

down upon Boom Lake, with the curious chain of logs across its lower third, a constant frightening of broods of young ptarmigan on the higher Alps, and the discovery of a fossil in Consolation Valley, similar to those found by Professor Collie and his party in Prospectors' Valley, distant six or seven miles, the previous year.

TWO UNIMPORTANT BUT PERPLEXING PASSES.

(*Kummenfurke and Kriegalp Pass.*)

BY GEORGE BROKE.

THOSE who have undertaken to assist in the new edition of Ball, and have been struggling to compress their stores of information into sufficiently small compass, must have here and there reluctantly abandoned various fascinating topographical problems for which a hard-hearted general editor could not possibly afford space in the new volume. And such problems are much more likely to be found in that debatable country in which wandering can hardly be described as mountaineering proper, though one would hesitate to recommend unguided expeditions in it to a party whose climbing powers were an unknown quantity. Naturally, on that easy ground where a climber almost blushes to be found in possession of a rope, there is far more choice of routes, and also far greater probability of a pass having been used in old days by the inhabitants of the locality, than in districts where the glaciers come creeping down 5,000 ft. from col to terminal moraine, and the naked rocks stand out from the snow with what must have been a very *noli me tangere* air to the peasant desirous merely of getting into the next valley by the shortest and most commodious route.

Binn possesses any quantity of this debatable country; Binn which is only four miles in a straight line from the Rhone and yet is connected with half-a-dozen other valleys by a score or so of easy passes, only one of which can be crossed by a mule, though there are but four or five on which climbers of average experience would need the rope. Two of these easy passes—one on the N., the other on the S.—have caused me enough perplexity during the past twelve months to make me desirous of imparting to my readers, not much information indeed, but perhaps a sufficiency of the perplexity to cause them to make some effort on their own part to elucidate as much of the mystery as may remain unsolved.

The more northerly of the two is the Kummenfurke, declared by tradition to have been the regular way in ancient days from Binn to Reckingen; indeed from one or two of the local legends it would almost seem as if some of the villagers looked on it as a suitable after-church stroll on Sundays. As a matter of fact, even in these degenerate days, it would be possible for an energetic walker to attend early Mass (celebrated at 5 A.M. in summer) at Binn, lunch at Reckingen, and get back before dark, but he would have to be very energetic. To begin with, the pass is not in the Binn Valley at all, but is just to the N.W. of the Rappenhorn, one of the many peaks which are known as Mittaghorn, in this particular instance because it lies due S. of Münster, the largest and most important of the many villages between Viesch and the Rhone Glacier. From the N., *i.e.* from Münster or Reckingen, there is practically no doubt as to the course to be pursued at starting; it is obviously necessary to ascend the Blindenthal, a valley of 'dip' whose torrent seems at one time to have had energy enough to cut its way back through two, if not three, parallel ridges, and to push its watershed a long way to the S. As far as the bridge below Beim Keller the road is clear, and then begins the first uncertainty. Looking at the Federal map to ascertain the exact whereabouts of his pass the wanderer discovers, first, a path leading up from Beim Keller to the Kummen huts, then, as is natural, a blank half-mile or so on reaching the upper pastures; and then another track which, curving round *north* and *west* of the Kummenhorn, crosses two ridges to a little lake high up in the Rappenthal, and well above the tongue of the Rappen Glacier. In this second plainly marked track lies the chief mystery of the Kummenfurke, for, according to all local authorities, the pass is not N. but *south* of the Kummenhorn, and is reached by a path which ascends near the Gorbach to the Herkummen Alp, and thence over stony pastures to two depressions close together in the short ridge between the Kummenhorn and the western cliffs of the Rappenhorn. I once went over the more easterly of these gaps, but, misled by the track marked on the map, had no idea that we were crossing the Kummenfurke. Seeking the most convenient route from the top of the Rappenhorn to the Blindenthal, we went down the right side of the Rappen Glacier for 20 min. or  $\frac{1}{2}$  hr. and then turned up a wide shallow gully to our right. A stony spur on our left cut us off from all view of the Kummenhorn or of possible tracks; but it was early in the season, and everything must have been covered

with snow, which reached just down to the Herkummen hut, while the Gorbach gullies were choked with it, and we glissaded merrily right into the valley.

It was partly laziness, but mainly the fact that the snow was still so low that hunting for paths at 8,000 ft. or 9,000 ft. must have been a failure, which deterred us in 1902 from yet another possible variation of the Kummenfurke. We had meant to mount on the left bank of the Blindenthal from the point where it debouches into the Rhone Valley, till we reached the Urschgen Alp (1,984 m.), which sits on the shoulder in plain view from Münster, and then to stick to the ridge all the way till we reached the Kummenhorn and the mysterious path. This expedition should not present any real difficulty, but would perhaps be preferable in the opposite direction, as the views to the N. would be very fine.

But when the traveller has succeeded by any of these routes in gaining a Kummenfurke and the head of the Rappentbal an even larger choice awaits him in the descent to Binn, from which place he is cut off by the long ridge running S.W. from the Rappenhorn, or rather from the snow plateau just to its S. Looking at his map, and actuated by the natural desire not to go uphill when down will do, he will probably drop down the track marked in the map over the slopes on the right bank of the stream to Ripei and then to Ritzresti. Here he will find a bridge from which a worse track slants up the opposite slopes till it finally reaches the crest just between the grassy summits of the Eggerhorn and Faulhorn. Keeping slightly W. of S., so as to clear the head of the small Meilibach gully, he will reach Binn by the Ebenematten track. Now this is a fairly straightforward route, but it is not that usually followed, as, although in some ways the easiest, it is also believed to be the longest. Undoubtedly, as a natural consequence of the law that valleys descend more quickly than ridges, it involves more ascent and descent, though only to the extent of about 50 m., than if the ridge of the Schweifengrat be crossed further E. It is also likely that in old days there was no bridge at Ritzresti, which would have effectually deterred anyone from taking that route.

Probably the quickest way, and certainly that which involves least additional ascent, is to go to the most southern Kummenfurke, then up the right side of the Rappen Glacier to the snow plateau at its head, and then to descend the Hölzli Glacier into the Feldbach glen. But in old days no one went over a glacier if he could go round, and consequently

the historical route lay a little further W. From the pass the peasant traveller would descend to the nearly flat tongue of the Rappen Glacier and cross to the left bank of the valley, which he then traversed in an upward direction over stony broken ground till he could turn up to an easy col, known vaguely as the 'Joch,' just to the S.W. of the Hölzlihorn, between that peak and the point 2,846. From this point he could make a fairly straightforward descent to the old iron mine in the Feldbach valley; but even then the possibilities of choice were not exhausted. From the iron mine the traditional route goes up again on the S. side of the stream, thereby adding another 50 or 60 metres of unnecessary ascent, passes behind the green point of the Gandhorn, and then descends over the Galen Alp and by Schären and Schinnern to Im Feld. This route might possibly be more convenient in spring or winter, when the Feldbach glen might be choked with snow; but the ordinary summer traveller will save a little time by keeping straight down the left bank of the Feldbach, and so reaching Im Feld by way of Kehlmatten. Going in the reverse direction he must be careful not to go on across the Feldbach by the path to Stafelstatt, but to turn up almost immediately after Kehlmatten.

So much for the map route, the glacier route, and the traditional route; but there is yet a fourth variation, which may perhaps be distinguished as the picturesque route. This consists in reaching the 'Joch' from the Kummenfurke in the traditional manner; but then, instead of descending to the iron mine, the traveller follows the whole length of the crest of the Schweifengrat, till between the Faulhorn and Eggerhorn he reaches the point on the map route where the track comes up from Ritzresti. On a fine day the views must be superb on both N. and S., and it is said to be scarcely longer than any of the others.

There remains just one point that may suggest itself to the mind of a summer visitor to Binn. Why in the world should anyone take any of these routes when he could go quicker and more comfortably by simply descending to Aernen, and then following the old Rhone Valley bridle-path up through Mühlbach (the birthplace of Cardinal Schinnern, a name still possessed by various hamlets in the Binn Valley) and Steinhaus to its junction with the road at Niederwald. Again I think we must look for an answer to the different state of things in winter, especially at a time when the present char-road was only an ill-defined track. Even in this twentieth century I can imagine that the road through the

Twingen gorge might be neither safe nor agreeable on a rough winter's day, whereas the route by Schären and the 'Joch' to the Kummenfurke would lie for the most part over open downs and gentle slopes. Perhaps also some degree of enterprise and of a desire to go straight may have actuated the Binn peasants in their choice, and there may have been advantages in a back way to people who were not desirous of advertising their movements to the world at large. The puzzle about the track on the map N. of the Kummenhorn must remain unsolved. Another similar track, which has no beginning or ending, winds (on the map) across the slopes half-a-mile or so to the N.

The second of my two puzzles is the Kriegalp Pass, right away to the S., the most westerly of the nine or ten passes connecting Binn with Alpe Devero. There is no choice here about the approach from the N., it is simply a case of following the Kriegalpwasser to its head, keeping at first on the right bank by a small but fairly well-marked path from Heiligkreuz, till in something over an hour the track crosses to the other side, 10 min. or so after passing a shepherd's hut. Here, among boulders, shingle beds, and patches of snow, it becomes so faint as not to be worth looking for; the traveller has merely to pursue his way onward and upward, and if he is lucky he will from time to time hit off portions of some sort of path on the steep stony slope (just W. of a small waterfall) which leads up to a veritable wilderness of stones, so that the Kriegalp is emphatically a pass to be crossed early in the season while its asperities are still securely blanketed with the winter's snow.

*Without a map* the traveller is not likely to find any puzzle about the pass; he meanders on for  $\frac{1}{2}$  hr., and then the low cliff that rises on his left hand comes to an abrupt end, and he finds himself looking E. into the upper Val Devero. On his right the lighthouse-like Kriegalpstock, which startled him with its quaint appearance as he came up on to the plateau, stands up boldly 300 or 400 yards away. Down he goes over stones, snow, and grass, making the best of his way to the Alpe Buscagna 2,000 ft. below, and in doubt he will do wisely to keep well to the left.

But if, having accomplished his descent, he then pulls out his Siegfried map, he will probably be a good deal perplexed at finding that the track on the Italian slope has no sort of connection with that on the Swiss side, but professes to cross the frontier 500 or 600 yards further to the N., just to the E. of a tiny lake; and, further, that this point is

marked (if his map is the later edition) as being 18 m. lower than the pass he has just come over. Here is the mystery of the Kriegalp Pass, and I fear I cannot do very much to solve it. Where two Government surveys come together there are always likely to be discrepancies, and of course the Siegfried map has to fit in the Italian survey as best it can. It is, however, curious that the later edition should have emphasised the error, for error it must be. Perhaps I ought not to speak too positively, for we went up to the Kriegalp in mist, sleet, and thunder; but though it was much too cold and wet to use the camera (almost the only occasion when I should have preferred a Frena to a Shew), and so I have no proofs to offer, it was easy to see that a cliff rises steadily to the left above the plateau all the way from the point 2,580. Moreover, in the earlier edition of Siegfried no fewer than seven contour lines are given between the point 2,567 (then without any height) and the dotted line 2,400, making, therefore, at least over 2,610. In the later edition this discrepancy has apparently been discovered, and only five lines are inserted, but I am tolerably certain that the older edition was more correct. Possibly two figures have been transposed, and we ought to read 2,657; but my own impression is that 2,567 is the Italian measurement of 2,580, and that they ought to coincide.

We have not quite done yet with the puzzles of the Kriegalp Pass; it is not much frequented by travellers, but nearly all those who have traversed it write or speak as if the actual crest lay N. and S., between the cliffs of the GÜschihorn and the Kriegalpstock. But instead it lies *east and west*, between the same corner of the GÜschihorn cliffs and that southern outlier of the Helsenhorn which is known as the *Punta di Boccareccio* (3,212 m.). The Kriegalpstock, together with the broken ridge connecting it with the *Pizzo di Boccareccio* (2,927 m.) a little more to the S., lies entirely in Italy, and ought perhaps to lay aside its Teutonic appellation and rest content with being the *Pizzo Cornera Dentro*. It is not very extraordinary that those who have crossed the pass should have been misled, for the rise is very slight on either side at the true frontier ridge. The Swiss map gives the position of the frontier quite correctly, but has erred in marking a slight cliff on the southern side—where there are only gentle slopes of snow and boulders. No doubt there was once a time when the watershed did coincide with the Kriegalpstock ridge, but in accordance with the general law of the Alps it has been pushed northwards. Thousands of years ago the whole of

the drainage of the tiny Kriegalp Glacier passed down the Kriegalp Valley. But in the course of ages the torrent on the Buscagna side, assisted by the rottenness of the rocks, succeeded in eating its way back through the ridge, and has now captured the extreme southern portion of the little snow-field.

I ought perhaps to confess that although one of my special objects in 1902 was the thorough exploration of the Kriegalp Pass, its Italian side is still a *terra incognita* as far as I am concerned; but that was partly the fault of the weather, and partly due to the fact that we had discovered a possible pass to Veglia, still uncrossed, at the extreme S.W. corner of the Kriegalp Glacier. Studying the map in the early spring, I had begun to think there might be a way across the Boccareccio ridge; a view confirmed by an illustration of the Veglia side (at p. 104 of the 1894 'Bollettino'), which showed a very satisfactory couloir curving down from a deep-cut notch in the ridge. A photograph which Mr. Baker-Gabb had kindly given me a year before showed (at a considerable distance) the same gap on the other side, and my opinion was strengthened. Finally Signor R. Gerla, the leading authority on the southern side of the Lepontines, in the course of much other valuable information, plainly declared that there was such a pass, and that it had not yet been crossed.

Our duty was obvious: we were to go up to the Kriegalp Pass, devote an hour or two to exploring the Italian side and elucidating the puzzles, and then go over the new pass to Veglia. Alas! it was again a case of 'weather disposes.' Filled with virtue we actually started at 2.15, having previously arranged that Wilhelm Schmid should convey as much change of raiment as could be compressed into one sack over the Ritter Pass, while the rest of our baggage went by post to Berisal.

But even as we rounded Willeren church the lightning began to flicker; the stars, which had shone brightly all night, began to be blotted out, and just as we reached Heiligkreuz heavy drops began to fall. Perplexity immediately assailed us. Would Wilhelm go on? We had no desire to arrive wet through at Veglia to find no clothes. And if we went back to Binn to wait another day we must do so before our luggage departed at 6 A.M. Eventually we turned into a convenient cowshed just by the Heiligkreuz chapel, and hung the lantern outside the door to attract William's attention. After an hour's wait, during which the thunder rumbled

overhead, he turned up and gave it as his opinion that this was nothing but 'showers.' So, as he also maintained his ability to find his way over the Ritter in any sort of weather, we hardened our hearts, solemnly pledged him to go on, whatever happened, and turned up the side valley. For some time things looked a little better; we crossed the Fleschenbach without difficulty by a tree-trunk, though a learned professor at Binn had solemnly warned us that we should be hopelessly pounded at that point; but an hour after leaving Heiligkreuz a perfect deluge (one of William's 'showers') swept down upon us up the valley. Fortunately we were close to the hut marked on the map as 1,840 m., and fled on till we found it. Its doorway was carefully barricaded with branches, and inside we found a sorrowful black sheep, who seemed much alarmed at our arrival. We assumed it was meant to be a prisoner, and carefully defeated its efforts to escape, for which we felt thankful when 10 min. later the shepherd appeared, a weird figure swathed in a blue capote. He lit a fire, for which we were extremely grateful, and proceeded to melt a loathsome decoction, with which he anointed the sheep's leg. He also seemed to think the weather was not going to be anything very dreadful, so after again waiting for over an hour, which we utilised by having breakfast, we set forth into the wilderness. From behind us masses of mist would roll up, envelop us with a spray of rain (twice we had to stop for 5 min. before we could see our way), while all the time the thunder rolled and rattled among the crags of the Helsen ridge on our right.

Further on it really did clear a little: the quaint castellated crags of the GÜschihorn and the tower of the Kriegalpstock stood out clear, and there was quite a patch of blue sky away to our left. But, as we entered on the final plateau, an even heavier mass of cloud came swirling up the valley. For some time grievous doubts had assailed us as to whether we should ever get over the Finestra di Boccareccio, as Signor Gerla had named our new pass; we had no desire to spend the rest of the day in tramping over the Scatta d' Oroghna and the Passo di Valtendra; and consequently the Italian side of the Kriegalp Pass was abandoned without discussion. Twenty minutes' or  $\frac{1}{2}$  hr.'s disorderly flight, edging always to the right, took us across the plateau to the frontier ridge. Alas! it was so gentle that the lee side gave no more shelter than could be found under a boulder rather larger than the rest, and the storm burst on us in all its fury. One of us clamoured for chocolate and biscuits and got them, while the

others struggled with frozen fingers to encircle themselves with the rope, for 1,000 ft. of steep snow couloir lay between us and the wished-for col. Fortunately, as sometimes happens when rain has been judiciously mingled with the sleet, the snow was in perfect order, the couloir itself was sheltered from the howling blast, and 1½ hr. of steady kicking up ever-steepening snow, in which were two rather uncomfortable avalanche gutters and an opening bergschrund, landed us one by one into the teeth of the gale again. 'Facilis descensus,' especially as the couloir on the other side was not so steep; and Veglia was gained more rapidly than we had expected, though William, who perhaps had begun to have qualms as to the mere 'showeriness' of the weather, had been anxiously looking out for us for an hour or two. But that is why the Italian side of the Kriegalp Pass with its track leading up to 2,567 is still a mystery, so far as I am concerned.

#### THE RANGE SOUTH OF THE OTEMMA GLACIER.

By A. CUST.

THE Italian monograph 'In Valpellina,' by Signori Canzio, Mondini, and Vigna, published originally in the 'Bollettino' of the Italian Alpine Club, vol. xxxii, 1899, and briefly noticed in 'A. J.' vol. xxi. p. 64, deserves the study of English climbers, if only that the mountain part of interest to climbers was produced in collaboration with Mr. A. G. Topham, to whom the manuscripts were submitted.

The two Ciardonnays are distinguished, in accord with the latter and myself, as Becca di Ciardonnay Superiore and Inferiore. The first has two summits, marked on the Italian map E. 3,347 m. and W. 3,343 m., but the height for the mountain on the Swiss map, 3,398 m., is preferred.\* I regret that another suggestion to change 'Great' into 'Little' in the title of point 3,437 m. (a height to be reduced, it appears, by about 100 m.) could not be adopted. The obvious misnomer, however, Grand' Epicoun, is, in

\* The point where we made our cairn was a rocky cone E. of the snow ridge which forms the general summit of the mountain. On leaving the rocks about the middle of this we found a convenient shale path below it to the base of the cone. Our descent being to S.W. over snow S. of the summit ridge, we no doubt passed the second summit on our right. After following down the arête that descends to the Colle di Berlon we found a devious way down among ridges on its W. side, which brought us near the top of that pass. We then reached the route of the Crête Sèche, though perhaps not at the actual col. Mr. Topham's rectification of the watershed determining the frontier line, making it pass from the summit of the Lower to those of the Upper Ciardonnay by the intermediate col, is accepted.