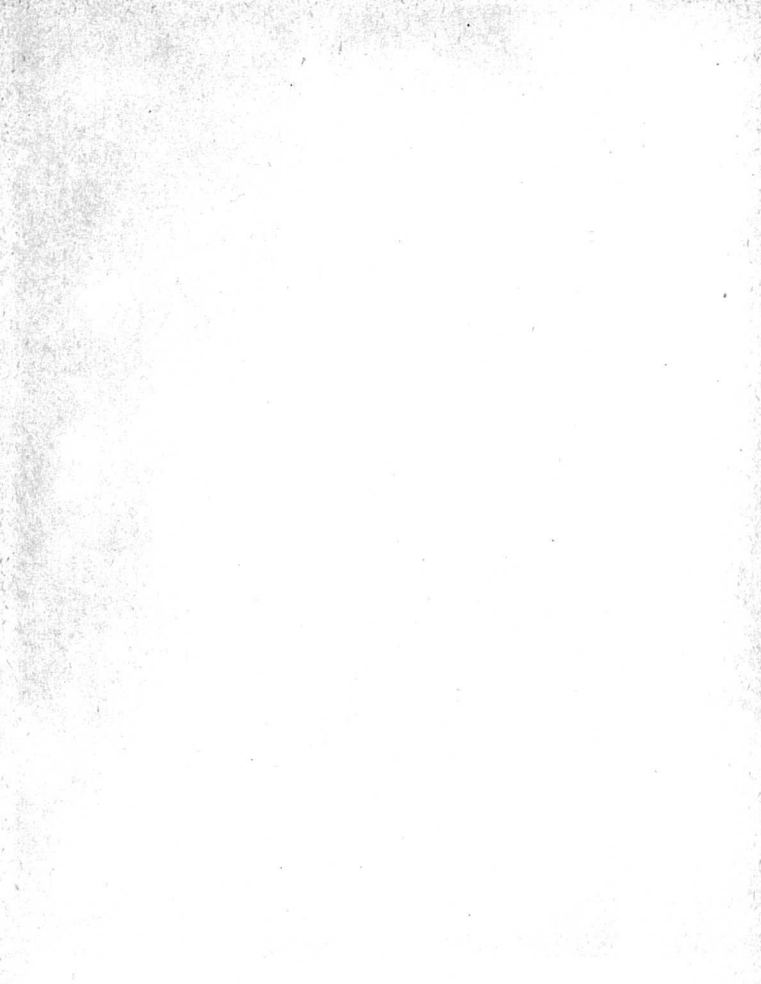


Walks and Climbs

  around  

AROLLA.





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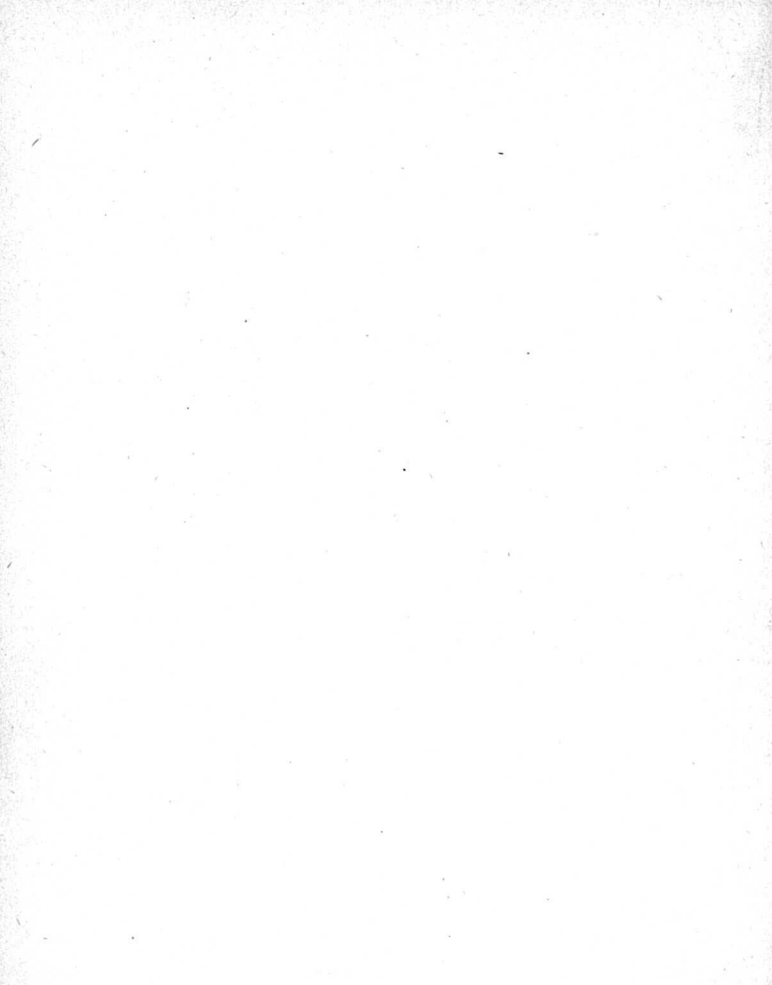


C. A. S.

WALKS AND CLIMBS

AROUND

AROLLA.



Guide
TO THE
Walks & Climbs
AROUND
AROLLA.

Collected and Written by
WALTER LARDEN, A.C.

(PRINTED IN THE YEAR 1908 FROM MS.
GUIDES MADE EARLIER.)

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PREFACE.

SOME account of the origin of this Guide may be of interest in itself, and certainly will explain why it is so unfinished in form and so unlike the usual Guide-book.

In 1883 Mr. Corbett indexed the old Visitors' Book, and wrote out for me such entries about the Aiguille de la Za and the Pigno d'Arolla as were to be found.

I then made my "First Edition" of the Guide in manuscript, adding to the records found in the Visitors' Book many accounts of easy expeditions, the fruits for the most part of solitary walks.

In 1884 (I think) I made a "Second Edition" of the Manuscript Guide, containing much more matter than the first.

In about 1892 I made a "Third Edition" of the Manuscript Guide, in a very large note-book of the best quality I could obtain; and this last MS. edition contained much new matter. The Geneva section of the S. A. C. took charge of this, sending it each summer to Arolla for the use of visitors.

In the Spring of 1905 the Alpine Club (English) had four typed copies made; they gave one to each hotel, kept one, and gave me one.

In the Summer of 1905 I went over the hotel copies, correcting and adding. I did the same to my own copy; and this last has served as MS. for the present printed book.

[The Second MS. Edition of the Guide is in the library of the Alpine Club, as is also one of the typed copies of the Third MS. Edition.,

The Third MS. Edition of the Guide is in the library of the Geneva section of the S. A. C. ; it did good service, and has well earned an old age of rest and immunity from wear-and-tear.]

If the printing of the Guide prove a boon to visitors, their thanks are due to Dr. Brushfield (A.C.). He was one of those who suggested the printing; and he alone collected the foney needed (adding the balance himself), interviewed printers, and in fact undertook all the business trouble involved in the enterprise. My part has been the correcting and arrangement of the typed copy, and the correction of proofs.

It should clearly be understood that neither Dr. Brushfield nor I profit by the sale of the book; nor do the hotel-keepers. All receipts go firstly to pay actual expenses involved in the printing of the book, and after that will be devoted to charitable purposes in Switzerland, most probably to the relief of the widows and families of guides who have been killed in the exercise of their professional duties as guides.

Whether, in a future Edition, we can get *the* Authority (he lives in Switzerland) to write a history of the Val d'Hérens and of Arolla as an introduction; whether we can afford to introduce illustrations, borrowing perhaps from the "Echo des Alpes" if the directors of this periodical will be so kind as to lend; whether we can introduce maps;—time alone will shew.

But as regards maps, it seems doubtful whether visitors

can do better than buy the Siegfried maps (1-50,000). It may be of some use if I here mention that for the neighbourhood of Arolla, the squares that Schmid, Francke et Cie., of Bern, label "Evolene," "Matterhorn," "Grand Combin," "Lourtier," will be sufficient. If unmounted, they cost 1 fr. each; if mounted on linen, 1.50 each;—probably less if mounted in one big sheet.

If it be proposed to pass to Zermatt and Zinal, the squares labelled "Zermatt" and "Mischabel" should be purchased also.

It is more convenient if each square be mounted separately on linen (at 1.50 fr. each), *with practically no margin*, and carried in a case. There are also maps on Japanese paper to be obtained. All maps can be obtained "contre remboursement" from the firm Schmid, Francke et Cie., Dalp'sche Buchhandlung, Bern.

It may also be mentioned that in 1900 the compass in Switzerland pointed about $11^{\circ} 28'$ West of the true north; and in 1910 will point about $10^{\circ} 23'$ West.

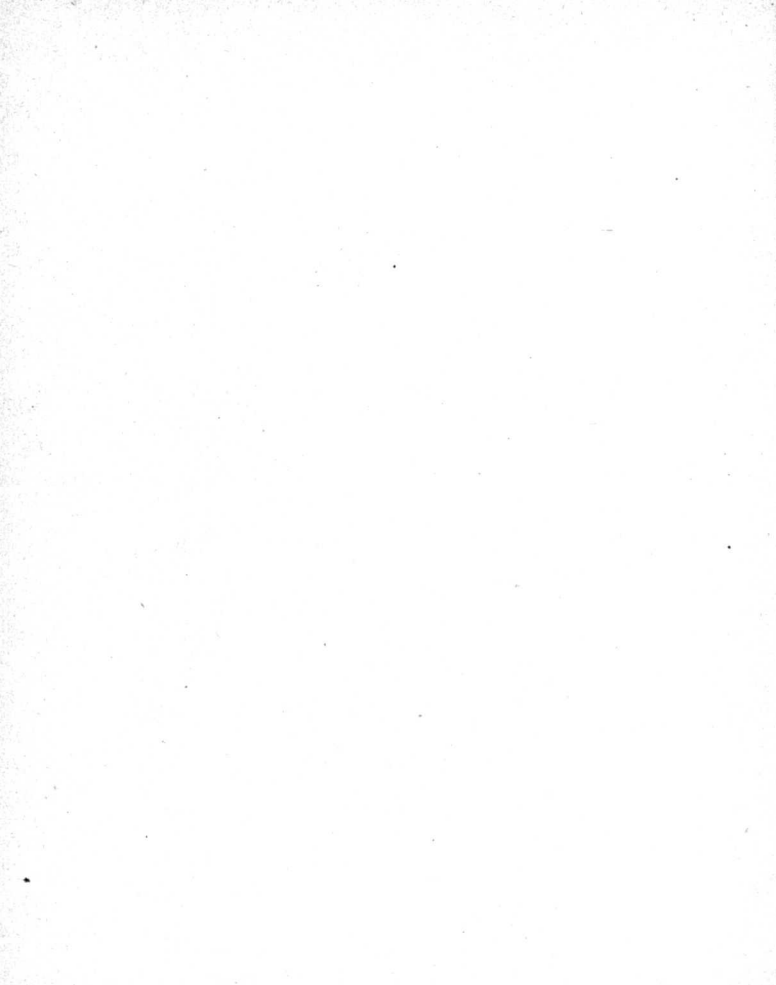
Finally let me say that this book does not take the place of any of the well-known "Climber's Guides."

Every climber who takes an interest in the routes up the Arolla mountains should purchase the "Climber's Guide to the Central Pennine Alps" (Fisher Unwin).

The starting point is assumed to be the lower hotel.

W. LARDEN.

R. N. E. College, Devonport.
Feb. 1907.



A LIST OF EASY WALKS AND CLIMBS.

Arolla Glacier, Lower, p. 1. No guide or rope.

Arolla Glacier, Upper, p. 2. Take rope. Axe might be handy.

Wood behind Hotel, p. 3. A stroll.

Upper Châlets, p. 3.

Pas de Chêvres (not to descend it), p. 4.

Col de Riedmatten, p. 3.

} All on gentle grass
slopes.

Rocks S. of Pas de Chêvres, p. 5. A scramble. No rope.

Praz-gras Châlets, p. 6. Nice stroll; fine view.

Corner of Glacier des Ignes, p. 6. Stroll.

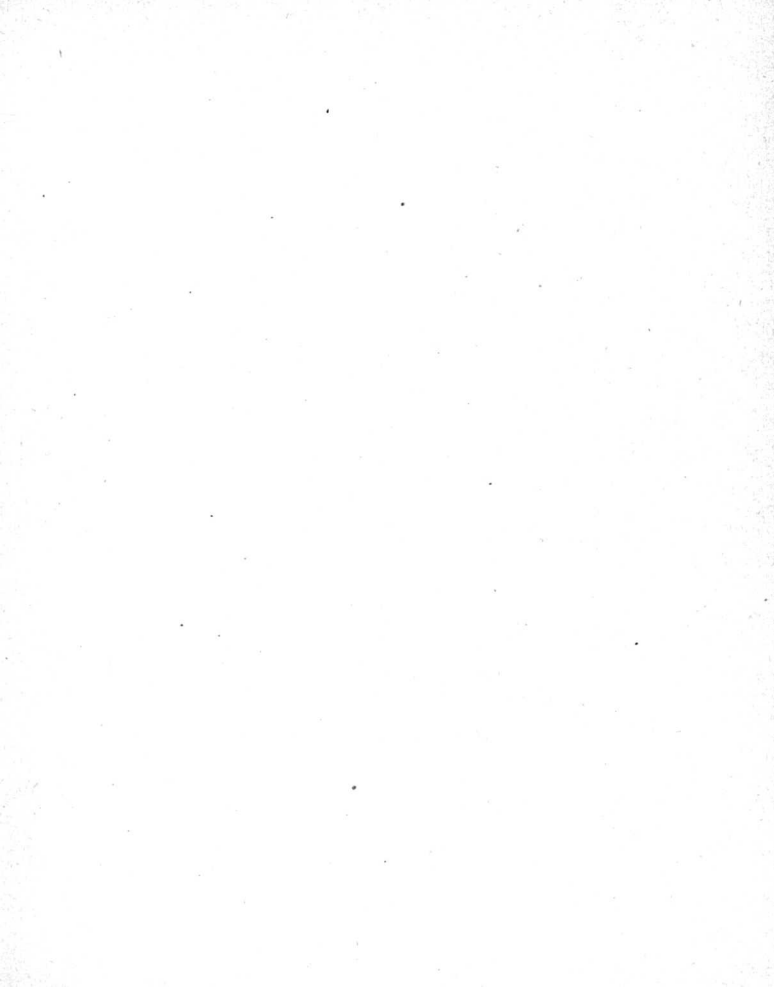
Mt. Dolin, p. 7. One route is a walk up on *dangerously steep* grass; axe better. Other routes are climbs.

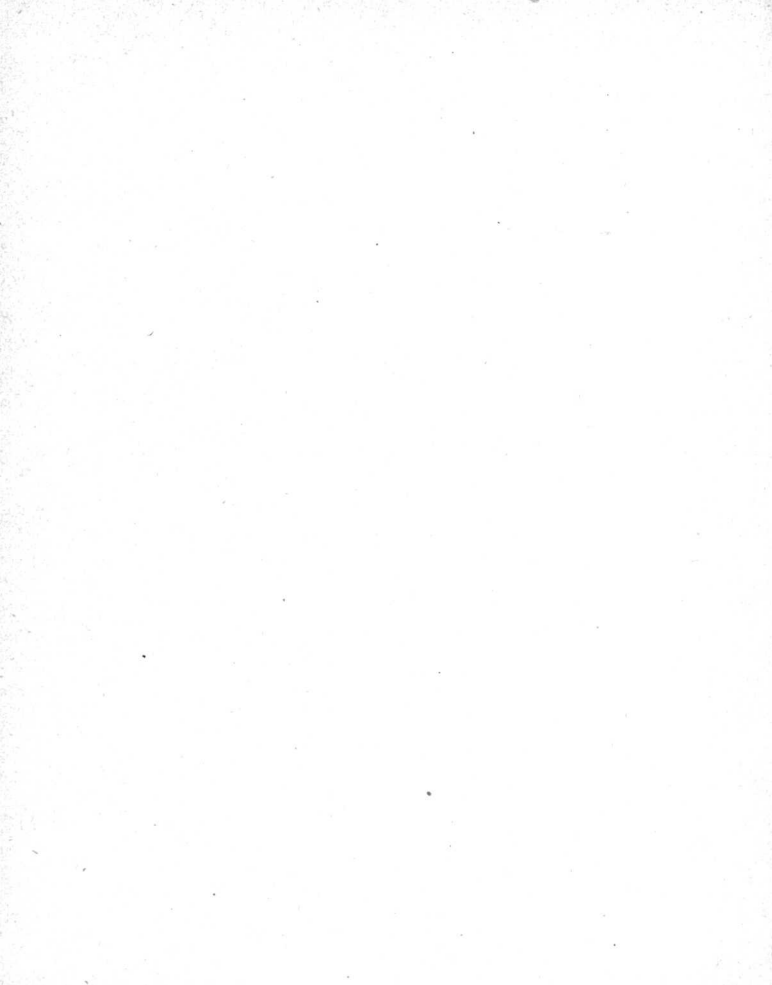
Mt. Gysa, p. 9. Can be a climb. Take rope.

La Roussette, p. 10. Can be a climb. Axe always a comfort; but alpenstock enough by easy route.

Cassiorte, p. 12. By easy route, rope not wanted.

- Glacier and Col des Ignes*, p. 14. Better take rope and axe.
But very easy.
- Tour de Cassiorte*, p. 14. Same as for the last.
- Lac Bleu*, p. 15. A lovely walk.
- Cascade des Ignes*, p. 17. A walk.
- Zigiorenove Glacie*, p. 19. Easy to get on it.
- Pièce Glacier*, p. 21. Rope and axe needed to go far up it.
- Vuibez Rocks*, p. 22. By the easy way, a mere scramble.
To find the way. needs some experience.
- Loitecondoi Rocks*, p. 25. Take a rope.
- Zinereffien Rocks*, p. 26. Take rope and axe.
- Pt. de Vouason*, p. 29. Rope and axes; but very easy.
- Col de Zarmine*, p. 32. Easy to reach top from Arolla.
Descent to Ferpêcle quite another matter.
- Grandes Dents de Veisevi*, p. 34. More ambitious than
Roussette, etc. Take rope and axe.
- La Maja, and its Tour*, p. 31. Easy. Axes may be needed.
- Glacier and Plan de Bertol*, p. 42. A mere walk to reach
them.
- Cols de Bertol*, p. 42. Rope and axes. But easy.
- Tête Blanche*, p. 111. Rope and axes. Needs experience
in crevasses. But easy.
- Mt. Rouge (near Dolin)*, p. 8. Take rope. Rotten rock.





WALKS AND CLIMBS AROUND AROLLA.

Arolla Glacier, Lower. (No guide needed.)

Follow the main path up the valley until it tends towards a wooden hut on the right. At this point leave it, and aim for a large skeleton tree to the l., where path is plain to see. (The stream from the glacier, the Borgne, is *not* crossed.) Then aim towards end of glacier, following faint path. The next land-mark after tree is the extremity of a tongue of fir-trees past which path leads. [The track is now pretty clear; 1905. W.L.]

The glacier is mounted at its extremity; but the best place to ascend varies with the year. (1883.)

The *Grotto* that formerly existed was formed by the action of water. The stream from the Glacier des Doves Blanches plunged under the Lower Arolla glacier and joined the main stream under the ice. Thus in 1886, entering the tunnel at the end of the glacier, one found that it bifurcated after some distance, and the branch to the left, that due to the stream from the Doves Blanches, was the practicable branch. But conditions change from year to year, and there is little use giving more detail here. Lanterns should be taken.

W. L. (1886.)

AROLLA GLACIER, UPPER

Time. 35m. from hotel on to the ice.

Note. It may be added that Prof. F. A. Forel, of Morges (Canton de Vaud), is the great authority on the subject of the Grotto, the advance and retreat of the glaciers, etc. He has written much on these and on kindred matters.

W. L. '92.

Was with Prof. Forel in his first exploration of the Grotto in 1886 and traversed all the passages without lanterns. All the arches have now fallen in. C. C. '95.

Arolla Glacier, Upper. (No guide needed.)

(a) Since the path has been made to the Bertol hut, the best route to the Upper Arolla glacier is by this path.

A little way above the Hotel Collon the Borgne is crossed by a bridge. A mule-path leads up the valley on the right bank of the Borgne, rising. After the stream from the Glacier de Bertol has been passed, the path ascends in zigzags. Later on, it divides; the branch up to the left leads to the Plan de Bertol; for the Upper Arolla glacier the branch leading straight on must be followed. This leads into a gully, where tracks must be looked for.

Ciming up out of this gully one finds oneself in sight of the upper glacier. There is much moraine to be crossed; and tracks and small heaps of stone must be looked out for.

(b) One can pass up the Lower Arolla glacier and ascend to the upper glacier round the base of Mt. Collon, or up the moraine-covered ice of the upper glacier itself. This

is a good route if one wishes to see both upper and lower glaciers.

By either route one can gain the *Col de Collon*. It is little more than a walk; but a rope must be used over the covered part of this glacier-route.

Or one can proceed straight on to the *Za de Zan Plateau*.

Woods at back of Hotel. Well worth exploring; beautiful flowers and clear streams. No one would suspect such beauty. Unluckily the finest trees, the *Arolla* pines, have been used for building purposes.

W. L. '83.

(Since the building of the Kurhaus these woods have altered much and paths have been made in them. When the above was written it was a case of "exploring," as they were pathless.)

Upper Châlets; and route to **Pas de Chevres** and to the **Col de Riedmatten**.

I. *Upper Châlets*. (About 1 hr. from the lower hotel, good walking—no guide.) Take the path that skirts the border of the wood, running about N.N.W., and then N.W. from hotel. At corner of the wood you cross a stream; and after that there are many paths.

You go rather to the left (but *not* along path *most* to left, that passes along upper border of wood), and soon follow up a hollow leading towards Dolin. You should then meet with a well defined path that mounts and bears to left. You pass a cross; and later on you round the

corner, and find the large cattle yard and group of chalets called "The Upper Chalets" by visitors. They lie right opposite the Zigiorenove glacier, and nearly at the foot of the grass slopes of Dolin.

W. L. '83.

II. *Pas de Chevres*. (No guide needed to reach the top of it.) Passing the Upper Chalets you keep right on, always looking some way ahead to recover the path when lost. There is a summit beyond Dolin, called Mt. Rouge (see p. 8), marked 2925 in map. This you leave on your right. The *Pas de Chevres* is the lowest point in the great N. and S. arête that bounds the Seilon glacier on its E. side. Arrived at the edge you look down on the Seilon glacier; and perceive the route down to be a rough natural staircase sloping down to your left (i.e., to the S.) So far has been a walk.

To descend. (Guide and rope needed for average visitors. Climbers can descend without guide or rope, but an *axe* is advisable.) At the top you can either pass outside a rock, when a rope feels a comfort to many, or can (if not too stout!) squeeze down a chimney. Near the bottom is a long step, and here an *axe*, jammed in a crack, is, to say the least, very convenient.

The climb is a small one; but enough to break necks over if the climbers are careless; especially as the rocks have been worn smoother and smoother in the course of years of use.

The *ascent* is easy for climbers.

W. L. '83.

III. *Col de Riedmatten*. (No guide needed. A "path-col.") This gives easy access, by a roughish path, to the Glacier de Seilon, and so may be convenient to those who do not want to scramble down the *Pas de Chevres*.

When one has passed the summit called Mt. Rouge, marked 2925 in map, and sees the arête bounding the Seilon glacier, one perceives to N. of the Pas de Chêvres (which is the lowest point in arête) some higher black rocks on the arête; and one can then make out a zig-zag path that ascends to a nick in the rocks.

The ascent to this nick, and the descent to the glacier, is simple walking.

The guides do not appear to mention to visitors this easy route over the arête.

W. L. '83.

IV. *Rocks S. of Pas de Chêvres.* These form two small summits S. of Pas de Chêvres, the one nearer the Pas having a staff on it. They are separated from the (far higher) N.W. summit of the Zinereffien Rocks by a col on which is a small snow-field. (No guide.)

(1) You may ascend the rocks from the Pas de Chêvres.

(2) You may mount to the col S. of these rocks, and so mount the rocks.

(This col is another easy route to Seilon glacier.)

(3) Make up for this col, and then slope up to right so as to get under summit which has *not* the staff on it. Then climb straight up. A really good scramble to summit. (Two men best for this; rope not needed.)

W. L.

V. *Rocks to N. of Pas de Chêvres.* I.e., between P. de C. and Col de Riedmatten also good for a scramble. Very firm. Rope can be dispensed with.

The Praz-Gras Chalets and the Corner of the Glacier des Ignes. *No guide.*

1. Follow the Upper Châlets path to corner of the wood (p. 3). You here see more trees off to your right and a path (*not* to be followed) running off through these trees.

You aim so as to get *above all the trees to your right*; and, along their upper border, you find a path running nearly N. Follow this path for 5m., and then mount N.N.W. You soon see, to N.W. by N., *a cross on a block of stone*. (I believe there is a second such now; but its base is a built-up cairn, not a "block of stone.") You aim for this "cross on block of stone" by a good path. Arrived at cross on block of stone, or a little to N. of it, the Praz-gras châteaux are 200 yards to W.N.W.

They are compact and gray, not conspicuous. They lie highest of all the châteaux.

Travellers often take too low a path to right from corner of wood; and reach some lower châteaux.

(Time 1 hr. 10 m. or less from the lower hotel.)

2. *Corner of Glacier des Ignes.* From Praz-gras châteaux strike nearly due W., and gain the highest water-course cut alongside of hill. Follow this a long way—(if you lose it, keep too high, and you will see it again below you)—until you see it pass round a steep hill-side to your right; in fact it is almost *built* out here. Then you follow a stony gully straight ahead, above the opening of which you see the Aiguilles Rouges towering.

Mount this gully; and you get on to a ridge abutting against the easterly spur of La Roussette. I call the point now gained, "*the corner of the Glacier des Ignes.*" It is about 1 $\frac{3}{4}$ h. from hotel. The peak of the A. Rouges should now be about N.W. by W.

All the moraines of the Glacier des Ignes are in sight; but the clear glacier is out of sight round to the left.

W. L. '83.

“Visitors to Praz-gras should not omit climbing a small hill over the ridge behind the châteaux—about 25m. walk. It is called “Tête du Tronc” (2556m.) in Swiss Map (1/50,000).”

(Signed) H. A. BEECHING,

Aug. '85.

(NOTE. I think I observed in 1904 (21 years later) that the watercourses, or irrigation streams, have been altered somewhat. W.L.)

Mt. Dolin. (Fine view.)

(1) *By the grass slope.* (No guide; but good nails in boots. A slip on the turf *might* be fatal. When grass is dry and hard, an axe is comfortable to hold on by, though not necessary.) Ascend towards Upper Châteaux. But, when near them, pass up the grass and ascend a green ridge that leads to the foot of Dolin, following direction about N.W. by W. or W.N.W.; leaving châteaux below on left and advancing till Dolin is on right. Then go up grass slopes that face Zigiorenove glacier.

Time to summit about 2½h. from lower hotel.

W. L. '83.

(2) *By the N arête.* “Either ascend to the col between Dolin and Gysa (see p. 10) and so up the arête; or, “by the slopes of shale, etc., to the arête south of said col. “(Rope; no guide.)

“(Signed) F. CORBETT. '83.”

(3) *By S.W. arête.* “Leaving the Pas de Chèvres route “where it ceases to follow the stream, keep well up above “the E. bank of the stream, over rocky hummocks, and

“ boulders, until the S.W. point of the mountain is passed.
 “ Then up steep slope of débris, and climb straight up the
 “ rocks on to the arête; which follow to summit. De-
 “ scend by route (1). (Rope; guide not necessary.)

“ (Signed) F. CORBETT. '82.

“ A. BARRAN. '82.”

(4) *Tour of Mt. Dolin.* “ Take the Pas de Chèvres route
 “ until the path crosses the stream, follow up the stream for
 “ some distance. Then ascend the stony hummocks on the
 “ right (E) until the col between Dolin and Gysa comes into
 “ view. Ascend to the top of the col and then descend (E)
 “ over loose stones, stony hummocks, steep pastures,
 “ straight towards the hotel.

(5) *Traverse of Mont Dolin arête.* “ (Axes; some would
 “ find rope comfortable.) Take route (1) as far as the Dolin
 “ slopes; there one sees a yellow broken rock in the cliffs on
 “ the left, i.e., towards the West; climb over its upper edge
 “ aiming at a very distinct crack in the arête; then follow
 “ arête to main summit (2976m.—highest cross), and to
 “ second cross, over two good gendarmes. Back to first
 “ cross and down north arête (steep) to Col de la Forclette to-
 “ wards foot of Gysa, where climbing over every gendarme,
 “ a scramble may be obtained. Back to Kurhaus over Praz-
 “ gras. Strongly recommended for a half-day. I was
 “ alone finding out my way; took 6½ hours.

“ Aug 1st, '01.

AUG. EUGENE KUHLMANN;

“ Paris.”

Mt. Rouge (meaning pt. 2925 between Dolin and
 the Pas de Chèvres).

“ . . . It consists of a sharp arête and a high tower or
 “ ‘ clocher ’ on the W. end. To ascend to the arête, mount

“ a steep grass slope on the S. side till you approach a large pinnacle or gendarme—then bear to the left—(leaving the pinnacle on your right) and mount over loose stones to the arête. Follow the arête to the base of the ‘ clocher ’ till a small shoulder is reached—work round the shoulder and a way will be found up to the summit. The rocks are very loose, and consequently dangerous, and a rope is advisable.

“ (Signed) REGINALD J. CUST.

“ 10th Sept., '86.”

(2) *Another route.*—Ascent by E. arête.

“ Make for the buttress which ends in steep rocks on the Arolla side. Skirt the rocks by screes to the left till a passage can be made up the slabs and steep pitches on to the arête. Follow easy arête over one or two needles to the ‘ clocher.’ This is ascended by a chimney and final short arête, both *very* rotten.

“ The ‘ clocher ’ may be descended by *N.W. arête* to a little col on a ridge connecting with the Reidmatten-Cassierte arête. This is short but interesting. It would be difficult to find, even in the Arolla district, rock more thoroughly disintegrated than on this ‘ clocher.’

“ F. W. OLIVER,

“ Sept. 12th, '92.”

Mt. Gysa. (Pronounce “ Ghitsa ”: A. E. K., 1901.)

“ (*No guide.*) This is the summit, with a remnant of a cross on it (in 1883) that lies between Dolin and La Roussette.

“ Start as if for Upper Châlets, but make off to the right so as to gain col between Dolin and Gysa. You then have Dolin to S. and Gysa to N. Mount straight to N. over slopes and some ledges.”

(About 2 hrs. from hotel; 2 hrs. back.)

W. L., '83.

La Roussette (3,261 m.) (10,600 ft.). Fine view; and can give some good scrambling. (No guide.)

(1) Easy; ladies (with strong boots) may be taken. Take way to Upper Châlets (p. 3) but pass above them, close under the grass slopes of Dolin. Go round the S.W. rocks of Dolin, along sheep-tracks over the screes into the valley lying behind Dolin and Gysa. When further up this valley, you see the summit and broken cross of Gysa above you to the right; and the higher (complete) cross, and cairn of Roussette to the N. of Gysa.

[A variation is to take a path to the right, some time before sighting the Upper Châlets, that mounts steeply to the Col de la Forclette (between Dolin and Gysa). From this col you skirt the westerly slopes of the Roussette-Gysa ridge, joining the route that is here being described not far from the foot of the "wide gully."]

Pass on up the valley, leaving Gysa, and the fantastic castle to the north of it, to your right; and choose an easy slopes of screes that takes you up a wide gully to a point on the arête not far S. of the cross and summit of Roussette. Then easy to reach summit by ascending the arête for $\frac{1}{4}$ hr. or less.

The summit consists in a ridge; a snow slope lies on the E. side of the ridge.

W. L., '83.

(2) No guide. By the northerly spur of Roussette. This route is far more interesting, and may give some fair scrambling.

I started from Arolla 11 a.m., reached the "corner

of the Glacier des Ignes" (p. 6) at 12.15; struck up hill-side over what was then snow, direction being about S.W. by W. and reached (at 12.45) the edge of a small perched snow-field shewn in map. The summit lay now about S.W. There were two snow couloirs opposite to me. I chose the more northerly. (There was also a rock ledge to N. of this latter couloir that may be a good way up; but new snow then blocked it.) Crossing the little snow-field I then ascended the more northerly snow couloir some way; and then (1.15 p.m.) left it for the rocks on my right. Mounting these and bearing to my right gained arête of the northerly spur of Roussette. Mounting spur (and bearing now southerly or south-westerly towards summit), I reached the summit at 2.15. New snow, sometimes to my waist, made the pace slow. W. L., '83.

(3) (No guide.) Proceed round Dolin into the valley behind as in route (1). When far enough up to see well, one observes to N.N.W. a place where the arête from Roussette to Cassiorte (p. 12) is lowest, and where a tongue of scree stretches up towards it. The top of this tongue of scree reaches the foot of a high tower in the arête, to the east of lowest point in arête.

Mount up this tongue, and then mount up face of the lower part of tower from ledge to ledge, bearing always to the E. and never doubling back. You thus gain top of arête between Roussette and Cassiorte; and pass, first to E. and then to S. to the summit.

W. L., '83.

(4) (No guide.) "Having ascended Dolin, the traveller
 " by scanning carefully the arête leading to the N. will, if
 " he is a moderately good cragsman, discover a route down
 " from the summit to the left on to the rocky arête (good)
 " and thence, partly on the E. and partly on the *West* side

CASSIORTE

“ of it, pass over the detritus until he gets immediately
 “ beneath Gysa, where *route 1* may be followed to the sum-
 “ mit. By this route the two summits were scaled, and
 “ the descent made to Arolla, in 7 hours.

“ (Signed) COLIN CAMPBELL,
 “ July 30th, 1886.”

(5) (*Long rope, guide advisable.*) By N.E. arête.

“ We left Kurhaus at 2.13 p.m., crossed Praz-gras to-
 “ wards foot of arête running up, first W. then S. to Rous-
 “ sette (3,261 m.) which we reached at 4.15 p.m. Then
 “ followed arête, keeping rather to right, when necessary
 “ (rocks good); reached summit 5 p.m.

“ A smaller party would require much less time. *We*
 “ *strongly recommend this delightful little climb for a*
 “ *half-day.*”

“ A. C. DOWNER.

“ O. SCHUCK.

“ AUG. EUGENIE KUHLMANN.

“ Guide, PIERRE CHEVRIER.

“ July 26th, 1901.”

Cassiorte, *Ascent of.* (3,302 m. = 10,834 ft.) (No guide.) By this is meant the fantastic rocky summit that lies at the N. end of the main N. and S. arête running from the Pas de Chêvres towards the Aiguilles Rouges. Cassiorte lies at the junction of this arête with that coming from Roussette; and it looks down on the Glacier des Ignes. It is not the highest summit in main arête; there being one a little S. of it (nearer to Pas de Chêvres), that is rather higher. *Fine view.*

(1) By arête to E. of Cassiorte. Passing up valley behind Dolin, as in routes 1 and 3 of Roussette (pp. 10 and 11),

one aims at foot of arête joining Cassiorte and Roussette at a place a good deal to W. of lowest point in said arête.

Some inspection will shew a way up on to arête; and then it is an easy scramble westerly to summit of Cassiorte. About $3\frac{1}{2}$ hours from Arolla. W. L., '83.

(2) Or we can mount to a col just S. of Cassiorte passing up same valley (behind Dolin) as in 1, but sloping across it at another angle. W. L.

(3) Or go round by Praz-gras, and Glacier des Ignes (p. 6), mount to southerly Col des Ignes, and so ascend Cassiorte from the north. W. L.

(4) *By arête from Col de Riedmatten.* No guide. This route is harder and more tiring, but better fun. From Col de Riedmatten (p. 4) pass along arête to N. Several ups and downs of no difficulty.

At last one descends down ledges into a very sharp col; and on either side the rocks are very steep. One can creep into a crack straight ahead, and so up an easy chimney on to the arête. One then has, between oneself and Cassiorte, the highest point in the arête. This can be passed, and one descends into col just south of Cassiorte and so up to summit. W. L., '83.

(1) *Additional note.*—"By striking the E. arête where it joins the Roussette, as the *signal-post* (just over an obvious col), and then climbing every gendarme all the way along to Cassiorte, a thoroughly interesting climb is obtained. This will add considerably to the time allowance given by W. L. under (route 1). A rope should be taken as several of the rock-towers are very rotten and ready to collapse. " F. W. OLIVER, Sept., '92."

[*Remark.*—The first two lines of this note have been accurately copied, but are not clear to me. I think Mr. Oliver intends one to strike the Roussette-Gysa-Dolin arête at a point S. of the signal-post, by the easy gully of “Roussette, Route 1.”—W. L.]

“We strongly recommend climbers to avoid the E. arête of Cassiorte. It is at present in a dangerously rotten condition.

“H. V. READE, A.C.

“L. W. ROLLESTON, A.C.

“August 3rd, 1899.”

Glacier and Col des Ignes. (No guide.) From the “Corner of the Glacier des Ignes” (p. 6) one can ascend the glacier easily. In the front of one are *two* “Cols des Ignes,” between Cassiorte and the arête of the Aguilles Rouges. Of these the more northerly can always be ascended without cutting steps; the more southerly just under Cassiorte, generally needs steps.

Time from Arolla 3 hours or so.

A rope should always be used on covered glacier.

The Mangette Glacier can easily be reached.

W. L., '83.

Tour of Cassiorte. (1) “With ladies and one guide (time to col. 4 hours.) I went round to the Pas de Chêvres, and so back. A pleasant expedition. From Col des Ignes to Pas de Chêvres $1\frac{1}{2}$ hours P. de Chêvres to Arolla $2\frac{1}{2}$ hours. The snow was good under the S. Col des Ignes.

“(Signed) C. H. PILKINGTON, A.C., Norwich.”

(2) etc. Anyone who reads the routes to Cassiorte will find it easy to devise several ways of passing on to the W. side of that hill and so making a round to the Col des Ignes and returning home by the Glacier des Ignes and Praz-gras. (No guide.)

A rope should be taken for the glacier; and an axe may be wanted if the expedition descends the southerly Col des Ignes.

W. L., '83.

Lac Bleu. (No guide.)

(1) To see this pool at its best, go when no rain has fallen recently. The colour of the water in the pool is due to the fact that it is fed by water that comes pure and filtered from underground. Unfortunately there is an irrigation-stream turned into the pool; and this, after rain, renders the water turbid. The view *from* the lake is perhaps the best part of it.

Go to Satarme, and mount the path behind it. When you get up into a grassy glade, bear back to the left and you will find a well-defined path that leads you upward, near a peculiar and conspicuous finger of rock—(for which Mr. Slingsby has, I see, suggested the name "Aiguille, or Dent de Satarme")—to some cattle châteaux. Ascend behind the châteaux; and there is the "lake," a small pool.

The usual error is to go too far north.

W. L., '83.

(2) "A stone should be thrown into the lake and the "marvellous iridescent reflected rings observed. This re-

“flection leads me to think that the character of the bottom
“may at least influence the colour. “E. A. C.”

[These iridescent colours would be due to “refraction
and dispersion;” and any sources of white reflected light
at the bottom, as white stones, should make the phenom-
ena more conspicuous. But the blue colour is due to the
exceeding fineness of the suspended matter, as it is in the
case of the sky. W. L.]

(3) “Sur la carte au 1.50000 du C.A.S. le lac bleu est
“designé sous le nom de ‘Gouille pai.’ Cet adjectif ‘pai’
“est un ancien mot français qui signifie *bleu*. Il y a dans
“le Dauphiné, dans le val d’Arsine, un ‘lac ‘pai.’ (Ren-
“seignements donnés par M. Ch. Rabot de Paris, et M.
“Coolidge d’Oxford.) Le lac bleu a une profondeur de
mètres.

“(Signed) F. A. FOREL (Prof.),

“26 Aout, 1887.”

[*Remark.*—I am not sure that I have read the patois-
word, given as “pai” above, rightly. W. L.]

Aiguille, or Dent De Satarme. (see p. 15).

(1) “When walking up to the Blue Lake, everyone must
“notice a remarkably sharp tooth of rock projecting far
“above the pine trees which grow around it. This rock
“affords a most charming little climb of about 120 ft. up a
“steep and knife-edged arête. The top overhangs two
“ways, and is remarkably small.

“It was ascended by Miss Blair Oliphant and Messrs.
“G. S. Barnes, A.C., Harold Topham, A.C., Arthur
“Macnamara, and Wm. Cecil Slingsby, A.C. (in August,
“’87), who believe it to be the first ascent, as they saw no

“ signs of previous displacement of moss or loose stones.
 “ They all heartily recommend climbers to spend a jolly
 “ half-hour on this rock on their way to or from the Blue
 “ Lake. A long rope is absolutely necessary.

“ (Signed) WM. CECIL SLINGSBY,

“ August, '87.”

(2) “ This rock has evidently been often ascended, being
 “ well scratched. We think more climbers might enjoy it
 “ if the above description were slightly modified. There
 “ is little to call a ‘ knife-edge.’ The only part that presents
 “ any difficulty is steep, but broad, and affords ample hold.
 “ For the descent of this part (15 ft.) a rope is advisable.
 “ One of the ordinary length is sufficient.

“ W. C. COMPTON, A.C.,

“ JOSEPH COLLIER, A.C.

“ August 5th, 1897.”

(3) **Caution.**—Having myself led up this little “ Dent ” and come down last (once without hitching a rope) I am decidedly of opinion that a fatal accident might occur on it more easily than on many well-known mountains if attempted by unpractised climbers. In Ball’s Guide it is called a “ rough scramble of ten minutes ”; and this description seems to me misleading. The rock is slippery; and in the descent the hold is not good, at least from the point of view of ordinary climbers who are not “ cragsmen.” I may add that the late Mr. Cockin, a well-known “ guideless ” mountaineer (not a specialist in rocks), agreed with me fully when I expressed the above opinion.

W. L. 1905.

Cascade Des Ignes. (No guide) (1) *Direct* way. On the way to Satarme you come to a small hamlet where

the telegraph posts go round a large rock, while the mule-path rises above the rock. On descending (towards Satarme) from this rise, do not go down to the stream, as for Satarme, but follow a path that leads more directly on and upwards. After a time the path is lost; but if you continue same general direction you will regain it. You will find you are traversing the southerly side of the gorge down which descends the Torrent des Ignes, and you will be opposite to the Blue Lake which is on other side.

The path leads to more level ground; and the Cascade is seen and is easily reached.

(2) *A Tour.* Go to Blue Lake and follow a path that leads along northerly side of gorge. Easy to reach Cascade. *To return to Arolla—either* follow route (1) *or* ascend a gully that lies easterly from the Cascade. By this gully one reached pastures above. Here one can see and follow the “high-watercourse” (p. 6) to the Praz-gras châteaux and so home.

The views on home journey, on fine day, are magnificent.
W. L. '83.

Zigiorenove Glacier. (No guide.) Has varied so much within the writer's remembrance that descriptions of it, or directions for traversing it, are of little use.

W. L. '92.

“ Le Glacier de Zigiorenove est parmi les glaciers des Alpes Suisses celui dont les variations de longueur sont les plus considerables, et les plus rapides. Parfois il descend dans la plaine en traversant la Borgne, parfois il s'arrête sur la croupe de la montagne. Le maximum de longueur connu a eu lieu en 1816-1817; le glacier faisait pont sur la Borgne; il a même occasioné, par l'arrêt des eaux, un lac temporaire, dont l'écoulement n'a du reste pas causé de désastres. Un nouveau maximum a eu lieu vers 1852; le glacier est alors descendu jusqu'au sentier principal de la vallée. De 1852 à 1869 grande et longue phase de décrue continue qui a fait perdre au glacier environ un kilometre de longueur. Depuis 1869, phase de crue très rapide.

“(Signed) F. A. FOREL,

“ 21 Aout, '87.”

“ This glacier is advancing very rapidly indeed.

“(Signed) WM. CECIL SLINGSBY,

“ September, 1888.”

Routes to get on to glacier (1884.) On the northerly side, i.e., towards the Upper Châlets, the glacier has at least three moraines. The first is the modern moraine, and consists as usual of ice with stones over it. But towards the north, or away from the glacier, it presents a steep ice-wall on which no stones rest. This unusual feature in the

edge of this glacier is doubtless due to the fact that it is in a "phase de crue rapide." It is only on the glacier-side of the edge that one can see that this is a modern moraine.

Next, further from the glacier, comes a very high grass-covered moraine with a long slope down to the north; at foot of which northerly side runs a clear stream. Next, another, lower, grass-covered moraine, north of which is another clear stream. Beyond this stream the ground rises to the "Upper Châlets."

These two streams unite lower down (in a "V") and form the one clear stream that runs just under the southerly edge of the wood near the hotel.

(1) *Shortest route.* Pass, from the lower hotel, along path under south edge of wood; the path being for most part outside the wood. At a fairly level place below the junction of the two streams just mentioned, cross the stream (here single) by a wood-and-turf bridge; and mount the moraine which is the lower part of second moraine mentioned above. This takes us along a very sharp edge; and, after a time, we have on our left-hand the steep ice-wall spoken of above. About 1 hour from the lower hotel there is (or was in '82-'84) a gap in this ice-wall, by which one could pass on to glacier.

In '82 one could walk a long way up glacier to foot of the Pigno d'Arolla; no rope then required, few crevasses.

In '84, September, there was much new snow and many crevasses.

(2) Go to "Upper Châlets" and then strike across for same gap in ice-wall.

(3) Proceed as on p. 21 up along winding moraine of Pièce glacier, but at the point where one passes from one well defined sharp arête to another that lies rather to the left, one can descend to the right and mount the Zigiorenove glacier threading the crevasses. W. L. '84.

Pièce Glacier. (This also may have changed. In fact route (2) does depend on the year. W. L. '92.).

(1) (No guide; very easy.) There is a long winding moraine between Pièce and Zigiorenove glaciers; it is well seen from hotel. To gain this moraine, pass along the path to Arolla glacier until streams from Zigiorenove glacier are passed, and further on choose smoothest way to the moraine.

Mount this moraine; and, where the arête ceases, pass to the left on to arête of another moraine (which from hotel appears continuous with that you have now left.) This can be ascended to foot of rocks between Pièce and Zigiorenove glaciers (Loitecondoi Rocks.) A rough descent then takes us on to Pièce glacier.

Note.—It is better, however, to leave the moraine earlier, descending to one's left before the glacier-side of the moraine gets too steep.

Time on to the ice 1 hour 15 minutes from hotel.

As a rule (unless glacier has changed)—one must ascend glacier to one's right, i.e., the left-hand side of the glacier, in order to pass by the serracs.

(2) (May be harder, and many visitors might need a guide.) Many years it is easy to gain the foot of the Vuibez Rocks as explained pp. 23 and 24. From here one can pass on to the Pièce glacier easily.

Take rope and axes; they may be wanted.

This route on to Pièce is most direct when ascending the Pigne, provided that the tongue of the Pièce glacier, mentioned p. 23, can be crossed.

W. L., '83.

(3) **Tour.** "Pass all the streams" (descending from the Pièce glacier) "by the path to the Arolla glacier; after the last, turn up the moraine; climb the alp near a blasted pine, keeping near the gully of the last stream, as far as may be. Half-way up there is a delightful grass gully (in shade at noon) and at the top a very short 'mauvais pas.' Thence along the shale beds and moraine at the foot of the cliffs, to the moraine on the right bank of the Pièce glacier. The whole route is visible from hotel. Thence cross Pièce glacier about centre and strike track under the left cliffs and get off on moraine on left bank, and so descend. Time, 6 hours. (Two men; no rope; an axe.)

"(Signed) C. H. PILKINGTON, A.C.,
"Norwich."

Note.—It seems to me that when Mr. Pilkington went, the tongue of the glacier had gone back (?) and did not block the route to the "moraine on right bank of glacier." I have found this tongue vary; and guides have, some years, avoided this way on to the glacier—"on ne peut pas passer cette année."

Also as "no rope" is written, the glacier was clear of snow. W. L. '92.

Vuibez Rocks. (No guide. But not for inexperienced persons.)

Well worth climbing.

(1) (No guide if the "tongue of ice" has retreated or is easy to cross.) This route is the shorter; but, when I knew it, a tongue of the Pièce had to be crossed on which a slip would in some years have been fatal. Some years the guides avoided this route and went a longer way round instead.

Take path from hotel to Arolla glacier till you have passed all the streams that come from Zigiorenove glacier. Then look S.W. by S. for some blasted pines that are higher up on the rocks than the main body of living pines. You are to aim for these.

You slope off to left and cross one by one three large streams from Pièce glacier, as well as some smaller ones that vary from year to year.

On the further side of the *third large stream*, which should be struck above the living pines is a well-defined path. Follow this path.

Just below the blasted pines (they existed in '84) *the path branches*. Take higher branch.

Some judgment is then required in choosing best slant up to hit off the tongue of ice that will have to be crossed in order to reach foot of Vuibez Rocks.

(When I passed in '82, '83, '84, this tongue ended over a steep little cañon, and it was impossible to pass under it without descending a long way to the place where route (2) crosses this cañon. In '86 (I think) guides would not take this route because of the tongue; but in '87 (I think) I found the slope of tongue easy, ice rough, and no steps needed.

Mr. Pilkington's note p. 22 makes me think the tongue has retreated; for he reaches foot of Vuibez Rocks by this same route without mentioning any *ice*.

After crossing tongue of ice (or passing under it if it has gone back) it is easy to mount the Vuibez Rocks. From top, *chamois* can often be seen down on the easterly face (at least in September.) I should say one could pass all along top to Col de Vuignette.

W. L., Sept., '84.

(2) Follow route (1) to place where path branches (see p. 23). Take lower branch. This descends a little, but soon rises and becomes large and plain. A fourth stream (see p. 23) from Pièce is crossed; and we reach a grass and stone plateau of moderate slope, between upper and lower cliffs. Sloping up this to foot of upper cliffs, we come upon a *fifth stream*. This is the torrent from the tongue of glacier mentioned above. It has a cañon-like bed, but we can cross it here.

Passing over it, we ascend next ridge to one's right some way, and cross another stream (sixth) at an easy place. Ascend next ridge to right. Here occurs a bit of rock-climbing. Above the rock one gains the moraine bounding right-bank of Pièce glacier. It is easy then to see the way up the Vuibez rocks. Whole expedition up to summit and back, with time for lunch, about 6 hours.

W. L. '84.

**Rocks Between Pièce and Zigiorenove
Glaciers or Loitecondoi Rocks.** (Note. These must not be confused with the Zoitecondoi Rocks, q.v.). (No guide, at any rate for first summit.)

(1) Ascend along winding moraine (p. 21) as in route 1 to Pièce glacier. Go straight up. Steeper piece at top may be avoided by detour to right over westerly face.

The second and other summits would, I think, be best reached by passing up right bank of Zigiorenove glacier and ascending west side of rocks. W. L. '83.

"Not much difficulty in traversing arête as far as third summit, beyond which I did not pass owing to want of time; but it appears to be a similar climb as far as fourth summit. In places a rope was found useful.

"(Signed) A. B., Aug. 11th, '86.

"(i.e., MR. BARRAN.)"

(2) *By west side along arête.* " (Guide, or three experienced men, axes, and rope.) Ascend along winding arête of moraine (see p. 21); cross Zigiorenove glacier at point 2462 fed. map 1.50/000) and its east moraine. Then walk along rocky turf slopes of Loitecondouâ, keeping up-hill until foot of second snowy couloir is crossed near a spring. After passing this couloir climb straight up in a southerly direction, aiming at arête between first and second summit. Then follow arête for about 25 minutes, when the fourth and main summit, where there is a cairn, is reached. (Time taken, including all halts and détours (about 5½ hours.) Bad rocks all the way, few handholds, and dangerous loose stones on the main summit.

"(Guide: Pierre Chevrier.)

"AUG. EUGENE KUHLMANN.

"H. BLAND DIXON, R.N.

"July 20th, 1901."

Main Summit of Zinereffien Rocks. (1)

Usual route. (May, or may not, require a guide. At any rate better three persons and a rope, for traversing covered glacier.) Pass over Pas de Chêvres and skirt Glacier de Seilon, keeping close under rocks to one's left, and making southerly at first.

Then bear S.S.E. (mounting in fact by a common route to the Pigne). At a suitable place, when the summit of Zinereffien Rocks is not very far above one to one's left, strike up to left over loose rocks to summit.

(2) (No guide, but better two men and axes. A rope would enable travellers to go further along summits without any risk.) This route is by the great N.E. by E. arête. The writer was obliged, from press of time, to ascend alone and with much new snow on the rocks. Hence the following account makes the ascent appear less easy than he supposes it is under other conditions.

Followed up the grass-moraines of Zigiorenove glacier and reached foot of above arête in $1\frac{1}{4}$ hours from hotel. Making a détour to right to avoid steeper end of arête, ascended screes and got on to arête near a huge stone pillar at $1\frac{3}{4}$ hours from hotel. In 1 hour more, reached limit of rocky part of arête, and found frozen shale with new snow on it. This soon merged into permanent hard snow or ice with new snow on this.

Though the actual arête to summit was pure snow or ice, I saw loose rocks below the edge to my left (or southerly), which might be good to mount by. But at this time much new snow made them unattractive, and I kept

on the snow arête till nearer the summit, when I did descend to left and use the loose rocks.

Being alone and finding loose snow over hard snow or ice, managed to consume 3 hours cutting steps.

Reached top of arête, and a lower summit of the Z. Rocks $5\frac{1}{2}$ hours from hotel. (Much too long a time. Conditions were bad.) Made small *cairn*. Then went up arête southerly towards the higher summits.

Could not gain these; for I found cornices of snow, and was alone. Back to Arolla in $3\frac{1}{4}$ hours.

A good expedition for two men without guides.

W. L. Sept., '83.

(3) "We ascended the Zinereffien Rocks by a rock-rib running about E. from the summit ridge, reached by following the (latest) moraine on the left bank of the Zigiorenove Glacier to the top, and mounting grass and scree above it. The rocks were rather rotten but not particularly difficult. They bring one to the summit ridge a few yards S. of the N.E. by E. arête. The ridge was followed to the two highest peaks without difficulty. Times:—Hotel to summit ridge, $4\frac{1}{2}$ hours (slow going); to highest peak, 40 minutes; descent by rocks and snow on W., and over Pas de Chèvres to hotel, 2 hours 20 minutes.

"H. V. READE.

"L. W. ROLLESTON.

"July 15th, 1899."

Variation on (3). "Ascended as in (3) and followed ridge to highest point. Then went back along the ridge past the snow slope to N.W. summit and descended by the rock rib on the Arolla side just before the ridge dips to the Pas de Chèvres.

"M. T. MEYER. July 28th, 1901."

Zinereffen Rocks, N.W. Summit. (No guide.)

This summit forms a distinct mass lying S. of the Pas de Chêvres, and separated from the main and higher summits by what appears from the Upper Châlets to be a sharp (snow) arête.

(Again writer was unfortunately alone; new snow and mist also.) Passed over the Pas de Chêvres (which could have been avoided by using the col S. of the Pas). Skirted the side of the Seilon glacier; passed round S.W. buttress of my "peak," reached foot of screes $2\frac{1}{2}$ hours from Arolla. Sloped up over these and went up a long stretch of greenish-coloured screes lying against southerly face of the "peak." Followed these up to foot of the cliffs.

(*Note.*—After I had passed, the screes were swept by falling stones. I do not know if this is usual; think it may have been due to the snowy and misty weather.)

Traversed upward along ledges of solid rock at foot of the cliffs. Got off these (difficulty due to new snow) into a stone couloir. Followed this up a little; but a herd of chamois, startled by my near approach in the mist, went off in a hurry and sent stones down. These I avoided by a hurried scramble under a rock; and then left the couloir for a broken slope to my right. Gained main arête (whence I could see Upper Châlets) $4\frac{1}{2}$ hours from hotel. So I reached that part of the N.W. summit which lies next to the sharp arête leading to main summit. As falling snow came on, and mist, did not traverse back to that part of N.W. summit which stands over Pas de Chêvres.

Home quickly in 2 hours and 5 minutes.

Caution.—In two places I ran risk from falling stones, the second time certainly from an unusual cause. It may be a bad hill-side for this; I could hardly judge in such bad weather.

W. L. Sept. '85.

Pt. du Vouason. (No guide. Three persons and rope. Two men can take a lady.)

The view is magnificent, hardly to be surpassed by any about Arolla. The walk over, and views from, the Upper Glacier des Aiguilles Rouges very fine. Few ascents in which you have fine views for such a considerable part of the route.

Five hours up and 4 hours back should be quite enough.

(*Note: Error in older maps.*—In the older maps there is not represented at all a very definite rock arête that separates that Glacier des Aiguilles Rouges which one traverses from one further S. which is (now at least) much lower. The two glaciers, now well separated, are given as one and at one level. I altered old map in hotel in '83.)

(1) Gain "Corner of Glacier des Ignes" (p. 6.) From here the Aiguilles Rouges lie about N.W. by W.; and, to the right of them, the upper Glacier des Aiguilles Rouges with its huge and steep moraine. At the top of this moraine, and about N.W. is seen a large black rock.

Cross over towards this and ascend moraine, having this black rock on one's left. So one should reach edge of upper Glacier des Aiguilles Rouges about 2 hours 50 minutes or so from the hotel.

As a rule it is best then to ascend arête to left until the glacier on one's right has an easy slope. (*This is arête not marked in old maps, and put in by me in old map in hotel, '83.*) Then rope; about 3 hours or so from hotel. In '83 we found it best to keep well up, not far below berg-schrand, and so to pass along glacier under the foot of the range of the Aiguilles Rouges. At last one sees the

arête (well shown in map) that bounds this part of the glacier to the north. This arête ends towards the W. in a small summit, where it joins the main arête running N. from the Aiguilles Rouges. I will call this summit "the junction summit." Just S. of the junction-summit is a small col in main arête.

Caution.—One cannot yet see the Pt. du Vouason; this being N.N.Westerly out of sight behind. The conspicuous rocky summit seen ahead is *not* it.

One can then proceed in various ways. Pass round junction-summit by col on south, or round on its E. side, and after rounding it one can either detour to the Pt. du Vouason by arête behind, going first W. and then N., or can cross snow-fields in direction N.Westerly from junction-summit.

Caution.—On the Pt. du Vouason *look out for cornices.*

(2) Doubtless one could go to Lac-bleu and make up so as to pass up snow-fields to N. of junction-summit.

W. L. '83 and '84.

Zoitecondoi (*near Vouason*). (Do not confuse with Loitecondoi near Pièce and Zigiorenove glaciers.)

(Sounds like "No guide needed." W. L.)

" On the 20th August, '90, Messrs. Corbett and Townley
 "(with Pierre Gaspoz as guide) ascended those peaks
 "marked 3268 and 3050 respectively in the Swiss map,
 "from the col connecting the Glacier de Vouason with the
 "very steep Glacier de Merdéré passing along the ridge
 "over both peaks to the Col de la Meina. The ascent to
 "the principal peak was an easy walk of a few minutes.
 "The passage of the arête thence to the smaller peak took

“ about 1 hour; and the descent to the Col de la Meina
“ about 20 minutes. The arête is a very rotten ridge of
“ shale, but presents no difficulty. The peaks command
“ fine views, much like that from the Pic d'Arzinol, but
“ inferior to that from the Pt. du Vouason. There appears
“ to be no record of any previous ascent of these peaks;
“ but Gaspoz stated that they had been traversed by
“ chamois hunters; and the remains of small cairns with-
“ out names were found on the summits.”

La Maja and Tour de la Maja. (No guide.) Between La Maja and the high Doves Blanches that lie behind it is a rocky peak higher than La Maja. From this peak rises an arête, first rock, then smooth snow, then steeper rock up to the Doves Blanches. It is the snowy part of this arête that we cross in our “Tour.”

Crossing bridge we made our way ('83) up to foot of terminal moraine of Glacier de la Za. We mounted moraine, and turned along it to our right. Next we mounted a ridge of broken rocks, having a steep snow slope on our left. Then we cut steps up some snow; then more rock; then snow up to summit of arête. We here turned W. along arête and gained summit overlooking la Maja, but did not think it worth trying this (lower) point itself. We then went back to arête and scrambled down to the Glacier des Doves Blanches (see p. 1.) Glissaded down a good part of this; descended on northerly side of the streams; crossed to between the two streams, and home by Arolla glacier or by path on E. side of glacier and Borgne. About 5 hours or so in all.

W. L. '83.

Col de Zarmine (or Veisevi). (No guide for anyone needed on Arolla side. On Ferpècle side experienced travellers need no guide.)

(1) Pass down the valley and cross main stream by bridge just above Satarme and close to it. On other side, follow down side of stream for 30 or 50 yards and then take path that is seen to diverge to right, away from stream. This path leads you up (zigzag) a slope where you have on your left hand the stream descending opposite Satarme, and on your right the stream descending from Perroc. (*Note*, by Mr. Donkin: "A much more obvious path mounts to the left, the two dividing at the point where the stream issues from between two rocks. The path to the right is the one to take"). When you have ascended to about top of living fir-trees, a well-defined path leads you to the left and crosses the torrent. You then mount up to near a cross, and still higher to a small hut, about 2 hours from Arolla.

Looking up you then see the large terminal moraine of a small glacier that lies behind it.

Slope up N. Easterly so as to cross stream on your left. By following up the northerly bank of this stream you avoid much of the rough moraine mentioned.

Continuing up N. edge of stream, you come to a higher level whence you can see the Col de Zarmine, the lowest point of which should be about easterly from you. Top is 4 or $4\frac{1}{2}$ hours from Arolla.

All this is a mere walk; the other side is very different in character.

(2) *Ascent from Ferpêcle.* Aug. 6th, 1889. I set off from Ferpêcle (unfortunately alone; not recommended) at 6.10 a.m. I intended to use for part of the ascent the broad snow couloir that descends to the S. of the rocks lying immediately below the col, to the little glacier below. I followed an obvious route found by reconnoitring the day before, and found myself at 8.10 at foot of rocks, with the couloir to my left. I therefore skirted the rocks and mounted couloir having the rocks close to my right hand. When it seemed convenient I left couloir for rocks to my right, and found easy ledges up to col, which I reached at 10.5 a.m.

Reached Arolla during lunch-time.

It seemed to me that in descending two men, and a rope and axes, would be the right thing. Or a larger party. But a rope advisable, especially if way were not known.

W. L. '89.

(3) *Ascent from Ferpêcle (easy.)* "Ascend over grass slopes (no direct path) making for the right moraine visible from Ferpêcle Hotel of the glacier lying beneath the col. On reaching this moraine, cross at once to the left moraine and follow latter to its end. Then go up snow couloir. . ."

(Rest seems same as above. Time given is $3\frac{1}{2}$ hours taking it easy).

(Signed) J. C. M.

J. A. L. J.

July 24th, '86.

(4) (A note by Mr. R. J. Cust seems to give practically same route. W. L.)

(5) *Arolla to Ferpêcle.* "On August 16th, 1886, Mr. Barran and Mr. Addenbrook and I crossed this col from

“Arolla to Ferpêcle. We descended by the snow from a very few feet below the col, but the gradient is steep, and the snow, owing to its N.E. aspect, is apt to be very hard. I have no doubt that it is better to make the first part of the descent by the rocks and grass ledges. . . . and we were informed in Ferpêcle that this should be done. There was, however, no real difficulty in descending by the snow, though care was necessary.

“(Signed) FREDK. CORBETT, 1890.”

Grandes Dents de Veisevi. (No guide for fairly experienced men; but axes may be wanted.)

These are the summits just S. of Col de Zarmine. A more “advanced” expedition than Roussette, Vouason, etc. I was unfortunately alone, and there was mist and snow. So the following account hardly applies to normal weather, and I can say nothing of the view.

(1) Left hotel 9.30; Col de Zarmine 12.45 (see p. 32). Mounted arête to S., and soon halted for mist to lift a little. Continued arête, making small traverse to westerly face to avoid a steeper bit of arête; this bit, and the traverse, being both made awkward by new loose snow. Regained arête. Here one has fine look down the cliffs to one’s left—towards Ferpêcle; the fall to the right being less steep. After a time came to some snow; and, having left axe behind at the traverse, had some trouble. Crossed to a small arête to right, which arête runs westerly from summit. Followed this to summit, which I did not reach until 3.15; so much new snow. I should say $4\frac{1}{2}$ hours from Arolla should be enough, fairly quick going.

W. L. Sept., '83.

(2) By *S. arête*, from col between Gde. Dents and Dent Perroc, as a continuation of traverse of Perroc (p. 130, route 9.) by Revs. James and William Outram, with Jean Maitre, on Aug. 25th, 1899. Follow *arête*, climbing all gendarmes.

Petites Dents de Veisevi. The Petites Dents de Veisevi are separated from the Grandes Dents de Veisevi by the Col de Zarmine (or Col de Veisevi) and stand out well, towering over Haudères. Their highest summit lies at their western end. The ascent and traverse of these Dents afford some of the best and safest rock-climbing to be had from Arolla; and the traverse has become one of the favourite shorter climbs.

(1) *Ascent of the highest (or Western) summit.*

(i) The first ascent recorded at Arolla was made on Aug. 29th, 1885, by "H. Seymour King and Howard Barrett"; and the second by "W. F. Donkin and H. A. Beeching" on Sept. 1st, 1885.

They do not appear to have ascended by the shorter route, as they first reached a summit lying to the west of the highest summit.

(ii) The better route for ascent (which will be described below) was pointed out in an entry signed "*Colin Campbell*," of Aug. 15th, 1893; but his route in descent does not appear to be as satisfactory as the usual traverse to the Col de Zarmine. It is described as a "traverse of the *East face* to the Col de Zarmine" over "difficult but good rocks"; details are not given.

(iii) *The best route* is as follows. The Col de Zarmine route is followed at first, and then one slopes up from it to the col or dip that lies immediately to the west of the highest summit. This col is seen from near the hotel. There is no difficulty in reaching this col unroped; it is not a climb to it; but the best way, avoiding all diffi-

culties, must be sought for. Arrived at the col one ropes. The arête is then followed. Excepting just at the start from the col one is on the whole either on the arête, or (when near the top of the peak) on the Arolla side of it. (Any detour on the Haudères side (save at the start) and approach to the summit from that side is to be avoided.)

Near the top one gets on the Arolla side, and there is one bit requiring some care in the leader where one "hoists" oneself back, with a curious sideways heave, on to the arête, and finds oneself not far from the top.

Times when quite alone. Left Arolla 5.45 a.m.; col 9.15; summit 10.25 a.m.

W. L.

(2) *Traverse of the Highest or Westerly summit only.* Ascend the highest summit as above described, i.e. from the col to its west. You then descend easily to the col on the other side (towards the Col de Zarmine) which lies between this highest summit and the next. Descend from this col on the Arolla side by means of a perpendicular chimney that is overhung at the top by a rock. The climb into this chimney and down it looks forbidding; but it will be found that the holds are very good, and that there is no risk for the last man in descent, if he be a reasonably good climber. It is not "specialist" work.

It is then probably best to traverse away to the west and rejoin the route by which you ascended to the col on the other side of the peak, and then descend by the route of ascent and rejoin the Col de Zarmine route.

This was the traverse as accomplished by Messrs. Corry, Brant, and myself, June 28th, 1897. We found the traverse by which we rejoined the route of ascent after descending the chimney from the col on the E. side of the peak required care, as it lay over slippery grass and rock. The above chimney can be seen from near the hotel.

An entry by *Messrs. Crowley and Frewin* made on August 16th, 1896, is the earliest record in MS. Guide of traverse of the highest peak alone. But the sentence "the greater part of the descent to the rock débris at the foot of the peak was made over easy, smooth slabs and "grassy ledges" would seem to indicate that they descended more directly toward the Col de Zarmine route, and did not rejoin the route of ascent so high up on the hill-side as we did.

W. L.

(3) *Traverse of the Petites Dents Arête.* This traverse extends from the Col de Zarmine to the col that lies to the west of the highest peak. As mentioned before, it is a favourite climb. It can be made either way.

As one walks from Arolla towards Satarme one can see well the main features of the traverse. There is the col to the west of the highest peak, our starting or ending point; the col to the east of this peak, from which a descent can be made as described in ii.; and, much nearer the Col de Zarmine, a remarkable gendarme that stands up boldly with nearly perpendicular sides. We will call this gendarme "A." Further inspection will show us that immediately to our left of gendarme A, i.e., on the side away from the Col de Zarmine, is another upright rock which we will call B, that at first sight seems to form part of A. It is, however, separated from it by a few feet; such a small gap that a man can reach across from the top of B. and get on to the top of A.

This gendarme formed by A and B together has not yet (1904) been traversed; only has been ascended and descended from the side remote from the Col de Zarmine.

The writer considers that it is on the whole easier for guideless climbers (who, by the way, should *all* be sound

rock-climbers) to make the traverse *from* the west *to* the Col de Zarmine. Following the route (1), (iii.), p. 36, above, a meal may be made, and sacks and axes left behind, before the final ascent to the col lying W. of the highest peak. This peak is then traversed as before. The ascent along the arête to the second highest peak is unexpectedly easy.

Following still the arête, one arrives in about $1\frac{1}{4}$ hours, or less (easy pace), from the col W. of the highest peak, at the foot of the remarkable split gendarme BA. To get on to the part B of this gendarme most climbers will need a "leg-up," and *care is needed* in this step. It is then no serious matter to climb up the rock B. Standing on this one leans across to A, and finds it easy to get on to it. In descent, it would be rather sensational work letting oneself down from A, and feeling about for the top of B, across the gap with one's feet, but fortunately there is an excellent hold on A for the left hand.

Arrived once more at the base of B (for this has been a climb up and down) one lets oneself down on the Ferpêcle side, and then one gets through a "window" between the main arête and a large rock, and so regains the arête on the other side of AB. The rest is straightforward.

The writer, making the traverse alone, having no one to give him the "leg-up," left out the ascent and descent of A B, and took about $1\frac{3}{4}$ hours for the traverse of the arête.

A party of three, who climbed gendarme A B also, might take $2\frac{1}{2}$ hours or so for the traverse; perhaps more.

W. L.

The first traverse of the complete range of the Petites Dents recorded in MS. Guide was made August 17th, 1896, by Messrs. *F. Aston Binns and Oliver Williamson* with *Jean Maitre* as guide, and a porter; they started from the Col de Zarmine.

Mr. Mordant Barnard (Jean Gaudin, guide) made the traverse in the opposite direction, and appears to have taken about $3\frac{1}{4}$ hours from col to col. In both cases the climbing of the "red" gendarme "most conspicuous from the hotel" is mentioned.

W. L.

Glacier, Plan, and Cols de Bertol.

(1) *Glacier and Plan de Bertol.* A little way above the old hotel the Borgne is crossed by a bridge. The path leads along the side of the valley and cannot be missed.

After passing the stream from the Glacier de Bertol the path ascends steeply in zigzags. Later on it branches into two; that which leads onward is the route for the upper Arolla Glacier (the Col du Collon and Col de Mt. Brulé), while that which ascends to the left is the route for the Glacier and Plan de Bertol, the N. and S. Cols de Bertol, and the Cabane which is by the side of the S. Col de Bertol.

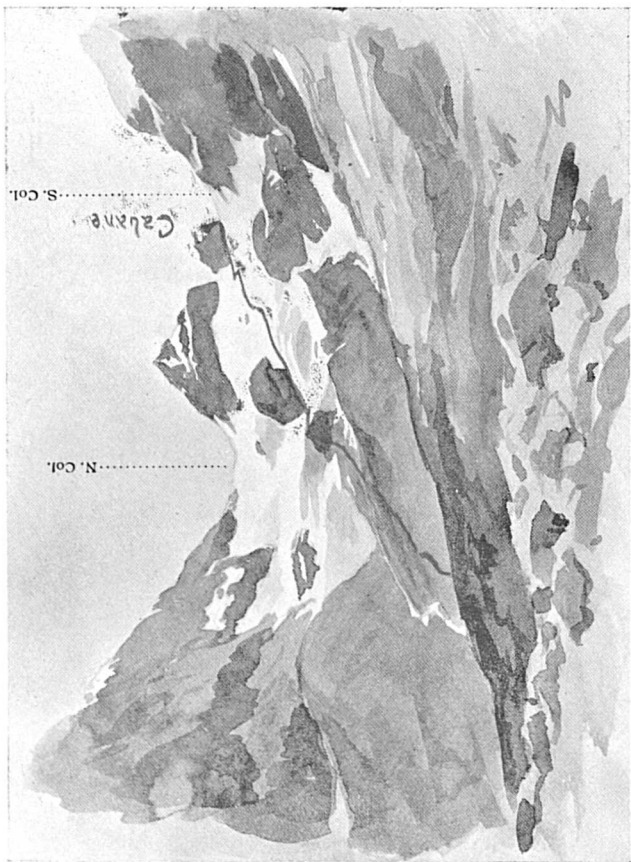
(2) *N. and S. Cols de Bertol.* (Rope, axes, and some snow experience needed. But S. col is very easy.) You now see two Cols de Bertol; the N. and the S. cols. The little dip between is not a col at all. There is a mass of rock in the middle of the Glacier de Bertol (see Map).

For the *S. Col de Bertol* (by which you pass to Zermatt) you leave this on your left and wind up. You usually cross the berg-schrund rather to N. of the col, and slope up to col. Usually no steps are required, or only for a short piece above berg-schrund. Top of S. col about $3\frac{1}{4}$ to 4 hours from hotel.

For the *N. Col de Bertol* (over which lies the easiest route from Arolla to the Aiguille de la Za) leave the said mass of rock on your right. More steps may be required than for S. col. The upper part of ascent is part snow and part rock. The whole not so easy as S. col, but no difficulty for fair (guideless) mountaineers.

W. L., '83.

(3) *The Bertol Hut.* 3423 m. "This hut is situated in the chain of the Grandes Dents, on one of the rocky teeth,



“ which is called the Clocher de Bertol (Dufour map, sheet XXII.; Siegfried Atlas, No. 528), by the side of the S. Col de Bertol; and is reached by the Plan de Bertol.

“ It belongs to the Neuchatel section of the S.A.C., to whom it was presented by Mr. Russ-Suchard, the chocolate manufacturer. It was exhibited at the Swiss National Exhibition at Geneva in 1896 as a specimen of the huts of the S.A.C., and was placed on the Clocher de Bertol in 1898. The hauling up of different parts of the hut, especially from the col to the platform was very difficult, and cost a good deal of money. This part of the work was carried out under the supervision of Mr. Eugene Colomb, then president of the S.A.C. central committee.

“ The hut is built of wood, and is roofed with slips of wood, called ‘tavillons.’ The interior consists of a single room with two camp beds, one above the other, and also two extra camp beds for the guides; there is room for 22 persons. A supply of wood is kept in the hut, but there are no provisions or water; the snow at the foot of the Clocher must be melted for drinking or cooking. The hut remains open.

“ Supervision: The Neuchatel Section of the S.A.C.
 “ Guardian: Joseph Quinadoz, guide, Evolène (does not live in the hut).

“ The nearest hotels: the Hotel du Mont Collon and the Hotel Kurhaus at Arolla 4 or $4\frac{1}{2}$ hours' walk up to the hut, 2 hours down. Hotel de Ferpêcle, 6 or $6\frac{1}{2}$ hours' walk up to the hut, $3\frac{1}{2}$ or 4 hours back.

“ The view from the hut: Peaks: The Grand Cornier, Dent Blanche Matterhorn, Dent d'Hérens, Tête Blanche, Points de Valpelline, Dents des Bouquétins, Sangla, Petit Mont Collon, Mont Gelé, Pointe d'Otemma, les

44 GLACIER, PLAN, AND COLS DE BERTOL

“ Portons, Pigne d’Arolla, Mont Blanc de Seilon, Mont
“ Pleureur, La Salle.

“ *Glaciers*.—The glaciers of Mont Miné, Ferpêcle, Bertol,
“ Arolla, Vuibez, Piece, Zigiore-Nuove, Seilon, Encoulages.

“ Ascents from the hut.—Dents de Bertol 3507 m., Doves
“ Blanches 3628 m., Aiguille de la Za 3673 m., Dent de
“ Perroc 3655 m., Mont Miné 2795 m., Dent Blanche
“ 4364 m., Tête Blanche 3750 m., Pointe de Valpelline
“ 3813 m., Dents des Bouquétine 3848 m., Mont Collon
“ 3644 m.

“ *Passes*.—From Arolla to Zermatt by the Col de Bertol
“ and the Col d’Hérens; from Arolla to Ferpêcle by the Col
“ de Bertol; from the hut to Prarayé by the Col des
“ Bouquétins, or by the Cols du Mont Brulé or du Collon;
“ from the hut to Chanrion by the Cols de Collon and de
“ l’Evêque.

“ EUGENE COLOMB.

“ for the Neuchatel Section of the S.A.C.

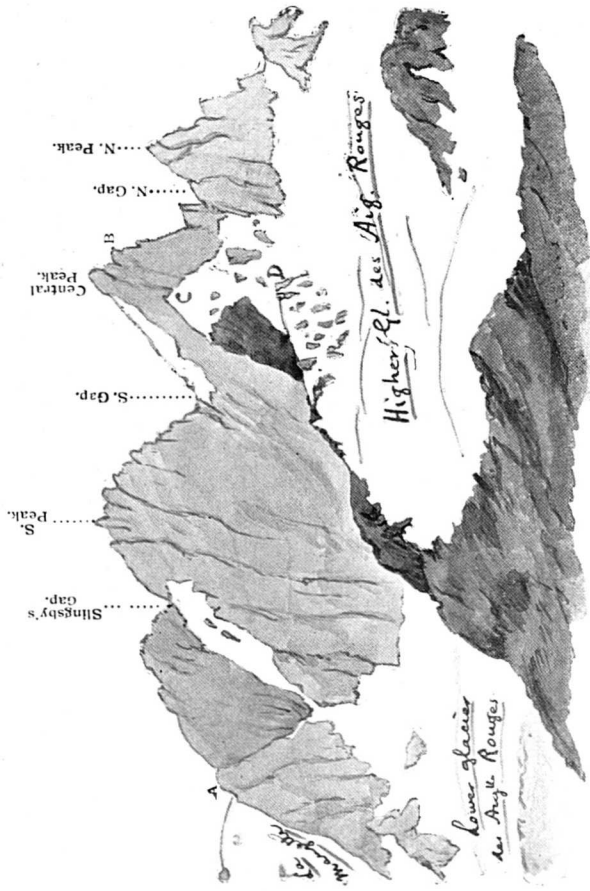
“ Trad. par W. J. Bd. Sect. genev.”

Aiguilles Rouges. (Guides) (1) "In Sept., 1882, Messrs. R. Hughes made the first ascent of the A. Rouges . . . from the face on the S.E. side of the Grat stretching to the moraine opposite. They ascended straight up the rocks and struck final arête or ridge 10 m. or 15 m. from actual summit. Some, but not very great, danger from falling stones. Rocks rotten and very steep. Time, including 1 hour halt, 12 hours in all.

"(Guides: Franz and Adolph Andermatten.)"
(This must be the highest peak.--W. L.)

(2) "In July, 1885, Rev. W. B. Lindesay, with J. Quinadoz (as guide) got to within 15 m. of top by crossing the schrund on the face towards Evoléna, and climbing over soft deep snow, then by steep but good rocks, direct to gap between N. and highest peaks. They were stopped by discretion close to top, as the loose stones between this gap and the top, lay on a very steep ice-slope overhanging the N.W. glacier. Time, 8 hours in all. Later in the season the top rocks would give no trouble, but the schrund might be awkward then."

(3) *N. and S. Peaks.* (This must mean the *central* and south peaks. W. L.) "On Sept. 3rd, 1887, A. Macnamara, H. W. Topham, and I, with Jean Maitre as our porter, made the first ascent of the S. Peak (3341 m.)" (This must be wrong, 3341 is a peak to S. of no importance—W. L.) "of the Aiguilles Rouges, and subsequently climbed the N." (i.e., Central) "peak. In the early morning, before daybreak, there was rain and a S. wind,



View of the Aig. Rouges from near Col. de Zarmine.

“ which delayed our departure. At 6.15 we set off, and
“ passed the chalets of the Praz-gras and then followed
“ an irrigation stream for some time, nearly to Glacier
“ des Ignes.” (See p. 6). “ At 8.15 we
“ reached a capital glacier-table just below the dark cliffs
“ of our peak.” (Clearly somewhere on the lower, or more
southerly Glacier des Aig. Rouges.—W. L.). “ At 8.55
“ set off again and began our long rock climb at the base
“ of a wide gully running down from a col south of the
“ highest pinnacle of our much serrated peak. We had
“ a little difficulty over some smooth waterworn rocks;
“ but after this we found the way easy and the rocks
“ firm and interesting to the col which we reached at
“ 10.15 . . . remained till 10.50, and then roped for the
“ first time and turned northwards on a narrow and jagged
“ arête. . . . At 11.10 we gained first of two summits of
“ nearly equal height.” (Built small cairn.) “. . . reached
“ second and true summit at 11.32.” (This is the S.
peak of the A. Rouges.) Enjoyed view much; saw eagle;
wished to try for N. (i.e. central) peak, too, though Jean
Maitre thought they would neither follow the arête to this
peak nor skirt it.) “ At 12.00 we left our new peak and then
“ our work began in earnest . . . pinnacle after pinnacle to
“ cross. . . . The last, a noble looking tower gave
“ us considerable trouble.” (Did not know how to manage
it, but at last) “ a narrow chimney, nearly vertical,
“ about 18 feet high and 18 inches wide, gave us the
“ solution . . . and without much difficulty we scrambled
“ down it and soon after, or at 1.35, we arrived at col
“ between N.” (i.e. central) “ and S. peaks. At 2 p.m.,
“ or in 25 minutes quick climbing we reached N.” (i.e., cen-
“ tral) ” peak.” (View of mountains is fine: but view of
valleys ugly.) “ At 2.20 we left summit by N. arête, and
“ had capital climb until we reached a col at 3.30, after

“ which we turned down the E. face and arrived at the
 “ Gl. des Aiguilles Rouges at 4.30. At 4.50 left ice and
 “ unroped . . . Arolla, 6.30. The mountain was in per-
 “ fect order; we were a strong party, and went quickly.
 “ All the most difficult work was met while ascending
 “ each peak; and in many places the last man had little
 “ difficulties not experienced by the others. We were
 “ 6 hours 17 minutes engaged in actual rock-climbing; and,
 “ if there had been snow or ice, the time might easily have
 “ been doubled. There is very little danger from falling
 “ stones; and we can all heartily recommend others to
 “ follow us, to reverse the climb We
 “ found *Silene Acaulis* in full flower close to top of N.
 “ (i.e., central) peaks. At the W. precipices are terribly
 “ steep and loose and must be avoided.

“ (Signed) WM. CECIL SLINGSBY,

(writer of above),

“ HAROLD W. TOPHAM.

“ ARTHUR MACMAMARA.”

(4) *N. and S. Peaks.* (Again, must mean Central and South Peaks.—W. L.) “ On the 20th August, 1892, Antoine Maitre climbed a chimney on the west face of the 5th gendarme from the col between the north ” (i.e. “ central) “ and south peaks which I am told has never been done before. He selected this route to avoid falling stones on the east side and the chimney presented very great difficulty indeed. It overhung nearly the whole way and was about 60 feet high with very little handhold. Antoine Maitre practically shinned up, and his achievement seems to me worthy of record.

“ Guides : Antoine Maitre and Jules Balleys.”

CHAS. F. ANDREWS.

“ August 25th, 1892.”

(5) *Main Peak.* (i.e. Central Peak, W. L.) "This point can be traversed from S. to N. (better than from N. to S.) without taking also the main south arête. On August 15th, 1892, I took this route, with Pierre Maitre as guide (George Antoine, porter), ascending to the south col straight up the face of the rocks outside a conspicuous couloir, which is probably that mentioned by Conway. The rocks are decidedly difficult as far as the little snow-field in the col, but are excellently sound and free from falling stones. The route is a very interesting one. We returned over the peak to the North Col."

"ALEX. B. W. KENNEDY."

(6) *N. and S. Peaks.* (Again, must mean Central and South Peak.—W. L.) "Messrs. Slingsby etc's, arête (3, p. 46) may also be approached by traversing the 'Glacier des Ingnes' up to a little col (pt. 3341) and then striking N. up a rotten but easy route (1 hour) which is directly continuous with the main ridge, and articulates with it at a col reached by Messrs. Slingsby at 10.15 (p. 47). The main ridge is traversed in 2 hours, affording a most interesting climb; and then from the col between the S. and N." (i.e. central) "peaks easy rocks lead to the latter. The mountain is a thirsty one, but good water can be obtained by descending Prof. Kennedy's couloir (5) for a few minutes from the col and making holes in the 'little snow-fields.'"

"F. W. OLIVER.

"August 16th, '92."

(7) *S. Peak.* "Climbed all the gendarmes, traversing high up, instead of by the usual way. This lends considerable difficulty to the climb. We took 5 hours, going slowly but without halts. Mr. Slingsby's 'the last' was

' in our case about the 5th of some dozen and a half or
 " more. We descended it by undercut rocks N.E. face in-
 " stead of his 18 ft. crack. The greatest difficulties are
 " *below this*, so that the first party must have kept low
 " down to reach the S. col 'soon after.' Times: Start
 " 3.0 S. peak 12.0; col 5.0; central peak 6.5 (snow
 " bad); N. col 9 p.m. Slept here and so to Arolla 10.0 a.m.
 E. A. CROWLEY, S.M.C."

(with Messrs. M. W. and A. C. Travers).

(8) (See Sketch). Messrs. R. W. Brant, R. Cory, and W. Larden reached the arête about the point A. having passed over La Mangette. Traversed the South and central peaks. From the notch between this and the knob B, traversed E. face of latter and then descended bearing at first slightly to S. Reached the snow, at C. by a steep narrow gully. The last 60 feet or so of this gully were difficult to descend. Descended to snow, and passed over a small snow arête at D, and so reached the Upper Gl. des Aig. Rouges. June 26th, 1897. No guides.)

W. L.

(9) On June 28th, 1897, Dr. Chadwick, with guides Chr. Jossi and Bernet struck the ridge at Mr. Slingsby's gap, and traversed S., central, and N. peaks.

(10) July 13th, 1900. (See sketch.) With Maurice Gaspoz traversed from the col *north* of the N. summit to the point A. the other end; total time, halts included, about 15 hours.

Remarks. See No. 8. I consider it easier to find a good route and to keep higher up out of way of stones, if one traverses from S. to N. as in 8. Also our way down from B to C is certainly good; but it would be well to have a *piton* to drive in for last 60 ft., or part of it.

W. LARDEN.

(11) *Central Peak by the East face.* "On August 25th, 1900, R. P. Hope and W. T. Kirkpatrick (without guides) ascended from the lower glacier of the Aiguilles Rouges to the ridge 'D' (see 8), and followed it to the face of the central peak. The slope below 'C' being quite free from snow and very smooth under the cliff, was crossed horizontally low down, thus losing the protection otherwise afforded from falling stones. Having reached the highest point of this large rock slab, they followed a ledge towards the south arête of the Central peak, and where it ended turned upwards, getting on to a broad shelf, which runs up in a N.W. direction to a point on the arête about 30 ft. north of the summit. They followed this shelf till directly beneath the summit, and then after traversing south, followed a similar shelf, from near the top of which they climbed over a steep slab, and then reached the summit entirely by the E. face without touching either arête. The rocks were steep but not difficult. No stones fell."

"W. T. K."

(12) *Provisional Caution!* Climbers are warned not to attempt to descend direct from Conway's S. gap (see figure) as suggested in Conway's guide, p. 67, unless they have found already a practicable route and one free from danger from stones. A preliminary investigation made by Mr. Solly and myself led us to the conclusion that such an attempt would probably lead either to the party getting fixed for the night owing to the steepness and difficulty of the rocks below, or to their being tempted on to somewhat easier rocks by sloping down more to the north, where the danger from stones is *very great*. It seems *probable* that the safest course would be to aim for the high arête that ends at "C" (see figure). The descent from B. to C.

appeared to be safe, though a "piton" enabling one to sling the rope would have made it safer. Mr. Solly and the writer had not time to investigate routes from the S. gap (or from the ridge somewhat above and north of it) to "C."

W. LARDEN, Aug., 1902.

(13) "In 1898, H. C. Bowen, C. W. Patchell, and C. E. Ashford (no guides) found the 'practicable route' of No. (12) in an ineffectual attempt to descend the couloir (Conway's guide). It is probably Kennedy's route No. (5) reversed, and is by no means easy to find. It follows the *buttress* between the two couloirs from Conway's S. gap until it becomes too steep, and then zig-zags across the N. face of that buttress, occasionally making use of the couloir, by which it finally reaches the glacier. On this occasion no falling stones were seen, although a thunderstorm was in progress."

"C. E. ASHFORD."

(14) "In July, 1901, left the 'Alpe de Lautaret' with my friend F. Busky and Laurent Jaudin and Jean Bournigsen as guides. Traversed N. summit from the Col de Darbonneire. Traversed main summit and S. one and made first descent . . . from the gap where Mr. Slingsby reached the arête (see sketch) of W. face, by a narrow couloir (dangerous on account of falling stones) down to the Alpe de Lautaret.

"ALEX. S. JENKINS,

"S.A.C. (M.K.)."

(Note.—Entry No. 14 was difficult to read, so some of the proper names may be wrong.—W. L.)

Mt. Pleureur. (Guides.) (1) "The shortest route from Arolla 'appears to be by the Pas de Chèvres across the Durand glacier (leaving Tête-noire on left) towards the point marked 3,189 m. in Siegfried (1/50,000) map. Then to the left, cutting across the loose rocky ridges and couloirs which descend straight down to the glaciers Lendarey, up to the arête towards the Lurette, turning under the top of it on the W. side, then up by the arête to the top of Mt. Pleureur.

"We went (on July 19th, '86) that way as far as point 3,189 m.; but there was everywhere an unusual amount of snow for the season, the rocky ridges in bad condition, the couloirs filled with frozen snow; we tried to go down to the glacier but it was not possible without cutting steps for more than an hour. We decided to go along the steep and long snow-wall (then existing), coming down (?) the long Lurette arête, and above the steep ice-walls underneath (see map) Tedious cutting of steps in the hard snow for 1½ hours until we got down to the glacier under point 3,371; across the glacier and up the snow and ice-wall S. of the Salle to the top.

"Laborious descent to the glacier down the same steep ice-wall (bad rotten ice) partly down the glacier, then over ground to the left, crossing again the glacier and moraine, then round the grass ground to the serracs of Gl. Durand and Pas de Chèvres. Started at 3.10; arête under top 12.40, top 1.10; departed from arête 1.45, on Gl. Lendarey 3, Arolla 7.30."

(No signature. Not easy to read several words.—W. L.)

(2) *Comment on above.* "Tedious, long, and dangerous trip. The best way would be—Pas de Chèvres, crossing Durand glacier towards small lake under pt. 3,189, then on the S. side of the Lurette ridge, across the glacier

MT. PLEUREUR

“ towards the rocky ridge running southward of the Lurette
“ peak (somewhat N. of pt. 3,181), the simply follow arête
“ up to Pleureur.”
(Appears to be signed “ Tschumi.”—W. L.)

Cols Seilon and Gietroz. (Arolla to Mauvoisin, etc.) (Three men and rope needed; no guide save for the inexperienced. Very simple.) (1) Pass over Pas de Chêvres or another col on to Seilon Glacier. Make fairly directly for the more westerly of the *two* Cols de Seilon (see map). Top of col about $3\frac{1}{2}$ hours from Arolla. Then slope across Glacier de Gietroz to its left, or more southerly side, and pass along this side, which (in 1884) slopes down towards the centre of the glacier, keeping about level, until you reach the rocks that bound the southerly edge of the ice-fall. (This place about 35 m. from col.)

It is then easy to get down and join the path from Chanrion to Mauvoisin. You slope down to left at first, and should join path from the Col de Mt. Rouge (see map); after which bear downward to right and cross Torrembey torrent, which lower down is called the Drance, by bridge joining Chanrion route (mule path, W. side of stream).

Fine walk and easy.

Notice ice-fall from Gietroz Glacier as you walk to Mauvoisin. A fall from this made the ice-dam that caused the lake of whose disastrous breaking loose one has read.

W. L., '84.

(2) *Return route.* From Mauvoisin follow main path till ice-fall up on left has been passed. "A good path mounting to the right from the bridge above Mauvoisin should be followed till the rocks seen from the hotel are rounded, when it should be left, and the rising ground ascended to the left towards the châteaux of Gietroz. From this point the way is obvious to attain the ridge looking down on the glacier. View fine; 6 hours Mauvoisin to Arolla; return 5 hours.

"(Signed) A. CUST, '74."

Cols. Seilon and Mt. Rouge. (One way to *Chanrion*—a variation route to *Mauvoisin*.) (See p. 55. Same applies here.) (I cannot give good time here, as we had deep new snow.) Pass as on p. 55, but take the more easterly of the two Cols de Seilon. You then see Col de Mt. Rouge ahead, under spur of *Ruinette*. Can't mistake. You then pass over it and leave the glacier *Lyrerose* very soon, taking to land on your right. Easy then to choose routes by map.

This is for *Mauvoisin*.

For *Chanrion* you would not turn off to right like this. You leave the *Glacier de Lyrerose* at the first easy place on its *left* bank, descend on to the *Glacier de Breney*, descend and slope across this, and so pass to the W. of the Pte. d'Otemma and gain the Hut. (The map makes all clear.)

W. L.,

Sept. 13th, '84.

Mauvoisin to Chanrion. Remark. The main path from *Mauvoisin*, in 1892, led to the Col de *Fenêtre*; and the track branching away from it to the hut (which is high up) was not conspicuous. Strangers might easily pass by the hut at a much lower level.

Mt. Blanc de Seilon. (*One or two guides, as the snow is good or bad. See No. 7.*)

(1) July, 1886. "Fred C. Fitton (with Michel and F. Payot as guides) passed from the châteaux below Chermontane over the Col de Mt. Rouge, taking Mt. Blanc de Seilon en route. Started 3.30 a.m.; arrived 3.30 p.m. The view from the top of Seilon (a mere Aiguille at summit) is magnificent and more than repays the trouble of the ascent. The ascent must not be undertaken without thoroughly competent guides. Our route lay up the côtes of Mt. Blanc de Seilon to the W. of Ruinette; after partly descending the Col de Mt. Rouge we attained first a peak from which the view is very good, but which proved not to be the real summit of Mt. Blanc de Seilon. "After crossing" (? passing along) "a rather troublesome arête we reached the real summit at 10 a.m. We afterwards descended some snow-slopes between the two summits, which brought us to the rocks a-top of the Col de Seilon, from which we readily crossed to the Pas de Chèvres"

"This appears to be the first English ascent. An 'homme de pierre' and a memorandum in German were found at top."

Note, unsigned, in pencil, states that "First ascent was made by Weilenmann, S. A. C."—W. L.

Above was signed by "F. C. Fitton." 1886.

(*Note*. I think this party passed along the great northeasterly arête from a point lying much nearer Ruinette than the *little col* (see 3) where said arête is usually struck. They passed on to the "summit" in this arête, then down to the *little col*. Then, I think, they continued

arête to summit as did Mr. Hamilton in (2). In descent they probably regained *little col* by arête and then back by route given in (3).

W. L.

(2) " I went up Mt. Blanc de Seilon with the landlord Anzevui alone, the first time he had been up it, and I most strongly advise travellers not to follow my example. The work is too heavy for one guide, Anzevui being obliged to cut over 400 steps, 300 being on the last arête, which is a very steep ice-slope with a little hard snow on it. The last 10 m. is on rock and not very easy. We took 3 hours 20 minutes to the Col de Seilon, and 8 hours to the top. The view is, I think, the finest of all here.

" (Signed) A. B. HAMILTON, 1871."

(Note. The icy condition is not permanent. The mountain may be easy. Try it in July.—W. L.)

(3) J. Quinadoz and I reached Col Seilon, through heavy snow, in 4 hours. We then ascended the snow close under southerly edge of the westerly arête, and afterwards mounted rocks of arête. Then wound upwards over snow-slopes in easterly direction and hit a *little col* in main north-easterly arête (from Mt. B. de S. to Ruinette). This little col is near summit, and the work was very easy so far. It was $1\frac{1}{2}$ hours, heavy snow, from Col Seilon. Here Quinadoz told me that the best route is to cross over the arête and pass along its south-easterly face below the arête in a north-easterly direction to summit. Said it was usually easy rock and large stones.

But now there was new snow (Sept. 11), and Quinadoz, advancing to edge to prospect route down, went through a cornice! He decided (when he reappeared) that we must try along N.W. face of arête (where we were). It was ice (clearly Mr. Hamilton's ice-slope). New powdery snow,

mist and a cutting wind, besides drifting snow that filled the steps, made us halt after seventy steps. We were then, Quinadoz said, only 5 m. from summit (?), but our numbed limbs, and the vision of the final iced rocks through the mist, made Quinadoz decide it better to return, "unless I ordered him to go on." I did not "urge the guide," so we failed. But the expedition illustrates again that ice-slopes may be a feature of Mt. Blanc de Seilon. It was late in season when we tried; climbing had ceased at Arolla. Probably July is usually best month.

W. L., Sept. 11th, '84.

(4) The following extracts agree with above experiences and with Quinadoz's statements.

The writer of what follows, with Kasper Maurer and Rudolph Kautmann as guides, ascended to *little col* mentioned in (3) by same route.

" It was new to all of us. . . . From this little col we followed the arête, which was of ice and exceedingly sharp, for some little distance, until the slope on our left became so very steep and the ice so hard that we crossed the arête and cut steps down an ice-wall on its other side for about thirty or forty feet to some rocks lying at a high angle there. Along the edge of these we found a way to summit. We returned by the same route."

(They took 10 hours 55 minutes in all, not including halt. I think—W. L.)

"(Signed) HOWARD BARRETT,"

"August 24th, 1885."

(5) "Sept. 7th, 1887. Arthur Macnamara and I, with Jean Maitre as porter, made the first (?) ascent by the *E. arête*. We descended by the western (the usual) route. We recommend this as a most delightful climb.

"(Signed) H. W. TOPHAM."

(6) "For account of direct passage from Mt. Blanc de Seilon to the Ruinette along the 'great N.E. arête' see under Ruinette, pp. 63, 64.

"I agree entirely with the substance of Mr. Larden's note to Mr. Fitton's account under (1) p. 57.

"Mr. Fitton struck this arête near the big gendarme, which is about $\frac{1}{4}$ hour S.W. of the "little col" so often mentioned.

"F. W. OLIVER,
"Sept. 15th, '92."

(7a) *Best route up, and Traverse.* The best route up Mt. Blanc de Seilon is certainly by the E. arête, mentioned but not described by *Mr. Topham* above. On July 3, 1900, I set off with August Balley and Maurice Gaspoz by the Pas de Chêvres, followed the route for the Pigne for some way, and then branched off and reached the Col de Serpentine. We then followed the arête, passed to the S. side of it to avoid some difficulties, and regained the arête at the foot of the final rocks leading to the summit. There would not be much step-cutting by this route under any conditions, nor any danger of avalanche, save with much new snow, and there are no difficulties. We found the arête running towards Ruinette very easy, there being no cornice and no ice, and we descended to the Col de Seilon without having to cut steps. But later in the season the descent from the summit to the Col de Seilon would probably involve much step-cutting in ice. Go early in the season!—W. L.

(7b) *On Sept. 12th, 1902.* I tried the same traverse with Dr. Hepburn and Dr. Cockburn, guideless; we reached the summit by the E. arête without difficulty.

The arête towards Ruinette was icy and heavily corniced. We cut steps well below the edge; yet 100 ft. of cornice

broke away and nearly carried us with it. After more step-cutting we gave up the idea of descending to the Col de Seilon, as the route evidently lay over ice the whole way, and returned over the summit.

After descending the first lot of rocks from the summit on the E. arête we found that under the conditions then obtaining (it was late and cold) we could descend to the top of the glacier that lies between the Seilon-Ruinette arête and the Serpentine arête, and so get round to the Col de Serpentine again without touching the lower part of the E. arête by which we had ascended.

The above two experiences indicate that the E. arête is the *more certain* route by which to ascend the mountain; less dependent on snow and ice conditions. But the Col de Seilon route *may* be the easier.

W. LARDEN, 1904.

(7c) On Aug. 14th, 1905, Drs. Cockburn and Brushfield and I made the traverse in the reverse direction without difficulty. Again there was ice [not as in 7a]; but we found steps cut, and, further, wore 4-spiked crampons.

W. LARDEN, 1902 and 1905.

(8) I noticed in the "Echo des Alpes" that the N. arête of Mt. Blanc de Seilon was ascended on July 20th, 1896, by Monsieur J. Gallet, with Antoine Bovier as guide. They reached the summit.

W. L.

Ruinette. (Guides for ordinary travellers. But three experienced men, axes, and rope, will find route of ascent in (3) very easy.)

(1) (See p. 66.) “ We also followed Mr. Walker’s route “ up the Zinereffien Rocks . . . over the Col de la Serpentine, and down to the base of the arête which runs “ S.E. from the Ruinette, which we ascended. Wonderful “ view. . . . We descended on to the Col de Mt. Rouge. “ (Signed) A. B. HAMILTON, July, 1872.”

(2) “ Over the Pas de Chêvres and across the Glacier de “ Seilon to Col de Seilon, then to Col de Mt. Rouge, which “ is struck at its W. most side. After descending on the S. “ side sufficiently low to pass the berg-schrund, the snow- “ slopes on the left (E) are gradually ascended to a well- “ marked little rock-col. in the ridge of the Ruinette about “ the spot marked 3,090 in the Dufour map. After cross- “ ing this col., the shaley slopes and easy rocks are ascended “ in a north-easterly direction until the *upper glacier* (no “ name in map) is reached. From this point the final arête “ (rock) of Ruinette is visible; the foot of it (3,340 Dufour “ map) is reached by crossing the intervening glacier and “ snow-slopes. If the glacier is uncovered it would be “ better to avoid the steepest part by walking along the “ rock-ridge. The final arête is a scramble up steep rocks “ presenting no difficulty. . . .

“ This course was chosen as the party were going to “ Mauvoisin. . . . If, from Arolla and back to same place “ it would be better to reach the ‘ upper glacier ’ from the

“ Glacier de Gietroz by one of the snow-cols in the ridge of
“ the Ruinette S of the final arête. . . .

“ (Signed) CHARLES E. GROVES, THOMAS COX,
“ August 6th, '87.”

Note.—See (3.) The above party made more of a detour
than was necessary. W.L.

(3) *Mauvoisin to Arolla. Ruinette en route.* Left
Mauvoisin 2.50 a.m.; on ice of Glacier Lyrerose 5.30.
Struck arête at obvious place a good deal S of summit, but
N of col. 3.090; in fact nearly on contour 3,360 in
Siegfried map (marked on “ upper glacier ” referred to in
1.) Ascended mainly on snow to E. of arête, regaining arête
at 6.40. Here halted till 7.10. We now roped. Made
detour to E. on snow and ascended crossing schrunds. Re-
gained rock arête at an obvious place S. of summit; then
easy rock arête to the summit at 8.25.

Descent. Descended rock; again detoured on snow, and
then regained rock arête, just as in ascent.

At a suitable place we descended steepish *very rotten*
rock couloir to W. towards Col. Mt. Rouge; and bearing
a little to our right, we reached Glacier Gietroz a little N.
of Col Mt. Rouge.

Descent was risky from falling stones. When on glacier
at bottom stones fell from above, and a huge block missed
us by a few yards. J. Quinadoz was guiding Mr. Heaton
and myself. The ascent did not really need a guide.

W. L. August 13th, '87.

(4) *Ruinette, direct from Mt. Blanc de Seilon.* “ We left
“ the summit of Mt. Blanc de Seilon 9.30 a.m. passing at
“ once to the ‘ little col ’ on the arête, thence continuously
“ S.W. along the arête to Ruinette. The arête is easy
“ snow to first big gendarme (10 a.m.) a conspicuous ob-
“ ject looking back and easily to be mistaken for summit

“ of Mt. Blanc de Seilon (v. Fitton, p. 57.) We left this
“ peak 10.30 and continued over easy rocks with several
“ gendarmes. At 11.30 point on arête reached at which a
“ small rock ridge, from the Glacier du Col de Serpentine,
“ articulates with it.

“ The main S.W. arête now gradually changes to one of
“ ice and snow. We cut along its right-hand side till with-
“ in 300 yards of a conspicuous (rocky) gendarme situated
“ immediately below the Ruinette. Here we crossed over
“ and traversed below the formidable cornice to the gen-
“ darme in question. (1 p.m.) For nearly an hour we had
“ been cutting steps along the convex side of the cornice.

“ Leaving the gendarme (the last peak on the arête) we
“ took to the very steep rocks of the N.E. side of the
“ Ruinette. All the way we followed a rib representing the
“ continuation of our arête up the face. For half an hour
“ the rocks were steep and much glazed, requiring the
“ greatest care. Here and there really difficult passages
“ were encountered. Even if in good condition they would
“ not be easy. Nearing the top our progress was arrested
“ by a vertical chimney (on the right-hand side). This gave
“ a lot of trouble and it was only by the united efforts of the
“ porter and myself—standing on the smooth steep slab that
“ forms the floor of the chimney—that Pierre Maitre was
“ enabled to get sufficient purchase to pull himself up. Once
“ he tottered and an accident seemed not improbable.
“ However, a small crack enabled him to recover his
“ balance, though he cut all the fingers of one hand severely
“ in doing so.

“ The chimney achieved we were soon upon a prominent
“ gendarme less than a stone's throw from the tapering
“ apex of the Ruinette. On this gendarme we built a
“ cairn and left a record. (1.55 p.m.) The real summit
“ was attained without difficulty. Mauvoisin was reached

“ 6 p.m. via Col de Mt. Rouge. Time taken in complete
“ passage from Arolla to Mauvoisin 14½ hours.

“ Even with the rocks of the N.E. side of the Ruinette
“ in good condition, the chimney described will always be
“ an obstacle, so that it is essential that the leading guide
“ of parties selecting this route should be a proficient on
“ rock.

“ Pierre Maitre, Guide; Georges Antoin, Porter.

“ F. W. OLIVER,

“ September 15th, '92.”

“ N.B.—The ‘*vertical chimney*’ which appears to have
“ been the chief difficulty of the above climb, need not be
“ ascended. A practical route lies round the rocks to the
“ west of the chimney and skirting the snow. The arête
“ is thus reached at a point nearer to the summit. Dr.
“ Marsh and I skirted the chimney ('93) and found little
“ difficulty in the route I here recommend.

“ HAROLD W. TOPHAM.”

Alternative Route. “ From the Chanrion hut walk as
“ though intending to cross the Col de la Serpentine, and
“ when directly west of La Serpentine ascend the glacier to
“ the col between Mt. Blanc de Seilon and the Ruinette.

“ Dr. MARSH and HAROLD W. TOPHAM.”

Pigno D'Arolla. Magnificent view.

(1) *First (?) ascent; by Zinereffien Rocks.* "We left the hotel at 3 a.m., and, ascending by the rocks on the (west) side of the Zigiorenove glacier"—(i.e., by Zinereffien rocks)—"we reached top of Col de Breney at 8 a.m.; and summit of Pigno at 9 a.m. Descending by the "Glacier de Serpentine" (does this mean the unnamed glacier E. of Serpentine, over which they would naturally descend from Col de Breney to Glacier de Breney and Chanrion. W. L.) "we reached Chanrion 2 p.m. and Valpelline by Col de Fenetre at 8 p.m. View from Col de Breney very fine.

"(Signed) H. WALKER, of Liverpool,
"July, 1865."

(2) *First (?) ascent August 16th, 1865.* "August 6th, 1865. Reached snow-plateau at foot of Peak—fog . . . returned.

"August 12th, ditto.

"August 16th. Succeeded in making the first ascent. Starting from Arolla at 3.10 a.m., reached summit 10 a.m.; Arolla again 2.30 p.m.

"(Signed). F. E. MILLARD.

"F. M. MILLARD and F. C. FITTON."

(3) "We also followed (Mr. Walker's) route up the Zinereffien Rocks—the most interesting way up the Pigno; over the Col de la Serpentine. . ."

"(Signed) A. B. HAMILTON.

"July, '72."

(The rest is given on p. 62, as it concerns Ruinette, not Pigno. However, I don't know if he went up Pigno, or only did first part of route. In either case, it was the important part of route up to top; rest would be easy. W.L.)

(4) *There are two main easy routes of ascent; and it is very pleasant to ascend by one (the Col de Vuignette route) and to descend by the other (the Glacier Seilon and Pas de Chèvres route).*

Ascent. Reach the Pièce Glacier by the long moraine. It is easy then to choose route up to Col de Vuignette.

Facing S. from Col Vuignette one sees off to right-hand the general slope up Pigno. This is in general broken by two masses of Nevé-serracs. It is usual to pass up between them. But some years it may be better to strike more southerly from col and make detour round to S. of both masses. It is easy to reach summit.

Descent. Descend across a snow-slope between the fall toward the Zigiorenove glacier and the nevé-wall of the Serpentine. After this bit, the rest of the descent under the westerly border of the Zinereffien Rocks is usually easy, no steps required. Skirt Zinereffien Rock to foot of Pas de Chèvres which is easy to *ascend*.

We took $8\frac{1}{4}$ hours for whole, including all halts.

(Up and down either way, for three experienced men with rope and axes should require no guide. W. L. '83.)

(5) *By the N. Face.* " On August 5th, 1889, accompanied
 " by Jean Maitre, I made the first ascent by the N. face of
 " the Pigno d'Arolla. We reached the bottom of a deep
 " snow couloir on the W. side of the Pièce glacier, at
 " 4.15 a.m., and ascended it mostly by the snow, the sides
 " being composed of loose débris. From the top we as-
 " cended the arête, twice over rocks. The route followed is

“ seen plainly from the hotel. At the top of this arête
 “ there is an immense curve round to the right which leads
 “ to the actual face (6.40 a.m.) The weather had gradually
 “ become worse and worse, and we were in the very midst
 “ of a thunderstorm. I found from my aneroid that the
 “ height of the last part of the mountain, the actual face,
 “ is 1,400 ft.” (? aneroid trustworthy in such changing
 weather. W. L.) “ The ascent first lay to the right, cross
 “ ing the bergschrund where it has an upward turn, and
 “ then straight up; the face being composed of ice, in
 “ places covered with snow, down which the hail poured in
 “ continuous streams. We gradually crossed more to the
 “ left, making for where a narrow line of rock is seen
 “ stretching downward from left to right about half-way
 “ below the summit. From here we went straight up to the
 “ top. The rocks on our left were useless owing to their
 “ rotten character. The face is exceedingly steep, the lower
 “ part being the worst. We were in clouds all the last
 “ half, 200 ft. from the top the edge of rock cuts and the
 “ ascent is made by ice at first and then snow again. I
 “ follow the E. arête in descending.

“ (Signed) ALFRED G. TOPHAM.”

(6) *Note from A. Journal XIV.*, p 498. Miss Richardson with Emile Rey and J. B. Bich, went up rocks from Pièce glacier for $1\frac{1}{4}$ hours; then steep snow for 1 hour 5 minutes to on on E. arête 30 m. from summit. W. L.

(7) *Note from same place.* Some time after Mr. Topham's ascent (No. 5) Miss C. M. Gardner descended by his route. (I understand that Mr. Topham ascended by this route on August 5th, while Miss Gardner descended on September 13th, 1889.)

W. L.

Vuibez Ice-Fall. (*As a route up to Gl. Vuibez and Col Chermontane.*) (Guide.)

(1) "The rib of rocks dividing the N. branch of the Vuibez ice-fall from the Vuignette ice-fall affords a means of reaching the snow-fields above the Arolla glacier (i.e., the Vuibez glacier and Col de Chermontane.) Reach the foot of these rocks by the moraine under the cliffs on the N. side of the whole Vuibez glacier." (The name puzzles me here. We are ascending from Arolla glacier, and Vuibez glacier is above. But I suppose this moraine bounds N. side of the whole of the ice-fall, Vuignette and Vuibez. W.L.) "(15 m. moraine) and up the intervening bit of ice (this is short, but may be difficult and perhaps dangerous from falling ice), making for the main gully in the middle of the rock-rib. If you can get on to the rocks from the ice (not easy in 1885) you follow the gully the whole way to the top. There are three or four bits of pretty stiff climbing, the last of which takes you round a corner on a ledge, whence you traverse to the left a short way over easy shale-slopes to the snow. Time, about 1 hour from hotel to foot of moraine; $\frac{1}{2}$ hour to foot of rocks; $1\frac{3}{4}$ hours to snow above. In 1885 it appeared impossible to get up the ice-fall itself anywhere.

"(Signed) H. SEYMOUR KING.

"W. F. DONKIN

"August 28th, 1885."

(2) *Ascent of the S. branch of the Vuibez Glacier through the ice-fall.* Messrs. E. A. Crowley, M. W. Travers, and H. C. Travers. "Starting from the foot of the Vuibez glacier we ascended directly towards the middle of the ice-fall. Turning sharply to the left under the first big ice cliff we passed round it and bore somewhat to the right, climbing one perpendicular wall without much

VUIBEZ ICE-FALL

“difficulty. At about the level of the top of the rock rib
 “which divides the N. and S. branches of the glacier we
 “found our way barred by an undercut ice cliff, which at
 “its only assailable point rose some 14 (20) feet above the
 “detached serrac on which we were standing. Standing
 “on this serrac and leaning over the intervening crevasse
 “the second man was able to support the leader, who,
 “standing on his shoulders, cut hand and footholds in the
 “wall above. With some assistance from behind with an
 “axe the leader arrived at the top of the wall and the rest
 “of the party followed. Above this point the climbing be-
 “came difficult, and one very steep wall had to be climbed
 “by means of a crack in its face. Close to the top we
 “were again brought to a standstill by a line of cliffs and
 “were obliged to turn to the left along the line of a cre-
 “vasse filled with debris.

“Passing under an enormous arch of ice and below some
 “immense serrac, we reached the left side of the glacier
 “at a point from which a series of snow bridges brought
 “us to the snowfield above. The climb occupied $6\frac{1}{2}$ hours.
 “Should a party be cut off near the top escape would hardly
 “be possible on either side of the ice-fall.

“M. W. TRAVERS.

“H. C. TRAVERS.

“E. ALEISTER CROWLEY.

“August 14th, 1896.”

[*Remark.* One cannot help arriving at the conclusion
 that the route of Messrs. Crowley, etc., is *the* one to be
 avoided. W.L.]

(3) “Ascended Vuibez ice-fall by the branch immediately
 “north of rock buttress keeping all the way on the ice—
 “no guide. $3\frac{1}{2}$ hours from Arolla glacier.

“W. T. KIRKPATRICK.

“R. P. HOPE.

“July 28th, 1897.”

Petit Mt. Collon. (Guides) (1.) "The Petit Mt. Collon is decidedly difficult from the N.-E. and requires good guide.

"(Signed) W. B. RICKMAN, 1872."

(2) "August 18th, 1890. Mr. J. Hopkinson with his son (Bertie) accompanied by Jean and Antoine Maitre, ascended by the arête which runs out towards the Pigno d'Arolla, passed along the whole length of the ridge, and descended by the ridge running out towards Mt. Collon. The route all along was as rotten as it could be.

(3) "August 16th, 1904. Mr. W. H. Gover and self with Peter Anton Perren, of Zermatt, as guide, ascended the Petit Mont Collon from Arolla by the Col de Pièce. Leaving Arolla at 4.50 a.m., we ascended the mountain by the steep N.-E. snow arête; this involved three hours step cutting till we were able to traverse to the left on to the upper part of a rib of loose and rotten rocks running up parallel with the arête. We traversed these rocks under the W Peak on to the summit ridge, which is a sharp arête of rocks and snow, and so on to the highest point at the E. end of the arête. We descended by the steep but easy rocks of the S.W. arête and returned round the mountain by the Col du Petit Mont Collon and the Mont Collon glacier. We reached the top at 2.15 p.m. making 9 hours climbing from Arolla, excluding halts, or $5\frac{3}{4}$ hours from the Col de Pièce. The descent took us 3 hours to the Col de Pièce and $1\frac{1}{2}$ hours more to Arolla. The N.E. snow arête is very steep, and the rocks to the

“ summit loose and rotten, and not altogether free from
“ danger of falling stone.

“ J. W. WYATT, A.C.”

(4) *Ascent by N.N-W rock arête; descent by south-westerly arête.* [Party was Dr. Wyatt-Smith, W. Larden, and Jean Maitre, guide.] Went over Col de Vuignette, Sept. 1st, 1905. We struck the north-north-westerly rock arête on its easterly side from the snow, rather above the bottom. We went partly up the easterly side, partly on arête, and finally gained arête again just above the gendarme that heads the lower part of the rocks of arête. So far, all much cumbered with powdery snow. Then up snow on arête.

Next came a second lot of rocks. Here we soon passed on to the westerly side; very rotten, but more exposed to sun, and so was warm and snow-free. We then turned on westerly side the rock-gendarme that heads the second lot of rocks, and regained arête.

The third lot of rocks we ascended either on the arête or on the easterly side.

Above the third lot of rocks we went up snow arête to snowy dome; and from this snowy dome we walked easily on to the N. rocky summit.

From this N. summit one would descend to a col and ascend to south summit. But it was too late to do this.

The arête we had ascended was very rotten, not to be recommended; and as it was then also deep with powdery snow and very cold and in the shade, the ascent had been really dangerous and had taken long.

In fact the N.N.-W. rock arête is not to be recommended.

We now descended a very easy south-westerly arête and

then S. face; and so down on to the high glacier lying S. of the mountain under its cliffs.

From this we passed in an easterly direction over a snow col S. of the mountain down on to the glacier between the mountain and the Evêque; and so back over glacier to the Col de Vuignette. [See map.]

W. L.

(5) *Easy way up.* We saw that if one reached the high glacier lying S. of the mt., either by the route of our descent or from the west, the S. face was easy to ascend at either end or in the middle between the two summits. In fact we came down at one end, easily. A fairly good guideless party could do the two summits without difficulty if they approached the Mt. on the south side. The snow soon clears away on this face; and though the rocks are loose, they would hardly fall unless disturbed; routes can be chosen that are not steep.

No one who has seen the Petit Collon from the Pigne or from Mt. Collon, etc., would expect to find it so easy of access. It is another case of "the other side" being the easy way up. [See map.]

W. L.

Otemma Glacier and Ridges Bounding it.

(I think too far from Arolla to make many or long, entries desirable in a "Guide d'Arolla. W.L.)

(1) "Col and Bec de Blancien. Starting from Prarayen (Sept. 23, 1879), we ascended a snow couloir, lying at an easy inclination and about 1,350 ft. in height, which ascends from the Comba d'Oren opposite the Glacier d'Oren in a south-westerly direction. From the top, easy snow-slopes descend to the Glacier Sciassa at the head of a side-valley leading to the Valpelline above Bionaz. Views good in both directions. To the N.W. easy snow-slopes, etc., conduct one to the main ridge. This col (Col de Sassa, 3183 m.) is, I believe, new.

"My aneroid gave it about 4,950 ft. above Prarayen. Time, including halts, about 4 hours.

"In about 45 m. we reached the main ridge at a point immediately south-west of the *Bec de Blancien*, which latter we ascended in less than $\frac{3}{4}$ hour.

"The latter is the S. extremity of the mountain mass of which La Sengla is the N. summit.

"Ours was a distinct summit, and did not appear to have been ascended previously . . . easy . . . perfect panorama. . . Close to the col on the other side is a summit, which also I ascended (Petit Blancien, Ca. 3620 m.); it lies at the head of the E. branch of the broad glacier that ascends from the Glacier d'Otemma (Glacier de Blancien). Descending this latter we reached Arolla in less than 4 hours. The col over the main ridge is a very fine passage (E. Col de Blancien Ca 3590 m.)

"(Signed) A. CUST, 1879."

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(2) *Col d'Otemma*. "This pass is misplaced upon the Siegfried map. The easiest and most convenient passage between the *Sciassa* and the *Bec de Blancien* is nearer the latter, E. of the intermediate transverse ridge shown in map. (Pta. Boetta, Co 3550 m. The easiest passage is the Col de Blancien. See my account of this ridge with accompanying map. A. J. XXII., 216.

"(Signed) A. CUST, 1882."

(3) *Col de Rajette*. "On July 20th last year (1894), I passed from Arolla to Bionaz in the Valpelline by a route not before made. Go from Arolla by the Col de Chermontane and descend the Glacier d'Otemma until the rocks of the 'Tourme de Bouque' are reached. Get on to these and ascend on to the glacier between them and the 'Jardin des Chamois.' Cross the glacier to a col S. of the 'Jardin.' By this col reach the glacier W of the 'Jardin' and circle round under the Bec d'Epicoun (S. map), Becca Rajette (I. map), until a depression in the ridge is seen. This is the pass. Ascend to it by very steep ice slopes and rocks in $1\frac{1}{2}$ hours. The col is at the N. end of the Glacier de Ciardonnet. Descend the glacier on the left side and reach the Col de Crête Séche route by the E. moraine. Arolla to Bionaz 15 hours actual walking.

"ALFRED G. TOPHAM.

"Arolla, August 23rd, 1895."

(4) *Bec d'Epicoun*. 3,527 m. (S. map.) "A good variation of the last route is to ascend the (N) snow arête of the Bec d'Epicoun directly from Mr. Topham's col S. of the Jardin des Chamois; then passing over the summit and down the S.W. ridge to La Rajette (S map) one reaches the glacier between the Bec de Ciardonnet and M. Cervo (S. map) and Bionaz is reached by a pleasant

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“ walk over the Berni (?) Alp. This expedition was made
“ (in the reverse direction) by Mr. T. Ashby and myself with
“ the guides Jean Maitre and Pierre Maurice.

“ TOM G. LONGSTAFFE, A.C.,

“ July 18th, '04.”

Mt. Collon.

(Not too large a party. Two guides, if one or two travellers.)

(1) *By the N.W. arête* (visible from the hotel). This arête, which looks westerly in the map, is reached either by way of the Pièce Glacier, or by the N. branch of the Vuibez ice-fall.

(Notes. For former route, see pp. 21 (1) and 67 (4). When Col Vuignette is reached, it is easy to see how to proceed to get on to snow levels above Vuibez ice-fall, from which level one detours to foot of arête. For latter route see p. 69.—W. L.) “A circuit should be made of the snow field at the head of the Vuibez glacier, and the rocks reached by snow lying on southerly slope of arête. On reaching the steeper rocks it is necessary to bear to the right along a ledge, descend to a slightly lower ledge, and afterwards double back, mounting by a chimney to a higher ledge. From this last ledge the arête is easily regained by a kind of rough natural staircase. The last part of the arête is a narrow and rather steep ridge of . . . rocks. It ends on to an easy slope of snow, leading to the plateau out of which rises the final summit. Ascent by Pièce glacier route takes about 6 hours, and descent $4\frac{1}{2}$ hours. Time by Vuibez ice-fall route varies as character of the ice-fall varies.

“(Signed) F. CORBETT, 1883.”

(2) “In Mr. Conway’s Zermatt Pocket Book three other routes are described; but it does not appear from the entries in the visitors’ book that the actual summit was ever attained by these routes.

“(Signed) F. CORBETT.”

(3) "On Aug. 4th, 1866 (see Old Visitors' Book, p. 5) Mr. G. E. Foster with guides Hans Bannaman" (or Baumann?) "and P. Bietrisson ascended from the Gl. du Collon "by the S.W. rocks of the mountain. They reached a "point in the S. ridge (connecting Collon and Eveque) "which '*appeared to be not more than 5 or 6 ft. below the "highest point*'; and '*which was separated from the "main mass of Collon by an apparently impassable chasm.*' "In this, as in similar cases the additional height of the "actual summit must have been under-estimated."

"(Signed) F. CORBETT."

(Note. We crossed this chasm, see No. 9. It certainly is awkward in bad conditions. But, as mentioned later, guideless parties have followed the same route without difficulty.—W. L.)

(4) "On July 31, 1867, Mr. Foster with Hans Bannaman" (Baumann?) "and Johann Kronig made *first ascent* of the actual summit by N.W. arête, and descended "to the point reached the previous year."

"(Signed) F. CORBETT."

(As remarked before, this arête looks westerly in the map.—W. L.)

(5) "On Aug. 3rd, 1867, Dr. E. Schröder and Dr. A. Baltzen of Zurich (without guides) attempted the ascent "from the Glacier d'Arolla, but only reached the ridge connecting Collon and Evêque.

"They subsequently (Aug. 5th) effected an ascent by the "route of Mr. Foster (see 4) of July 31st, '67. For a "detailed account of their expedition, see Visitors' Book, "pp. 8-12."

"(Signed) F. CORBETT."

(6) " Aug. 23rd, 1883, Mr. A. Barran and Mr. F. Corbett (with Alois Pollinger and J. Quinadoz) descended by the S.S.E. buttresses of the Mt. to the glacier which flows from the S. arête of Collon and discharges itself into upper Arolla Glacier. (See Visitors' Book, pp. 174, 175).

" (Signed) F. CORBETT, 1883."

(7) " Aug. 25th, 1885, Mr. H. Seymour King and Mr. Howard Barrett ascended Mt. Collon *by the rocks of the E. face*. For 1 hour and 20 minutes from hotel they walked quickly along the Arolla glacier, and from that point" (clearly they were now on Upper Arolla gl.—W. L.) "to the summit occupied 4 hr. 30 min. in climbing the rocks." (No! from the hotel.—H. B.) "These, especially in the lower half of their course, they found to be so rotten that they separated and took parallel and different routes, as, with the utmost care, stones were sent down in showers. This face seems to be composed mainly of deep steep couloirs separated by jagged arêtes. There is no special difficulty in this route. But, without care, there might easily be danger. The party crossed the summit-plateau and descended by the rocks of the *W. face to the head of the Otemma glacier . . . to Arolla by Glacier Piece.

"The *W. face of the Mt. is both shorter and easier by far than the E. face; but the approach (by any route) to W. face is so long and fatiguing as almost to counterbalance the advantage.

"Guides: Ambrose Supersaxe and Alois Anthamatten; Kasper Maurer and Rudolph Kaufmann."

* I take this to be what Mr. Corbett calls "the N.W. arete." It certainly looks westerly in map. Top bit is north-westerly. W L.

(8) "In Aug., 1887, Mr. Hammond and I ascended Mt. Collon with 'the Juge' Anzevui and 'The Tailor' (Vuigner)" (I think this is the word. Another hand has corrected it to what looks like "Zurfluh of Amsteg."—W. L.) "as guides. We found Mr. Forster's stoneman $\frac{1}{2}$ hour from the summit. This was the second ascent of the mountain and the first from this side.

"(Signed) H. N. HAMILTON HOARE. Aug. 17th, 1886."

Comment.—It appears that Mr. H. N. Hamilton Hoare ascended in 1887 and wrote this account in 1886. Which date is right? I have copied them as written by himself. And—which is "*this side*"—W. L., '92. (See No. 13 for answer.)

(9) *Ascent from south easterly side* (see descent in 6); *descent by north westerly and westerly arête.*

This is a good round, the best way to take the Mt., so I will give some detail. Followed route for Col Collon pp. 2 and 85) and then halted on glacier between Collon and ridge of Mitre d'Evêque, $2\frac{3}{4}$ hours from hotel, for $\frac{1}{2}$ hour. Went up this glacier and ascended for some distance a very broad snow couloir that descended to our right near head of glacier. Struck rocks to our right. These were the rocks of a buttress or arête lying easterly from the arête joining Collon and Evêque; and I think may be called a south-south-easterly buttress of Collon. Ascended for $1\frac{1}{2}$ hours till we came to a small col on this buttress whence we could look over Upper Arolla glacier and Za de Zan plateau. Ascended again and got on to second col on same buttress. About this place we began to *traverse* to left, and got on to main arête from Collon to Evêque. Thence easily reached the rock summit at head of this arête (called Chancelier) $6\frac{1}{4}$ hours from hotel. Halt $\frac{1}{4}$ hour. Descending into a very sharp col

to our right (I think the "chasm" of 3), which may be awkward if conditions are icy, we ascended other side, and then over snow to summit. (We took 7 hours from hotel, which included $\frac{3}{4}$ hour halt.)

Descending the snow we made for the sharp arête (called "N.W." by Mr. Corbett, but which on the whole looks "westerly" in map) seen from the hotel. Went down this (here one is seen against sky from hotel) some little way, then down its southerly face. I fancy the new snow here made guides vary the usual route. Did *not* keep on down the ledges nearly as far as they invited us; but, after descending a somewhat awkward place or two, bore off to right. Lower down, a short traverse led to a chimney to get up which the guide (I think Martin Vuigner) was given a "shoulder up." By ascending this we regained arête, and easily descended to a level part of arête seen from hotel. From this, 5 min. descent led us (towards south) to Otemma glacier snow-field. Usual route home by Col Vuignette and Piece Glacier (route 2, p. 21).

This descent is on whole Mr. Corbett's "ascent by north-westerly arête," only I think "W. by N. arête" is better name. Our ascent was, I expect, his descent in 6.

J. Quinadoz, guide, Martin Vuigner, porter or second guide.

The next day Mr. Slingsby and Mr. Harry Fox (as guides) with Mr. Legh Powell and Capt. H. Powell performed same tour successfully. I fancy that even they considered it a pretty stiff guideless climb for four guideless persons; *much* harder than the Za by usual route. (I have found J. Quinadoz good all round; Martin Vuigner good on rock.)

W. L., Aug. 24th, '87.

(Note.—I have, since then, twice made this traverse guideless with two companions, and once with two companions and a lady. It requires care and experience.—W. L., 1905.)

(10) *By the N. face.* “ Mr. J. Hopkinson (guides, Jean Maitre and Antoine Maitre), 13th Aug., 1890. The route was by the arête which rises from that point of the Arolla glacier where it ascends steeply to the left, and which passes immediately to the right of a glacier two-thirds of the height of the Mt. The party left the hotel at 3.30 and the moraine of the Arolla glacier at 5.30. They first crossed a patch of snow lying on the face of the Mt. immediately above the moraine, then got on to a ledge on the rock and traversed to the right, leaving the ledge presently and continuing on the rock till a somewhat rough and wide arête was reached at 6.30. They went up this arête, bending towards the left to the uppermost point of the cone of black rock as seen from the hotel, which appears from the hotel immediately below the above-mentioned glacier. The arête now bends to the right, and was followed to a point at which it is cut, the gap being partially filled with very steep snow rested here $\frac{1}{2}$ hour, leaving at eight. The gap in the arête was avoided by a detour to the left, on to the glacier, and the arête was again taken on the other side of the gap. The arête now ascends directly. It is steep and consists alternately of snow and rock. The snow was in excellent condition, or it would not have been wise to attempt it. The arête is finally stopped by the serracs of the upper glacier. This point was reached at 9.30. A considerable amount of ice had to be cut from these serracs to admit a passage slightly to the left. To get fairly on to the snow-fields above took till 12.15.

“ All difficulty of movement was now over. The upper crevasse was crossed to the right and the summit reached about 1.15.

“ Generally the rock by this route is delightful, fairly sound, and not too easy. The snow is very steep and would not be practicable to descend unless in perfect condition. The serrac was very formidable and most exhausting for the leading guide. Mr. Hopkinson does not recommend the repetition of the route, which is long in any case and under some circumstances would be dangerous.”

(11) *Ascent by N.N.E. arête.* “ On 15th August, 1895, with Joseph Quinadoz as guide, I made the first ascent of Mont Collon by the pinnacled ridge which is seen on the sky-line from Arolla Hotel and which looks towards the Col de Bertol (it is shown on the Siegfried map, pointing towards the letter ‘d’ in the words ‘Glacier d’Arolla’). M. Anzevui tells me that the ridge was tried more than once twenty years ago, but these attempts failed owing to the fact that the summit glacier was then larger than at present and threatening serracs overhung the top of the ridge. Now that danger is removed; the rocks are good throughout, and the climb seems to be safe from falling stones.

“ Leaving Arolla at 2.50 a.m. we reached the foot of the ridge on the upper Arolla glacier at 5, and mounted straight up easy rocks. The rock climb is about 2,500 ft., and took 4 hours (including $\frac{1}{2}$ hour’s halt for breakfast). During its lower half the ridge is rounded, and is more of a buttress than an arête. In the upper half it becomes very narrow and is much pinnacled. We had Arolla Hotel in sight most of the time. Several of the gendarmes were surmounted, but some

“ had to be turned—mostly on the left side but two on the
 “ right. The ridge strikes the summit ice-cap at its N.E.
 “ extremity. A short distance below that it is very steep,
 “ but as the rock gives splendid holds we were able to
 “ keep to the crest.

“ The highest summit was reached at 9.20, and after
 “ $\frac{3}{4}$ hours' halt we descended by the Vuibez ice-fall and the
 “ Rochers Noirs where another half hour was spent.
 “ The view was marvellously clear towards Italy, and
 “ included all the Maritime Alps and, we believed, the
 “ Mediterranean. We reached Arolla at 2.5. Total time
 “ $11\frac{1}{4}$ hours, or, excluding halts, $9\frac{1}{2}$ hours.

“ WILL W. NAISMITH.”

(12) *S. face of N.W. arête.* “ Mr. Grant and myself
 “ failed to find the ordinary descent of this ridge, and cut
 “ straight down from the first gendarme (before the ridge
 “ becomes rotten) by a chimney and difficult slabs below it,
 “ keeping to the left directly down the face. I understood
 “ Pierre Maitre to say that he had on one occasion adopted
 “ a similar route. The descent took just over 2 hours snow
 “ to snow.

“ E. ALEISTER CROWLEY.”

(13) “ There is something in Note 8 above which seems
 “ to require explanation.

“ In August, 1869, Mr. T. Hammond and I ascended
 “ Mt. Collon with J. Zurfluh, a guide of Meiringen, and
 “ the Juge Anzevui.

“ We found Mr. Foster's cairn about half an hour from
 “ the summit. We went up the rocks from the Col Cher-
 “ montane, and found ice but no snow till we reached the
 “ top. We came down by the Vuibez glacier where we
 “ were overtaken by a snowstorm.

"Mr. Forster had found ice on the highest rocks which prevented his reaching the summit, but he then went to Zermatt and came over the mountain to Arolla.

"This was the first ascent of Mt. Collon, ours was the second, and the first ascent from this side.

"I have received a note from the Juge that he was with us on this occasion, and that Zurfluh was the other guide.

"This note I have sent to Mr. Walter Larden.

"H. N. HAMILTON HOARE,

"Aug. 2nd, 1901."

Col du Collon, Col de l'Eveque, and Tour de Mt. Collon.

(1) *Col du Collon*. (No guide; three men and rope). Reach Upper Arolla Glacier as on p. 2.) The way to the col is obvious. Use a rope to the col; though some years the local guides (unwisely) dispense with this. On the rocks at the col is an iron cross. Four hours is ample time to col from hotel.

Descent to Italy, a mere walk. You slant across glacier on either side of col to land on left hand of glacier. No guide needed for this pass to Italy (to Prerayé and Aosta).

(2) *Col de l'Evêque and Tour du Collon*. From Col du Collon proceed up the rocks till you can gain the ice easily, and walk to Col de l'Evêque (see maps); a short hour from col. Keeping between the Evêque-Collon mass and the Petit Collon, an easy and fine walk (see maps), takes you round to Col Vuignette (past Col de Chermontane).

From here two routes. When "tongue of ice," if it now exists (see pp. 21, 22, 23) permits, pass to foot of the Vuibez rocks and so home by route referred to just

above. Or else pass to left bank of glacier, and so home by p. 21, route 1. In 1883, we went, two men, one lady, and one guide. Our guide chose the latter route; we crossed to left hand bank of glacier, and there was some step-cutting in order to get down from above the serracs (which lay on our right hand) to below them. Only here, just for these steps, is a guide useful where the party is not accustomed to cutting *down* ice. But* very often no steps are needed.

A capital round for ladies; 9 hours, in all, should be ample.

W. L., '83.

L'Eveque. (1) (One guide?). "To be ascended in 6 hours without difficulty by way of Vuibez glacier, and then across the glacier and straight up the snow.

"(Signed) W. B. RICKMAN, 1872."

I suppose by Pièce glacier and Col de Vuignette and then on at first as for Tour du Collon, until an obvious way up offers? Much depends on whether "the snow" is ice and requires much step-cutting.—W. L.

(2) "Owing to the extraordinary snowfall, the last arête was a knife-edge of hard snow, much resembling, and about as long as, that on the Dom, but sharper.

"(Signed) W. A. LEWIS, 1876."

The writer of this notice was, with Noel Paterson, killed by a fall from the Lyskamm the following year.

(3) "On August 18th, '94, Messrs. R. A. Robertson and Howard Barrett—the latter having also with him Miss Agnes M. Barrett and Mr. Edmund H. Barrett—with the guides Jos. Quinadoz (Evolena) and Alois Tembl (Sulden-Tyrol) made the first ascent, as far as can be ascertained, of l'Evêque from its S. western side. From the Col de L'Evêque they mounted a small glacier-covered eminence to its N.E., marked 3,393 on Siegfried's map. Hence they bore away to the left, intending to strike and ascend the great couloir that divides this side of the mountain into vertical halves. Finding the rocks steep, smooth, and iced, they altered the course and ascended directly for a short time, but no improvement being gained, bore up to the right to gain the S.W. arête. This was traversed for some time until a rock was passed that looked far more formidable than it proved. It is of a steep-roof shape, and inclined at an angle of not less than 45 degrees; one climbs along its ridge. Just after

“ this the way led a little on to the S. face and to a curious
“ traverse along a ledge under a rock, very like that near
“ the summit of the Zinal Rothhorn. Thence to the top
“ the route is obvious. Time, $2\frac{3}{4}$ hours; very slow, on
“ account of large party and other causes. This is a rock
“ climb throughout that can be recommended when the
“ rocks are in good order but it cannot be called easy,
“ and probably future parties by this route, if any, will be
“ well advised to go by the arête throughout.”

Mitre de l'Évêque. (1) "With Jean Martin of Vissoye and Pierre Beytrison of Evolena I made the first ascent of the highest summit between L'Évêque and Collon. I have suggested for it the above name. . . . The ascent was made from a gap immediately N. of the peak, and at the head of the side glacier N. of Mt. Collon. . . . On Sept. 22 (1879) using old steps, we reached the gap (Col de la Mitre, which I had crossed two days before), at 9.18, and top at 11.38; keeping to arête be about 5,150 ft., and the summit about 5,950 ft., above hotel. We descended on the W. side, which is without difficulty; at first by the rocks, and then by a snow couloir between the two summits. Missing the Col de l'Évêque in the mist, we descended from the main ridge to S.W. of the col de l'Évêque, directly by the rocks on to the Glacier d'Oren.

"(Signed) A. CUST, 1879."

(2) *By the E. Arête.* "On Sept. 6th, 1895, Mr. L. C. F. Oppenheim and I with Jean Maitre and Joseph Georges made the above ascent. Leaving the hotel at 4 a.m. we followed the route for the Col de Collon until we arrived at the foot of the small glacier descending from the eastern face of the Mitre, and which lies between the Mont Collon and L'Échos. We went up this, and bearing to our left arrived at the small col between the eastern arête of the Mitre and l'Échos (8.40 a.m.). "Scrambling over broken rocks and snow for $\frac{1}{4}$ hour we reached the Arête, and having followed this for 1 hour 40 minutes over rocks at first very rotten, but afterwards more firm and very interesting, we got to the col with the cornice of snow. Leaving this at 11.40, we con-

MITRE L'EVEQUE

"tinued on the arête turning the first big gendarme,
 "without much trouble, on the northern face, over placques
 "and ice, we then found ourselves at a little gap facing
 "the col between the N. and S. peaks of the Mitre. The
 "second big gendarme was then turned by a traverse on
 "the northern face, over rocks which presented consider-
 "able difficulty, and were very treacherous. The arête
 "was regained at a point above the gendarme, and the
 "summit reached in 20 minutes at 2.50 p.m. We descended
 "on the western side by the rocks, but this route is not
 "to be recommended in the afternoon as there is danger
 "from falling stones. Probably another party following
 "our steps would find it better to descend by the N. arête.
 "I can recommend our route as a really delightful climb."

"GERALD ARBUTHNOT,

"Sept. 7th, 1895."

(3) "On Aug. 3rd, 1897, with Jean Maître and Pierre
 "Maurice, we ascended the second or lower summit of
 "the Mitre de l'Evêque, which appears to have been pre-
 "viously unclimbed. We went over the Col de Vuignette
 "to the depression between the Evêque and the lower
 "summit of the Mitre. We reached the summit in half an
 "hour by following the S.W. arête above a very fine
 "precipice. Rocks easy, but many loose stones."

"TOM G. LONGSTAFF.

"C. L. LONGSTAFF."

Mt. Brule. (One guide probably enough.) (1) " Reach " the Upper Arolla glacier (see p. 2) and go straight up " for the Col de Mt. Brulé " (surely the *Col-de Za-de-Zan* in Siegfried Map (?)—W. L.) " on the left of this moun- " tain, reaching it in from 3 to 3½ hours from hotel. From " the col mount right up the N.E. rock arête of the moun- " tain keeping mostly on the S.E. side, over easy rocks " (generally firm) and bits of loose shale, reaching summit " by a short final slope of snow in 1 hour from the col, " (Mr. Cust took 1½ hours in his first ascent in 1876. A. J. " VII., 137). The descent to col took ¾ hour, and from " col to Arolla under 2 hours.

" The whole expedition, under fair conditions of snow " (though in foggy weather) was completed between 10 a.m. " and 6 p.m. It is most highly recommended as one of " the best and shortest climbs to be done about Arolla. . . "

" (Signed) H. SEYMOUR KING and W. F. DONKIN,

" Aug. 31st, '85."

(2) Set off with J. Quinadoz alone. Much new snow; so we avoided the rocks of route 1, and chose a route lying over snow. We went as for Col du Collon at first (but halted at foot of small rocky peak that one leaves on one's left hand when going to Col du Collon. From foot of this little peak we sloped up over west-south-westerly face and passed along the main ridge of the mountain (Mt. Brulé is a long mountain with summit at easterly end), gaining a little below the arête on the Italian side. After gaining the first main summit (3,516 m.) we began to go across (by a somewhat indirect route) to that snow arête of the final and highest summit from which one looks down over a steep slope of ice or snow on to the plateau of Za-de-Zan and the Col Brulé. We followed this arête up in a direction about E.S.E., keeping on the southerly side

MT. BRULE

of it below the cornice. Reached summit after 5 hours 20 minutes from hotel; a very long time to take, but snow was deep and new. Home in about 3 hours 40 minutes in all. I also much recommend this excursion, and think our route a good one for fairly experienced amateurs (ropes and axes) to try without guides.

W. L., Sept. 9th, 1885.

Cols de Mt. Brule and de Valpelline (to Zermatt). (One guide, or none for three experienced men.) A very interesting route to Zermatt; a change from Col d'Herens route. Go up into Plateau de Za de Zan (see p. 3) and make for the most northerly gap that you see, some way to the north of the col marked "Col du Mt. Brulé" in the map. This is gained in 4 hours from hotel at most. Descending, an obvious circuit to left leads one round under foot at Tête Blanche, to the Col de Valpelline (map makes route easy). Between the Col de Valpelline and the Col d'Hérens route on the Stockgletscher below, the snow or nevé is broken into irregular chasms which no doubt change from year to year. They are easy to pass, but (from above) one has to hunt about a little for a route down. We easily joined Col d'Hérens route to top of Stockje rocks. There is a track down these to Z'mutt glacier below. At slow pace we took 11 hours Arolla to Zermatt, including liberal halts.

W. L., Aug. 26th, '87.

Note.—The col which leads to the Valpelline Pass and Zermatt is not the one marked Col du Mt. Brulé on Swiss map, but is north of it. It is approached from the Za de Zan by a slope of loose stones, and its real position is very nearly N. of the point 3,365 and above the words "Grand Arête." The Italian side is very inaccurately shown on Italian map, and its reproduction on the later Swiss sheet. This pass ought to be—or might well be—called the *Col d'Arolla*.

W. L.

(In the above note I have ventured to alter an entry made by Mr. A. B. W. Kennedy, and so I give it as my own.—W. L.)

Dents des Bouquetins. (For summit 3,848, two good guides, as a rule.)

(1) *Summit 3,848, I suppose, as I found his card there.*—
W. L.

“I made the first ascent of these on Sept. 6th, 1871. “I think this the most difficult of the excursions from “here. We had to pass under the end of a small glacier “an overhanging wall of ice 70 or 80 ft. high with large “icicles hanging over us which were constantly falling)— “and then across a couloir where stones were falling frequently. The rocks were very steep, and the last arête “very narrow and formed of very loose stones. The precipices each side are magnificent” . . . (view fine) “We were nearly 7 hours going from hotel (not including halts), and a little under 6 hours coming down.

“(Signed) A. B. HAMILTON, 1871.

(2) “These are harder than Mt. Collon and only to be recommended with good guides.

“(Signed) A. CUST, 1876.”

(3) *Summit 3,848.* (Mr. Heaton and I found only Mr. Cust's and Mr. Hamilton's names in bottle on summit.)

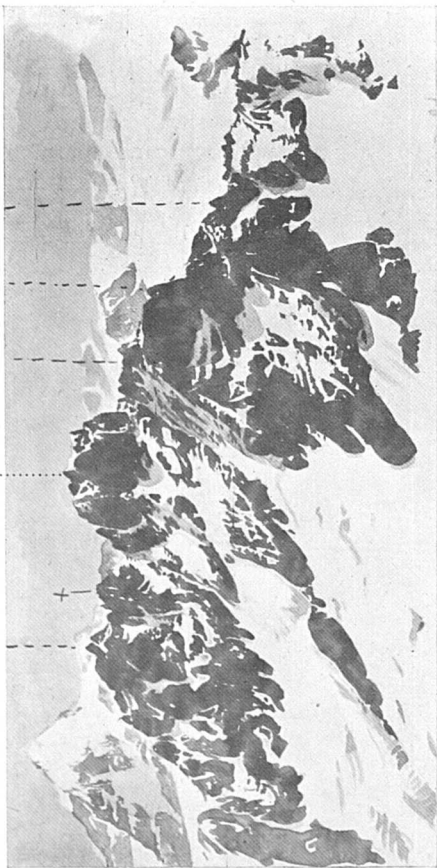
Mr. Heaton and I went with J. Quinadoz as guide, and Martin Vuigner as porter. Neither had been up before but Quinadoz had had the route pointed out him (as I gathered) by Anzevui. A bad day; mist and much wind. We passed by the southerly Col de Bertol (p. 42, 2), followed Col d'Hérens route (p. 111) a little way, and then branched off to southerly. We left to our right the points marked 3,556 and 3,536. Passed just clear of stone débris

Main
N. Peak
3,783

Central
Peak
3,848

S. Peak
3,690

Barnes
Peak.



Dents des Bouquetius from the West.

from pt. 3,783, leaving this also on our right, and then made upward, here leaving lower plateau. We ascended till under an ice-cliff, and then up a *very* steep but short ice-slope, and gained top of a rock-shoulder against which the ice-cliff abutted.

(In descent we had to come down this bit with face to ice, using hand holds in the ice.) We passed, from this shoulder, up a gentle slope of new snow and rock, having at first the ice cliff within touch of our right hands. Continued these easy rocks until they were about to become steeper, and then turned to our right up an obtuse-angled arête of ice and snow, cutting steps. Thus gained easy snow-slopes above, and walked to a col ($2\frac{1}{4}$ hours from Col Bertol) whence we looked over on to Upper Arolla glacier. Then turned southerly along small snow arête. Passing round a corner, then at least very awkward—(Quinadoz avoided it on return even though this made him search for a new route in biting wind and snow)—we got on to easterly face of main arête, and then on to arête. Soon gained a summit; but saw our (the highest) summit on ahead. Continued arête; down a steep bit into a sharp col. Up a sloping rock on the other side; later on, down again, and then easily to true summit (3,848), $3\frac{3}{4}$ hours from Col de Bertol. Found the two names as mentioned.

By this time a storm of wind and snow, and mist, had come on. Quinadoz as usual rose to the occasion, and we got down safely. But it was a bad place to be in, in such weather. I believe that in 1876, Anzevui continued on the lower level much longer and had a steep climb up to the "sharp col."

W. L., August, 1887.

(4) *Summit* 3,848. (4th ascent.) "On August 27th, 1887" (after Mr. Heaton's and Mr. Larden's ascent),

“ Harry Fox, A.C., Leigh Powell, A.C., Capt. Herbert Powell, and Wm. Cecil Slingsby, A.C., with Martin Vuigner and Gaspoz (Maurice), as guides, ascended this peak by a new route up the rocks to the south of the little glacier usually followed ” (hardly “ usually,” as there had been only three previous ascents in which there is, I believe, W. L.) “ and to the left or south of that followed by no reason to suppose that the routes were all the same? “ A. B. H. (as we reached the first peak direct without traversing the narrow arête) by a series of difficult chimneys and traverses which are very interesting and quite safe as the rock is sound. We were more or less in a broad gully facing the Dent d’Hérens. We descended by the arête and glacier. Time, 15 hours, including 3 hours for meals and resting, and $2\frac{1}{4}$ hours on rocks during ascent.

“ (Signed) WM. CECIL SLINGSBY.”

(5) “ *Summit 3,848. By W. face and S. arête. 1889.* “ On August 10th, with Jean Maître and his brother Pierre as porter, I made the first ascent of the highest Dent des Bouquetins by way of west face and south arête. From the Upper Arolla glacier we made for the bottom of a large couloir. Crossing the schrund by a bridge (5.45), we began the couloir. Steps had to be cut; and, seeing ice far above in the nick of the couloir, we got on to the rocks to our left. The whole of this side of the Dents des Bouquetins is composed of precipices of rock with little handhold, ledges and “ plaques.” The whole is covered, wherever anything can lie, with stones of all sizes and dust. Up this we found a way, twice being turned back through trying to keep too near the couloir, and having to strike even further on to the face. In $2\frac{1}{2}$ hours from the schrund (1,350 ft.), we arrived

" at the col, but separated from it and the southern gen-
 " darmes by a deep rock couloir. Here we left a bottle
 "(well sheltered from the avalanches) and commenced the
 " ascent of the S. arête. This is exceedingly precipitous
 " to start with, and gets less so only when the first gendarme
 " is topped. These can be surmounted, though very sharp,
 " the descent from the last one being most awkward. The
 " whole of the arête is composed of granite only occasionally
 " bad. The route is easy over the second highest summit
 " to the top. We arrived here at 11.30. The descent had
 " to be made entirely (? W. L.) by the N. arête, this side
 " being covered this year with ice and very dangerous in
 " places." (I don't understand quite how he came down.
 Did he pass right over N. summit? And which is " this
 side?" W. L.) "The hotel was not regained till
 " 7.45 p.m.

" From the col on our ascent any attempt on the most
 " southern point (3,690 m.) looked impossible, the whole
 " arête of gendarmes being quite sharp, though the ascent
 " could certainly be made as described " (in Note 10? W. L.)
 " Once reached, perhaps our route might be gained.
 " (Signed) ALFRED G. TOPHAM."

(6) *Summit 3,848. Descent by N. arête and W. face.*
 " We had made this summit by the Col Bertol route and
 " after exploring the S. arête gave up all thoughts of any
 " attack on 3,690 in view of the dangerously iced condition
 " of the rocks and the chilly gale blowing. We left the
 " summit and kept along the N. arête till we reached the
 " deep col between the central and northern group of peaks
 " (marked A in the sketch). This col is easily recognised
 " by the small rock tooth in the centre. We left the ridge
 " here striking straight down on a rock rib fairly symmetri-

“ cally placed on the W. side as to this col and with couloirs
 “ on either hand. The rocks are easy for three-fourths of
 “ the way down, then getting steep and slabby. Here we cut
 “ across a couloir to the left and followed the next rib of
 “ rocks to the schrund. The moderately steep ‘ Glacier des
 “ Bouquétins ’ was then crossed and the ‘ Upper Arolla
 “ glacier ’ reached.

“ This descent is recommended as being much shorter
 “ than that on the E. side and by the Col Bertol, and
 “ especially as avoiding the long tramp through the soft
 “ afternoon snow. Pierre Maître—guide : Georges Antoine,
 “ porter.

“ F. W. OLIVER,
 “ September 19th, 1892.”

(7) “ *First ascent of ((3,783 m.) N. Peak. August 8th, 1884.*” (Translated from French, pp. 190, 191 Visitor’s book, by W. H. Heaton. Someone has queried the “ N ” and suggested “ Middle.” But he—or she—gives no reason and signs no name. W. L.) “ Started from hotel at 4 a.m. with J. Quinadoz as guide. We arrived 6.10 a.m. at foot of the Dent, on the E. moraine of the Arolla glacier. We ascended directly towards the N. group of the Dents : following first the large snow couloir to the south ; afterwards crossing the rocks to the left, and gaining the arête which separates the two parallel couloirs lying more to the N. This route led us to a little col situated between the first and second of the N. group of the Dents ” (reckoning from the S., i.e., from the col which separates the N. group from the middle one.—W. L.) “ This col we reached at 10 a.m. The rock is good, but we found it glazed with ice. The highest peak of the N group (consisting of four summits) is the third, reckoning from the S. This is

“reached by the W. arête; partly on rock, and partly on
 “an ice-slope on which about 20 steps had to be cut; and
 “finally by two chimneys. We arrived at the top at 12.10
 “and erected a cairn. The descent requires much care,
 “especially towards the lower part of the rocks. We left
 “the top at 12.45. Arolla glacier at 4.5, hotel at 6.10.

“The guide J. Quinadoz” . . . (much praised) . . .

(Signed) MONNIER, S.A.C. 1884.

(8) For the ascent of *most northern peak* (3,536 m.)
 August 13th, 1886, see p. 106. Messrs. Corbett, Barran and
 and Addenbrook, took it en route for S. peak of Dents des
 Bertol (3,556 m.)

(9) *Most Southerly point.* “On August 30th, 1887,
 “Wm. Cecil Slingsby, Miss Blair-Oliphant, and I,
 “accompanied by Martin Vuigner as porter, made
 “the first ascent of the most southern point of
 “the higher Dents des Bouquetins. We left the hotel at
 “4.40, reached the Arolla glacier at 5.17. After rounding
 “the point 3,097 we made for a snow couloir running down
 “from a very large gendarme on the arête. Breakfast 7.30-
 “8, on the moraine of Za-de-Zan glacier. Reached couloir
 “mentioned at 8.40; but, owing to width of the berg-schrand
 “found it impossible to cross to the snow of the couloir.
 “We accordingly took to the rocks about 40 yards to the
 “left. These were very steep, and after climbing for 50 m.
 “we found that we had gained only about 70 feet in
 “height. This brought us to an awkward place where
 “we had the choice between a narrow and exceedingly
 “steep chimney, and a boss of loose rocks slightly
 “coated with ice. Mr. Slingsby, who was leading,
 “preferred the chimney, but gave in eventually to the pro-
 “testations of Martin. The boss turned out to be very

“ difficult, and Mr. Slingsby had to pull up the rest of the
“ party. From this point we made up the face sloping to-
“ wards the left until we reached a band of snow which
“ traversed the whole face ending above, not very far from
“ the big gendarme above-mentioned. From this band of
“ snow we reached the arête at 11.30. We then saw three
“ peaks, but were unable to decide which was the highest ;
“ made to the nearest ; following the arête until it broadened
“ out below the last slope leading to the top we wished
“ to gain. We turned to left and found the climbing not
“ difficult at first. Soon, however, the rocks became very
“ steep and almost impracticable. In order to extricate our-
“ selves from a difficult chimney, we climbed round a boss
“ of rock by an exceedingly narrow ledge. Then followed
“ two very steep pieces of rock in the ascent (of) which
“ Mr. Slingsby was of much service to his companions.

“ The top was reached at 1.50 and left at 2.20. We
“ followed almost the same route down to the arête above
“ the gendarme mentioned above, but managed to avoid
“ some of the difficulties of the ascent.

“ We reached snow stripe at 3.50 ; and from there made
“ direct for the little col lying between point 3,097 and the
“ main ridge of the Dents des Bouquetins. The rocks
“ were as loose and rotten as they could be, but otherwise
“ not difficult. Hotel 8.30.

“ *Mr. Slingsby led throughout*, and all the credit of the
“ climb is due to him.

“ (Signed) G. S. BARNES.”

(10) *First ascent of (3,690 m.) S Peak, July 18th, 1894.*

“ Having attempted the ascent of this peak from Arolla
“ on six occasions since 1887, I determined this time to
“ try it on the Italian side. I was accompanied as on for-
“ mer occasions by Jean Maître of Evolena ; and young

“ Pierre Maurice as porter. Starting from the Stockje at
“ 1.45 we crossed the Col de Valpelline and came under
“ the mountain at 5.20. We ascended at first by easy rocks
“ diagonally across the face from south to north. This
“ face (like the northern) is swept by stones during the
“ day. A chimney ascends towards the arête half-way be-
“ tween 3,690 and the col mentioned in entry No. 5. This
“ we ascended for a quarter of an hour when it became too
“ rapid, and then came on to the buttress on our right.
“ Here we left our sacks. The buttress is exceedingly
“ steep, but we gained the arête by it at a point marked X ”
(see the sketch.—W. L.). “ From here we crossed several
“ gendarmes ’ to the summit at 10 a.m. Left at 11. In
“ the descent we had to use our ‘ corde de reserve ’ at the
“ most awkward part of the buttress and regained our
“ sacks at 1.30. We did not enter the chimney again, but
“ crossed it and worked downwards in a southerly direction.
“ Fearing the falling stones we crossed by an easy route
“ on to the S. arête at the point mentioned by Mr. Barnes
“ in the preceding note ‘ below the last slope,’ etc. (3.30.)
“ From this point we descended more or less by the route
“ followed by Mr. Barnes in ascending. The schrund in the
“ couloir was gained at 5 p.m. and Arolla at 7.25 p.m.
“ It may be of interest to state shortly the various routes
“ I have tried.

“ (1) 1888. By above couloir and rocks to *South* of it
“ on to arête following it on to the big gendarme mentioned
“ by Mr. Barnes.

“ (2) 1889. By ascent of point 3,848 (mentioned in entry
“ No. 5).

“ (3)-(4) 1890 and 1891. On these two occasions I crossed
“ over Barnes and Slingsby’s point into the next depression.
“ The point reached I have marked on the sketch. A per-
“ pendicular cliff stopped us.”

“(5) 1892. By the west face and buttress into a chimney, to a point marked on the sketch; (6) and on one occasion in 1892.

“I place in the book a bad print of a negative taken in 1887 of the Dents Bouquétins range from l'Eveque.”

“ALFRED G. TOPHAM,

“July 19th, 1894.”

(11) *Summit 3,848 by the E. arête.* On September 4th, 1895. “Mr. E. Oppenheim and I, with Jean Maître and Joseph Pollinger made the ascent of the above summit by the Eastern arête which ascends from the Col des Bouquétins. We left the hotel at 2.35 a.m. and crossing the S. col de Bertol followed the route for the Col des Bouquétins. Crossed the bergschrund at 9.5 to the south of the long couloir of snow and ice, and above the ice fall. Clambered southwards over broken rocks for 1 hour 5 minutes until we came to the little col with a cornice of snow. Here the rock appeared very difficult, so we turned on to the N. face (10.20 a.m.), and climbed up difficult plaques and ice, between the couloir of which I have already spoken and the E. arête. After 1¼ hours we regained the arête a little below the big gendarme. Followed the arête for ¼ hour, and then turning the gendarme without difficulty by the N. face, returned once more to the arête at 12 p.m. From here we followed it for 1 hour over rather difficult and rotten rock, arriving at the point where it joins the great ridge (1 p.m.) and which is 5 m. to the south of the highest summit. We reached this without the slightest difficulty and descending by the ordinary route, got back to the hotel at 8 p.m. The mountain was in very good condition, but under other circumstances it would be advisable to try not to leave the arête as if there

“ was much ice on the plaques they would be extremely dangerous. It is a pleasant climb, but the rocks are treacherous.

“ GERALD ARBUTHNOT.

“ September 7th, 1895.”

(12) *Summit 3,848 by the E. Face. August 14th, 1897.*
“ With Adolphus Andenmatten and Elias Burgener of Saas Grund, I made this ascent directly by the E. face. From the Col de Bertol we traversed snow-fields to a point at the foot of the eastern face which was immediately below what appeared to be the highest peak, and facing midway between the Dent Blanche and the Matterhorn. We then went up some rocks and leaving a hanging glacier on the right we crossed a narrow and steep couloir, which was rather difficult on account of fresh snow. Then bearing to the left until the Matterhorn was directly behind us we went straight up the face to the tower which had appeared to us from below to be the summit. From the top of this we saw the cairn on the true summit, and then descended about 180 feet into the gap and up a second tower and from thence directly to the top. We found the second tower needed care, on account of the rocks sloping downwards; but with this exception and some trouble from the fresh snow, neither the ascent nor the descent offered serious difficulty, as most of the rocks were sound and afforded good foot and handhold. *Times*: Left Kurhaus at 2.20 a.m., reached Col de Bertol at 5.55 and foot of rocks at 6.55, summit of first tower at 9.30, and highest point (3,848 m.) at 9.50; left at 10.30; off rocks at 12.50 p.m., and reached Kurhaus at 4.30; total halts 70 minutes.

“ L. S. CALVERT.

“ August 19th, 1897.”

(13) *Summit 3,848. East Arête.* "On July 31st, 1899, Miss Honeybourne and myself, accompanied by Pierre Gaspoz and Antoine Bovier as guides, made the descent from the summit 3,848 by the east arête, as described by Mr. Gerald Arbuthnot. I believe this to be the first time that the descent has been made by this arête.

"The descent from summit to snow at foot of arête occupied seven hours, including halt of half an hour.

"The rocks presented considerable difficulties and great care was required to guard against the displacement of stones, as little in the way of hand or footholds was to be trusted.

"WILLIAM TATTERSALL, Aug. 1st, 1899.

"Kurhaus, Arolla."

(14) *Central Peak (3,848 m.) and N. Peak (3,783 m.), in one day. 22nd July, 1899.* "We ascended peak 3,848 by what appears to be the ordinary route, the gap to its N. being reached from the E. by a short ice slope, easy rocks and snow, and the arête being followed to the top. We then returned to the gap and followed the entire arête to the N. peak. All local guides agree that part of this, viz. : the traverse of the peak between 3,848 and 3,783—which, though quite distinct, has no separate height marked on the S.F. map) is new. No trace of any previous ascent was found. The peak is marked with a X on the sketch of the range. The 'depression' which Sir H. S. King reached in 1885 (see Conway p. 65) is probably that to the left (i.e., N.) of the intermediate peak in the sketch. The party descended from the N peak by rocks and snow slopes on N.W., a considerable quantity of cutting being required.

"Times: Bertol hut to central peak. 2 hours, central to N peak, 3 hours, descent to hut, 2½ hours.

“ We strongly recommend this expedition.

“ Ant. Bovier (père), guide.

“ Ant. Bovier (fils), porter

“ H. V. READE.

“ F. W. ROLLESTON.

“ H. A. BEECHING.”

Dents de Bertol. (1.) (S Peak, 3,556 m.) *First ascent.* " On 13th August, '86, we made what appears to have been the first ascent of the S. (and highest) peak of the Dents de Bertol (height 3,556 in Fed. map 1 in 50,000.)

" En route we also made what appears to have been the first ascent of the N., or lowest, peak of the Dents des Bouquétiens (3,536 m.) The two peaks are separated by a well-defined snow-col which might be used instead of Col de Bertol . . . from Arolla to Col d'Herens, etc. We ascended to this col by a small glacier which falls at first in a westerly and afterwards in a south-westerly direction towards the N.E. bend of the Glacier d'Arolla. From the col, easy snow slopes lead to the N peak of the Dents des Bouquétiens. The S. peak of the Dents de Bertol (a rock climb) was ascended from the col by a rock couloir, a little N. of the col, slanting up the W. face of the mountain to the S. arête, which was followed to the summit.

" The descent was made for a short distance by the S arête, and afterwards by the E. face, to the snow-field at head of Mt. Miné glacier, which was crossed almost on the level to the Col de Bertol."

(Detailed description of views from the two peaks climbed. Appear to be very fine.)

" The north peak of Dents des Bouquétiens recommended . . . (for) fairly experienced amateurs (3 with rope) without guide; for S. peak of Dents Bertol guide should be taken, except by practised climbers." (Details of times given.) Guide, J. Quinadoz.

" (Signed) FREDERICK CORBETT.

" ALFRED BARRON.

" J. GORDON ADDENBROOK."

(2) " *Summit 3,556.* On August 15th, 1888, I ascended this peak finding in the cairn the names of Messrs. Cor-

“bett, Barran, and Addenbrook, only. From the *Col des Dents de Bertol* we went up the snow-ridge to S.E. and traversed above some reddish rocks to the W. face which was crossed to Mr. Corbett’s couloir when the N. ridge was gained and by it the summit (40 m. from col.) On the descent we descended a short distance down the W. face, then regained the N. ridge and followed it down till it became ice when we bore to left over rocks and regained the point at which we had left the snow-ridge in ascending (50 m. from summit to the col.)

“(Signed) W. A. B. COOLIDGE.”

(3) *Col des Dents de Bertol*. “August 15th, 1887. I crossed this pass which seems to be new. Ascending from Ferpêcle we turned both icefalls of the Mt. Miné glacier by the W. side, and in $5\frac{1}{4}$ hours from Ferpêcle gained the col lying not far from the W. foot of the Dents de Bertol (3,556), and a long way S. of the point 3,396. The descent lay down a very steep and savage wall of very rotten rocks, by which in 35 m. the little glacier was reached up which Mr. Corbett and party went up to the peak” (Dents des Bouquétins) “3,536; 30 m. more led to the Arolla glacier a long way above the icefall, and 1.35 more to this inn. Guides Christian (the younger) and Rudolph Almer.

“(Signed) W. A. B. COOLIDGE.”

(4) *Summit 3,507*. Mr. Corbett calls it “Pointe de Bertol”). “On August 18th, 1890, Messrs. Corbett, Townley, Meares, and Echalaz (with Martin Vuignier and Pierre Gaspoz as guides) ascended peak, marked 3507 on Swiss map, which separates the N. and S. Cols de Bertol. Passing through the ‘false col’ immediately N of the S Col de Bertol, they skirted the Mt. for nearly 10 m. and then struck up rocks

“ to the E. (rock) arête, which was followed to the summit.
 “ Time from leaving snow to top, $\frac{3}{4}$ hour. The descent was
 “ made for a short distance by the same arête; and thence
 “ by easy snow slopes to the N. Col de Bertol, which was
 “ reached in less than 1 hour.

“ Though there is no record of any previous ascent of
 “ this peak, either in visitor's book or in Mr. Conway's book,
 “ a cairn was found on the summit; and it was stated by
 “ the guides that previous ascents had been made by the
 “ snow slopes from the N. col de Bertol, though not by the
 “ E. arête. No name in the cairn. . . Fine view.”

(5) *Summit 3,396.* (Mr. Corbett calls it *Crête de Plan.*)
 “ On August 16th, 1890, Messrs. Corbett, Townley, Groves,
 “ Meares, and Echalaz (guide: Martin Vuignier) ascended
 “ the highest point, marked 3,396 on Swiss map, of the
 “ Crête which encloses the G. de Bertol on the S. side. and
 “ which terminates in the Plan de Bertol. The ascent was
 “ made in $2\frac{3}{4}$ hours from the usual halting-place below the
 “ Glacier de Bertol, proceeding in an easterly direction,
 “ by easy snow slopes extending to near the final summit,
 “ which was reached by the rocks of the N. face. No trace
 “ was found of any previous ascent.”

(6) A party of us (no guides) scrambled up a *lower point*
of this crête, from the plan de Bertol. As I made a
 memorandum that “ the view to the Dent Blanche, etc., was
 “ cut off by the (main) ridge between Dents d'Bouquétins
 “ and Dents de Bertol ” we clearly were not on Mr. Cor-
 bett's point (see note 5 above).

From our point it seemed that it would be easy to ascend
 the Dent (3,628), that lies to N. of the north col de Bertol,
 from said col.

W. L. August, 1887.

(7) *The S.W. arête.* “*Pointe des Chamois.*” “Ascend to beginning of Plan de Bertol, by ordinary col or Bertol route, then diverge to *right** ascending a ridge of débris which gradually narrows into an easy rock arête. In about $1\frac{1}{2}$ hours that articulated with the main arête, which is to be followed uninterruptedly over various summits—including 3,396—to the S. Col de Bertol. The climb all the way from the point of articulation to pt. 3,396 is continuously interesting and varied and occupies 4 to 5 hours’ hard work all the time. Besides innumerable gendarmes, two distinct summits are traversed where cairns and record bottles were inaugurated. The second of these (about $1\frac{1}{4}$ hours from pt. 3,396, i.e., to its S.W.) is a graceful peak and its ascent from the S.W. includes some of the best climbing on the ridge. For it the name ‘*Pointe des Chamois*’ is proposed in reference to a herd of these animals which we surprised in a couloir far below. From the col beyond, an easy scramble leads on to 3,396 where we found the record of Mr. Corbett’s party (No. 5). Thence a quarter of an hour suffices to reach the S. Col de Bertol. “As a whole, the arête is not surpassed for varied interest by any rock climb in the district. Pierre Maître was guide and G. Antoine, porter.

“F. W. OLIVER.

“September 13th, '92.”

(8) *Tour of the Southern Dents de Bertol.* “On August 15th, 1895, with Mr. Fridlander and the Rev. A Moore, without guide, ascended the Arolla Glacier to just be-

* The divergence to the r. must be made *at once*. There is another ridge starting from near the “usual halting place” below the glacier and running up towards pt. 3396, but this is *not* the arête described above. Ours is the one shewing against the sky from the plan de Bertol. There is a further ridge between ours and the Bouquetine, which appears to fork as it approaches the “upper Arolla glacier” (from which a good view of all these ridges is obtained), that looks well worth a trial. F.W.O.

DENTS DE BERTOL

“yond south, south-westerly spur of the Dents de Bertol,
“some 10 min. beyond the Plan. Just beyond next stream
“struck up over rocks reaching glacier (unnamed), which
“runs first westerly, and then south-westerly, from the point
“3,536. Ascended by glacier and snow to the S. col des
“Bertol (see Conway's Guide.) Descended through cornice
“to glacier du Mont Miné, going first N. and then W. to
“the Col de Bertol and so back to Arolla.

“Views beautiful, especially E. of the S. Col des Dents
“de Bertol. Expedition should not exceed 11 hours, in-
“cluding halts, and is much recommended to moderately
“experienced amateurs without guides.

“A. C. DOWNER, A.C.”

Col Bertol (S.) Tete Blanche, Ferpecte, Col d'Herens, Zermatt.

(1) *Tête Blanche*. Take S. Col de Bertol. Easy route to Tête Blanche. For 3 men with rope who have some experience, it is a mere walk (see p. 42.)

W. L.

(2) *To Zermatt*. (Pleasant to take Tête Blanche on way; only $\frac{3}{4}$ hour extra, or less). Take S. Col de Bertol (p. 42.) Route from this to top of Col d'Hérens a mere walk. To descend on to Stockje Gletscher is another matter; some years very simple, some years many amateurs, even fairly experienced, might like a guide as last man. But the actual col may be avoided by a detour, usually quite simple, nearer the Tête Blanche. No need for guide for really experienced men. (Rope and axes, of course.) From foot of Col d'Herens you aim for top of Stockje Rocks. There is a track down these on to Z'mutt glacier; whence a trudge to Zermatt. Arolla to Zermatt, including Tête Blanche and halts, from 9-12 hours.

W. L. '83.

(3) *To Ferpecte by S. Col de Bertol*. You go towards the Col d'Herens, but not up to it; sweeping round to the left. (See Sgfd. map.) You leave "Mottarotta (3,274)" on your left, and pass close to "Roc Noir," leaving it on your right. At this point you cross the line of the moraine, that begins at Roc Noir, on to a side glacier off whose end you afterwards pass to the shale and grass and so to Alpe Bricolla and Ferpecte. (3 men, and no guide needed.)

W. L., '89.

(4) " *By N. Col Bertol to Ferpêcle.* From the N. Col
" Bertol descend the snow-slopes in a N.E. direction to the
" Glacier de Mt. Miné. Descend glacier, passing ice fall
" on W. side, sometimes taking to the moraine. The lower
" part of the glacier is a good deal crevassed; and we, in
" 1882, found it better after passing Mt. Miné to cross to
" the E. side and gain the path leading from the Bricolla
" alp to Ferpêcle. This would vary in different seasons.
" Time from Arolla to Ferpêcle about 7 hours.

" (Signed) A. B. and F. C.

" 5th August, 1886."

(i.e., Mr. Corbett and Mr. Barran.)

Dent Blanche. [N.B.—There is now a hut on the Col de Bertol. W. L.]

(1) *To Dent Blanche.* “On Monday, August 22nd, 1892, left hotel at 8.45 p.m. with M. Vuigner, guide, and a porter, for first ascent from Arolla of Dent Blanche. Lay at Plan de Bertol, reached summit on Tuesday, 23rd, about 1 p.m. Descent to Ferpêcle.

“A. C. DOWNER.”

(2) *To Dent Blanche, returning to Arolla.* [No hut then existed.] “On Tuesday, September 10th, 1895, we left Arolla for the South Col de Bertol where we bivouacked under rock at north of col. We left our sleeping place at 2 a.m. on 11th and crossing the glacier as much as possible on the level, reached the Ferpêcle route on buttress leading up to Wandfluh at 4.25, and the summit of Dent Blanche at 9.10. - Returning by same route we reached Arolla at 6.15, having been delayed about 1½ hours on the glacier by a snow-storm. We strongly recommend this route, and wish there were a hut on the col, as it would be the best starting point not only for the Dent Blanche, but also for the Dent d'Hérens, the Bouquêtins, and many other points. Pierre Maître and Antoine Maître, guides. Pierre Mauras, Antoine Georges, Porters. (2 ropes.)

“PHILIP FLETCHER, A.C.

“CHAS. SLATER.”

The "Les Dents" Range.

1. Aiguille De La Za. (For ordinary travellers : two guides, two travellers, and a long rope. Three or four good amateurs can go guideless, provided that the leader is a reliable rock-climber.)

(1) *Usual Route.* Go to the N. Col de Bertal (p. 42.) Having crossed this, turn N. along the snow-slope above the Mt. Miné Glacier until the foot of the rock peak of the Za—(easily recognised, being just what you expect it to be after seeing the other side from hotel)—is reached. This passage from Col Bertal to foot of Za may be taken near the rocks or lower down. A mere walk.

At foot of Za, leave axes behind. We attack the E. face of the Za rather to the N. end and cross diagonally back over this E. face towards the S. It is in the latter part of this diagonal passage that the "mauvais pas" occurs. This is a rather smooth slab of rock sloping out eastward: Here the length of rope comes in; since there should be only one on the slab at once, the other anchoring. I have never heard of anyone slipping; but it is, I think, a place that it should be considered fool-hardy to pass unroped. (See note 2.)

One then ascends one or two chimneys, and the summit is reached near its S.W. angle. In fact the route up is spiral from E. through S. round to near S.W.

Take great care not to disturb some large loose blocks of stone at your right hand near top. The rock-climb takes less than half an hour for an average party.

Fine view. Notice Lac bleu. (Above is partly by Mr. Corbett, and partly by myself. W. L. 1883.)

Note.—August 23rd, 1887. Mr. Slingsby, Harry Fox,

Cout. Herbert Powell, Edward Hopkinson, and myself (i.e., W. Larden), ascended without guides. The first two names show that we had the requisite rock-climbers with us. No difficulty. W. L.

(2) *Further note on (1.)* In ascending the Za by the usual route, there is a "mauvais pas," a traverse up across a slab. Unless the conditions at the foot are very bad (much ice) it is shorter, easier, and safer, to ascend (and descend) directly from the glacier to the upper end of this traverse; one thus avoids the slab and the traversing climb below it.
W. L.

(3) "The ascent has also been made *direct from the hotel* by one or other of the snow couloirs descending to the Glacier de la Za, on several occasions. But all these are "liable to be swept by falling stones." Even early in the morning. (W. L.)

"(Signed) F. CORBETT. 1883."

I fancy accounts of some of these ascents will be found in the A. J. I have found no entry in the first or second "edition" of this MS guidebook, i.e., since 1883. W. L.

(4) *By the Col de Zallion.* "Between the Za and Perroc. "We ascended direct from hotel for 53 m.; and then "obliquely to left, making for the foot of some dark rocks "seen in front of Perroc, for nearly 1 hour. We then "skirted the base of the latter, and reached foot of final rocks "2 hours 36 minutes from hotel. The last half of ascent to "dark rocks was easy and pleasant. The final ascent to Col "Zallion consisted of easy rocks and snow lying at a gentle "angle; and occupied 1 hour 24 minutes. (See illustration in "A. J. VIII p 15.) This col which is, I believe, just "S. of a point on the ridge marked 3,518 m. in the "S. A. C. map, and which is a little lower than that

" point (making our col about 11,450 ft.) is quite
 " easy of access . . . 3 $\frac{3}{4}$ hours from hotel (on the E. side
 " were steep rocks). . . We continued our course on the
 " arête, which presents no particular difficulty, until we
 " reached snow at foot of Za, 50 m. from Col de Zallion.
 " We had to pick out our way up Za; but found no particu-
 " lar that was not fairly within Biner's power—'Weus-
 " horn.'—At one point however in descent we had to make
 " a double with the rope. . . .

" In descent. Passing over a small col E. of a point
 " marked 3,507 in Federal Map—(no appreciable difficulty)—
 " we reached route of Col d'Hérens, a short way to E. of
 " Col Bertol in 61 m. Snow soft.

" (Signed) A CUST.

" August 11th, 1875."

(5) *Doves Blanches route* " A route more direct and in-
 " teresting than the ordinary one though probably rather
 " longer in time, is by the way of the arête descending from
 " Doves Blanches towards La Maja (see p. 31.) You cross
 " the Doves Blanches at a point a little S. of the highest
 " or N. peak; and, descending the rocks on the E. face
 " in a diagonal direction, you reach the snow at the foot
 " of the final rock peak of the Za.

" (Signed) F. CORBETT. 1883."

(To reach arête by which you mount to D. Blanches, see
 p. 31. W. L.)

(6) *From the W. by Rock Face.* [See note 7 and 8, etc.]
 (Same route as Miss Richardson followed in 1889, except for
 about $\frac{1}{2}$ hour below gendarme.) " We struck the buttress
 " facing Arolla on its right side; easy going up **face** to the
 " W. for about $\frac{1}{2}$ hour, then up short chimney; left this for
 " W. arête to avoid stones. We kept on the arête more or

"less for an hour, then through gap on right of gendarme
 "on to S.W. face (N.B.—Keep low at this point); then up
 "steep couloir on to W. arête of final peak; working round
 "again to the right we ascended staircase above smooth
 "rocks, then over steep rock face by crack (described in
 "Conway's guide. We now kept to the right round corner
 "of smooth rock striking ordinary route up final chimney."
 [Or lower than this, close to end of the smooth slab traverse? W. L.]

"Date, Aug. 15th, 1894. There were two parties; viz. :—
 "F. E. B. Wale, with Antoine Maitre, and Malcolm L.
 "Hepburn, with Ulrich Kaufmann and Fridolin Kronig."
 N.B.—Antoine Maitre accompanied Miss Richardson on
 first ascent.

(7) As far as my experience goes, the local guides when ascending the Za by the face, usually join the ordinary route at the upper end of the slab-traverse of route (1.) But with Jean Maitre we joined it at the foot of the final, well-known chimney higher up. W. L.

(8) *Za by Face.* August 19th, 1905.

Additional Note. The general plan of the ascent is to keep on the edge overlooking the broad stone-swept couloir that lies between the Za and the Doves Blanches. After a good deal of rather easy climbing, a series of three chimneys lead up to a sensational but easy "staircase" up the final peak. These chimneys may be avoided by again keeping more to the right looking over said couloir. It is almost a walk round and up; and, having avoided the chimneys, one comes into the "chimney route" above the highest chimney and below the "staircase."

W. L.

"(9) An interesting variation of R. 6 was found by Maurice Gaspoz with Mr. Wollaston and myself. (T. Gaspoz acting as second guide) on August 5th, 1903. When top of chimney is reached, which is surrounded by 2 rocky 'blades,' climbers usually go by their right on white stones to the Col de Bertol route. We kept on our left (facing blue lake) going up a steep red slab overhung by a rock at the right, where shelter was found, while the first man went on. Ascending that rock we climbed up a smooth and rotten gully and thence in a few paces reached the well-known top chimney.

" KUHLMANN.

" S.A.C. sect Neuchatelois, A.S., C.A.F."

(10) *August 24th, 1895. Variation of above route.* "Being prevented from attempting Miss Richardson's route by heavy falls of stones, we took to the rocks at the lowest point of the West Buttress just to the right of a small snow patch which from the hotel seems exactly in centre of base of mountain. We kept on the highest part of the buttress for about an hour and then traversed to the right to get round an impossible smooth face and regained the arête by a small couloir. We followed the ill-defined arête to a shoulder just below, the gendarme from which we easily joined Miss Richardson's route by *a traverse to the right. The climb was not easy, and on account of the looseness of the rocks great care was necessary. Guides: Pierre Maître; Fridolin Truffer.

" PHILIP FLETCHER, A.C.

" CHAS. COOKSON, A.C."

*It may be unwise to reverse the traverse of this peak. In descending the W. arête and buttress we found the gullies extremely dangerous from stones. One avalanche fell right over us. G. F. G. Grant and E. A. Crowley (without guides).

(11) *Aiguille de la Za*. " Bien qu'il soit recommandé, au
" debut de ce livre, de ne pas le remplir inutilement de
" détails concernant la durée des courses, il me semble
" néanmoins intéressant de signaler aux amateurs
" d'escalades qu'un bon marcheur, accompagné de bons
" guides, peut faire dans un temps relativement court
" l'ascension de l'Aiguille de la Za par la face, avec retour
" par la route habituelle du N. Col de Bertol. Partis hier
" de l'Hotel Kurhaus a 6 hr. 26 du matin (un peu tard, à
" cause du temps incertain jusqu'à' cette heure) nous
" sommes arrivés au sommet de l'Aiguille a 11 hr. du matin,
" et etions de retour a l'hotel a 2 h. 10 de l'apres-midi-soit
" 7 hr. $\frac{3}{4}$ pour l'ensemble de la course. L'Ascension par la
" face a été faite entirement par les rochers, sans emprunter
" à aucun moment le couloir de neige de droite (voie sou-
" vent suivée pour la première partie du trajet.) J'ajouterai
" que la rapidité de cette course n'a nullement été au depens
" de la plus grande prudence des mes *excellents* guides;
" Martin. Pralong and Laurent Gaudin—tous deux
" d'Evolene.

" Arolla le 15 Aout, 1901.

" ALFRED BASSETT, S.A.C., and C.A.F."

II. Les Doves Blanches.

(1) *By S.W. arête; first ascent by this route.* " This is the long arête running up to the Doves Blanches from the lower Arolla Glacier, which has the Glacier de Bertol on its S. and the Glacier des Doves Blanches on its N. " Follow the ordinary Bertol route up the steep grass and débris slopes above the Arolla glacier for $\frac{1}{2}$ to $\frac{3}{4}$ hours; then strike N. and reach the ridge at any convenient point. " Then follow the arête due E. For the first $1\frac{1}{4}$ hours the rocks are good and easy. Then a rock-crest* is reached which presents a smooth vertical face to the arête and which can only be turned by descending a few feet on the N. side and traversing along dislodged 'paving stones' till a way can be discerned up very smooth slabs and the arête regained. Later another gendarme must be turned on the same side by means of a short chimney. The other difficulties relate chiefly to the final mass of gendarmes. A high pointed gendarme cannot be taken direct owing to the loss of parts of its ridge, but the rocks to the S. must be traversed for a few minutes, when the tower in question can be reached, going straight up over vertical rocks with good holds. Very soon a grey granite tower suggestive of neglected masonry, blocks the way, but by traversing its base to the N. a smooth chimney is found which leads back almost to the summit of the tower. " The next gendarme is best taken directly by steep but good rocks. This is the prominent aiguille seen projecting from the right of the rounded Doves Blanches and all but obscured by La Maja (i.e., as seen from the hotel).

* Easily recognised from anywhere from its appearance as of an inverted oat with well developed keel.

“ We built here what should prove a permanent stone-man,
 “ some 2 ft. high, and easily recognisable. A few minutes’
 “ scramble leads on to the rounded top of the Doves
 “ Blanches and the ridge turns N. and may be followed, if
 “ desired, to the Aiguille de la Za. We had already spent
 “ 6 hours on the arête ($4\frac{1}{2}$ actual climbing) and were content
 “ to find a route home. We followed a sharp snow ridge
 “ from the rounded summit in the direction of the Za,
 “ reached easy rocks and descended by ribs and couloirs*
 “ to the Glacier de Doves Blanches. This was descended
 “ for some distance and then striking N., the col—[where
 “ La Maja articulates with the main ‘Dents’ ridge]—
 “ was made; and so home by the Za track. . . .

“ The long west ” (south-west?) “ arête affords admirable
 “ and varied climbing and the difficulties were such that,
 “ time after time, Pierre Maître, who accompanied me,
 “ almost despaired of success. His skill and pluck deserve
 “ the greatest praise.

“ F. W. OLIVER.

“ September 1st, '92.”

(2) *Les Doves Blanches. By S.W. arête.* (Slight modification of Mr. Oliver’s route.)

“ Having arrived at Plan de Bertol we ascended moraine
 “ on N. side of Glacier de Bertol and gained the arête by
 “ climbing steep but good rocks on the S. side of the ridge.
 “ A steep chimney brought us to a smooth slab of rock
 “ coming down from the rock crest mentioned by Mr. Oliver
 “ as resembling an ‘inverted boat.’ We found a convenient
 “ crack which brought us on to a somewhat less steep por-
 “ tion of this slab, and we then traversed from W. to E.
 “ along the S. side of the ‘inverted boat,’ where we event-
 “ ually gained a couloir of loose stones and so reached the

* Beware of falling stones.

II. LES DOVES BLANCHES

“ arête $1\frac{1}{2}$ hours from the moraine. This appears to be the
“ first traverse along this slab, and although it is not so
“ difficult as it appears from below, a long rope is advisable.
“ The remainder of the route followed is much the same
“ as that by Mr. Oliver, though we turned the next gen-
“ darme on the S. side instead of the N. On reaching the
“ ‘tower suggestive of neglected masonry’ Jean Maitre
“ said that a rock had fallen away which spoilt the usual
“ route. There was no other way but to traverse on to the
“ N. face ascending over loose rocks in an easterly direc-
“ tion then directly backwards and round up steep chim-
“ ney to col before final gendarme after 2 hours difficult
“ climbing. We followed Mr. Oliver’s route over final
“ Aiguille to the summit, returning by N. Col de Bertol.

“ P. MAURICE BEACHCROFT.

“ MALCOLM L. HEPBURN, A.C.

“ H. E. NEWTON.

“ R. BASIL LITTLEWOOD.

“ (With Jean Maitre as guide.)

July 23rd, 1901.

III. Dent de Zallion.

(1) "On 13th August, 1890, Messrs. Corbett, Townley, and Echalaz (guide, Pierre Gaspoz), ascended this peak. Route mainly that of Mr. Cust in his ascent of the Za, August 11th, 1875 (see Za, 4). The ordinary Za route "was followed for $\frac{1}{2}$ hour"—(I don't understand. The ordinary Za route is by N. Col de Bertol. Perhaps it means the ordinary route up to Glacier de la Za? W. L.)—"when a N.E. course was taken over grass slopes for $\frac{3}{4}$ hour and across a moraine for $\frac{1}{4}$ hour to some rocks (partially grass-covered on S.) which descend from the Dent de Zallion towards the Chalets of Zallion. These rocks "were ascended on the S. chiefly by the grass in 26 m.; "and some slopes of boulders and avalanche-snow traversed, "to the base of the mountain, in further 25 m. The ascent "was then made straight up the rocks for 20 m., and by "easy snow-slopes for $1\frac{3}{4}$ hour to the summit, which is less "than $\frac{1}{2}$ hour N. of the col, reached by Mr. Cust. . . ." (See Za, 3.) "No trace was found of any previous ascent. . . The S. arête was followed to Mr. Cust's col, "and then for 1 hr. to a point (higher than the Dent de "Zallion) just N. of the couloir generally used in the "ascent of the Za" (i.e., when this is ascended from hotel. See p. 115, 3, W. L.) "The highest point of the arête" (i.e. the highest in this part. I believe the highest of the whole arête in the Pt. des Genevois just S. of Perroc. W. L.), "is a very small and sharp aiguille, severed from "the main ridge by a deep cleft; but no difficulty was "found in climbing it from the E. side. The descent was "made by the N. Col de Bertol, by the route usually taken "in returning from the Za.

(2) *Dent de Zallion*. " On July 19th, 1904, Miss Longstaff, Miss K. L. Longstaff, and myself, with Jean Maître and Pierre Maurys, as guides, and Pierre Maître (fils de Jean), as porter, made what appears to be the first descent (from the Za) by that last-mentioned route, which we seemed to have followed almost exactly. From the foot of the Za to the foot of the rocks on this side took 4 hours. The descent thence to the bottom of the valley is very long and uninteresting, and the route cannot be recommended except for the views.

" TOM G. LONGSTAFF, A.C."

IV. Highest Point, 3,679 m. Fed. Map, "Pointe Des Genevois."

(1) *First ascent*, July 22nd, 1885, by *M. M. Tschumi* "and Kundig (S.A.C.), of Geneva. Following through the wood for some time the path to the Za, then to the left up a ridge under the Dent de Zallion, crossing a snow-field towards a couloir in which a square black spot is to be seen, then on the left of this couloir"—(*our left as we ascend, or its left as it comes down?* W.L.)—"up to the arête in 4 hours. Following a kind of 'vire' about 20 steps under the arête, towards Mt. Miné, to the little col, at the foot of the pyramid of Dent Perroc. Taking a little to the right we went up to the top in about 40 m. Rough ascent and still rougher descent on the 1, 2, and 3 arêtes leading down south of the little col. Hasty slide on the snow underneath to get away from the stone bombardment of the big couloirs. Time for the ascent, including a long halt on the col, 6 hr. 35 m. . . . The direction of the descent is not to be recommended. We baptized this dent as 'Pointe des Genevois,' *Joseph Quinadoz* proved to be a first-rate guide."

(2) "The ascent of this peak by the E. arête from Ferpêcle, is highly recommended as affording a most interesting rock-climb of 2 hours. From Ferpêcle cross the glacier near its foot and mount over steep grass slopes over the W. side of the Mt. Miné glacier and cross the small valley under the E. side of the peak just below its small glacier, striking the E. arête at any convenient point. The rocks from thence to the top are very steep

“ but perfectly sound and firm. We descended by the S. arête to the col mentioned (above) and then to Arolla partly down the main couloir and partly down the rocks to the left (S.) of it. *Avoid this*, if possible. The rocks all slope the wrong way and the couloir is evidently swept with stones, making the scramble down as nasty as the climb on the other side is nice.

“ (Signed) W. F. DONKIN.

“ August 21st, 1885.”

(3) “ Messrs. E. A. Fitzgerald and Harold W. Topham descended this peak by what is probably a new route on August 30th, 1891. From the summit they first walked some twenty yards along the crest towards the south arête and then descended east a shoulder of snow for about half-an-hour (snow bad); then traversed north, snow and ice, into a couloir which descends from between the Pointe des Genevois and the Dent de Perroc. They went down this couloir sometimes on ice, but more frequently on the rocks north of it, until they reached the Glacier de Montay. Skirting this glacier round to the north (danger of falling stones) they reached the débris below it in 5 hours 50 minutes from the summit.

“ They do not recommend this route.

“ HAROLD W. TOPHAM.”

V. Dent Perroc.

(1) *By S. W. Arête.* "Mr. Hamilton and I made the first ascent of Perroc on August 31st, '71. Starting at 4.30 a.m. we reached top at 11.30, including $\frac{1}{2}$ hour halt. We remained 1 hour at summit and descended in 6 hours. View is superb, work rather fatiguing.

"*Anzevui and J Vuignier* (tailleur), much praised as guides.

"(Signed) W. B. RICKMAN."

(2) "Ascended with Jean Maître of Vissoye."

[No details of interest given. W. L.]

"(Signed) JAMES HEELIS. 1876."

(3) Set off with Joseph Quinadoz as guide (we two alone) at 4.45 from Arolla. Reached foot of rocks, at point where it is usual to mount arête, at 6.30 a.m. Mounted W. by S. arête and proceeded up it. Halted at 7.10 to 7.35, and roped.

So far we had been on edge of arête. Now we kept mainly on S. face of this W. by S. arête. We struck the main ridge rather S. of our summit, which we reached at 8.55. It is to be remarked that our summit was that with a cairn on it, and is the middle of three. From the one more N. descends the little glacier whose lower part is called the Glacier de Zarmine.

The last bit to summit was awkward owing to ice on the rocks.

The work was tiring, and the whole required some care owing to the *curious looseness of the rocks*. Quinadoz quite thought that in this lay a real danger.

But it is an easy climb in other respects.

Descent to Arolla took us from 9.10 to 1.55, including halts.

Sept. 3rd, 1884.—W. I.

(4) "*Arolla to Ferpêcle over Dent Perroc.* On July 23rd, 1886, with Franz (Weisshorn) Biener and Gabriel Taugwalder (both of Zermatt) as guides, we ascended Dent Perroc by usual route." (I suppose the W. by S. arête. W.L.), "leaving the hotel at 3.30 a.m. and reaching the summit at 9 a.m. After $\frac{1}{2}$ hour's rest we descended the east side of the mountain by a small buttress, passing over steep but very easy rocks. These, however, became after a time more difficult, and it was necessary to pass diagonally over the face towards the right crossing some small couloirs until by means of a long and steep chimney we reached the main couloir leading down to the head of the Montay or Perroc glacier. We descended the left side of this couloir partly on the rocks, but chiefly on the snow until we reached the large berg-schrund at the base which was crossed with considerable difficulty. Thence the way down the Montay glacier to the Mt. Miné glacier and Ferpêcle is obvious and easy. The hotel was reached at 6.20 p.m.

"*The descent by this route is not recommended.* It is probably attended with as much difficulty and danger from falling stones as was the course of Mr. Donkin's descent, on the Arolla side from the *Pointe des Genevois*.

"The conduct of the guides cannot be too highly praised.

"(Signed) J. A. LUTTMAN JOHNSON, J. C. MILLS."

(5) "September 1st, 1886, accompanied by Jean and Pierre Maître, I traversed the Dent Perroc from Ferpêcle, taking the mountain from *the most northerly point* (never ascended before, my guides say) and following the arête to the real point. The rocks on the Ferpêcle side were difficult, but very interesting. My guides are splendid rock-climbers and took good care of me.

"(Signed) J. A. VARDY."

(6) *By N.N.E. arête.* " July 31st, 1890. Accompanied by Jean Maître and his brother Antoine, I made the *first* ascent of the N.N.E. arête of Dent Perroc. Ascend by a steep snow couloir above the Zarmine, and between the Grande Dent de Veisevi and the Dent Perroc. This takes $2\frac{1}{4}$ hours step cutting. Turn the big gendarme on the Ferpêcle side and ascend to its summit. Thence follow the arête over all the gendarmes till the steep snow arête is reached. In an ordinary year with little snow left high up the snow would be ascended to the summit. After about 100 ft. of it I got over on to the Ferpêcle side and mounted by the rocks, in places being forced to 'worm' along under the cornice. From the top of the couloir to the N. peak took 4 hours. Thence to the S. peak by the connecting arête took 40 m. Thence descend by the ordinary route, which was not possible this year on account of the quantities of snow and ice.

" (Signed) ALFRED G. TOPHAM."

(7) *Dent Perroc by S. arête.* August 12th, 1892. " Make for main ridge at a point about midway between Aiguille de la Za and Dent Perroc climbing steep snow to N. of conspicuous rounded boss of rock. Follow arête over easy rocks to the Pointe des Genevois and continue to Dent Perroc. Between the two peaks there is good and varied climbing. The second gendarme offers the greatest difficulty and must be turned on the *W. side*. Descend by steep rocks into a couloir and regain arête at its lowest point, where there is a conspicuous smooth sloping slab of rock that cannot be mistaken. Then follow arête over rock towers to the Perroc. Time from peak to peak, 1 hr. This climb has already been made by Mr. A. G. Topham according to record on the summit.

" F. W. OLIVER."

V. DENT PERROC

(8) "In July, 1892, I made the *first* traverse of the ridge between the 'Pointe des Genevois' and the Dent Perroc. For details, see Mr. Oliver's note above. I turned the gendarme on the *E. side*."

"ALFRED G. TOPHAM.

"July 19th, 1894."

(9) *Traverse of Dents Perroc from arête S. of Genevois to Grande Dent de Veisevi*, "As it is said, the entire traverse has not been done previously, I append notes of times, etc., of a climb on August 25th, 1899, with Jean Maître as guide and the Rev. William Outram. Left Kurhaus 3.15. Took to rocks almost under the second gendarme S. of the Genevois arête by a conspicuous cleft to the climber's left straight up from the pointed moraine under the ridge. Thence to Pointe des Genevois at 9.10. To Perroc by route 7, continued to north peak, with long halts on summits. Left N. peak at 12.30 and descended by N.N.E. arête (route 6), said to be descended for the first time to the col, then west on to the Grand Dent de Veisevi, by the arête taking all the gensd'armes, in 2 hours 50 minutes. Descent to Col de Zarmine: return to Kurhaus 6.45.

"(Rev.) JAMES OUTRAM."

(10) *Arölla to Ferpêcle over Dent Perroc*. "14th August, 1902. A. E. Aldridge and I, with Jean Maître descended from the northern peak of Dent Perroc along the crest of the steep snow arête referred to by Mr. Topham (see No. 6). When we reached the second large pinnacle below the northern summit of Dent Perroc we descended on the eastern side into the couloir below this sharp pinnacle to a point about 100 feet below the ridge, where we mounted up on the slabs on the left side of the couloir. We then carefully descended over these slabs to a large rock mass

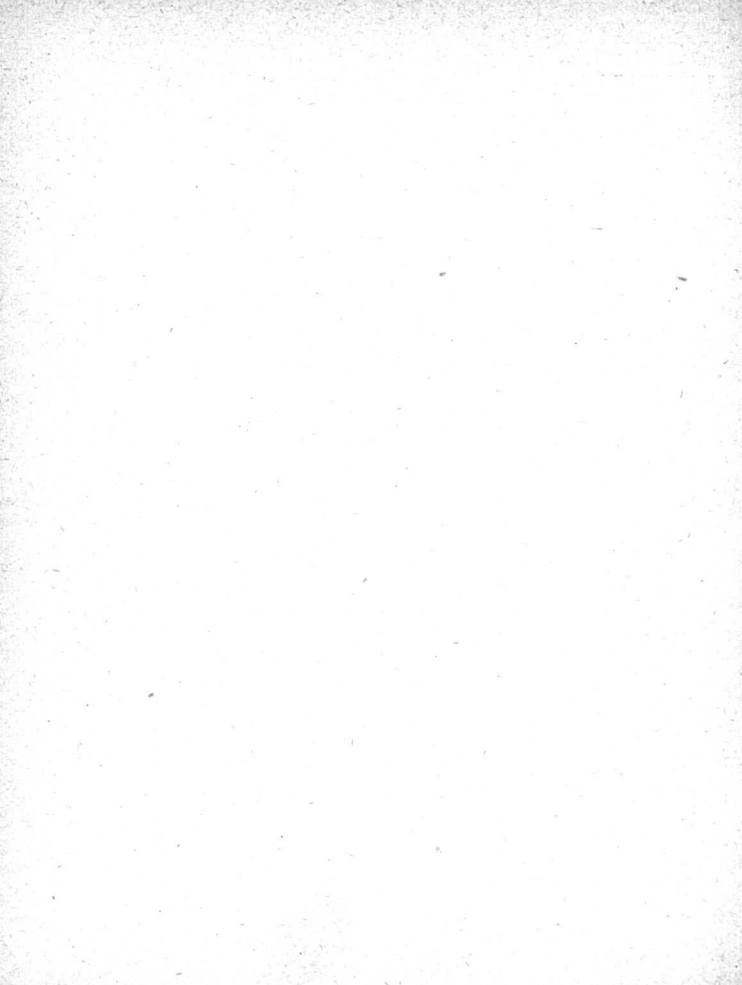
" some distance below, which stands up above the general
 " slope, but kept close to the couloir we had left. A short
 " way below this rock mass we found a chimney, running
 " at right angles to the couloir we had left and by which
 " we reached an arête leading to an outlying pinnacle near
 " the berg-schrund of the Glacier de Montay. It was easy
 " by this chimney to reach the immense berg-schrund. This
 " we crossed on the right of the couloir, but very little
 " alteration in the hanging masses of ice would
 " render it impossible. The glacier below is easy. We
 " went round the ridge dividing the Montay and Fontonay
 " Glaciers until we were below the latter glacier and then
 " descended by grass slopes to Ferpêcle. Time, northern
 " summit Dent Perroc to Ferpêcle, 7 hours. Good guides
 " are essential if this route is followed.

" W. B. WICKHAM KING."

(11) *Combined traverse of the Dent de Zallion, Pointe
 des Genevois and Dent Perroc.* " Left Cabane Bertol at
 " 2.30 a.m., followed route (1) page 114. Left Aiguille de
 " la Za to the left and reached small breach (?) between
 " latter summit and Dent de Zallion. Traversed Dent
 " Zallion S. to N.; ascended Pointe de Genevois by S.
 " ridge; traversed on to the Centrals de Perroc and from
 " thence down to Arolla by W. ridge and couloir. Time
 " taken from Cabane Bertol to Arolla, 19 hours.

" Guides: Jean Jaudin and Jean Bournissen (of
 " ALEX. S. JENKINS, S.A.C. (M.R.) "

(*Remark.* The writing of the above was difficult to read
 here and there. W. L.)



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