

First ascent of the Galenstock

E. Desor

All who have visited the Oberland and are possessed of the least observation, even among ordinary tourists, must have remarked, in the midst of the numerous bold and steep peaks, a mountain distinguished from the others by its rounded form, which represents a magnificent cupola of snow. This is the Galenstock (15,853 ft high), which stands right over the splendid glacier of the Rhone, at the culminating point of the chain which separates the Valais from the canton of Uri. I had several times conceived the project of going to study it on the spot, and had conversed with the most experienced guides on the subject; but they, without combating the idea, had, nevertheless, never seemed disposed to encourage it, not that they thought the mountain too high or too steep, but on account of its peculiar form.

'You must take notice,' said Jacob Leuthold to me, 'that this is a mountain by itself. It has an inclined slope of ice uninterrupted for more than 3,000 ft, which we could only scale by cutting steps the whole way. In a case of necessity this might be done; but on a hot day we should run the risk of finding these steps melted on our return. And you know that to cut others in descending and backwards would be no easy matter. Still there is one way of doing the thing,' he added, after an instant's reflection, 'we might try it some day after a heavy snow, in August or September.'

The brave Leuthold was not, however, to have the satisfaction. He died the same year; and for a long while no one spoke of the Galenstock.

It was in 1845 that an opportunity presented itself of reviving the project of ascent which seemed to have been forgotten. One day, when we had been interrupted in the course of our observations by one of those violent tempests which sometimes break suddenly over the higher valleys, we were obliged to beat a retreat, and it was not without difficulty that we reached the Grimsel. Hardly had we arrived at the hospice when the weather suddenly cleared up. To the tempestuous day succeeded a superb and perfectly calm evening. But the snow had fallen in too great a quantity to permit us immediately to resume our studies, and we met on the steps of the old hospice, and were deploring together that we were prevented from taking advantage of such fine weather, when our principal guide, he who had taken Jacob Leuthold's place, drew me aside.

'You remember what Jacob said to you two years ago? Poor Jacob, if he could have been here now!'

'What would happen then?' I asked him.

'Why, we would go tomorrow —'

'Where?'

'To the Galenstock. Now is the time or never,' he added; 'for there must be at least some feet of snow up there; if we set out early before the thaw begins we should mount without any difficulty; and as to the descent, why we would make a grand sledge party of it. What do you think of it?'

I went at once to consult with MM. Dollfus, father and son, and, after some consideration, it was decided that we should make the attempt. The instruments which we expected to want were packed up at once, the provisions prepared, and M. Dollfus brought out a roll of stuff, of which he had always a stock, that he might cut out a flag which was to float from the top of the Galenstock.

Next day, the 18th of August, at three o'clock in the morning, we set out on the road towards the Col du Grimsel. The company was composed of eight persons, M. Dollfus-Ausset, his son Daniel, and myself, accompanied



27 PLATE XIX.—View of the Glacier of the Rhone, *circa* 1720, drawn by Meyer, engraved by Zingg, from Gruner's "Eisgebirge des Schweizerlandes," Berne, 1760.



28 *Furka and the Galenstock (Photo: Swiss National Tourist Office)*

by five guides. At four o'clock we had reached the elevation of the Col, the summit of which is occupied by the Lac des Morts. The sky was without a cloud, and the chain of Monte Rosa appeared like an immense fire of red-hot coals in the brilliant morning tints, whilst the lower chains allowed us to see over their valleys that transparent halo which our celebrated landscape-painter, Calame, has so happily depicted in the splendid painting of Monte Rosa, which is so much admired in the museum of Neuchâtel.

From the first plateau we descended by an easy slope, though a somewhat steep one, on to the upper part of the glacier of the Rhone, which we crossed without any difficulty, taking care, however, to attach ourselves to one another, on account of the crevasses hidden by the fresh snow. The glacier once crossed, we soon reached the mass of the Galenstock itself, directing our steps zigzag towards the lower part of the ridge. The snow was frozen, and only yielded an inch or two under our feet. Without causing any fatigue, it just gave way enough to afford secure footing. It was not ten o'clock when we reached the depression in question, which we have designated by the name of the Col de Galen. The view which one has from this point is imposing; it embraces, on one side, the great chain of the Finsteraarhorn and its deep valleys, on the other, the upper part of the valley of Réalp, which is passed through in going from Andermatt to La Furka.

We took our way at eleven o'clock towards the culminating point, ascending a very gentle slope along the ridge, but keeping a certain distance

from the edge; for we had observed that, in the line of the principal declivity, the snow overhung the edge of the wall of rocks in several places. Never has any ascent of a high mountain been effected more easily and merrily than this. We might have been taken for a troop of schoolboys going up the Naye or the Chasseral rather than for a party of naturalists making the conquest of a virgin peak of the Alps. On reaching the top I gave way to M. Dollfus, junior, that he might have the satisfaction of planting the standard and taking possession, in some sort, in the name of Science, of a point on which the foot of man had not yet trodden.

In a picturesque point of view we had occasion to verify, once more, the truth of a remark which we had often made; for we were more than ever convinced that the charm of the views, from great elevations, consists much more in the details of the nearer points of interest than in the extent of the panorama which lies beneath the eye. That which fascinates is the sublime chaos of sharp ridges and pointed peaks in the midst of the vast fields of snow, of broken arches and detached pieces, out of which the most experienced eye seeks in vain to reconstruct the original chain. Then there are the contrasts of light and shade which set these objects off in high relief. Here was, first, that deep crevasse of the Valley of the Aar, and that other, not less sombre, in which the Rhone plays his first frolics on leaving the glacier; then, on the plateau between the two valleys, were those two rounded rocks, stretching out their polished surfaces, the witnesses of the ancient abodes of glaciers. There were, lastly, a little further on, the giants of the Alps, with their steep sides and toothed and rugged summits, seeming like old acquaintances, who recalled to us the happiest moments of our Alpine life,—amongst others, the Schreckhorn, on the top of which we still perceived the staff of the standard which I had planted there in 1842, with my friend, Escher de la Linth; and a little further on, to the right, the three twin peaks of the Wetterhorn, which we had visited together in the preceding year, and of which one, the Rosenhorn, also retained tokens of our visit. We found ourselves, further, surrounded with the same guides who had accompanied us up these different mountains, and who enjoyed not less than ourselves this grand spectacle. They found, above all, a great charm in recalling to each other, and to us all the incidents of our different ascents, from the Jungfrau to the Galenstock, and in reviewing the difficulties encountered, and the dangers which we had run on each of these summits.

It was nearly one o'clock when we set off again. The snow was considerably softened on the declivities exposed to the sun, so much so that we sank kneedeep into it. On one side the slope was not sufficient in the direction which we had to go to permit us to slide. 'We wanted,' as the guides said, 'horses to the sledge;' an expression which they use when they take their masters by the legs and run down the side of a mountain with them.

We were now approaching the place where we had reason to believe that the snow sloped over the rocks. So we took care, for greater safety, to follow exactly our morning's track. We marched in a file, the guide Jaun being at the head of the column. I followed him at some paces back: then came M.

Dollfus, junior; after him three other guides, and at some distance behind, M. Dollfus, senior, accompanied by the fifth guide. Merry and light-hearted we chatted about our good fortune, and about the surprise which the sight of our standard would cause to the tourists and guides of the Oberland, as it floated on the summit of the inaccessible peak of the Galenstock, when, all at once, I saw a fissure in the ground open before me and split with the rapidity of lightning. I shall have ever before my mind's eye the spectacle of this gulf with its azure walls, though they only remained so for the twinkling of an eye, the time it takes for the side of a mountain to sink. The cleft, which had grazed my left foot in splitting, had passed between the legs of the guide who preceded me. Whether by instinct or by accident he had thrown himself on to the side of the mountain. Not a cry, not a sound escaped from my mouth during this scene, But when I turned to inquire of my companions I saw all faces horror-struck. They were not there in full number. At two steps behind me a stick was hanging over the abyss, but he who carried it had disappeared, borne away with the part of the mountain which had just broken off. M. Dollfus, who was at a little distance, did not immediately understand the cause of the agitation. He was going to exhort us to be prudent, when he discovered that the party was no longer complete. And certainly, in presence of such a discovery, the emotion of a father needs neither excuse nor explanation. The one who was missing was his son!

Before we had time to collect ourselves, we were enveloped in a thick cloud of snow: this was, as it were, the dust of the fallen mass, which came over us like a whirlwind. It would be difficult to say what happened to us while in these circumstances. We expected every instant while this was going on to see another portion of the side of the mountain give way and draw us, in our turn, into the gulf, and a thousand plans and recollections rushed at once into my mind. What must then have passed through the soul of him whom we regarded as already a victim!

Little by little, however, I cannot possibly say in what space of time, the thick clouds of snow began to grow lighter, so that they permitted us to discern some forms. Hope also began to rekindle in us when we saw that no new crevasses were opening. I then immediately went to the edge of the precipice and stretched myself at full length on the snow, having first fastened round my waist a girdle with which M. Dollfus was always furnished, in order that the guides might, if necessary, draw me up again, if, from the weight of my body, another piece should detach itself from the side. I cannot describe the anxiety with which M. Dollfus, the father, followed me with his eyes, or how many times he asked whether I did not see some trace of his son. At first I saw nothing except an enormous mass of moving snow at a depth of more than 3,000 ft below me. This was the mass which had fallen which was precipitating itself like an avalanche into the Valley of Gorschen, above Réalp. After some instants, however, I thought that through the mist, and almost perpendicularly beneath me, just in the track of the avalanche, I could perceive a dark object. Was it he? I did not yet dare to believe it; above all, I did not dare to answer affirmatively to all the questions asked by the guides. Soon, however, I had no doubt. It was my



29 Incident on the Galenstock (Reproduced from *Ascensions Célèbres*, 1891)

friend's hat and part of his shoulder which I saw. Another question, not less urgent, was to know whether he were living or dead. It was M. Dollfus who asked this time. It would have been very sweet to me, as may be imagined, to perceive, at this moment, a sign of life in him on whom I kept my eyes fixed, and to be able to reply at once to the despairing father, 'Your son lives!' But how could I nourish such a hope? It appeared to me that without a miracle he must have been crushed or smothered by the snow; yet still it was a sort of miracle that instead of being drawn down by the avalanche, he had remained there, so near the surface, at about eighty feet below us. A few moments afterwards I thought that I really could perceive a movement. He was not then dead! The impression which this discovery produced may be imagined. But what will not be understood, what will scarcely be believed, is the devotion of which one of the guides at this moment gave proof. Hardly had I articulated those words, 'He lives!' than Hans Wahren, the chosen guide of M. Dollfus, precipitated himself over the edge of the crevasse. We all uttered a cry of terror when we saw him disappear. Happily he fell into the snow of the avalanche only thirty feet from the top, and as this snow was very soft, he sank so deeply that it was impossible for him to disengage himself.

In the meanwhile, young M. Dollfus had begun to recover from the stun which the fall had caused. He made an effort to look up, and when he perceived me at the top of the precipice, his first thought as may be conceived, was for his father. The news that his father was safe and sound, and that he had not been drawn down like himself, restored his courage. He tried to rise, when he perceived that he had not the use of his right arm. Was it broken or put out of joint? He could not tell yet. 'But broken or dislocated it is nothing,' he cried to us, 'since there is no one hurt but me.'

How then did it happen that he had stopped in his fall at such a comparatively small distance? The fact was that in this long and abrupt slope of the Galenstock there was one isolated point of rock, a sort of little rocky pyramid, and against this that part of the fallen mass struck on which M. Dollfus was. A portion of the snow remained there, and in it he whom it had drawn with it in its fall. If he had been in any other part of this great mass he must infallibly have been drawn down with the avalanche, and would not have been long in disappearing amidst its gigantic heaps.

We had now to consider what means we should take to rescue M. Dollfus from this position. And we did not exactly see what to do. We knew, however, one thing, which was, that we were not going to return without him. But our guides, generally so calm in the presence of danger, were completely at a loss now. There was no way of effecting our descent down the declivity which the avalanche had taken. It was therefore indispensable to draw M. Dollfus up again. But between him and us there was first a vertical wall of over thirty feet, the edge of the crumbled *névé*, then a very steep slope representing a height of some fifty feet.

In order to proceed with as much method as possible, we fastened a cord round one of the guides and let him down thirty feet to the place where his comrade Wahren was stuck fast; and first he assisted him to get free, after which they endeavoured to descend by one of those tricks of which only the

chamois-hunters have the secret, and which consists in finding the exact spots in which the snow is sufficiently firm to bear a man's weight.

They managed this by dint of address and patience, and by literally clinging to the snow, to reach M. Dollfus, whom they had in the first place almost to disinter. But when they had got him out, they discovered with dismay that he had not only an injured arm, but that his leg also was so much hurt that it could do him no service. And how then could a man in such a state be raised up an acclivity of 60 and sometimes 70 degrees. Had it been a descent the thing would have been impossible; but there are always more resources for an ascent. So our two brave men manœuvred so well that they got M. Dollfus to the top of the slope. They then fastened the cord round him, and we drew him up to us, taking care to pull the cord over our sticks which we had placed over the edge of the precipice. We employed the same means to raise the two guides, who arrived safe and sound at the top.

Several long hours had passed in this search, and these efforts to recover him whom we had thought lost. When we were all once more together again on the top of the precipice, the sun was already visibly sinking over the Finsteraarhorn. M. Dollfus was unable to walk, so one of the guides took him on his back and carried him to the Col de Galen. It was there that we meant to take some refreshment, because then only could we believe ourselves entirely out of danger. (Reproduced from *Mountain Adventures* 1884.)

Science on Mount Kongur

Michael Ward

The ascent of Mount Kongur (7719m) was the centre piece of a project in Chinese Central Asia in 1980 and 1981 which combined mountain exploration, the ascent of a hitherto unclimbed peak and research into the effects of oxygen lack in all members of the team.

To combine medical research with the ascent of a peak requires very careful planning and integration so that major conflicts of interest with resulting chaos do not occur. It is essential that the leader understands and recognizes thoroughly the needs of each group and individual and brings these together harmoniously. It is necessary to make certain that each member of the party knows exactly what is going on and why he is required to do a certain often uncongential experiment at a particular time.

As far as the exercise studies were concerned, by arranging that the Base Line studies in the UK should be started at least 9 months prior to the expedition leaving for China, I made certain that everyone was familiar with the essentials of what is a complicated experiment, in which the subject