

Fortunately the great tourist stream rolls along well-defined channels, still leaving many sweet solitudes where the lover of Nature may worship in peace.

And now, my last pleasant duty, before leaving the chair, is to thank all my fellow members for the kindness and consideration always extended to me during my term of office. My gratitude is specially due to the past Presidents and older members for welcome and helpful advice, ever willingly given, and to the Vice-Presidents and other colleagues for their hearty co-operation in the work of the Club. Lastly, I wish to acknowledge my indebtedness to the two successive Honorary Secretaries with whom it has been my good fortune to be associated. It has been obvious to me that, when the President resides at some distance from London, much additional correspondence and work must, at times, fall to the share of the Honorary Secretaries, and I cannot be too grateful to Mr. Bradby and to Mr. Withers for their unvarying patience, sympathy, and cordial support.

As long as we have members equally ready to work loyally for the common good, and as long as the present active interest in mountaineering exists, we may look forward with confidence to the continued prosperity of the Alpine Club.

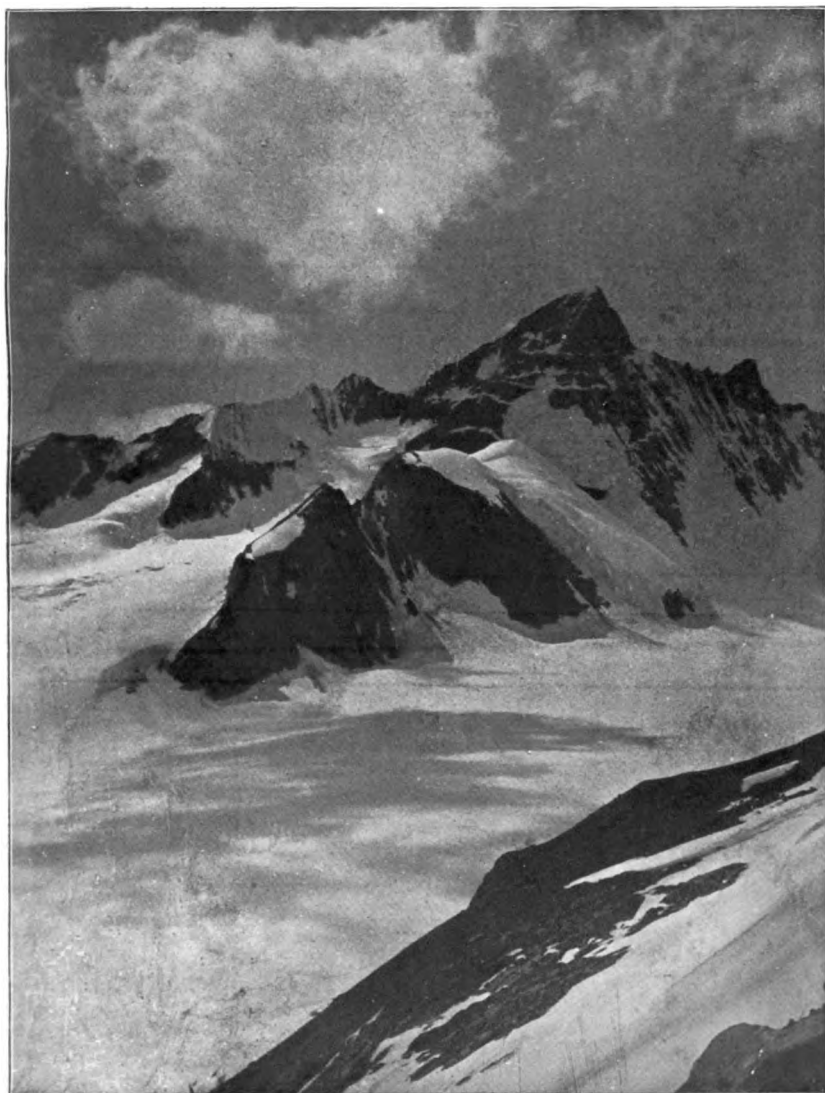
SOME EXPERIENCES ACROSS THE OBERLAND IN 1910.

By J. W. WYATT.

THE climbing season of 1910 will long be remembered as one of the worst and most unsatisfactory ever known, both for persistent unsettled weather and for the troublesome condition of rocks and snow.

Throughout the months of July, August, and the greater part of September the Clerk of the Weather rang the changes, with scarcely any intermission, between snow-storms, rain, thunderstorms and heavy floods, and probably the larger number of climbing expeditions consisted in the ascent, which we all know so well, to a hut for the night and a return to the valley the next morning more or less disgusted and wet.

There is nothing new or sensational in these notes; all the ground we went over is well known and well trodden, but some of our experiences during a short holiday may be of



J. W. Wyatt, photo.

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GROSS GRÜNHORN from FINSTERAAR HUT.

interest to those who know this part of the Alps under different circumstances, though I am told we only succeeded in taking care of ourselves and keeping the guides employed.

Gover, Brook and I spent a short fortnight in 1909 in the Lötschenthal, but, owing to that also unsettled season, we only managed the traverse of the Bietschhorn, the Beich Pass, an unsatisfactory residence for twenty-four hours in the Concordia hut during a snow-storm, and a hasty retreat to Ried over the Lötschen-Lücke! We therefore planned to return to Ried this year, our programme including the principal peaks of the Oberland. For this modest affair we had engaged Joseph George of Evolena as leading guide, and Antoine, his brother, as second. But alas! for this programme as in other affairs of life, 'l'homme propose, mais le bon Dieu dispose,' as we were very soon to find out.

Brook was out before Gover and joined me at Les Ormonts dessus, where I had taken a chalet with my wife and family for the summer months. To reach our rendezvous at Ried we decided to make the four days' trip over the Diablerets, Wildhorn, Wildstrubel, and one of the passes from Leukerbad to the Lötschenthal, an expedition which would give us elderly men some experience in guideless climbing. Ball very highly recommends this route and, from enquiries made, there seemed to be no difficulties in finding the way that a good map and compass could not solve.

We started off on August 2, sleeping the first night at the Diablerets hut above the Col de Pillon, accompanied by my wife and a local guide who was to take her back after the Diablerets. Our bad weather experiences began at once, as we only just reached the hut before the rain began, followed by hail, snow and a gale of wind all night. We got off next morning at half-past five in uncertain-looking weather. The view effects were very fine—rolling mists filled all the nearer valleys and every rock peak stood out sharp and distinct in the clear early morning air. We noticed at once the unusual appearance of the Bernese Oberland and the Valais Alps, which were white with snow as in winter, even such rock peaks as the Zinal Rothhorn, Dent Blanche and others—their aspect was so different from what one is accustomed that at first it was a little difficult to recognise them.

I had not been up the Diablerets for thirty-six years, and I remembered it as a good rock climb from the Anzeindaz side, but from the Col de Pillon it was nothing but a snow tramp. The ridge along the Dôme was heavily corniced and we kept

well down on the Diablerets Glacier. My wife who went up again with a friend about a month later found the cornices quite gone, and they were able to follow the arête all the way.

After leaving my wife at the foot of the Oldenhorn, Brook and I had an easy tramp down the Zanfleuron Glacier, but when we got off the ice we were soon involved in the extraordinary wilderness of flat limestone rocks which lie between the glacier snout and the Sanetsch Pass. This curious formation has the appearance of having flowed over the country like lava and then solidified; it is cracked and fissured in all directions, and full of holes just as if a herd of cattle and men had walked over it when soft and sunk in up to the knees. The best way to avoid getting lost in this maze of rock would seem to be to strike straight for the top of the Sanetsch Pass, or possibly to follow the glacier stream till it meets the track coming down from Prarochier. We each tried to find a new route for ourselves, and only rejoined the two portions of our party on the Sanetsch Plateau by heliograph with a map and handkerchief.

We sighted the little inn below the pass about one o'clock, and at first our spirits sank, for its appearance was not prepossessing as we approached from behind. It looked deserted—the windows were all closed and shuttered, with no sign of human life. Our spirits rose somewhat when we saw in front of the inn a number of ducks and some pigs feeding on the inevitable large heap of manure! We eventually discovered a flight of steps at one side leading to a door, unearthed the inmates from the lower regions and were soon made welcome. Although somewhat primitive and simple, we found it quite clean and comfortable and the cooking good.

Shortly after our arrival the mist came down and it began to rain, and poured without intermission all the afternoon and evening, and our prospects of the Wildhorn for the morrow looked very dismal. However, the next morning we woke up to a brilliant starlight sky and fine frosty air, and soon after five o'clock were on our way up the steep slopes of grass and scree between the Arpelistock and the Sublage. It was a perfect morning; fresh snow had fallen on all the hills, and the view of the Valais Alps across the Rhone Valley, glistening white in the early sunshine, was grand in the extreme. Certainly the view from the neighbourhood of the Sanetsch Pass is of the first order.

In crossing the wild valley of Les Grandes Gouilles to reach the Glacier du Brozet, we made the mistake of contouring



E. Bussel, Lausanne. photo.

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THE WILDHORN, from the ARPELISTOCK.

round the steep scree slopes under the Arpelistock and Geltenhorn, and so wasted some time, as the ground was frozen hard and the screes covered with a coating of fresh snow. It is quicker to drop down into the valley to the left of the small lakes and to mount up again by the Luys de Marche. The whole of this wild and secluded glen was deep in snow, in which we saw a number of fresh chamois tracks.

Our goal, the Wildhorn, blocked the end of the valley in front of us, and our intention was to reach the ridge between it and the Mt. Pucel by the small couloir above the upper Brozet Glacier. We scrambled up a ridge of steep and rotten rocks which divide the two portions of the glacier, crossed a small bergschrund without difficulty, and were soon half-way up the couloir. The top part of this couloir, which is steep, was blocked by a large mass of ice, and the rocks to the right covered with verglas; it was bitterly cold and, as Brook was unwell and the possibility of pushing a way up doubtful, we decided to get down to the glacier again as quickly as possible into the sun, discuss plans and get warm. There is another way to reach the summit from the Brozet Glacier by skirting the rocks under the summit ridge to the left and mounting up by the W. face, but the rocks were in such bad order with fresh snow and ice that we hesitated to risk wasting more time in trying it. After studying the map it seemed quite feasible but long to go round the south foot of Mt. Pucel and up the S.E. face of the Wildhorn by the Glacier des Audannes.

We found this route, which is probably unusual, quite simple, except from the risk of stone falls from the couloirs of Mt. Pucel with which the snow slopes were liberally strewn, and the labour of plunging up to the knees in the steep snow of the Audannes Glacier now softened by the morning sun. We reached the top at half-past one, having wasted a good two hours by our detour, which was annoying as we had hoped to get to the Wildstrubel hut early in the afternoon, in time for a good rest before our next day.

We were rewarded by a magnificent view on all sides, but were sorry to see ominous-looking clouds beginning to collect on the Oberland mountains.

After a short halt we descended quickly and easily down the Ténéhet Glacier, leaving the ice on the left side of the glacier just beneath the Schneidejoch. The glacier finishes off in a fine ice-fall over precipitous cliffs, and had formed a little glacial tarn of a rich blue colour in which were floating

miniature icebergs tinted below the water line with the most delicate blues and greens. Brook and I thought we had rarely seen one more beautiful. We now had to cross the waste of rocks at the base of the Schneidehorn to reach the S. end of the Rawyl Plateau. This formation, remarked upon by Conway in his 'Alps from End to End,' is similar to that below the Zanfleuron Glacier, only steeper and more broken. The rough track plainly traceable in the screes we had just crossed promptly lost itself where most needed, and we scrambled and slipped about for the best part of an hour finding our way across these exasperating rocks, apparently a distinctive feature of this district.

Our two-mile tramp along the Rawyl Plateau to the head of the pass was through a real garden of Alpine plants—I think the finest show of colour I remember seeing. It was not only the number of rarer Alpines on both this and the Sanetsch passes that was so noticeable, but the flowering profusion; which made great patches of brilliant colouring that could be seen from quite a distance. This year must have been an exceptional one in this respect; the backwardness of the season, combining with the late melting of the snow, brought many of the Alpines into flower together instead of at different periods; probably also these beautiful little plants, to make up for the shortness of time left to them, flowered this season in much greater numbers. One could frequently in one's day walk find plenty of early spring flowers, such as the Alpine Anemones, Soldanellas, Primulas Farinosa and Auricula, &c., side by side with later flowering plants such as Linaria, Alpine Aster, Androsaces, and the Alpine Veronicas, &c.

We had hoped that the Zufucht-hütte marked on the top of the pass might, in these days of luxury, turn out to be a little inn where we could get at least something warm to drink to fortify us for our climb of nearly 2000 feet up to the Wildstrubel hut. However, on arriving there at about 5 P.M. rather tired and hungry, we found only a low stone shed furnished with a couple of benches, so we sat outside and made the best of what provisions we had with us. We then dropped down the pass beyond the Rawyl See to where the path to the hut branches off, but we found out later that we might have saved some 300 to 400 feet of descent by striking up from the refuge to the right across the snow and hitting the path higher up.

By this time the Wildhorn was quite blotted out and the valley behind us black with rolling clouds and mist. We put

our best pace on and reached the hut at 6.45 p.m. just before the usual storm broke and snow began to fall.

The new Wildhorn hut, only just built and called the Rohrbach-hütte, is well situated upon a spur of rock commanding the valley below, a little beneath the old hut. It has been built and equipped by Herr Hildebrand, the proprietor of the old hut, principally for the benefit of ski parties from Montana, &c., and is run by the guide Jaggi of Lenk, who has put a caretaker in charge. It is by a long way the best I have seen in Switzerland, and quite equal to the best of the Tyrolese huts. We had the hut to ourselves, and indulged in the unwonted luxury of separate beds, with sheets and blankets, looking-glasses, towels, &c., a good kitchen range, a full assortment of provisions, and even quarts of fresh milk! We were able to enjoy the flesh-pots of Egypt in a mountain hut over 9000 feet high!

It snowed hard all night and was snowing when we got up next morning, but as it seemed to show signs of clearing at seven o'clock, we decided to start for the Wildstrubel and take our chance. No sooner had we reached the little col below the Weisshorn than down came the mist again, not a propitious condition under which to cross the Plaine Morte Glacier. Neither of us had been there before and we particularly hoped for a clear day, for Conway's vivid description of this weird glacial plain had given us a great desire to visit it. The guide Jaggi, whom we met in the hut, told us that it took about one and a half hours to cross the glacier to the Wildstrubel, and that no roping was necessary, as this huge and almost level field of névé, roughly four and a half miles long by one and a half miles broad, has no crevasses except to the N., where it flows into the Rätzli Glacier, its only practical outlet.

We had to go by map and compass, except occasionally when the sun showed dimly through the mist and acted as a compass, or when the driving snow from the N. blew into my left ear! I went first, and Brook kept me more or less straight with the compass. It was like walking into a sheet of white paper—no distinction whatever between snow and sky—everything white and without mark or feature to fix the eye upon. It was a great strain on the eyes, and every now and again I had to look back to see Brook, who kept at a respectable distance, or our tracks in the snow, something tangible that wasn't absolutely white, something that you could see! Imagination also at times came into play in a

curious manner—now I imagined I was going to drop into a big hollow, then to rise up a steep snow slope, whereas the whole time we were practically on a level plain. It was an experience neither of us will readily forget.

Our proper course was about E. by N., but we kept an almost due E. course to avoid the risk of getting too near the crevasses of the Rätzli Glacier. After an hour and a half's plodding in this way we stopped and waited in the hope that the mist might lift and show us where we were. This it soon most considerably did, and we found ourselves where we hoped to be, opposite the Lämmern Joch. We made haste to get near the rocks before they were hidden again, but the mist had cleared for some time.

After breakfast we roped for the first time, and Brook then led quickly up the steep snow slope of the Lämmern Joch and on to the top of the Wildstrubel. We had a fine and ever-changing view of mountain and cloud, particularly over the Plaine Morte Glacier, of which we were now able to get some idea. This great white snowfield lay at our feet, the mists and sunshine chasing each other across with fine effects of light and shadow. We could distinguish its cup-like formation, and the low wall of rock that surrounds it rising here and there into insignificant rock peaks no more than a few hundred feet above the level of the great plain.

It was too cold for more than a few minutes' halt and we started straight down the Lämmern glacier, but, alas! our troubles were not yet over. We soon found ourselves on the edge of the upper icefall, with visions of large and concealed crevasses; and as the mist had again surrounded us we did not like to venture on, not knowing the glacier and being only two on the rope, though, as we saw afterwards, we could easily and safely have got through the icefall and saved a couple of hours or so of heavy work.

This consisted of tramping back to the summit ridge again in hot suffocating mist and steep soft snow up to our knees. We followed the ridge, keeping as near the edge as was advisable, for it appeared heavily corniced on the N. side; a study of the Siegfried map seemed to show that just before reaching point 3210 m. (shown as a slight rise by the contours) a turn due east of about 200 to 300 paces should bring us to some rocks at the head of a couloir which we understood to be a safe route, and which would lead us down to the glacier below the icefall. Always working with the map and compass, we then left the ridge and soon saw rocks looming ahead, on which we sat for

some time hoping that the mist might lift. In a little while it cleared and we found ourselves over the couloir. We lost no further time and plunged down the couloir on to the glacier, where we found tracks in the snow and reached the hotel on the Gemmi Pass at 8.15 p.m. After a good rest and a large 'thé complet,' coupled with omelettes both savoury and sweet, we strolled quietly down the pass to Leukerbad and revelled in the luxury of a plunge in baths of the warm natural water.

In such a well-known district it was strange but pleasant that we should have had the mountains to ourselves from the time we left the foot of the Oldenhorn until we arrived at the Gemmi.

The wealth of Alpine flowers along the Lämmernboden was also very striking, particularly the little Alpine toadflax (*Linaria alpina*), which literally carpeted the ground with sheets of bloom. I also found for the first time a small patch of this, pure white, which I was told at the hotel is extremely rare.

It was our intention to cross over to Ried the following day, but Brook was suffering much from sunburn, and was obliged to have recourse to the doctor next morning and submit to a treatment. The day's rest gave me the opportunity of appreciating to the full the wonderful majesty of the Gemmi rocks, rising, as they do, almost sheer to a height of from 3000 to 5000 feet above the valley. Some of the marvels of nature seem to require a series of reiterated impressions before one can enter fully, so to speak, into the spirit of the scene, and the Gemmi is certainly one of these.

Brook's face was so much better the following morning that we were able to leave Leukerbad and we crossed over by the Ferden Pass. The walk is a fine one. The lofty and avalanche-swept precipices of the Rinderhorn and Balmhorn form a striking feature on the way up, and on reaching the top of the pass the whole of the Lötschenthal bursts suddenly upon you, with the glorious Bietschhorn towering above everything else.

We were glad to see again the excellent little Hotel Nesthorn at Ried. Delightfully and comfortably primitive, it is a place where you are at once made to feel at home. Long may it remain so! Although I am afraid when the new railway through the Lötschberg tunnel is completed the valley will be 'developed' and exploited, and consequently, from a lover of nature's point of view, spoilt. We received a warm welcome

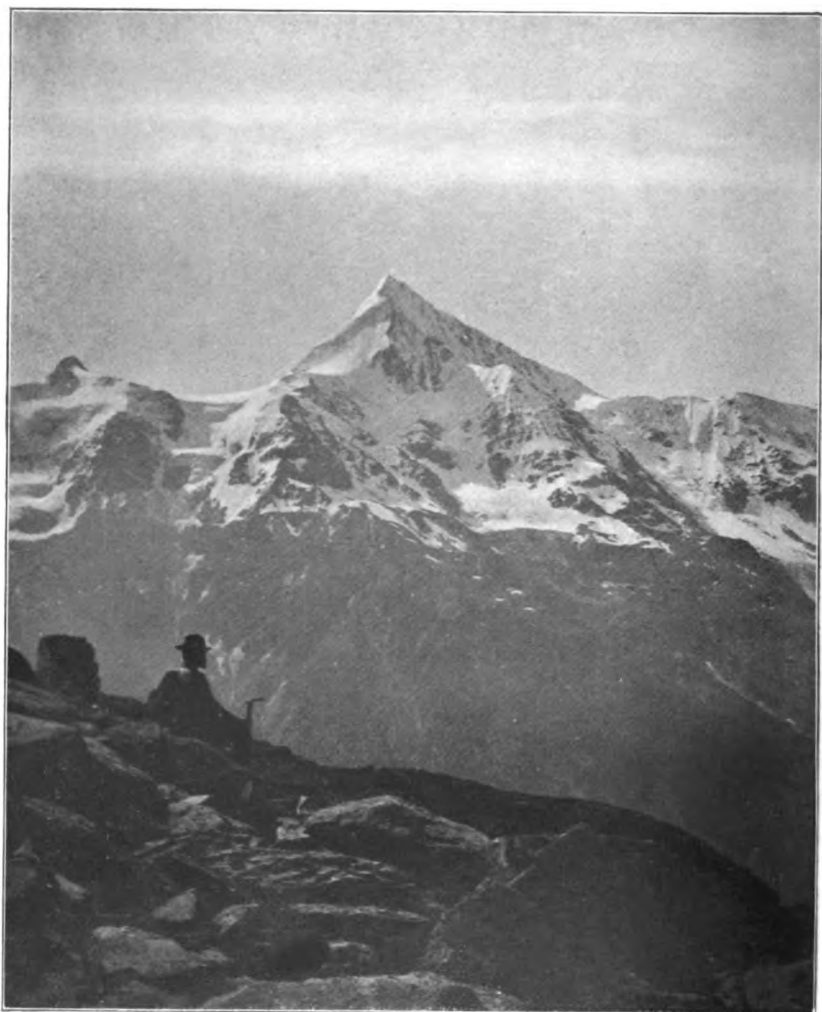
not only from Herr Schröter but from all the employés, including the excellent and indispensable Marie, who is a host in herself. After a night in an Alpine hut followed by a day's hard climbing memories linger still of the evening meal, served without stint, with large bowls of fresh Alpine strawberries and rich mountain cream in jugs the size of bedroom ewers !

We found the faithful Joseph watching for us, and, having still the best part of a week to wait for Gover, we started off next day, August 8, for the Eger v. Steiger hut on the Löttschen Lücke, hoping for a few fine days at the Concordia and Bergli. We left Ried much too late in the afternoon and had a heavy and tiring pull up to the pass, not reaching the hut till after dark.

Our experience the next day on the Ebnefluh was not joy. The weather in the morning was warm, close, and doubtful-looking, and we were soon floundering in soft and heavy snow, so characteristic of the season. Skirting round the crevasses of the Ebnefluh firn in an ever-thickening mist and cold snow showers, we reached the foot of the S. slopes of the final peak, where we were met by a curious heat wave which struck us twice with a suffocating and most unbearable heat. It affected both Joseph and myself at the back of the head and down the spine ; Brook did not seem to feel it at all. Joseph called it an electrical heat wave, whatever that may be, but it was very enervating and unpleasant, and I never remember experiencing anything like it before ; the sun was showing dimly through the mist at the time, but not strongly enough to account for the dry and burning feeling of these waves of heat. Needless to say we saw nothing from the summit, which was disappointing, as our main idea in getting there was to enjoy the *coup d'œil* down the Roththal backed by the Jungfrau Massif ; it is doubtful, however, if we could in any case have approached the edge near enough for a view, as we had visions of heavy cornices through the fog.

We hurried down to the hut, as we were afraid the heat portended a bad thunderstorm, but we experienced nothing worse than a cold snow storm with a denser mist than usual. After a prolonged discussion the larger climbs were abandoned and, the snow continuing, we beat a retreat. It poured in torrents all the way to Ried, which we reached at 8.30 P.M. soaked to the skin. I felt as if I never wanted to go up a snow mountain again—what Brook's feelings were I don't know—if the same as mine, he disguised them remarkably well !

The next day we thought we had earned a day off and for



J. W. Wyatt, photo.

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BIETSCHHORN, from the TELLISPITZEN.

the rest of that week of varying weather we expended some of our energy by climbing the Tennbachhorn and Tellispitzen, two interesting rock climbs just below the Petersgrat ridge. The latter is specially worth a visit ; it is a good rock arête and commands a fine view of the peaks on the southern side of the Lötschenthal, the Bietschhorn in particular showing its best aspect, that of a perfectly formed, clean cut, snowy pyramid. The ridge is best traversed from the Petersgrat end ; we started in the opposite direction and were eventually stopped, or thought we were, by a break in the rock before completing the final end of the traverse. Possibly we could have turned this gap by a long descent, but we retraced our steps and enjoyed some good glissades on our way down. Here Joseph had the first opportunity in his life of jodelling to the occupants of a balloon which was crossing over the Petersgrat. Gover turned up with Antoine on the Friday, and it was refreshing to watch (from the hotel) the energy and enthusiasm of the man fresh out from home, full of hope and ardour, undamped by the experiences we had gone through.

From what we had already seen of the state of the mountains and the very uncertain weather, it appeared to us unlikely that the better climbs from the Lötschenthal, or those further afield in the Oberland, would be feasible without much fatigue ; and we decided not to waste more time at Ried but to continue our journey as far as Stein, which we did not know and which would give Brook and myself the opportunity of completing our high-level trip across the Oberland. Stein seemed also to offer moderate expeditions without the necessity of spending the night in crowded huts. Still we wished to give Ried one more chance and decided, before leaving the neighbourhood, to try for the Lauterbrunnen Breithorn. So on Monday morning, August 15, we left Ried about half-past four under promising conditions—the weather had improved, the snow was hard, and we reached the ridge under the Tschingelhorn about ten o'clock. The curiously furrowed and precipitous wall of the Blümlisalp and Doldenhorn shows up well from the Petersgrat, and it looked particularly fine that day, with its innumerable gullies streaked with snow.

Brook and Gover here suggested that we should take the Tschingelhorn on our way to the Mutthorn hut. I was, I am afraid, not responsive, as I was suffering from the results of rather a severe chill after our Ebnefluh experiences which affected me more or less for the rest of our trip ; so we divided forces, Gover, Brook and Antoine went for the Tschingelhorn

while Joseph and I made our way comfortably to the hut, where the others joined us in the afternoon after a successful climb.

The situation of this well-known hut perched on a rocky spur of the Mutthorn is well chosen. When I arrived the view of the Jungfrau was quite clear, but early in the afternoon masses of heavy cumuli collected on the summits—the contrast between these two views was alone worth coming to see, and Joseph, who is a remarkably well read man of his class and full of trite proverbs and sayings, remarked on the mackerel sky now forming high up, and gave me another proverb to add to my collection :

Ciel pommel  et femme fard e
Ne sont pas de longue dur e.

The next morning was very threatening, and as the snow was quite slushy before the sun was on it we deemed it prudent to go back to Ried, arriving just before a heavy thunderstorm broke—the same storm in which the three unfortunate Swiss tourists perished on the Roththal Sattel.

We packed up, sent off our belongings, and on the 18th started off at 2.15 A.M. for the Grimsel. The morning air was frosty and keen, the snow hard and crisp, and we had a really fine walk to the Concordia. The three-mile tramp up the Langgletscher seemed less long than usual ; we were in the mood to appreciate to the full the mighty tumble of the Anen icefall on our left and the grand cliffs of the Sattelhorn on our right, swept by recent avalanches extending across the glacier almost to our feet. The graceful curve of the L ucke itself grew larger and larger as we approached, and on breasting the final crest I stood for a few moments in silence before the vast extent of Alpine snow and solitude that lay spread out before us. Not for long, however, for Brook soon brought me back to earth again by demanding breakfast ! During this meal we saw a grey bird about the size of a hawk fluttering over the snow and showing signs of much fatigue. We thought at first it was a sparrow-hawk or kestrel, but it had more the flight of a seagull and turned out to be a young mouette, such as frequent the Lake of Geneva and some of the other Swiss lakes ; we could not understand why it had travelled so far away from its usual haunts, and left it slowly fluttering, with frequent rests, down the pass towards Ried.*

* I have since found out from a professor of natural science at Lausanne that these birds (*Larus ridibundus*, black-headed or



J. W. Wyatt, photo.

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JUNGFRAU, from MUTTHORN HUT.

The Concordia was full of parties up for the day from the Eggishorn and seemed out of keeping with the spirit of its surroundings; so after lunch we were glad to leave it for the Grünhorn Lücke and the Finsteraar hut, which we reached at 6.20 p.m. If the snow scenery of the Gross-Aletsch firn is, in the opinion of some, on somewhat too vast a scale to be really impressive, that is certainly not the case across the Grünhorn Lücke. There the mountains are much closer, they rise more abruptly from the snowfields, and the view, from the pass, of the Finsteraarhorn and its S.E. arête is very fine.

Excluding halts we took seven hours from Ried to the Lötschen Lücke, two and three quarter hours on to the Concordia and three and a quarter hours over the Grünhorn Lücke to the Finsteraarhut—in all a sixteen-hour day taken slowly in perfect weather.

We got off next morning shortly after 7 a.m. with the idea of traversing the Finsteraarhorn by its S.E. arête: the conditions seemed fairly good and the rocks moderately free from ice. We reached the arête by a kind of double couloir over steep rocks and snow (I believe the usual route on this side) at a point about half way between the Rothhorn Sattel and the summit, to the south of a rather prominent subsidiary peak rising from the ridge. We then traversed this small peak, but were stopped by a long narrow snow arête of very powdery snow lying on steep slabs of rock; the snow was in a very unstable condition, with nothing below to cut steps into. So far as we could judge the snow higher up was in the same condition, and after much consultation we very reluctantly gave it up and retraced our steps to the hut, to do the peak the next day by the ordinary route over the Hugi-Sattel. The previous night we had been a crowded party in the hut, tightly packed like sardines in a tin, without even room to turn; further parties continued to arrive during the afternoon, and, last but not least, a big man in a billy-cock hat turned up with two guides from the Oberaarjoch. I came to the conclusion that I had developed a distinct objection to sleeping two consecutive nights in a hut, and that for the future I should be a 'centrist,' and was much delighted to find that Gover had

laughing gull) nest in Scandinavia and on the shores of the Baltic Sea, migrating north for that purpose about the middle of March, and returning to the Swiss lakes during the period from July to September.

come to the same decision. For men over fifty creature comforts become of some importance, and one's enthusiasm for the mountains, although no whit abated, is apt to be blunted by more than one night at a time in crowded and uncomfortable mountain huts. Brook said I had come to the same conclusion the year before !

Next morning, after another very gusty night, the weather again treated us well and we made the Hugi-Sattel in a couple of hours in company with two other parties, the man with the hat and a party of five Swiss tourists. Blasts of cold wind driving the snow before it had warned us what we might expect on the arête, and on the Sattel we felt the full force of a piercing N.W. wind ; it was too strong for the billy-cock hat, which was left behind, and the owner very pluckily followed us to the top without any headgear whatever ! The cold was too much for one of the Swiss party, which turned back when about half way to the top. There was a good deal of snow and ice on the rocks, and the strong gusts of bitterly cold wind bothered us somewhat ; but the sun was shining on the summit, where we had comparatively little wind and were able to eat cake, get warmer, and enjoy the fine and extensive view. It is curious how frequently one may encounter a strong and gusty wind on the arêtes of a mountain, while on the actual summit there may be little or none at all.

We got back to the hut again at 11.30, having taken five hours for the climb. We wanted if possible to reach the Grimsel before dark, and, getting away again before mid-day, crossed the steep Rothhorn Sattel or Gemslücke and the Studer firm to the hut on the Oberaarjoch. All the way from the Concordia to the Oberaarhut the mountain scenery is exceedingly grand ; three fine passes are crossed, each over 10,000 feet high, forming depressions in the high mountain ridges which traverse the Oberland Massif from North to South. Three views in particular remain in one's memory : the view across the glacier from the Finsteraarhut of the Fiescherhörner, Gross Grünhorn and the Wannehörner ; the imposing view from the middle of the Studer firm of the Finsteraarhorn, which rises from the glacier in a sheer cliff of almost 3000 feet ; and lastly a most beautiful view of the Weisshorn and Matterhorn, across the Rhone Valley, from the Oberaarjoch.

After a two and a-half hours' halt to enjoy a good meal and the beautiful view from the hut, we were off again down the Oberaar glacier. This glacier struck us all as being of an unusual character ; it is perfectly straight and falls gradually

in one practically uniform slope from start to finish, with no tributary feeders to speak of, no icefalls, and no crevasses; as Antoine described it, 'C'est un glacier gentilhomme.' We followed it down to the very end and stepped off the snout on to its terminal moraine without any trouble or détour and reached the Grimsel at 7.50 P.M., rather tired but having thoroughly enjoyed our day and the fine scenery we had passed through. Our times, excluding halts, were four and three-quarter hours on the Finsteraarhorn, two and a-half hours from hut to hut, and three and a-half hours from the Oberaarjoch to the Grimsel—a thirteen and a-half hour day in all.

We spent next day, Sunday, quietly at the Hospice. Throughout the day the hotel was alternately in a condition of comparative peace and feverish activity with the arrival of various diligences and carriages from up and down the pass, and parties of touring cyclists halting for refreshment.

To reach Stein, our first idea was to make the trip in two days, ascending the Dammastock and crossing the Triftlimmi to the Trift hut on the first day, but, as the Dammastock looked so uninteresting from the Grimsel side, we decided to make the whole trip in one good day.

We left the Grimsel at 5.50 A.M. on August 22 and crossed over the Nägeligrat on to the Rhone Glacier. The weather already showed signs of a change, and very soon we were in the mist, which kept us company till close to the Trift hut; whether we crossed the Obere or Untere Triftlimmi I do not know, the mist was too thick to see, and our only map for that day was one torn out of Gover's Baedeker, but, judging by the rocks which we crossed at the top of the Col, we thought it must have been the Obere. Just below the pass an icy cold wind, with driving snow, met us, which made us promptly don our warmest wraps, but once over the pass the wind dropped and settled down in a gentle snow storm, with the growlings of a thunderstorm coming up behind us. Three little white snow buntings kept us company for some distance, fluttering off to the rocks as we approached the hut.

The clouds cleared off temporarily, and the sun coming out as we reached the Trift hut, we were able to see the fine surroundings and the broken ice-fall of the Trift Glacier below us. We dried our clothes, and meanwhile studied the map as to our best course on to Stein. We did not relish the big drop down the glacier to the Drosibach necessary to cross by the Stein Limmi, and thought we should have a more interesting

climb by crossing the Zwischen Thierbergen. After skirting round the cliffs of the Thältistock by a breakneck path, where we came suddenly upon a colony of marmots playing among the rocks, we turned off to the right and crossed the Thierberg Glacier under the hanging ice-fall of the S. branch. The slope was swept by stone and ice-falls, and we were glad to hurry across as quickly as possible, and ascend the moraine on the right bank of the N. branch. The view here looking back over the Triftfirn and the surrounding peaks was very impressive; heavy banks of cloud were gathering up from the S., and the glimpses of snow-fields and rock peaks alternately appearing and disappearing between the gleams of sunshine and masses of dark clouds gave wonderful effects of light and shade.

Before reaching the head of the glacier, a steep circular field of névé surrounded by the jagged cliffs of the Vorder and Hinter Thierberge, we were enveloped in a dense mist, and the compass, assisted by Baedeker's map, had to come into play again. Every now and then the fog would lift and some fine crag or pinnacle would show up grandly for a moment, to disappear again as the mist settled down thicker than ever. We plunged on and up in the deep snow till a large mass of rock loomed up suddenly in front of us with a steep snow slope on either side. Which was our direction? The map showed our way as a steep narrow snow couloir between the two Thierberge, but to the left was another running up to the Vorder Thierberg and to the right a smaller one below the Hinter Thierberg. There was a division of opinion as to which was our couloir and where we were. The compass certainly pointed to the couloir on the right of the mass of rock as being our course, and this one we took. The slope got steeper and narrower; we could see dimly through the mist precipitous rock faces closing in on either side, and swept by showers of falling stones which were strewn all around us on the snow. We had grave doubts as to whether we had taken the right course, when a sudden break in the mist disclosed the top of the pass far up above us. It was now past five o'clock and commencing to snow hard, which made us anxious as to getting down the other side.

From the top of the pass we struck due east, passing under some dangerous-looking ice séracs, which appeared as if very little would make them come tumbling down on the top of us, and tried to make the Thierbergli rocks. We went too far however, and on finding ourselves going up the slopes towards



J. W. Wyatt, photo.

Swan Electric Engineering Co., Ltd.

GWÄCHTENHORN and THIERBERGE, from STEIN.

the Sustenhorn we turned back, and fortunately soon came upon a track in the snow which led us straight to the Thierbergli. Here we got below the mist and could see our way. A quick glissade down a long snow slope brought us to that desolate waste of stone and moraine from which probably Stein takes its name. For some time past the snow had turned to heavy rain, and we reached Stein wet through and through at 7.15 P.M. Another day not easily forgotten!

We were made very comfortable at the little mountain inn at Stein—like Ried it is unspoilt and, from its situation near the head of the little used Susten Pass, likely to remain so; the number of moderately high snow and rock peaks, which surround it on both sides of the valley, make it an admirable centre for climbers, particularly I should think for guideless parties. So far as one could judge during our short stay the valley has an interesting flora—we found that little gem of true Alpines, the brilliant blue *Eritrichium nanum* on the rocks of the Fünf Fingerstöcke, and the lower rocks in the neighbourhood of the inn were festooned with the feathery plumes of the fine *Saxifraga cotyledon*.

We only remained four days at Stein. On one of them we scrambled on the Fünf Fingerstöcke, but did not attempt the highest rock as a very cold wind was blowing and the mists again collecting. On the next the weather was hopeless, and during the last two days Gover and Brook traversed the Sustenspitz, which afforded some fair rock scrambling, and did the Sustenhorn. I cried off as I was suffering a good deal from a series of chills, and amused myself in exploring the immediate neighbourhood, and in watching the marmots disporting themselves among the rocks within a stone's throw of the inn; they appeared quite tame and undisturbed, and were very fat and woolly, preparing for their long winter sleep.

We had the hotel practically to ourselves, except on our last evening when we were invaded by a large party of thirty to forty boys and girls, pensionnats, who arrived in driblets in pouring rain, wet through, and proceeded to disrobe in the hall—the boys to their shirt sleeves and the girls to whatever is the equivalent in the female costume.

They monopolised the whole of the large hall or sitting room in the evening, and we took refuge from the babel of voices in the *salle à manger* and were much entertained by their singsong of national airs, particularly one, 'La Suisse est belle,' sung by one of the masters in his shirt sleeves, who

marched up and down the room evidently extemporising verses with local hits, which were received with shouts of laughter and applause.

On Saturday morning, August 27, we said good-bye to Stein, and walked down the valley to the accompaniment of a steady and gentle rain, the weather keeping up its unsettled character to the end. At Meiringen the sun came out, and we had a delightful sail across the Lakes to Spiez, where we parted company: Brook going home, Gover to the Gemmi Pass, and I to rejoin my wife at Les Ormonts.

Such were some of our experiences in 1910, unsatisfactory from a climbing point of view, but very interesting in many other respects, and certainly not monotonous for the members of our party, who, having set out with no particular object, were content with small things, though I fear the recounting may seem poor sport to those who emulate greater deeds.

THE SURVEY OF THE HIMALAYA.

BY T. G. LONGSTAFF.

THE publication of Synoptical Volume XXXV. by the Trigonometrical Survey of India will be welcomed by many students of Himalayan problems, for much information is thereby made conveniently accessible which formerly could only be gathered piecemeal from scattered annual reports. This volume, the North-East Longitudinal Series, covers the Central Himalaya from longitude 78° to 88° . It also includes those peaks situated between longitude 88° and 92° , which were observed from stations in the North-East Series, but which properly belong to the Assam Longitudinal Series, as yet unpublished in this form. The long delay, almost inevitable under the circumstances, which occurs between work in the field and final publication of the results, probably accounts for the scant recognition by geographers and travellers of the labours of the Indian Survey in the Himalayan region. This delay is particularly regrettable in the case of the important survey operations so successfully carried out in connection with the recent mission to Tibet.

The present volume deals with the Himalayan region from Simla to Punakha, filling the gap between Volume VII. of the North-West Series, which covers Kashmir and the adjacent