

forth appear in the map. The most important of these are JUNGFRAU JOCH, LAUINEN THOR, EIGER JOCH, MÖNCH JOCH, FINSTERAAR JOCH, STUDER JOCH, KRANZBERG, and TRUGBERG.

It is to be regretted that no attempt has been made to get rid of the duplicate Breithorns, which confront one another across the Lötsch Thal, and the two Jägi glaciers lying under them; nor is it desirable that there should continue to be two Rothorns, one on each side of the Oberaar Joch, especially when there is another and much lower Rothorn near Brienz. If it were still possible we would suggest that the Rothorn which divides the two névé fields out of which the Viesch glacier flows should be called after Hugi, who was the first well-known explorer of that intricate region, since Scheuchzer, Agassiz, Gruner, and Studer are all commemorated in neighbouring peaks. A distinctive name for the vast snow-field now vaguely denominated *Tschingel oder Kander Gletscher* would also have been useful, and would have rendered it possible to confine these two very distinct names to the true glaciers flowing in opposite directions out of this snow-field. But these are almost the only blemishes left on Blatt XVIII., and everyone will concur in thinking that a great and valuable improvement has been effected.

ASCENT OF THE SILBERHORN FROM THE NORTH.

By the Rev. J. J. HORNBY, M.A.

ON the 29th July, after nearly a fortnight of rainy weather, my friend Mr. T. H. Philpott and I took advantage of a tolerably fine morning to walk up to the Wengern Alp through the quiet Trümleten Thal. This route seems to find little favour with tourists, probably owing to the fact that the little upland valley looks rather difficult of access from below, and that the steep path which leads up to it is not practicable for horses. It well deserves, however, more notice than it has received as an Alpine byway. The path leads up through a pretty little wood commanding a succession of noble views—first of the fine peaks at the head of the Lauterbrunnen valley, then of the steep cliffs of the Schwarz Mönch and Silberhorn towering close overhead, and lastly of the Mönch and Eiger closing the end of the valley. When once the actual trough of the valley is gained, the pedestrian may strike up where he pleases, through wood or over open pasture, to the ordinary Wengern Alp route.

Our object, however, was not so much to explore the beauties of the Trümleten Thal as to get a close view of the north face of the Silberhorn, in the hope that a direct route might be found over its summit to the top of the Jungfrau. We were of course aware that in 1863 Messrs. Baedeker and E. von Fellenberg had succeeded in reaching the former peak by a circuitous route over the Guggi and Giessen Glaciers. But our proposed route up the north face of the mountain had great attractions for us. It might possibly prove short and easy; it was certainly very direct, and quite new; for, with the exception of the lower ledges, from which Mr. Galton and others have watched the avalanches, and the cliff near the Guggi Glacier, where poor Johann Lauener was killed, the whole face of the Jungfrau below the Schneehorn and the Silberhörner was absolutely untrudged ground.

It was of course necessary in the first place to get a good view of the avalanche channels on this part of the mountain. Any one who looks at the Jungfrau from the Wengern Alp, or even from Interlaken, will see that the feeders of these avalanches are two steep and much broken glaciers which cover most of its north face. The larger of these, called the Giessen Glacier, starts in an easterly direction down a high valley concealed behind the Silberhörner, and after one short but steep descent to a plateau immediately under the Jungfrau cliffs, turns abruptly to the north, and covers with a huge ice-fall all the space between the Schneehorn and the larger Silberhorn. Further to the west a smaller but still steeper glacier, apparently nameless, but which may be called the Silberhorn Glacier, streams down from between the Silberhörner, close to the precipitous Roth-brett. Between these two glaciers rises the huge rocky buttress which supports the higher Silberhorn. It runs straight up from the side of the Trümleten Thal in exceedingly steep faces of rock and ice, and is a most conspicuous object in all views of the Jungfrau from the north.

It was evident at a glance that if we could climb this projecting buttress, no avalanche from the adjoining glaciers could touch us. Unfortunately it was not quite clear that it could be climbed; and after a prolonged examination of its surface with a telescope, Almer pronounced against it, but suggested very characteristically, by way of amendment, that we should try to force a passage up the tremendous ice-fall of the Silberhorn Glacier. Clouds now began to collect, and put an end to our survey.

After one fine day, the 31st, during which we succeeded in getting a fair view of the mountain from the top of the Breit-

horn, the weather remained obstinately bad till the 9th of August. During this time Philpott and I walked frequently up and down the valley for exercise, and found that we were becoming objects of much amusement to the inhabitants, who had settled it in their minds that we wanted to cross the Tschingel Glacier, and could not make out why we should suffer a shower of rain or a windy day to turn us back from that easiest of glacier passes. At last a really fine morning encouraged us to set out for our bivouac. Our friends who had destined us to the Tschingel Glacier must have been much gratified at seeing the equipment which we thought necessary for that arduous passage, including as it did a most ostentatious looking ladder, a telescope, a kettle, and rope enough for the ascent of the Matterhorn. Our plan was to take up our quarters for the night as near as possible to the Silberhorn Glacier. Besides Christian Almer and Christian Lauener, we took with us J. Bischof to carry the ladder, and Ulrich Almer, Christian's half-brother, who wished to come as a volunteer. On enquiry we found that by adopting a rather circuitous route we could reach the desired spot for our bivouac without the slightest difficulty. From the Roth-thal a goat-track, known to the herdsmen of the Stufenstein Alp, leads along narrow ledges to the top of the Schwarz Mönch. Here, at a great height above the Lauterbrunnen valley, a plateau of bare limestone slabs stretches right across the west face of the Jungfrau, from the Roth-thal to the Trümleten Thal. Crossing this in a northerly direction, with the great red cliff, known as the Roth-brett, just above us on the right, and the deep trench of the Lauterbrunnen valley below us on our left, we skirted the mountain till we reached its north-west angle. Here we made ourselves comfortable for the night just below the Roth-brett, knowing that on rounding its rocky corner we should come out on the north face of the mountain, high above the Trümleten Thal, and close to the end of the Silberhorn Glacier.

The next morning was fine, but rather too warm to promise well for the day. We were off at 4 o'clock, and, rounding the rock that had sheltered us during the night, soon reached a small plateau immediately beneath the Silberhorn Glacier. It was evident that we should find great difficulty in getting on to the ice; and the condition of some of the séracs, coupled with the warmth of the morning, suggested serious doubts as to the possibility of getting safely up the glacier. As we were hesitating, a huge mass of ice gave way, and with a tremendous roar swept down to our left in a magnificent avalanche. The fearful rush and crash of the falling ice-blocks

considerably shook our confidence in the glacier route, and we determined to make for our old friend the buttress, if only we could find a way of reaching it without exposing ourselves too much to the artillery of the Silberhorn Glacier. Fortunately the construction of the rocks enabled us to get along this part of the mountain easily and without risk. We found that by descending a very little way we could pass under protecting ledges to the very edge of the channel which collects the avalanches from this glacier. We had nearly reached the channel when a tremendous roar announced the approach of a second avalanche. It came thundering over the rocks towards the little plateau where we stood, and from which, sheltered by a friendly rock, we had a glorious opportunity of witnessing on a larger scale the spectacle so well described by Mr. Galton in a previous number of this Journal. Preceded by a cloud of snow-dust and a perfect storm of ice-balls which shot rapidly across the plateau, the mass of the avalanche swept slowly and almost noiselessly past us in a majestic stream about 100 yards broad. Part of it fell over the further edge of the plateau and went thundering on towards the Trümleten Thal; the rest stopped and froze into a hard mass. We immediately jumped down upon it, and hurried across it with all possible speed. From its slight inclination, and the firmness of the surface, we could cross it almost at a run, so that we incurred little or no risk of being caught by a fresh fall of ice-blocks, notwithstanding our dangerous proximity to the parent glacier.

We were now at the foot of the great north buttress of the Silberhorn, and proceeded at once to climb it. At first all went well. The rocks were broken into good ledges, and were not very steep. A snow slope which succeeded was in good order, and we pressed rapidly up it without using the axe till we were within a few yards of the rocks above. On reaching these, however, it soon became apparent that our hopes of making a quick and easy ascent were not likely to be realised. A succession of short cliffs alternating with steep slopes of crumbling rock rose high above us, sprinkled pretty largely with loose powdery snow, which was generally found on trial to conceal a thin layer of ice. The bare rocks were bad enough, but when we got upon the ice our position was certainly at times rather precarious. All that Almer could do with the axe was to scratch small shallow steps, which afforded very slight support for fingers and toes. Our position at last became so bad that we determined to diverge on to the steep ice slope to our left, which forms a conspicuous object on the N.E. face of the buttress. This too was covered with a thin coating of loose snow,

through which every step had to be laboriously cut into the solid ice beneath. Almer worked hard, as he always does on such occasions, but our progress was of necessity very slow. At last, after cutting steps up about half of this tremendous slope, we determined to make once more for the rocks. As they appeared to be free from ice, we had good hopes that if we could once get fairly upon them we should find our prospects better; but it was not easy to see how we were to mount the first low wall, which rose perpendicularly to a height of eighteen or twenty feet from the side of the ice slope. The ladder was passed up to Almer, and at length fixed not very securely against the little cliff which hid all above it from our sight. We climbed eagerly up it, hoping to find a more moderate slope above, and some tolerable ledge where we might make a short halt; but the rocks only rounded off a little to the foot of another cliff as steep and unpromising as that we had just mounted. It is needless to describe further the difficulties we encountered on the steep face of this huge buttress. After a long climb we at last turned over with great difficulty on to its N.W. face, and found ourselves on some broken rocks within a short distance of the snow arête.

The real work of the day was now over. The arête which rose above us was of a very ordinary kind, neither very steep nor very narrow, and as far as we could see was covered with a sufficient coating of firm snow. We should all, I think, after so severe a climb, have been glad to make a tolerably long halt on the first secure resting place which we had met with for some hours; but unfortunately the weather, which had hitherto favoured us, began to show unpleasant signs of change. So after a hasty meal we started to attack the remaining rocks, scrambled up them to the arête, and were soon trudging up its snowy face with Lauener for leader. The slope, as too often happens, proved a good deal longer than it looked from below; and, though we plodded steadily on, the peak of the lower Silberhorn on our right continued for some time to tower above us. Before we were quite on a level with it, clouds gathered round us, and during the rest of the ascent we could see nothing but the steep snow in front of our faces. At last the arête narrowed into a thin edge, a few steps were kicked or cut, and we stood on the top of the Silberhorn. A few yards from the top lay the flag planted by Messrs. Baedeker and E. von Fellenberg in 1863, now half buried in the snow. On looking at our watches we found that it was just 2 o'clock, and consequently that the severe and almost uninterrupted work which I have described had lasted nearly ten hours.

Hitherto none of us, I think, had felt any doubt about reaching the top of the Jungfrau that afternoon. We had seen something of the last part of our proposed route from the Breithorn a few days before, and still more from the top of the Jungfrau in 1863, and had no reason to anticipate any difficulty on the upper part of the mountain. The only part about which we were uncertain was the passage from the head of the Giessen Glacier to the upper slopes of névé, which lead up to the final peak. This we hoped to examine thoroughly from the top of the Silberhorn. Unfortunately, before we reached the top, the Jungfrau, the Giessen Glacier, everything that we wanted to survey, was already hidden by thick falling snow, which soon reached us on this exposed peak. Still, after having surmounted so much difficulty, we were very unwilling to renounce our hopes. If only, said Almer, the snow storm will pass over, we shall be able to get up; and even if we are rather late, we shall have a moon to light us down the Aletsch Glacier. But the storm showed no signs of passing over, and the question how we were to get down from our peak began soon to be rather a serious one. The way by which we had come up was not to be thought of for a moment; so it was plain that, unless we could get over the Jungfrau, we must make for the Wengern Alp by the route taken by Messrs. E. von Fellenberg and Baedeker in 1863. As we knew little about this, except that in fine weather it had taken those gentlemen a long day to get from the Schneehorn to the Silberhorn and back, our prospects were not encouraging. However it was not possible to stay long where we were, so about 2.30 we reluctantly gave up all hopes of the Jungfrau, and began our descent by the S.E. angle of the peak. Before long ice appeared; and though Almer and Lauener worked vigorously in turn at step cutting, it was a long time before we reached the upper plateau of the Giessen Glacier. Hurrying down this, we soon came to a sheer descent which cut us off from the next plateau of the glacier. Owing to the thick clouds and driving snow, we had got too near to the cliffs of the Jungfrau, and we now lost some time in making the circuit of some huge crevasses, before we hit on a practicable route for descending the ice-fall. The lower plateau once reached was soon crossed, but it was past 7 o'clock before we stood on its eastern verge and looked down on the middle plateau of the Guggi Glacier far below us. It was certainly rather a late hour to be in such a position. We were close under the Jungfrau cliffs, at an elevation not much below that of the top of the Jungfrau Joch, and cut off from the Guggi Glacier by exceedingly long and steep slopes of ice. The snow

had ceased to fall, but a N.W. wind was rising and blowing in cold gusts over the plateau. It was evident that our only hope of shelter was to reach some friendly ledge on the east cliff of the Schneehorn. Owing however to projecting cornices of ice, we could not reach these rocks directly from where we stood. There was nothing for it but to go over the Schneehorn to its north side, and thence make for the cliff. The slope we had to mount was not steep, and the cold wind and the approach of night quickened our movements. At 8 o'clock we had reached a safe, but not very broad, ledge of rock a little below the top of the cliff, where we sat in a row till 12 o'clock, when the extreme cold drove us to attempt a descent to a lower ledge.

The next morning we traversed the crevassed Guggi Glacier, and reached the Wengern Alp Hotel at 8.30 A.M.

I fear that an expedition so barren of results may seem to lend some plausibility to Mr. Ruskin's very amusing but highly irreverent remarks on Alpine excursionists in 'Sesame and Lilies.' A man who ascends a secondary peak in doubtful weather by a difficult route without a scientific object, may perhaps be supposed 'to look on the Alps as soaped poles in a bear-garden, which he sets himself to climb and slide down again with shrieks of delight.' I only wish that Mr. Ruskin could have been with us. I would give much for a description by his eloquent pen of all that we saw during that day and night spent on the north face of the Jungfrau. I cannot but think that if he had been there he would have seen some reasons for modifying his assertion that 'the true beauty of the Alps is to be seen *only* where all may see it—the child, the cripple, the man of grey hairs.' I fancy that if he had stood by our side within a few yards of the Silberhorn Glacier, and witnessed the rush of the avalanche over the first rocks, or looked down from the great buttress of the mountain on the dark Trümleten Thal, and the green Wengern Alp, and the distant plains and lakes of Switzerland, or seen how strangely the huge crevasses and séracs of the upper Giessen Glacier loomed through the clouds and snowstorm, or even gazed at midnight from our cold ledge at the pale spectre-like forms of the Mönch and Eiger, he would have felt a doubt whether after all Alpine climbers are so very far 'wrong in attributing much of their pleasure to some true and increased apprehension of the nobleness of natural scenery.' Above all, I wish he could have seen how well we behaved ourselves afterwards on the Wengern Alp. There was no 'firing of rusty howitzers,' and no 'brandishing of ice-axes in everybody's face.' If he had seen us modestly walking down the well-known path to

Lauterbrunnen without our guides, or our ladder, or our telescope, or our kettle, nay, thanks to a judicious application of glycerine, without even 'faces red with the cutaneous eruption of conceit,' I flatter myself that he would have allowed that we were as little offensive to the general public as it is possible for Alpine excursionists to be. No one on that day suffered from the recital of our Alpine experiences, except the waiter at the Capricorn, who, bent upon practising his English at all hazards, boldly drew us out upon this dangerous subject. I hope my readers will not complain, on finishing this paper, that they have been made to suffer the waiter's fate, without having provoked it.

REVIEWS.

A NEW GUIDE TO THE LAKES.*—The Alpine traveller in search of a week's recreation can nowhere find a pleasanter imitation of his favourite regions than in the English lakes. We have always regretted, therefore, the absence of any tolerably good guide. Such books as Miss Martineau's or Mr. Payn's are pleasant enough, but do not profess to supply what the traveller requires, namely the same sort of information that Mr. Ball has given us about the Alps. Mr. Prior has made a meritorious attempt to supply the deficiency; he has eschewed all poetry, fine writing, and other conventional 'padding' to a laudable extent; and he has worked out his plan with unrelaxing severity. We confess that we have some doubts, however, as to its excellence. His theory seems to be this: a guide-book should do for you what a native does when you ask him the way; it should say, for example, go two hundred yards up the road, turn to your right over a stile, follow a track till you come to a heap of stones, then look out for a remarkable fingerpost, and so on. Mr. Prior has given most elaborate directions of this model for a network of routes which cover almost the whole of the Lake district, and reduces his other notes to the smallest possible compass. Thus, taking a quotation almost at random, this is part of the directions for ascending Scawfell Pike. 'At the first turning on the right above John Ritson's, a green lane between stone fences leads across the valley in the direction of Lingmell, &c. Following this line and crossing the bridge over the beck you see on the shoulder of Lingmell a torrent flowing in a deep gully. Below this torrent are two emerging walls,' and so on, a page taking you up about a thousand feet. This is not lively reading, and we cannot profess to speak to the accuracy of the directions, although we see no reason to doubt it. The objections, however, to this kind of guidance are obvious; if you drop one link in the chain, or mistake one mark, you are thrown out altogether, and every

* *Ascents and Passes in the Lake Districts of England.* By Herman Prior, M.A. Simpkin, Marshall & Co., 1865.