hypsometer, and the aneroids averaged as well in this respect at 19,000 ft. and above as at 5,000 to 8,000 ft.

The two which proved most reliable often agreed in their readings or differed by only ·01 or ·02 inch. Both of these always showed plus errors above 17,000 ft., except on one occasion, when one of them had a slight minus error.

This last circumstance is of interest in connection with Mr. Whymper's observations on the loss of aneroids of an older type as compared with the mercurial barometer under diminished pressure, indicating possibly an improvement in construction.

Further observations with these two and a 3½-in. aneroid scaled to 25,500 ft., recently made for us, all of which when set and tested in the laboratory were found to correspond with the standard mercurial barometer throughout their whole range, showed a disagreement in the readings of all three after being carefully taken in a hand satchel at sea-level a few hours' journey from London. These facts, together with others of similar nature, lead me to the opinion that motion, if not the chief, is a very important factor in the causation of index errors, whatever may be found to be the effect of diminished pressure on instruments of recent construction.

The Beichgrat.

By THE EDITOR.

EVIL weather drove my friend W. C. Compton and myself, with our guides, Johann Stoller, of Kandersteg, a son-in-law of Compton's favourite guide, Abraham Müller, and Benjamin Pession, a brother of my trusty companion François Pession, of Valtournanche, to Belalp on August 28, 1905. We walked up from Naters on that rare delight last season a really fine morning. All things were at their best except the flowers, which had for the most part gone to sleep to prepare for next year's exhibition, except *Campanula barbata alba*, which would have been the bliss of solitude, but near to so frequented a track was adventuring itself to destruction. Shall I not then receive absolution from my readers when I admit that I plucked its flowers, lest haply they should be conveyed, roots and all, to an untimely sepulchre on the window-sill of some pseudo-philanthist's bedroom, or be exhibited in a purloined soup plate to the languid gaze of a bored *table d'hôte*? The weather, instead of bullying us, laid itself

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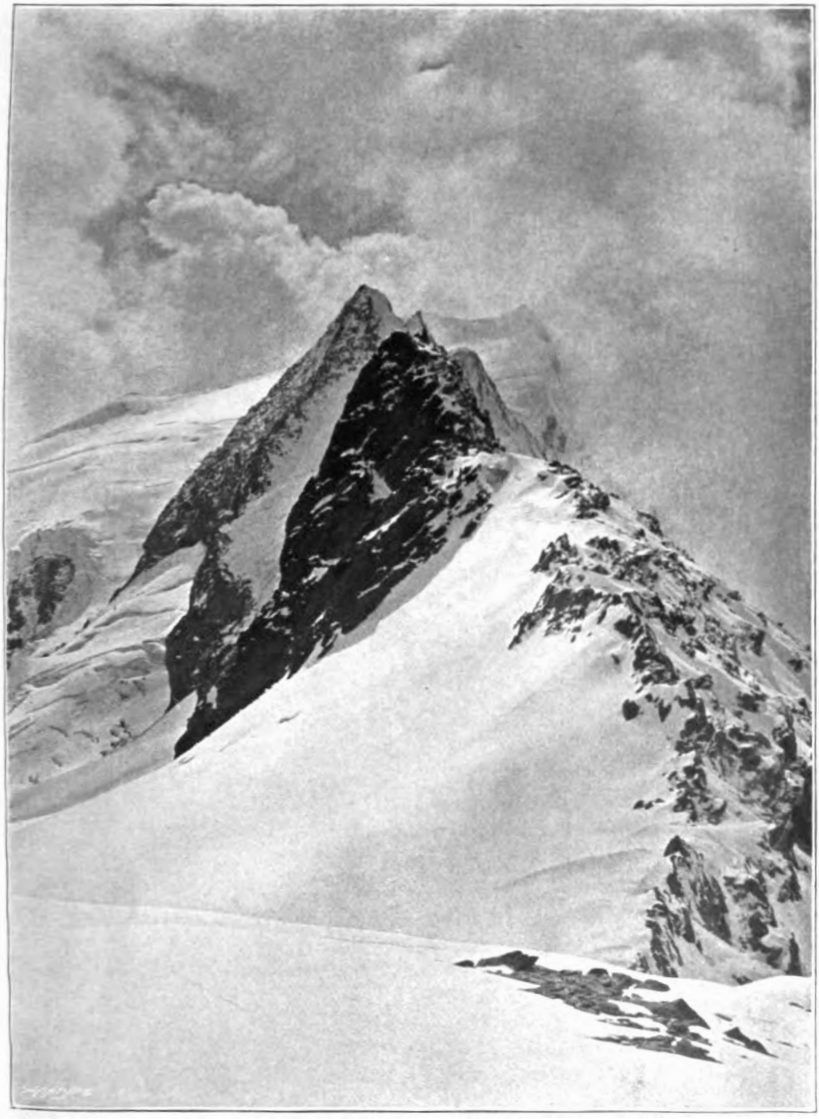

W. C Compton. photo. *Swan Electric Engraving Co.,*

LONZAHÖRNER FROM BEICH PASS.

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out to be complaisant, and nothing seemed to come amiss. Even the bilberries, in widest commonalty spread, were something more than a mere purple patch on the hill-side, to judge by our fingers and lips. We reached our destination early. Fair indeed laughed the morn, but ere night the tempest was abroad again.

The next day was the very reverse of what our fancy had painted it, for in the morning snow lay low on the mountains and there was a layer of it on the wall outside the Belalp Hotel. At first sight you might even have taken that commonplace agglomeration of stones and mortar for the arête of a third-rate mountain. One interview with the guides was no sooner over than it occurred to us that we had forgotten something we wanted to say, or to them that we should like to hear the newest bit of gossip about the weather. Thus we met and parted and met again with an iteration as delightfully irrational as that of Romeo and Juliet. But our meetings were not so satisfying as those of the Veronese lovers. Shaking of heads, shrugging of shoulders, deprecatory spreading of hands, utterances worthy of the Delian or Delphic Apollo were all the consolation we could get. Our devotion to tea and coffee became phenomenal, as novels in their sixpenny superfluity palled upon us. Occasional glimpses of one or other of the Fusshörner in a feathery raiment of snow, which as little concealed their truculence as Omphale's rent sark hid the grim strength of the burly Hercules, told us we were in the Alps. Otherwise we might have been prisoned on any desolate hill-side in Connemara or Carnarvonshire.

But at any rate no possible chance must be lost; therefore on August 30, with considerable misgiving, while the sun was still suffering from a partial eclipse, we started for the Ober Aletsch hut. Before we got to the glacier we passed a herd of cattle, very friendly beasts. They stood in the path and received our patronage stolidly. Then I expounded to Benjamin where his brother François had led us to victory on one of the up till then unclimbed Fusshörner in 1898. I saw afterwards that I had been quite mistaken in my description of our route; but if Benjamin's memory is sufficiently tenacious to remember what I said to him I shall but have enlivened the mountain discussions by Valtournanche firesides this winter.

Lazily we proceeded to the hut, which we had the good fortune to have all to ourselves; and heart-felt were our thanks to the Chaux de Fonds section of the Swiss Alpine

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Club for their kindness in providing climbers with so clean and comfortable a shelter. Having deposited our baggage—I did not take so much interest in this process as the others, seeing that I made no pretence of carrying anything except the 'Climbers' Guide to the Oberland,' vol. ii. (which, as a matter of fact, I had left at York)—we strolled up in the direction of the Sattelhorn, as we had thoughts of crossing that peak to the Lötschenlücke on the morrow.

A little later the weather began to show signs of resuming its familiar veil of inky gloom, and we turned in with many forebodings for the morrow. There were plenty of blankets, and I believe we all enjoyed a satisfactory amount of sleep.

At 3 o'clock next morning (August 31) the guides went out to examine the prospect. I followed them. It was a gloomy trio that returned to the hut. To the north the outlook was threatening, and a thick fog was slowly crawling up the glacier between the Fusshörner and the Belgrat. Whilst it confined itself to creeping in Tennysonian style from pine to pine well and good, but when it trespassed upon the summits where we would be we gave our views upon it with more vehemence than politeness. Our moan thus made, we resumed our slumbers, or at any rate pretended to do so.

At 6 we started, though appearances then were by no means reassuring. We decided to give up the Sattelhorn and try the Beichgrat, with its two points of 10,676 ft. and 10,670 ft., to which the 'Climbers' Guide' attaches the strangely hortatory label 'No Information.' If a word is enough to the wise, surely two words even to poor average climbers must be more than adequate.

We curved round the end of the Thorberg by the point marked 2,617 mètres on the Siegfried map, and then made for the figures 2,798 mètres of the same invaluable atlas. We put on the rope earlier than usual, as there was so much new snow that such a precaution seemed advisable. We eventually reached the figures 2,798 mètres, and then climbed the rocks indicated above them. In an ordinary summer this would have been a distinctly difficult task, but as we found it there was little to complain of. So much snow—of a consistency which inconsistent mortals can but dream of—covered the smooth rock that we walked up without much discomfort, though at first the guides were distinctly distrustful of it. We then traversed, descending slightly to the last of the semicircular band of rocks which lies to the S. of point 3,254 mètres of the Beichgrat. Keeping to the E. of this we mounted for some distance, and then, owing to the

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crevassed state of the glacier, we turned westward and, passing the rock-band, went up snow, lying on ice, but perfectly secure, so deep was it and so consistent in texture, to point 3,254 mètres, the last bit of the ascent being over snow-plastered rocks. A few stones were then thrown together on the highest point, and Stoller, for some reason which neither Compton nor I could quite understand, being unable to recommend a descent to the W. towards point 3,252, we retraced our steps—we had gone some little way westwards along the ridge—perhaps two-thirds of the way down the snow which we had mounted. After traversing to the W. we came to the upper edge of the rock cirque before mentioned and descended its W. face by an interesting though short scramble to the glacier below. On these rocks I found *Ranunculus glacialis*, scorched by the frost, and *Chrysanthemum alpinum*, prematurely shrivelled by the same pitiless agency. Then turning northwards we reached the col between the rocky W. ridge of point 3,254 and the beautiful snow point 3,252. Here we lunched, and then walked up 3,252,* taking care to avoid the considerable cornice which in places overhung its northern face. This point is a beautiful snow pyramid, and if it were higher would certainly claim a distinctive name. We called it the 'White Nightcap,' owing to the curve of the actual snow summit as seen from the W. When we reached this little mountain the weather improved, and we had fine views of the sharp eastern point of the Lonzahörner, the first ascent of which I had made in 1884 with Alphonse Payot and Séraphin Henry, not without a good deal of step-cutting in steep ice, a task in which I doubt if Alphonse has a superior. We greatly admired the Lötschthaler Breithorn, which kept changing the colour of its scarf of cloud like a beauty unable to fix upon the most absolutely captivating head-gear. The N.W. ridge of the Nesthorn, so lately conquered † by Messrs. Hope and Kirkpatrick, looked most impressive.

We then descended the rest of the arête to the Beich Pass, by snow first and afterwards by rocks. There were many quite enjoyable little excitements in this descent, the more delightful because hitherto the weather had treated us with such scant consideration.

In going down from the pass we did not keep sufficiently to

* It seemed to us that the eastern point was considerably more than two mètres higher than the western.

† *Alpine Journal*, vol. xxii. p. 618.

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the W. The fault was mine, for I had recollections of descending to the W. of a sort of arête of rocks. Consequently we went straight down by a big snow couloir on the W. of the ridge of rocks immediately to the E. of the pass. When we had descended some way in deep snow Stoller, who was leading, refused to proceed any further, as he said we should have to pass under a hanging glacier, which was very visible to the W. of our track. With his objection we thoroughly agreed, though it was urged that the ridge to the E. of our track would take us safely to the valley; it was, however, decided that we must retrace our steps, make a traverse above the hanging glacier, and then seek a way down on the W. of that threatening obstacle. To some perhaps a monosyllable would have summed up the situation, but the word was not spoken. The snow was nearly up to our knees, but the retrograde movement was duly effected, not in what remained of our footsteps of the descent, but through untouched snow interspersed with a few rocks a little more to the E. These rocks were like the porter in Macbeth to the rest of that play; without them the reascent would have been pure tragedy.

Having passed above the hanging glacier westwards, a descent was made practically straight down to the Lötschenthal. We soon discarded the rope, and going as we pleased—a glissade of some 500 ft. being part of the programme—arrived separately at the stream in the valley. I was the last to reach it, and found the others preparing for afternoon tea, for we carried with us a small tea-kettle with a folding handle—an adjunct to comfort so cheap (it cost a shilling), so light, and so consolatory that we are not likely to forget it in the future. The guides fully appreciated its virtues and had been thoughtful enough to carry with them a few dry sticks. The sparkling water of the stream and the latest left of our store of lemons completed our happiness.

We had a beautiful walk down the valley to Ried. The woods, fresh from the recent rains, were charming; even the pastures had some of them received a pleasing verdure. At one hamlet half a small God's acre was simply ablaze with flowers, many of them annuals. The peasants whom we met had not lost the natural friendly feeling for strangers which still survives in primitive valleys; they all said, 'Good evening.' We reciprocated their kindly wishes. Such hospitable greetings, though they may cost little, are worth much in these days of everything for advertisement and advertisement for everything. The younger women were for

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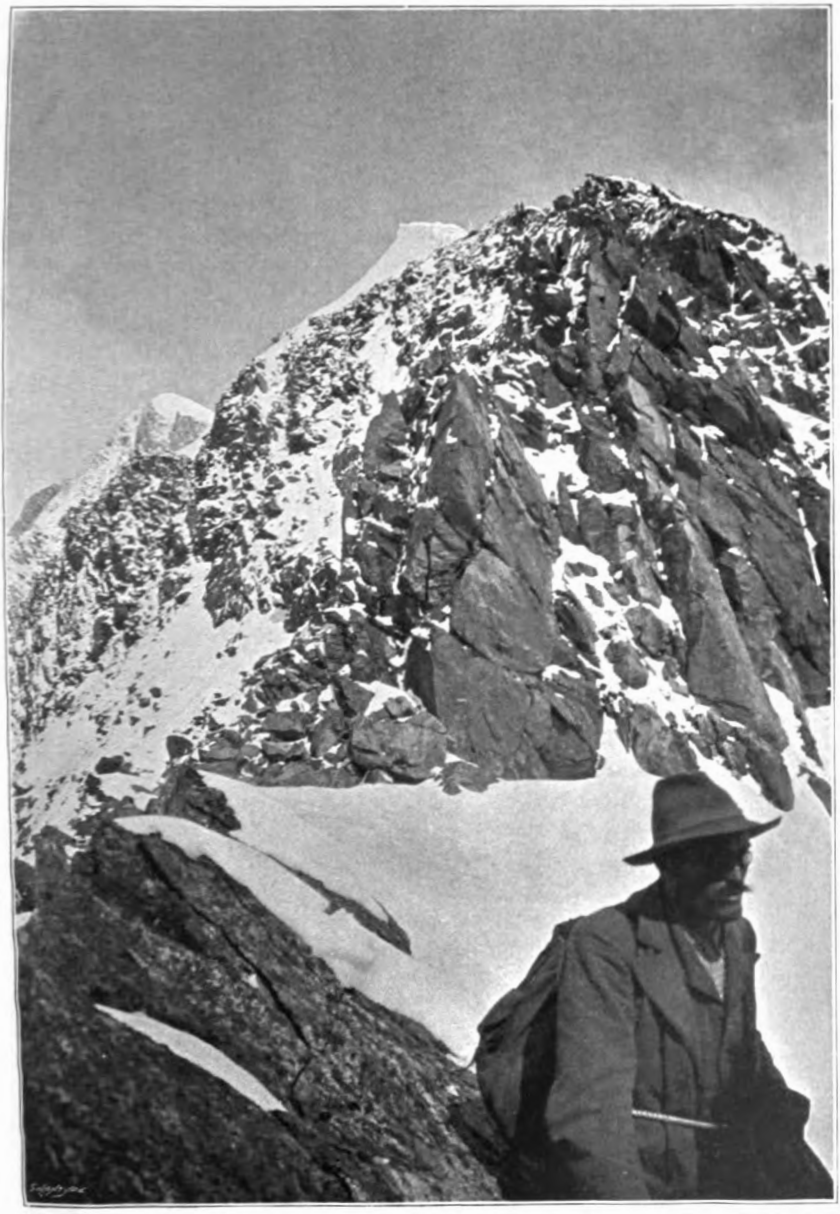

W. C. Compton. photo. *Swan Electric Engraving Co.,*

WEST PEAK OF BEICHGRAT (The White 'Nightcap').

FROM COL E. OF BEICH PASS.

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the most part comely and wore a headdress—I know not whether it should be called hat or cap—which attracted Benjamin's attention. Stoller was already acquainted with the phenomenon.

But the mountains were the great attraction. Sometimes as we looked back the distant Schienhorn glowed in the sumptuous light of evening. Sometimes a scarf of golden cloud hid the stately Lötschenthaler Breithorn. Anon it half dissolved, showing a blue space of sky above the icy walls and sharp snow-crests. Sometimes a soft, semi-transparent vesture of pale pink wrapped the Breitlauihorn; you lowered your eyes to the pine woods or to the pale purple of the colchicum in the meadow. When you raised them again it had gone. The Lauterbrunnen Breithorn, which, by the way, from the Beich Pass in sunshine might be taken for a massive Duomo of spotless white marble, remained behind a heavy curtain of cloud, as though a great stage effect was preparing. Suddenly the wind raised the curtain and a masterpiece of Nature's theatre claimed our almost breathless admiration.

After hearing from more than one quarter disquieting reports of the inn at Ried, which had been enlarged since my last visit, it is a pleasure to be able to say that we found it clean and comfortable and the prices reasonable. The next morning was lovely, and it was not till about ten o'clock that we left for the Lötschen Pass and Kandersteg. We had a delightful walk. On the outskirts of the pine woods there were many striking single trees—patriarchs among their kind. In places there were acres of *Anemone alpina* in seed. Fancy the sight in spring, when ten thousand of them were raising their open cups in sun-worship! When we had walked some distance, as we were lunching, we were witnesses of a curious hybrid friendship, if I may be allowed the phrase, between a red calf and a black lamb. We watched them with amusement; they were the quaintest pair. When the calf stood still the lamb composed herself to sleep comfortably in his shadow. When he moved on she got up and followed. The bulkin kept well away from the herd, for doubtless the heifers all made fun of him and his ally.

So far the weather had been splendid, and we had had glorious views of the peaks I have previously mentioned, as well as of the tremendous wedge of the Bietschhorn, but when we came to the spot where the waters separate—those for the North Sea to the Kander and those for the Mediterranean to the Lonza—fog came down upon us. There was a considerable quantity of snow about, and we went on,

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seeing but very little till we had got a good way down into the Gasternthal. The special flower of this side was *Aconitum Napellus*, the great majority of blooms being of the ordinary blue variety, but one or two of a pinkish mauve tint, such as I had not come across elsewhere. We saw four ptarmigan, and then when we got close to the floor of the valley the mists cleared a little. The cattle had left the high pastures, for it was now September, and it was only when we were in the valley, close to the Kander torrent, that we found a chalet where we could obtain milk and so enjoy tea. The little inn across the stream looked quite inviting, but would have taken a good half-hour to reach. The shades of night were rehearsing the opening line of Excelsior as we finished our tea-drinking. I was agreeably surprised at the Gasternthal, as I think was Compton, though he knew the country and I did not.

I expected grim crags, storm-worn slopes, and more or less bare flats, with occasional pastures; but we found instead green meadows and quite imposing forests, though above them there were sheer cliffs almost without a single ledge, with an occasional wreath of dangling water-smoke, and savage battlemented rock-towers, compared with which the famous Château Gaillard of the Lion Heart were hardly more than a toy.

Gradually the light grew less. In one or two places the Kander had amused himself by destroying the pathway. There was no obvious exit from the darkening ravine down which we plodded. We seemed to be shut in as if in a prison. The gruff voice of the Kander seemed to mock us. The pitiless walls and fast gathering gloom seemed to close in upon us. The light went all but out. It was a most impressive walk. But of course we knew that there was a way out, and moreover Stoller had been sent on to his father-in-law's hostelry, the Hôtel Müller, to see that supper was ready on our arrival. To be brief, we duly reached the inn. Supper was ready. We had had a day and a half's fine weather, and made good use of such, in 1905, no mean good fortune. We deserved to sleep well, and did so. The Hôtel Müller earned our grateful commendation.

I found Kandersteg greatly altered. The water cart has arrived, the electric light is in working order, new hotels and restaurants are well-nigh as plentiful as blackberries. It is a place for Dives, that lived in purple. To be sure if the shortly expected electric railway comes—I say nothing—but may Kandersteg never become the place for Dives in the last phase of his history.

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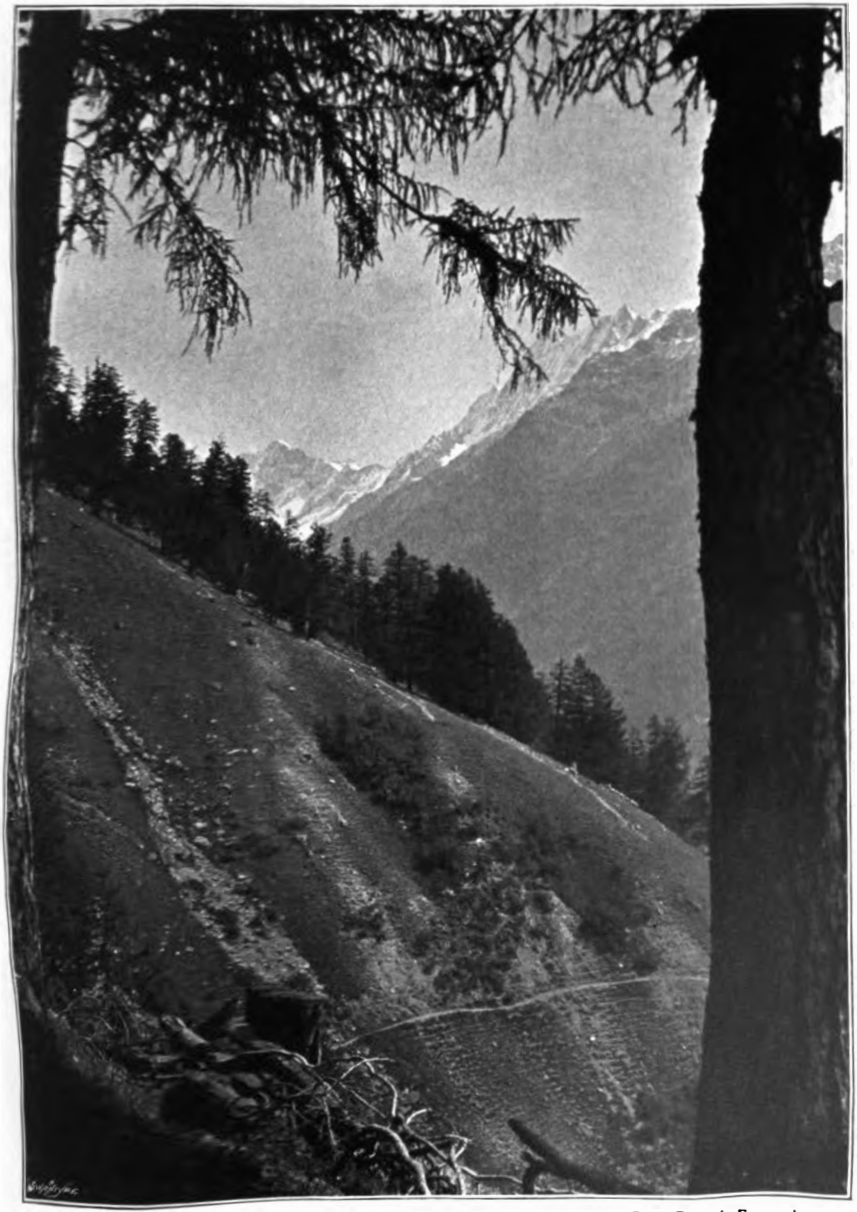

W. C. Compton. photo. *Swan Electric Engraving Co.,*

BEICHGRAT AND BREITLAUIHORN

FROM LÖTSCHEN PASS PATH (above Kippel).

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