then if we cannot keep the mountain slopes from invasion by the railway fiend, we shall at least have the summits clear.

A Dolomite Holiday.

By EDWARD A. BROOME.

MEN are boys writ large, and what overgrown schoolboys most of us are! How we look forward to our holidays from the end of the last to the beginning of the next; and if an Alpine holiday is contemplated, our keenness exceeds even that of our boys! This particular holiday had been long anticipated, though often deferred. One year the Dolomites were too far, another we were too few; but last year all seemed propitious, and a pleasant party (including my friend, Mr. Pryor, who knew the district) was arranged.

We had, perhaps, even less to complain of from the weather than any other party out. At any rate, whilst in Switzerland and Savoy little was being done, and the more difficult rock-peaks not climbed at all; while closer to us, in Austrian Tyrol, bridges were being washed away, and wretched railway passengers carrying their own baggage across yawning gulfs; we pursued the fairly even tenor of our ways, only got drenched five times, and in five weeks got up twenty peaks besides some passes.

It is right, however, at the outset to warn the long-suffering reader that if he expects new expeditions, or even new routes up old peaks, he is doomed to disappointment. No new peak, nor even (so far as I know) any important variation, was attempted. We were content to climb the best mountains by the known routes, and my excuse for this paper is that the Editor asked me to write it; partly, I suppose, because so few English climbers go to the Dolomites, and so little has lately been written about them in the 'Journal.'

The Dolomites! I longed to see them, their fantastic forms, their dark green forests, their gorgeous colours. I had devoured all the books (in English) about them I could find—Gilbert and Churchill to Sinigaglia, Leslie Stephen and Amelia B. Edwards to Sanger Davies. Pictures I had seen; Titian's, Elijah Walton's, and latterly my friend Howard's, whose 'Civetta' was to the fore in last year's Academy, and whose Dolomite paintings were the feature of our own private and particular little Academy in Savile Row. I had also cross-examined such of my friends as had been there; and now at last, on July 29, the Channel was crossed, our internal

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arrangements duly disarranged, even our early eviction from the Engadine Express at Feldkirch ended, and Innsbruck reached the next afternoon. Here, of course, it was necessary for the ladies to 'rest after the journey' and do a little final shopping, while the more energetic explored the interesting old city, visited Schloss Andraz, and got a glimpse of the Oetzthal and Stubaithal snowpeaks from the hills near.

Monday, August 2, we were again early *en route*, crossed the Brenner, and after 1½ hour's detention at Bruneck (owing to the floods) reached Toblach at luncheon time, rejoicing in the thought that we had done with railways for some weeks. This is a *dear* spot in more ways than one, and the fine new hotel should add one more conspicuous signboard, 'For Millionaires only,' to those it already has. The drive hence to Cortina is grand, and affords fine views of many peaks with which we were to become better acquainted. The Popena and Cristallo from the Durren See, the Drei Zinnen, and the blood-red Croda Rossa, are specially graven on my memory, and the first and last-named were added to my programme.

The journey, however, was spoilt to some extent by the vagaries of our driver, who confirmed an old theory of mine that getting to and from the mountains is quite the most dangerous part of mountaineering. Our Jehu was certainly mad or drunk—or probably both. He emerged from every house of call *en route* wiping his mouth, burnt good garments with red-hot ashes of bad cigars, shaved awful precipices, banged into parapets of bridges, and charged other entirely innocent vehicles. He informed us that the best way of driving down steep hills (like the zigzags between Ospitale and Fiammes) was to recross backwards and forwards from one extreme edge of the road to the other; a theory from which I entirely dissent! However, once more a special providence 'watched over children and drunken men,' and after sundry repairs we arrived very late at Cortina, where our pleasant reception at the 'Faloria' and the good dinner Signora Menardi gave us, did much to efface the terrors of the drive. We were also met by my old guide, philosopher, and friend, Josef Marie Biner, of St. Niklaus, who (like myself) had not been here before.

Our coming first to Cortina was part of a carefully considered campaign, confining our climbs to the Dolomite district proper, which only covers an area of about 50 miles by 40, and for which Cortina, San Martino di Castrozza, Caprile, and Campitello are the best centres. We thought of giving about a fortnight each to

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the two former, and all the rest of the time at our disposal to the two latter. The idea of also doing some work on the W. side of the Eisak and Adige had been dismissed, for if a good number of the real Dolomites were to be climbed they would give us quite enough to do. This disposal of time was afterwards slightly modified, as my climbing companion, and other members of our party, only arrived at Cortina a week later, and then did not want to hurry away; but as a theoretical arrangement it could not be much improved upon.

At Cortina rock peaks surround the valley on all sides, and from the 'Faloria'—which is close to the pine woods, 400 ft. above the town, and much more bracing—the Cinque Torri (resembling an enlarged Kenilworth Castle) and the Nuvolau are especially conspicuous. Being neither far away nor high, they seemed cut out for a training walk; so the following morning (3rd) Biner and I started at six o'clock, and in about 3½ hrs. easy going were at the Sachsendank hut which crowns the Nuvolau, and contained things to eat and drink. These fortified us for the Torri, the foot of whose biggest tower is perhaps half an hour below the hut. We had not, however, the slightest idea which of the four walls to tackle, each being cleft by a similar fissure. We knew that one of them was our route, so I prospected one way, while Biner tried the other. A 'view holloa' took me round to the N., a short rope was adjusted, and the little climb begun. It is interesting, typical, and short, taking a little under 25 min. each way. The rock architecture is extraordinary, the whole being broken up into bridges, chasms, and chimneys; while the chief peculiarity is that from the time you climb into the cleft at the foot, till you scramble out of the chimney at the top, you are *inside* the rock. The tower is 500 to 600 ft. high, and nice practice; the route too must be greatly improved since the first ascent in 1880, as this took 3 hrs., and the guide's verdict was that 'in none of the Ampezzo mountains was there a bit as hard as the easiest on this!'

The next morning was devoted to making acquaintance with the pretty town, and the afternoon to a picnic at the Belvedere; but the following day (5th), with Tobia Menardi as second guide, I set out for the Croda da Lago. The hour was five, and we hardly ever started before, usually getting back quite early in the afternoon—a great pull. The Croda is a deservedly popular ascent, good firm rock and very little scree, and I shall always remember it as having first introduced me to Kletter-schuhe, to which everyone new to the Dolomites

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takes so kindly, and which might with advantage be used on purely rock-peaks elsewhere. The actual climb is all too short, only occupying 45 min. from the Rastplatz, where the rope is put on. It is chiefly made by steep chimneys, with traverses between, until a little col not far from the summit is reached, whence fairly perpendicular rock faces are surmounted to the top. We descended a different way by the N. ridge, an arête of beautiful firm rocks with capital holds; and though rather awe-inspiring to look at, quite easy to do, while the narrow ridge made the descent a nice contrast with the different work on the ascent. Both occupied exactly the same time. The return to Cortina was by the Val Formin, through shady woods and by pleasant streams, leading ultimately into the road near Pocol.

Saturday (7th) I crossed Piz Popena. This proved a more important expedition, and one of the best in the district. It is a longer day, too, than most others, and for once we started at three o'clock, and didn't get back till after five. The Popena precipices are magnificent from whichever side they are seen, and I can only suppose the reason this fine peak is not more often climbed is the long and tedious grind up the ordinary E. route from the Misurina valley. Our intention was to try it by the W. face over the Cristallo Pass, waking up Menardi as we passed the Tre Croci Inn, and going slowly, we arrived at the pass at 7.30. Hence, after breakfasting, we took 2½ hrs. to the higher col on the summit ridge which ends the difficult part. This is all really good rock work; commencing with a good chimney, a traverse is made to the right, whence still bearing right-handed, difficult 'chimneys' are appropriately followed by narrow 'mantelpiece' shelves, varied with the occasional dog-kennel caves so often seen in these regions. These latter we found useful to rest in, while the man in front or behind moved, for care is required throughout, the ascent being almost absolutely perpendicular, and the loose stones numerous. On the other hand, the rocks themselves are fairly sound, with sufficient holds. The last chimney landed us 30 or 40 ft. below the aforesaid col, and a final good scramble up the face was necessary. Up the easy arête to the top took half an hour more, during which it began to snow vigorously. Down to the col again, below which the snow turned to heavy rain. The descent on the E. side was by a steep snow couloir with overhanging walls, over which the rain poured in sheets; lower down we had loose and steep scree slopes, wet snow, and swollen water-courses, so I draw a veil over

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the clammy condition in which we arrived at Croci and Cortina.

For the next two days the deluge continued. The rain descended, the floods came, the winds blew and beat upon our house and the objurgations thereat were great; for though it did not so much matter about Sunday, a trip up Cristallo with a keen daughter had been planned for the Monday.

The bad weather did not much damage our peak, and on the following day (Tuesday) we carried out our intention, and had a jolly little climb. I don't propose to enlarge much on this; Cristallo is the best known and most often climbed of all the Dolomites. Let it suffice that none of us had been up before, and that so far as possible we avoided the ordinary bicycle-track. In this we were fairly successful, for when we were at the foot, a locally-guided party were on the summit; and when we were on the summit, they were at the foot, and we had not met. In going up we negotiated—a few minutes before the top—a short rock arête 'à cheval,' which may or may not have been the 'Böse Platte.' Anyhow, the young lady (who prefers her horse exercise with hounds) besought me to make another route back, and seeing my way to a few pretty chimneys, I gladly did so. The whole day was enjoyable; our view from the summit was certainly not very successful, but in this respect, after early morning, the Dolomites are generally uncertain, and this season even more uncertain than usual.

That same evening the rest of our friends arrived, and (with one exception) all my further climbing was done with Pryor, using a couple of ropes;—two men on the one and two on the other. This method is the rule here, and where there is so little glacier has everything to recommend it.

August 11, after luncheon, we went off on wheels to Misurina; and after duly anathematising the hideous hotel now being erected at the S. end of the pretty lake, which makes such a bad foreground for the view, arrived at the old inn more fatigued than if we had walked. However, the celebrated blue trout of the lake and a whole 'flask' of excellent Chianti, which in a hasty moment I ordered, and which took us a good many leisurely moments to finish, brought sound sleep and oblivion of the shaking.

Next morning we set off at four o'clock for the Drei Zinnen to do both peaks. These obelisks are the most impressive of all the Dolomites, and the climbing is considered to be as good as it looks. The beautiful walk up to the saddle between the Kleine and Grosse Zinne, from which both are climbed,

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occupied 2½ hrs., the last bit only, up steep scree and snow, being trying. Breakfasting, roping, &c., took ¾ hr., the climb to the Kleine Zinne summit 1 hr. and 5 min., and the descent 1 hr. and 20 min. The first part is simple enough, but presently (bending more to the left) the work gets harder, the rock-faces steeper, and the chimneys longer, till the celebrated traverse is attained. I cannot see any special danger here; if a climber wants to tumble off it he easily can, and in that case



THE KLEINE ZINNE.

would commit murder as well as suicide. But the average one doesn't, and to him it is a splendid scramble all along, and especially over the last big slab or two at the end of the traverse. After this some more steep rocks lead to the well-known 'Jammed-stone,' or Zsigmondy Kamin, at the foot of the final wall. This is perhaps 60 or 70 ft. high, and takes a bit of doing, the Jammed-stone being neither easy to surmount nor to descend; but I did not (either going or coming) see anyone circumvent it upside-down, as depicted in

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Mr. Sanger-Davies' well-known sketch! We returned the same way, reaching the saddle again by ten o'clock.

More breakfast followed (or was it luncheon?), after which we tackled the Grosse Zinne at 10.45. This took 1¼ hr. in the ascent, and rather more in the descent, and was climbed in boots, not klettershoes. It is easier than the sister peak, but contains plenty of interesting work, and about half is scaled on the E. side, and then, after going through a rock gap, a long shaly traverse is made, and the other half surmounted on the S. face. The last half hour is the best, and comprises some good bits, including a long cavernous couloir, called the Schwartze Kamin. Many interesting views of the Kleine Zinne precipices were seen, one of which, taken a day or two later by Mr. C. E. Thomson, is here given.

The descent was made to within half an hour of Misurina; whence, turning off down a valley to the right, the southern slopes of Monte Piano were skirted, and the Val Popena regained an hour above Schluderbach. Here houris with tea and other rewards of the faithful awaited us, and we all drove back the 10 miles to Cortina.

From the Zinnen, as well as from Popena and Cristallo, we had been impressed by the great battlemented wall of the Sorapis range, and decided to cross this peak next. A grand view of the huge mountain mass may also be had from St. Vito in the Ampezzo Valley and other points; but the 'vast amphitheatre of wall and embattled turrets' (vide Gilbert and Churchill) are better seen from the North side. Sorapis is usually slept out for, in the new and comfortable Pfalzgau hut at its N. base; but as this can be reached from Cortina in about three hours, we preferred the Falorian fleshpots to making two bites of our Cyclopean cherry. Starting early on the 14th, the hut was reached by five; and while we waited for the breakfast which was following us on two pairs of legs, my companion was fortunate enough to secure the view illustrating this paper, which possesses the double merit of being a good picture, and showing most of the route. We then went up a little higher, leaving the lake to the right, and breakfasted on the moraine, starting afresh at 6.30.

Soon reaching the glacier, and leaving to the left the broad island of rocks, we got to the foot of the great wall. This supplied interesting work, first by the face, and then by chimneys, till some terraces were reached, which had to be traversed to the left. So far all was easy, but more difficult chimneys and faces followed, and were succeeded

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(bearing right-handed) by a frozen couloir necessitating step-cutting. Above this the arête on the top of the wall was surmounted, and then followed the *mauvais pas* of the peak. This consists of a very smooth perpendicular wall 18 to 20 ft. high, with two narrow ledges, one to take off from, and the other to land. On the former we overtook a foreign gentleman, who was rather blown, and who asked us to precede him. Menardi climbed up on Biner's shoulders, and then with a shove of the axe and a scramble was up. We all followed (perhaps with a little hempen assistance), and I found Biner's *head* useful as an extra step. This was the last difficult bit, and a few minutes later we waited on the saddle, dividing the lower from the higher peak, for our friend to repass us and reach the summit first (11.15) ; a trifling courtesy for which he repaid us later by sending one of his men racing down to St. Vito to secure the only vehicle there ! Leaving the top at 12.15, and descending by the ordinary southern route viâ the Forcella Grande and the Antelao hut, we arrived at St. Vito at four o'clock. The descent was easy, and the only special item remembered is a pleasant rarity in the shape of a 1,000 or 1,200 feet glissade. After all, we luckily annexed an antediluvian vehicle from Chiapuzza, the village next above St. Vito, and drove off in it, just in time to escape a soaking.

August 16 was wet again ; Mondays were monotonously moist. On the 17th Pryor and others were for Cristallo, while I hesitated, like the proverbial donkey, between Pelmo and Croda Rossa. The bases of both being distant, starting on wheels for either was desirable ; but when it was discovered that, owing to the absurd Dogana rules, driving to St. Vito in forbidden hours would involve 100 lire fine, I naturally remembered Sinigaglia's opinion that Pelmo, though a fine mountain, was 'devoid of climbing interest,' and that the only interesting passage had been 'simplified for the benefit of families and young people ! '

Croda Rossa, the 'blood-stained mount of sacrifice,' on the other hand, presented no financial difficulties, so we sleepily drove off there at 4 A.M. in a waggonette, which enabled two of us to repose full length on the seats, while the third nodded alongside the driver. The choice was wise, and from the time we finally woke up, where the mountain-path begins beyond Ospitale, till our return there at 4 P.M., the whole expedition was delightful. We were on the top from eleven to twelve ; the climbing was nowhere difficult, and I recollect more about the extraordinary colours of the rocks than of their gymnastic details. On the way down, half an hour above the

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Photo by P. A. L. Peyer

Swan Electric Engraving Co.

Sorapis, from Pfalzgau Hütte.

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road, I got the best view of the Zinnen yet seen, framed by pine slopes, and rising above the mound of Monte Piano like a Cologne Cathedral in cloudland. Will not some Alpine painter immortalise himself here?

The day (19th) had now come for us to speak the fond farewell to Cortina and go to Caprile for a day or two. It was the hottest morning we had had, and the prophecy of thunder and rain later was to be duly fulfilled. Toiling up with our sacks to the Nuvolau Saddle was a grind, and, indeed, one of us chartered a boy, but was understood later to have had to carry both boy and sack!

Climbing the 'Torri' again *en route*, with two other members of the party, made an agreeable diversion; but they returned to Cortina, whence all rejoined us (viâ Falzarego) two days later. We had a wet walk down, and the combination of rain overhead and hard stone-paved paths underneath was trying; in fact,

> 'Our hearts were full of weary thoughts
> Our boots were full of feet.'

At Caprile we naturally made for the inn with Baedeker's 'Star,' but for once this was misplaced. Comparisons of second-rate Italian inns are, indeed, 'odorous'; but for smells pure and simple, or rather impure and complicated, the Albergo Alle Alpi beat the record. To make matters worse, when I had gone to bed after an apology for a dinner, in a dirty little blindless room whose one window opened on a narrow balcony, some blood-stained ruffians bearing lights, and armed with awful-looking weapons, tramped heavily about outside, glared in at me, evidently preparing for some hideous rite. I was alone, and could see nothing between me and a dreadful death, but, grasping a pocket-knife, prepared to sell life dearly. Presently, however, the cut-throats vanished, and when all was still I arose and found—a large calf just made into veal, hanging outside, almost touching my window! This was too much, and though Pryor's experiences were less harrowing we transferred ourselves to the 'Posta,' which had been recently rebuilt, and where we all were made most comfortable.

We intended to sleep out that afternoon for the Civetta, but it rained until too late to start. This expedition was much too long for one day, so when next morning dawned fine we booked for the Marmolata instead, and tramped off early for the Fedaja Alp, its usual starting-point. Day broke as we emerged from the gloomy gorge at Sottoguda, and from

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thence it was a lovely walk up park-like Alps dotted with fine conifers. After a long delay in getting breakfast at the little inn on the pass, we proceeded up the well-used track, and over glacier-worn rocks, to the foot of the lower peak, which shows conspicuously from Penia. Here the rope was put on, and getting at once on to steep glacier, some imprecations were evoked by the local guide striding away on 'steigeisen' and never attempting to cut steps! However, the slope soon eased off, and going right up the glacier, crossing some considerable crevasses, we worked up into a tongue of névé under the summit, climbed some easy rocks, and along a snow arête up to the highest point. Here, for once, we were in luck's way, and got one of the finest views I ever saw. The day was wonderfully clear, and the isolated central position of the peak seemed to place the whole Dolomite country at our feet. The Marmolata is, of course, the highest (11,020 ft.), and from it all the others could be recognised; as well as the more distant ranges, from the Glockner and Venediger to the Oetzthal, Ortler, and Disgrazia, and far away in the south the Venice Lagoons and the Adriatic. It was a panorama not to be forgotten. We returned by the same way without adventure, in time to welcome our friends, who had had our share of them as well as their own.

Next day was spent in looking up at the towering organ-pipes of Civetta from different points and in various lights; in picnicing on the beautiful Alleghe lake, and in searching (with the usual success) for the villages and church towers that were submerged when the lake was formed a century and a quarter ago, and are still sapiently supposed to be sometimes seen!

The journey (23rd) from Caprile to San Martino proved a horrid experience, to be forgotten as soon as possible. Driving viâ Cencenighe to the inn above Forno, and breakfasting there (off puppy soup and cat's-meat) in a smell you could cut with a knife, suitably prepared the party for a soaking ride for the ladies, and walk for us men, to the head of the Valles Pass. Thence we reached Paneveggio on foot, and San Martino on wheels, wet through, and with some good embryo colds on board.

San Martino di Castrozza strikes one as being wilder and grander than Cortina. There the valley is wider, with mountains all round it; here the beautiful pine-woods contract to a narrow basin at the foot of the Rolle Pass, while overhead and all on the same side, the big peaks of Vezzana, Cimone della Pala, Rosetta, Pala di San Martino, Cima di

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Ball, and the twin aiguilles of Sass Maor, stand like a row of giant sentinels. The altitude, too, of San Martino is greater by 700 ft. or more than Cortina, and the air is keener; but, alas! the inns are greatly inferior. At the larger one Panzer lays himself out for Germans, and usually packs off English visitors to the new one, Toffol's. At both, after a little moderate exercise in the morning, a huge meal is served at mid-day, and the remaining daylight devoted to torpidity, tankards, and tobacco; while Toffol (who really wishes to bid for Britons) cannot yet grasp the fact that we love baths, hate stinks, and after a hard day's work want something in the evening more appetising than cold meat.

August 24 was devoted to getting dry and taking our new bearings; and on the 25th (with Tavernaro added) we crossed the Cimone della Pala, the most imposing peak of this group, and, as seen from the Rolle Pass, much resembling a slender Matterhorn. The route was by the Rosetta path, over the Pala Alp, and up the grass ridge running out S.W. from the Cimone, till the extraordinary basin of highly-coloured porphyry, so conspicuous from the road, was reached. Here (after startling some chamois just below us) we traversed right round the basin to a col on the N.W. arête, plainly seen from San Martino. After breakfasting here the real climbing commenced capitally up a steep sort of rock-face to the foot of a huge gendarme, which was turned, and the N.W. arête again reached higher up. The ridge shortly narrowed, and the angle grew steeper till almost perpendicular; and when no longer feasible, a slightly descending traverse was made on the N.E. side till the Travignolo ridge was gained, whence the rocks to the summit were surmounted. These rocks, though easy, proved unexpectedly dangerous, and needed caution in handling; the danger and care required arising solely from broken bottles from the summit.

Our friend Jupiter Pluvius now again appeared, partly no doubt with the laudable intention of washing our bleeding hands; but the good scramble over the magnificent boulders on the long summit ridge would have been pleasanter without the accompaniment of blinding snowstorm and bitter cold. We just got a glimpse of the 3,000 ft. precipice below us, and then hurried down the S. arête, till the steep face (now festooned with a long wire rope, and leading down to a conspicuous gap) was reached. Below this notch it is necessary to burrow like a rabbit through the 'Damen Höhle,' which tunnels through a ridge dividing the S. from the E. face, and a friend had sent a message from the

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Montenvers that it was too small for me. Fortunately he proved wrong, for though a tight fit, I followed the others; possibly had the weather been better and the luncheon interval longer, I might have remained! The rest of the descent was easy and monotonous; first by wet rocks to the foot of Travignolo Pass, and then round base of southern spurs to the Passo Bettega, whence you look right down on S. Martino church tower.

The next ascents of any importance were (27th) the twin peaks of Sass Maor and Cima della Madonna, which also made a splendid day. We should have started at 4.30, but after waiting till 5.15 for a good local guide (not Tavernaro) who had been doing himself too well overnight, set off without him, leaving word he was not to follow. However, later on he caught us up very penitent, and we had no cause to regret the forgiveness extended. Traversing round through pinewoods from the Val di Roda into the Val Vecchia, we went up the latter and a steep rock wall to the N. foot of the Sass. We climbed up the rocks to small col between the big mass of the peak and a spur running off in a northerly direction; thence up couloirs and chimneys more on E. side, till the arête overhanging the Val Pradidali was reached, and then pretty straight up to the summit. The last bit seemed difficult or easy *au choix*, Pryor and his man choosing a smooth perpendicular wall with one hold on it (and that came out, causing a little temporary excitement), while I strolled round an easy winding staircase! The descent was fairly straight on the other (S.) side, down the usual gullies and rock-faces, intermixed with stony traverses, till the col between the Sass Maor and Cima was reached.

The former peak looks the more difficult of the two, especially from the E. side, where the whole wall overhangs in the most extraordinary way, but the Madonna is rightly acknowledged to be the stiffer climb. After a little rest we started on the latter, and from base to summit found it about as uniformly perpendicular as anything climbable could well be. We went straight up a series of rock faces and good chimneys to the foot of the Winkler Kamin; then bearing to the right of this famous crack 120 ft. high, up comparatively easy rocks to the summit ridge, which was gained near the top. The return journey was down the Winkler itself, and of this all I can say is that it was easier to descend than it would be to ascend, and perhaps easier still to avoid altogether. From the col we commenced down the S. side of the Cima, chiefly with gullies filled with loose scree and stones,

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and then gradually worked round to the W. buttress; the last bit of rock-face being difficult, and negotiated quickest by sliding down a hitched rope. One feature of this expedition was the absence of water. We wanted it badly, but got none at all till quite low down the Val Vecchia.

The remainder of our S. Martino climbs I pass over rapidly, as a little space must be left for the Campitello Dolomites. August 28 we took our party up Cusiglio, an interesting minor peak of the Rosetta. The first ascent of this was made August 3, 1890,* when Mr. Wood described 'the bad rocks and troublesome falling stones.' What he would have thought of an inexperienced party 11 in number I know not, but what I chiefly thought of was a form of capital punishment (with stones) favoured by the ancient Jews. However, we returned alive, and with a harvest of amusing photographs.

Monday (30th) we did the Pala di San Martino. It might be said of this that, like the curate's egg in 'Punch,' 'parts of it are very good.' We had a capital scramble up the bergschrund on the little glacier between the Pala and Rosetta, some excitement dodging the stones which came down the peak itself (unassisted by mortals), and some really good rocks off the glacier on to the steep wall of the mountain. These rocks gradually became easier, till the ridge was gained; thence a mere walk, with rope off, up easy ledges to the summit.

Wednesday (September 1) we traversed Cima di Canali from N. to S. This is a shorter expedition when made from the new hut at the head of the Val Pradidali; but as it had only been opened (with much champagne) the day before, we preferred the tramp over the Passo di Ball. As feared, we found it full of belated revellers, some of whom were also going for the Canali. They went up the usual (S.) route, and we did not meet again till after an hour or more spent on the summit, which we had reached by steep rocks towards the col between Canali and Cima Wilma, and thence by N. arête to top. In descending their way, we found they had turned it into a sort of paper-chase, by placing long strips of coloured paper under (so to speak) stone-infants, at intervals of a few yards all down the couloirs, to make sure of getting back! This simplified matters for us also, so we hurried down, over the Passo di Ball again, and home in good time.

On the 2nd we all left San Martino, some bound for the

* *Alpine Journal*, vol. xiv., p. 368.

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Lake of Geneva, others for Constance; Pryor and I alone preferring to put in our whole remaining time in the mountains. After the parting at Predazzo we got a nice little carriage, which took us up the Fassa Thal to Campitello in time to see a gorgeous roseate sunset. The village is beautifully situated, and is a good starting point for the Langkofel and Sella groups, while the Rosengarten range and Marmolata are quite near. The people here are deeply religious; their church is a landmark for miles; their Sunday processions are longer than elsewhere; and they cultivate more crosses to the acre than any other Catholic community in Christendom. But we did not find them more honest, truthful, cleanly, or courageous than other less conspicuously pious mortals!

The far-famed Fünffinger Spitze was our first fancy, and, as usual, we engaged a local guide. He was absolutely the only one in the place, the others having migrated to the new popular resort, Karer-See, over the Rosengarten range. He had never been up the Fünffinger himself, and though he professed to know the Daumen-Scharte route, flatly refused to go viâ the Schmidt-Kamin, which was what we wanted. This expedition (September 3) proved a pleasant and short one, and certainly nothing like so difficult as the Popena, Zinne, Punta Madonna, or Grohmann Spitze. It took us about 3 hrs. to get up the steep paths, grass slopes, and rough *débris* to the breakfast place at the foot of the S.E. buttress, where we had a fine view of the unique Sella group and white Marmolata. From here our new man (having made one little wrong turn) was fairly left in the lurch, and Biner led up to the top as if he had done it once a week all his life; taking 1 hr. 6 min. going, and 1 hr. 20 min. returning. The route now usually followed lies first up a stiff chimney, a traverse at its top to the right, and then easy slopes of the S.E. buttress, off which there is a narrow traverse (to the left) into the Daumen-Scharte. Thence quite perpendicular firm rocks are ascended to the top of the first finger; another traverse into an ice couloir (where steps must be cut), and a final very steep bit of rock to the summit, which is reached sooner than expected. We loafed about and photographed a great deal returning, and got back quite early.

The following day (4th) was somewhat of a struggle with the elements. Beginning with a showery daybreak, we had a wind-storm at mid-day and deluges of rain in the afternoon. The plan was to make a round tour down the Fassa Thal, up the Val Vajolet, taking one of the Rosengarten peaks (the

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Winklerthurm) on the way, and back by other valleys. By the time, however, we had sheltered several times and got to the foot of our intended climb, the wind was much too high for such an exposed scramble; so we went on instead to the Santner Pass, just managing to get up the comparatively sheltered Rosengarten Spitze without being blown off. From the top we had some glimpses of the Botzen valley, and then, coming down, continued our rund-reise to the Grasleiten Pass, under the Kesselkogl, over the Lausa and several other little passes, to the head of the Val Duron. Down this we got to Campitello with increased geographical knowledge and all the appearance of working gargoyles.

Sunday, the 5th, we saw the most wonderful processions ever beheld, also strolled in the afternoon through Penia and other pretty hamlets to the foot of the Fedaja; and on Monday morning (nothing loth) said 'Good-bye' to Campitello, sending our ruck-sacks and some provisions by a porter over the Langkofeljoch to the hut.

The Grohmann Spitze traverse from S. to N. was to-day's work (6th), and taking it all round, I thought it the most interesting and, indeed, difficult climb in the Dolomites; though, doubtless, its 'bad order' partly accounted for this impression. We did it by a route of which the first part had only once or twice been taken before; up a marked Kamin of considerable length and difficulty, commencing on the E. face, a little below the Fünffinger and Grohmann Col. So narrow was this in one or two places that, fearing to get stuck fast, I preferred the steep wall on its left. From the top of the Kamin, a long wearisome traverse was made right round the E. and S. faces (probably at Mr. Wood's level*) to the foot of Johannes-Kamin. This is well named, and proved a veritable shower-bath; being well iced also, it was no joke. The watch-word, however, was 'slow and sure,' and we had the satisfaction of knowing that at its head we should be only 10 or 15 min. from the top of the peak. When there we saw other parties on the Fünffinger Spitze, almost within speaking distance. The descent by the ordinary (N.) route did not turn out easy, owing to the ice, snow, and intense cold on the upper part, and especially down the first long gully near the top. The two higher traverses and another couloir proved ticklish from the same cause, and were left behind without much regret, but below the ladder it got better, and the last rocks down to the col were quite easy.

* *Alpine Journal*, vol. xvi. p. 53.

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Going down the S. side, we passed our morning's starting point, traversed the grava under the Fünffinger for the last time, ascended to the Langkofeljoch, and down the wild rock-strewn valley to our quarters at the Langkofel hut. Arriving early, we were delighted to find solitude, but, alas! this was not to last. Presently heads appeared coming up from below, followed by more heads; then parties came in sight above, followed by more parties, and all (or nearly all) to stop:

> 'Yet onward still the gathering numbers cram,
> Contending crowders shout the frequent damn,
> And all is bustle, squeeze, row, jabbering, and jam.'

Next day (7th) was our last climb, the Langkofel; last, but by no means least, or least enjoyable, although I came down barefoot. We started late, not wanting to fight for our breakfast, and the hut being only 20 min. from foot of rocks. The first hour or so, up to the large rock-basin containing the little Langkofel Glacier, was easy enough. Thence a steep hard snow couloir (280 steps to be cut) was ascended, a short descent and traverse followed, and another nasty, wet, open couloir, down which stones certainly fall. Steep but easy rocks followed, then some interesting and not really difficult horizontal ledges, up another steep chimney, on to ridge, and along it, over a first and second summit to the highest point. Here it came on to hail, so we soon hurried down; the more so as another party of our overnight friends had been overtaken (in ascending) near the top, and mistrusting their close attention to the laws of gravitation, we wanted to get out of their way. For this reason, too, we avoided the stony couloir, descending by some rocks to the top of the long snow couloir. It is worth noting that kletter-shoes should not be put on for this ascent till above the glacier and snow couloir; mine had seen service, but the wet snow finished them an hour or two too soon. Getting down without further adventure, we made a good meal, and, shouldering our baggage, tramped down the Langkofel Thal to St. Christina in the Grödner Thal, and along the road to the large thriving village of St. Ulrich.

Here we returned to good hotels, warm baths, diligences, pleasant company, and other blessings of civilisation (including the wood-carvings for which the Grödner Thal is famous); but here also we had our last near view of the dear rugged peaks! Next day we drove to the station at Waidbruck, took the rail to Innsbruck, and home without delaying further, finding fragments of family and faithful friends at intervals *en route*.

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Our holiday is over, my task is done. That the Dolomite country is delightful and fascinating I can assert; whether the climbing there is really mountaineering in its most complete sense is another matter, and one on which I should not like to be so dogmatic; indeed, I have not altogether made up my own mind. I do not agree with the man who, after some weeks here, is said to have 'pined for a real mountain'; but it is certain that the varied work and the long days of the big Zermatt, Chamonix, or Dauphiné peaks are lacking.

In conclusion, I must thank Messrs. Pryor and Thomson for their photographs, and the first-named for valuable assistance. It has been delightful to recall our scrambles; and if it ever gives anyone half the pleasure to read that it has given me to write these notes, I shall be more than repaid. I hope, too, that the minority who know this district well, and who have forgotten more about it than I ever knew, will pardon my presumption in trying to teach my Alpine grandparents how to suck Dolomite eggs.

The Kirchet and its Critics.

By Professor T. G. BONNEY, D.Sc., LL.D., F.R.S.

AN article entitled 'On the Aar Glacier and its Teachings,' by Dr. A. R. Wallace, appeared in the 'Fortnightly Review' for August 1896. In it he objected to some arguments that I had used against the excavatory action of glaciers,* referring to the Hasli Thal, and especially to that part of it above the gorge of the Kirchet, in support of his views. It is a prudent course, as experience has shown me, to make one of the ordinary periodicals a vehicle for questionable science. Criticism is thus practically barred, for the editor does not care to burden his pages with a controversy on that subject. So, as I found this to be the case, I determined to comment elsewhere on Dr. Wallace's arguments, but an unexpected pressure of work obliged me to delay for some months, and then I refrained because I thought it possible that I might have an opportunity of revisiting the district. This occurred last summer, when I spent, with my companion, Mr. J. Parkinson, F.G.S., nearly a week at Innertkirchen, examining the lower part of both the Hasli Thal and the Gadmen Thal (which I traversed in 1883), and the Urbach Thal. Dr. Wallace commences his article by an interesting piece of autobio-

* *Geographical Journal*, June 1893.

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