitous ravines. They rose so abruptly, and apparently in such wild confusion, all perspective was so hopelessly distorted, that I was totally unable to get my bearings. The map in Ball's Guide—the only one which I had seen—is vague, and on a very small scale, and, as I had afterwards reason to think, is rather misleading than otherwise, though founded on the best authorities. I was at the foot of the promised peaks—nay, I might be halfway up them, but I could not even guess which was the right line of assault, and in which direction the main summits lay. I might descend the ravine which I saw plunging rapidly downwards amongst the roots of the mountains on the other side of the col, but by such a course I should see no more than I had hitherto observed. After some reflection and hesitation it became obvious that the single fact of which I could confidently rely was that the great mass of rock to the south, on my left hand, must intervene between me and the valley of Primiero. If it were possible to climb it, I should get a more distinct view of the mountains to the north, and might possibly find a short cut home across the ridge. With this plan I commenced operations by ascending a long snow-slope—and I must remark that I do not attempt to give precise indications of its geography because in the absence of good maps I should have to go into a mass of dry detail, whilst any mountaineer who follows me will immediately see for himself the only possible route. The snow was in fair order. I ascended rapidly, cutting a step or two in one place, and on reaching the head of the snow, I took to the ridge of rocks at a part where a very remarkable pinnacle of great height rises into a shape which a fanciful traveller may compare to a bayonet with the point bent over to one side. The rocks, though apparently difficult, turned out to be excellently adapted to my purpose. I topped the ridge, and bearing to my left forced my way along it in spite of one or two gaps which for a moment threatened my advance. It was growing late, and I had reason to suppose that my absence, if much prolonged, might cause some anxiety to those I had left at Primiero. I resolved that I would turn back under any circumstances at 2.30, but I made strenuous efforts to be as far advanced as possible at the fatal hour. My energy was rewarded. With still a minute or two to spare, I stood upon the top of the moun-

tain—of what mountain I could not possibly say. Had I the pencil of a Reilly, I should have instantly sat down in spite of my hurry to make some sort of outline of the view which presented itself. As it was, I drained the last drops of my wine-flask, eat my last crust of bread, and endeavoured to make a mental photograph of the scene before me as rapidly as possible. To the north rose the great mass of peaks at whose feet I had been clambering for hours. I shall presently describe more fully their singular character; for the present it is enough to say that in every direction they presented fearfully steep cliffs, and with the exception of a single glacier of trifling dimensions, scarcely one patch of snow. The summit upon which I was standing was part of the great ridge from which rise the singular peaks of the Sas Maor. I was divided from them by a deep cleft, and, so far as I could judge, was at a point about intermediate in height between those astonishing twins. More singular towers of rock are scarcely to be found in the Alps. At the time, I compared the ridge before me to some monstrous reef stretching out to seaward with a singularly daring lighthouse erected on a distant point, or rather, if such a thing could be imagined, growing spontaneously out of the rock and bending over as it rose. Or perhaps a more perfect likeness might be found to the head of some great monster extended at full length, and armed with a couple of curved horns like those of the double-horned rhinoceros. The monster was covered with all manner of singular excrescences, spines and knobs growing out of his stony hide; amidst which these two singular elevations towered in daring disregard of the laws of equilibrium. One could hardly believe that rock would shape itself into such strange forms, and that there was not some kind of muscular fibre to weave them into comparative firmness. I looked at them with a strong sense of wonder, though, to confess the truth, with a belief that somebody might possibly discover a route to the loftier of the two from the deep trench which divided them from me.

I was the more led to this conclusion from the singularly favourable nature of the rocks I had hitherto climbed. Even where they were most apparently threatening, a nearer inspection revealed abundant crannies and cracks where it was easy to obtain very good hold for hands and feet. If I had limited my reflections to the question of ascending the Sas Maur, I should have simply returned by the way I came. Another plan, however, occurred to me with irresistible force. The rocks were so good that I inferred the possibility of descending straight to the Primiero valley, i.e. by the opposite

ridge of the mountain to that which I had climbed. All my life I have suffered from an invincible love of short cuts. I suppose there is no propensity more common, nor more frequently leading to mischief. Short cuts to learning end in general ignorance; short cuts to wealth, in Pentonville Penitentiary; short cuts to political glory, in Leicester Square; and short cuts in mountain districts to a destiny not less disagreeable than any of these—namely, to the nearest churchyard. However, I yielded to the overpowering impulse. From my lofty perch, I could see the Primiero valley in its whole length, lying almost at my feet. If the ridge which descended straight towards it proved, as I thought the rocks indicated, to be easily practicable, I might reach the valley in a very short time, and save the trouble of descending the tiresome Val Travitale. Time was limited, and after one final glance, I committed myself to the ridge. This ridge, I must explain, lies between two deep trenches; that which I have already noticed as dividing me from the Sas Maor looked the most promising, if I could but effect a descent into it; and after a short climb, the sight of a few sheep which had evidently strayed up toward the ridge from the valley satisfied me that there must be a practicable route. Unluckily my impatience led me to violate a canon of mountaineering science which I commend to all persons travelling without guides. It is simply this:—Stick to the ridge; in nine cases out of ten an attempt to precipitate matters by an unnecessary desertion of the sharp edge will lead to difficulties. Tempted by an apparently easy route, I made a diversion towards the valley, and after some complicated scramblings, found myself at the edge of some tremendous cliffs, invisible from above, but, so far as I could see, impassable. There is a pleasure in these accidental discoveries which is some reward to the guideless traveller for his unnecessary wanderings. I was probably the first person who ever reached a place which is totally out of the proper route from any given point to any other, and it is probable enough that my performance may never be repeated. I might therefore flatter myself that I alone of the human race can enjoy the memory of one particular view—not, it is true, more striking in itself than many other views, but having the incalculable merit of being in a sense my own personal property. At such places too one feels the true mountain charm of solitude. If my grasp had suddenly given way as I was crossing over those ghastly crags, I should have been consigned to a grave far wilder than that ‘in the arms of Helvellyn,’ and which might as likely as not remain undiscovered till there was little left to reward the dis-

coverer. A skeleton, a few rags, the tattered relics of certain more coherent rags which just passed themselves off for clothes at Primiero, and perhaps the mangled remains of a watch and an ice-axe, would hardly be worth the trouble of a prolonged search. These cheerful reflections passed through my mind, and added considerably to the influence of the strangely wild scenery. They also helped to recall me to the propriety of finding my way home, with a skeleton still decently apparelled in flesh and blood—to say nothing of Mr. Carter's boots. Before long, I had returned to my ridge, and was fighting my way downwards. It was an amusing bit of climbing until just above the point which I had marked as offering an easy descent to the valley. I was interrupted by a sudden wall of rock. I managed at one point to creep so far downwards that if mattresses had been spread at the foot of the cliff, I could have dropped without fear; but there were only sheets—and those sheets of peculiarly hard rock. With some difficulty I discovered a means of turning this difficulty also. At one point as I was letting myself carefully down, a pointed angle of rock made a vicious clutch at the seat of my trowsers, and fatally interfering with my equilibrium, caused me to grasp a projecting knob with my right and let my ice-axe fall. With a single bound it sprang down the cliff, but to my pleasure lodged in a rocky chasm some hundred and fifty feet below me. In regaining it, I had some real difficulty. I was forced to wriggle along a steep slope of rock where my whole weight rested on the end joints of my fingers, inserted into certain pockmarks characteristic of this variety of rock, and, to be candid, partly upon my stomach. The last support gives very efficient aid on such occasions. Just beyond this place I had to perform the novel manoeuvre of passing through the rock. A natural tunnel gave me a sudden means of escape from what appeared to be really a difficult place. But, alas! what is the use of such descriptions? How can I hope to persuade anybody that I encountered any real difficulties?—the next traveller who climbs these rocks will laugh at the imbecile middle-aged gentleman who managed to get into trouble amongst them, and, to say the truth, the troubles were of no great account. With an active guide to hold out a hand above, and another to supply a prop below, I might have skipped over these difficulties like the proverbial chamois. As it was, I reflected that, whatever modes of progression I adopted, there would be no one to criticise; and taking good care to adopt the safest, I speedily rejoined my ice-axe, and stood at a kind of depression in the ridge, from which, as I had anticipated, there would be

an easy descent to the pastures below. I was in fact at the point where I had already seen the sheep; and it would be unworthy of an Alpine traveller to describe a route already traversed by such unadventurous animals. All that I need say for the benefit of my successors is this. The valley by which I ultimately effected my descent is that which descends from the col between the Sas Maor and the peak (to the north-west) which I had just climbed. The only difficulty in finding a route lies in the circumstance that the valley is broken by certain walls of rock which divide it into terraces at different elevations. It is rather difficult for one coming from above to discover the proper line. I wasted some precious time by following sheeptracks, under the impression that they led downwards instead of upwards. The route, however, will easily be struck out by reaching the valley as near its head as possible, and then keeping downwards by the left bank of the stream, or rather watercourse. I ultimately reached Primiero soon after dark, having had an interesting twelve hours' walk.

On entering Primiero I had the pleasure of meeting Mr. Ball. It is, I believe, not considered complimentary to a gentleman to describe him as a book in breeches; and it might be an equivocal compliment if I were to describe Mr. Ball as a guide-book on legs. I will, however, say that Mr. Ball's accurate and amazingly extensive knowledge of every valley and peak in the Alps is such as would infallibly swamp any feeble brain. Few people who know so much on one subject could afford to know anything on any other. I need hardly add that Mr. Ball is one of the few. He was therefore the very man before whom to lay my various geographical perplexities. We held a council after dinner in the passage of Bonetti's excellent inn, and my intellects were rendered considerably clearer. What, in the first place, could be the name of the peak I had climbed? Even Mr. Ball did not know, and the cause of his ignorance was speedily explained by an intelligent native. The fact was that the peak had no name at all. But, as our friend explained, Herr Suda, who, if I mistake not, held an official position in some way connected with the Government survey, had proposed to the editor of the map to bestow a name upon it; and that name, as I heard with great satisfaction, was the *Cima di Ball*. I sincerely hope that the name will be adopted. Yet I cannot say that it is in all respects appropriate. The mountain, it is true, has many merits, and amongst them the rather questionable merit of a retiring modesty. Of no mountain that I have ever seen of the same importance in a range is it so difficult to obtain a view. When it appears, it has a vexatious habit of looking

lower than it is, and still more provokingly, of passing itself off as the mere hanger-on of some peak of really inferior merits. Moreover, like the conversation of some of my acquaintance, it is totally deficient in point, and meanders carelessly away, until it may be said rather to leave off than to culminate. Its top is a rambling plateau, which cannot quite make up its mind to act like the summit of a respectable mountain, and nobody had even erected a cairn upon it previous to my arrival, when I threw up a hasty heap of stones. Yet it is distinctly a summit, cut off by deep and wide depressions from all its rivals, and moreover it has one merit which may make it less unworthy to be called after Mr. Ball. By its assistance, as by that of its godfather, I was able to gain a considerable insight into the geography of the district; and upon this rather dreary subject I must now beg to say a few words.

The valley of Primiero forks just above the village, and thus takes the shape of a Y. The main valley, watered by the Cismone, descends from the N., and is joined by a torrent from the NE., issuing from the Val di Canale. The ridge which I had crossed runs diagonally across the fork of the Y. It is a sharp and deeply serrated range, the principal elevations (beginning from the west) being the Cima di Ball, the Sas Maor, and a lower and apparently easily accessible summit called the Cima Cimedò. The two points of the Y are joined by a very singular ridge, which I shall distinguish as the grand plateau. At its eastern extremity this rises to the foot of the Cimon della Pala—an extraordinary peak, of which Mr. Ball says, that whilst its height above the apparent level (as seen from near S. Martino di Castrozza) is about equal to that of the Matterhorn from the Hörnli, the Cimon 'is undeniably the more slender and, so to speak, the more incredible of the two.' At the western end, the plateau rises to the foot of the Cima di Fradusta, an easily accessible peak of about the same height, of which I shall presently have more to say. These two great ridges, the last running about E. and W., and the other from (say) NW. to SE., are, as it were, the framework of the singular labyrinth of peaks. The second (that which includes the Sas Maor) is some distance south of the other. Between them, running from N. to S., is interposed the great mass of the Cimon della Pala, a lofty and apparently inaccessible mountain. It is joined by a series of sharp teeth to the plateau, whilst to the S. it abuts against the Cima di Ball, from which it is divided by what (in the absence of any known name) I must venture to christen the Col Travitale, that, namely, which I had reached in my first expedition.

There remains to be described a very singular formation, which strongly excited my curiosity. From the Fradusta a huge nameless buttress extends southwards, and therefore parallel to the C. della Pala, towards the Sas Maor, from which last it is divided by the deep trench of the Val Travitale. If I may compare small things with great, the geography of the district may perhaps be explained by a parallel with the range of Mont Blanc. Imagine the monarch of mountains to be supplanted by the grand plateau with the Fradusta towards the Aiguille de Goûté, and the C. della Pala near the Aiguille Péteret. The great range of the Géant and the Jorasses will then be represented by the Palle di San Martino; the aiguilles above Chamouni by the nameless buttress; the range of the Sas Maor by the Aiguille Verte; and the Val Travitale by the gorge of the Mer de Glace. The resemblance is indeed very rough, and to make it closer we must suppose that the rivers in the valley of Chamouni and the Val Ferret reverse their course and join somewhere about Martigny. My route would then be represented by supposing that I had ascended the Mer de Glace, and, bearing to the left, had crossed the range between the Verte and the Jorasse, and descended through the Val d'Entremont to Martigny. The region which now excited my interest was that which corresponds to the lofty snow plateau which is traversed in reaching Mont Blanc from the summit of the Col du Géant. Here, as I have hinted, I had seen a singular valley, upon which I had turned my back, but which looked in a cursory glance so strange and characteristic that I resolved to pay it another visit.

My absence, as I have said, had caused a certain degree of anxiety; and to avoid any pretext for such feelings, I consented to take a guide for my next exploration. The person designated for this duty by universal consent was one Colesel Rosso. Against poor Colesel I would say nothing. He is very poor and very deserving; he is willing, exceedingly cheerful, full of conversation, which I regret to say was imperfectly intelligible to his companion, a good walker, and a mighty bearer of weights. In short he has every virtue that a guide can have consistently with a total and profound ignorance of the whole theory and practice of mountain climbing. He followed me with much zeal till I reached what looked to be a rather difficult place, and was then content to sit down placidly, and assured me on my return that I was very brave. I did not deny the truth of a compliment which I had certainly not earned. If anyone wants a good porter in tolerably easy places, I can recommend poor old Colesel; but it would

be wrong to allow anyone to take him on a serious expedition. When I first saw him, I confess that in spite of previous warning I was struck with amazement. It was little that his height was not above 4 ft. 6 in., and that his general appearance might suggest that I was taking with me an animated scarecrow to frighten the eagles of the crags. Poor Colesel, I suspect, had been assigned to me out of charity, on the ground that he was one of the poorest men in a district where the people generally seem to enjoy a fair degree of comfort. Although this principle is scarcely compatible with sound views of political economy, I was glad enough to give my companion a good turn. But I was rather more startled by observing that he held in his hand a shillalah in place of an ice-axe, thereby increasing his general resemblance to a good-tempered Paddy rather more than usually out at elbows; and that he regarded my rope and axe with undissembled wonder. It has so rarely happened to me to walk with any Alpine peasant who could not easily beat me at every kind of climbing, that I still felt some faith in Colesel, and put my best foot forwards during the first part of my expedition, with the view of impressing him with a respect for my powers. The proceeding was quite unnecessary; my guide never showed the least propensity to give any opinion as to my best route, but followed me with great cheerfulness until I reached the glacier. Then, having no nails in his shoes, he was unable to make much progress; and he finally broke down when I came to a climb about equal in difficulty to the last rocks of the Brévent. So much I feel bound to say for the benefit of future travellers; but I repeat that I have good grounds for supposing Colesel to be an excellent porter. Anyone meditating an assault on the Primiero peaks must either go alone or bring guides from more satisfactory districts.

I now proceed to give a short account of my walk. I ascended the Val Travitale, turned to the right through the strange valley I have mentioned, thence climbed the Fradusta across the only glacier of the district, and finally crossing the whole length of the grand plateau at the foot of the Cimon della Pala, descended to S. Martino di Castrozza by Mr. Tuckett's *Passo delle Cornelle*. I returned to Primiero after about eleven or twelve hours' walking. Probably my time was rather faster than the average, as I was anxious to return at a tolerably early hour.

The walk deserves notice, because no other will give a more complete view of all the singular peaks of these most interesting districts. At no point is there the slightest difficulty,

except, it may be, in hitting off the right line of descent to S. Martino. A cairn of stones marks the place at which it should begin; but it is better to say that it lies through that one of two marked depressions which lies nearest to the Cimon della Pala. The valley to which I have so often referred as accessible through the Val Travitale was reached in four hours from Primiero. Ladies who do not object to a steady climb over grass slopes and a few very easy rocks, might easily reach it, and could ride from Primiero to the foot of the ascent. I make this remark, because I am sure that future visitors will do well to visit a spot so singular as, in my experience at least, to be almost unique. The valley lies at a height of some 7,000 ft.; the floor would apparently be almost level, but for the enormous piles of débris which have descended into it, and whose long slopes mask the foot of the cliffs. At times there must be a small lake in the centre; but the rock is of so porous a nature that the stream which enters it from the Fradusta glacier is speedily absorbed. When I was there, it was a dry and arid waste, with a few Alpine plants picking up a scanty subsistence. The peculiarity of this remarkable cauldron lies in the gigantic cliffs by which it is shut in on every side. Standing on the bed of the lake, the traveller looks up to the plateau in front, with the glacier trickling over its edge; the ascent to this direction is gradual. But on his left towers the tremendous wall of the Palle di S. Martino, which if not literally vertical, is as good an imitation of the vertical as even the Dolomite Alps can often produce. It is severed in various places by the deeply scored trenches which I have called ghylls, and which in the German Alps would be described as '*Klamms*.' It might be possible to scramble up some of these for a distance; but their heads are enclosed everywhere by the most forbidding of rock walls. Opposite to the Palle is the equally precipitous form of the nameless outlier of the Fradusta — corresponding so closely in character, that old-fashioned geologists would appeal to the usual convulsion of nature as having separated them in some inconceivable spasm of the remote past. Behind the traveller rise the more varied but equally precipitous pinnacles and rock-faces of the Sas Maor. Some path upwards may possibly lie hidden behind the turrets or in the deep chasms by which the cliffs are everywhere gashed and split. A more savage piece of rock scenery is not to be found in any mountains that I have visited. No undulating snowfields or bounding torrent of glacier break the tremendous monotony. Whichever way you turn, there is only the variety of blank vertical walls and daring spires of dolomite. If the narrow

gateway through which the watercourse of the Travitale descends to the Val di Canale were suddenly closed like the lid of a gigantic trap, you would be imprisoned to all appearance in a dungeon of the sternest inaccessibility. I believe that some geologists hold the Dolomites to be coral reefs gradually elevated to their present position. If this be so, the valley I am describing would once have been an atoll. The summit of the guarding wall is of very uniform level, and extends with only two considerable breaks all round the valley. Hence, if the sea were to rise nearly to the present ridge, there would be a little harbour enclosed by a nearly level reef, with one entrance above the opening of the Travitale, and another of less width above the col. Everywhere within the barrier there would be soundings of some 400 or 500 fathoms close to the edge, whilst outside the shores would plunge with almost equal rapidity to a far greater depth. I do not venture, however, upon such inscrutable problems. Rather I would suggest that some extinct race of giants once raised a tremendous fortress, whose rectangular keep or donjon-tower enclosed this singular hollow. With less variety and less of the charm of the distant and mysterious that belongs to most Alpine views, I have seldom looked upon one, every element of which united with such force to impress the imagination with the sense of stern savage power. There is a description in the 'Lord of the Isles,' quoted somewhere, if I mistake not, by Mr. Ruskin, which gives a description of the wild rock scenery of Loch Coruisk in the Highlands, worthy of a great landscape painter if not of a great poet. Though I spare you the quotation, I would willingly, if it were in my power, transfer some of its spirit to these pages. But the Palle di S. Martino, the Fradusta, and the Sas Maor are incomparably grander masses than any which rise amidst the Scottish highlands, and deserve a more capable poet-laureate to sing their praises. I can only beg some gentleman whose talents lie in florid description to visit this remarkable place, and extinguish my feeble portraiture by a free use of his most brilliant colouring.

And now I must say a few words on another region, almost equally striking, though in a different way—I mean the Grand Plateau. This curious wilderness reaches, as I have said, from the Fradusta to the Cimon della Pala; it must be about 9,000 ft. above the sea, and it took me (if I remember rightly) the best part of an hour to cross it at a pretty rapid pace. Its breadth must be nearly equal in one place to its length. The whole area is roughly level—I say 'roughly,' because the action of the various streams which ramble more or less

aimlessly across its surface have carved it into small depressions, whilst glacial action has rounded off the prominences above into dome-shaped swellings. The glacier which descends from the ridge of the Fradusta spreads out over its surface like honey poured upon a plate; and, so far as I could see, the meltings from the glacier appear to diverge in two or three directions. The watercourses, however, here, as elsewhere in the district, are generally dry; and what sets out as a respectable rivulet speedily retreats down some hidden channels. Some of the hollows were filled with snow, whose melting had produced small and probably temporary pools; but for the most part the plateau was a scene of the wildest and most barren desolation. There are fine views across it to some of the more distant mountains, though cloudy weather materially limited my prospects. But the impression which it made upon me most vividly was summed up in the simple reflection that of all places I had ever seen it would be the last in which I should choose to be surprised by a *tourmente*. On a tolerably clear day the neighbouring mountains supply sufficient landmarks; but if they were blotted out by cloud, and a driving snow-storm were to perplex the traveller's brain and numb his limbs, it would be a very serious matter to wander at such an elevation over this vast undulating plateau, where there is no shelter but that of some huge boulder, and no friendly ridge to break the force of the tempest. As it was, for I cannot avoid the inevitable subject, the day was changeable and uncertain. All the morning, as I climbed, a desperate battle had been waged between the clouds and the sunshine. A determined band of mists had stationed themselves under the cliffs of the Sas Maor. Sometimes they were almost dislodged, and only a remnant clung to the projecting ridges and fought desperately for existence. Just as I was congratulating myself on a final victory of the sun, I would glance at the great pinnacle of the Sas Maor, and see that, whilst I had looked round, they had received sudden reinforcements, were making a desperate sally down the Val Travitale, into the sunshiny meadows below, and were threatening to occupy the whole mountain mass from base to cope. Such scenes are really far more beautiful than unclouded weather; but they are vexatious to an explorer. Neither party could boast of complete success, but I was thankful to have sunlight enough left to find my way and to clear up tolerably the geography of the district. If my successors find many mistakes in my descriptions, I hope that they will charitably set them down to the bewildering influence of a mountain mist.

So much by way of preface—as a Scotch minister may remark, on reaching the *fifteenthly* of the *thirdly*. And now to come to the main body of my discourse, the description, namely, of the Peaks of Primiero; for under that name mountaineers will only reckon those summits which have not as yet felt the foot of human intruders. There are three principal peaks, each of which I have noticed shortly in the course of my paper. Of the Sas Maor I will say that though apparently the most difficult, it is the one which I should attack with greatest hopes of success. As seen from the Val di Canale or the Travitale, it is indeed almost ludicrously unassailable, and the prospect from Primiero is not much better. I fancy, however, that by ascending the valley which I descended from the Cima di Ball, and striking up to the right (that is along the eastern slopes), from near the head of the valley, a route may possibly be discovered. I venture upon this conjecture, not because I could trace any distinct routes, but because I found the neighbouring rocks of the Cima di Ball so much more accessible than they looked, that I fancy the Sas Maor may improve upon closer acquaintance. The two other peaks—the Cimon della Pala and the Palle di S. Martino—closely resemble each other. In each case it is obviously easy to reach a great height. They are huge ridges ‘like a shattered wall,’ as Mr. Ball says, scored across by gashes of tremendous depth and most unpromising aspect. It is easy to get to the end of the ridge, and it would be easy to go along it, were it not for the necessity of striding across these fearful chasms. Dr. Grohmann—a very successful and energetic mountaineer in these districts—had, as I was told at Primiero, made an assault upon the Cimon della Pala. He was only stopped (I quote from memory, and supply the figures from my imagination) by the necessity of crossing a notch with vertical sides some 90 fathoms deep, and 30 in breadth, and rising some 50 ft. above the point on which he was standing. Doubtless engineering science could supply expedients for surmounting such a difficulty, but to the ordinary mountaineer it is rather an alarming obstacle. The ascent of the Palle di S. Martino from the plateau end seemed to be opposed by a similar fortification. I regret that I did not examine it more closely; but the neck of the ridge (if I may adopt such an expression) looked from a distance as though its vertebræ had been divided by a few bold slashes, and reft at such distances that it would require 50-chamois-power to bound across them, to say nothing of the difficulty of balancing oneself on the sharp edge when once reached. It is extremely possible that a route may exist

through the strange maze of cliffs which I had seen from my col and the Cima di Ball. But the view from the valley I have described was certainly not promising. The highest block of the Palle seemed to be cut off by trenches too deep and too vertical to offer much hope to an assailant.

I am half inclined, therefore, to fancy, and have no scruple in ardently hoping, that the Primiero Peaks may remain inaccessible. I, for one, have no hope of climbing them, and I cannot say that I wish that glory to fall to anyone else. At no distant period Primiero will be invaded by the mob of tourists. The select few are already beginning to admire its singular beauties. It will be an additional claim to our admiration if, in this last fastness, the spirit of the mountains should make a final and successful stand, and keep at bay those daring adventurers whose success elsewhere has only been too complete. No one is a more loyal member of the Alpine Club than myself, if I may venture the boast. No one wishes more sincerely that it may flourish and spread, and that it may discover new fields of enterprise, and call forth fresh energy in the most perfectly delightful and innocent of all known amusements. But even my good wishes have their limit; I don't wish the Club to be universally irresistible; and I shall rejoice if at some not very distant day, when I hobble on aged legs (if my legs live to be aged) about the scenes of former exploits,—delightful at the time, and, if possible, still more delightful in the memory—I may still look up at one cluster of magnificent summits, and say proudly, I have been to the foot of those peaks, and nobody has been much farther.

NOTES ON PHOTOGRAPHY IN THE HIGH ALPS. A Paper read before the Alpine Club on Dec. 15, 1869. By the Rev. H. B. GEORGE, M.A., F.R.G.S.

IT is only within the last two or three years that it has become possible to do what I hope to persuade many members of the Alpine Club to do—take photographs anywhere and everywhere that the climber chooses to go. When I went round the Oberland on a photographing tour with Mr. Edwards, in the summer of 1865, his apparatus was deemed, by those competent to judge, a marvel of portability and neat adaptation. I forget its exact weight, but I remember that it was a heavy load for the stoutest of Oberland porters. The whole apparatus I carried during my tour of 1869 weighed rather less than four pounds, exclusive of the stand, which was