## THE GRAND TETON BY THE EAST RIDGE.

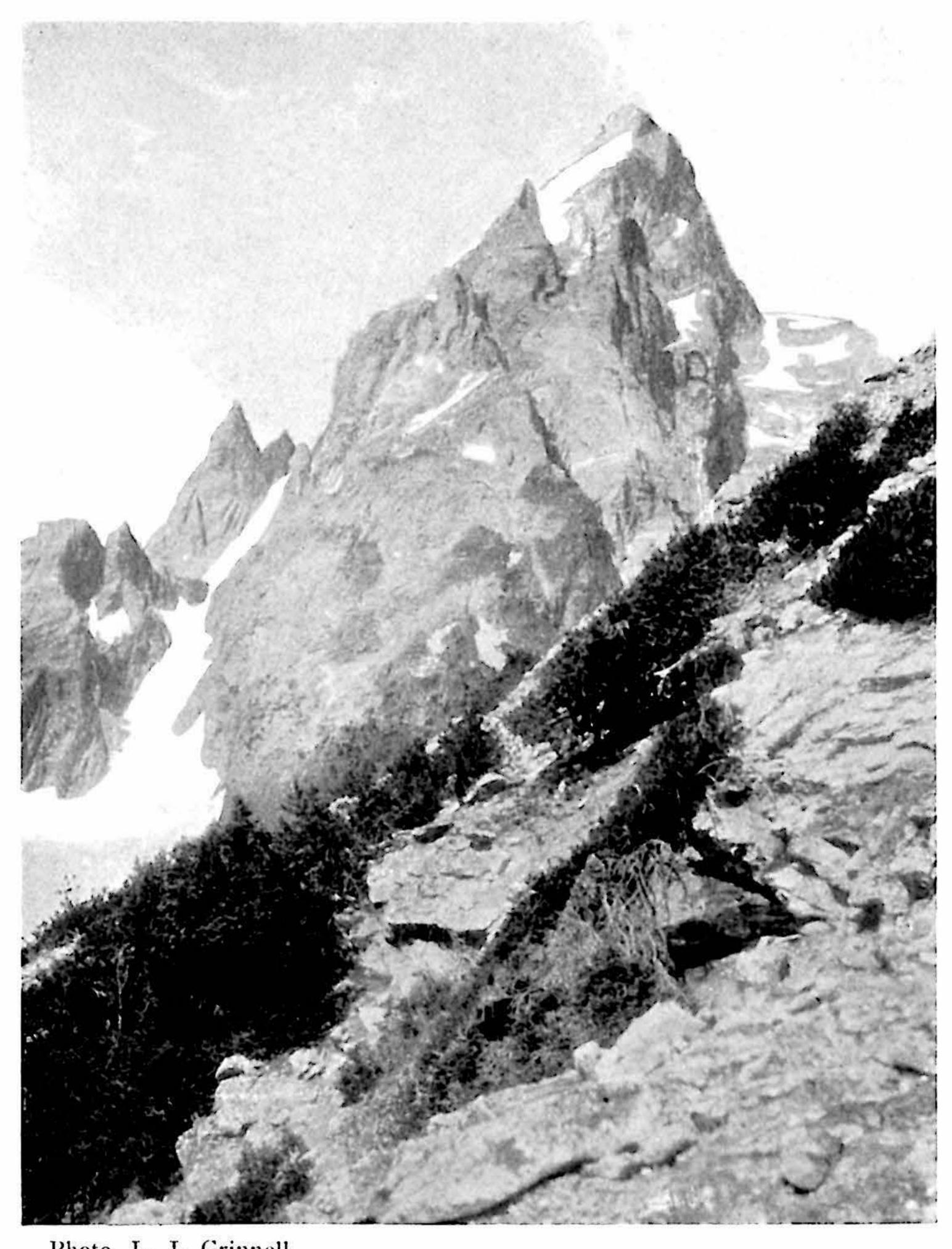
## BY ROBERT L. M. UNDERHILL.

The Grand Teton (13,747 ft.), culminating point of the Teton Mountains in N.W. Wyoming, has long been esteemed as perhaps the foremost mountaineering peak in the United States. To be sure, its reputation for difficulty has of late years been taking the inevitable course outlined by Mummery, yet in all probability not more rapidly or completely than other contemporary reputations of like sort. And now it furthermore appears that the real virtues of the peak have been held in reserve, so that the respect which it has been in the way of forfeiting for its ordinary route must be accorded it again for its other possibilities. Of these, its easterly ridge has been the first to receive any considerable attention.

In July of last year Mr. Kenneth A. Henderson and I left the East with the fixed determination of making an attack upon this E. ridge, the main objective of a campaign in the American Rockies. We knew that it had been attempted, without success, by experienced parties, and understood that it enjoyed popularly that always tantalizing reputation of being unclimbable. Neither of us having been in the district before, we planned first to ascend the mountain by the ordinary route, in order to become familiar with the line of descent which we must eventually use, and we allowed ourselves time for reconnaissance trips, should they prove necessary, and for some abortive attempts as well. Having done our previous climbing almost entirely in Europe, neither of us knew what to expect in the way of difficulty, and eagerness to measure the unknown by the regulation standards of the Alps greatly enlivened our enterprise.

The Teton Mountains, just south of Yellowstone National Park, form a relatively isolated chain of the Rockies west of the Continental Divide, from which they are separated by a broad highlying flat known as Jackson Hole. This flat has its own romantic history, for until a generation or so ago its seclusion, procured by enveloping mountain ranges, made it a notorious refuge of outlaws. Along its western border the Tetons, a granitic uplift, rise sheer for 3000–7000 ft., quite without foothills, while at their bases lies a series of beautiful wooded lakes due to ancient moraines. The Grand Teton, approaching 14,000 ft. in height and standing 7000 ft. above the flat, is flanked by at least four other peaks of between 12,000 and 13,000 ft. within a space of some 15 miles; as the range

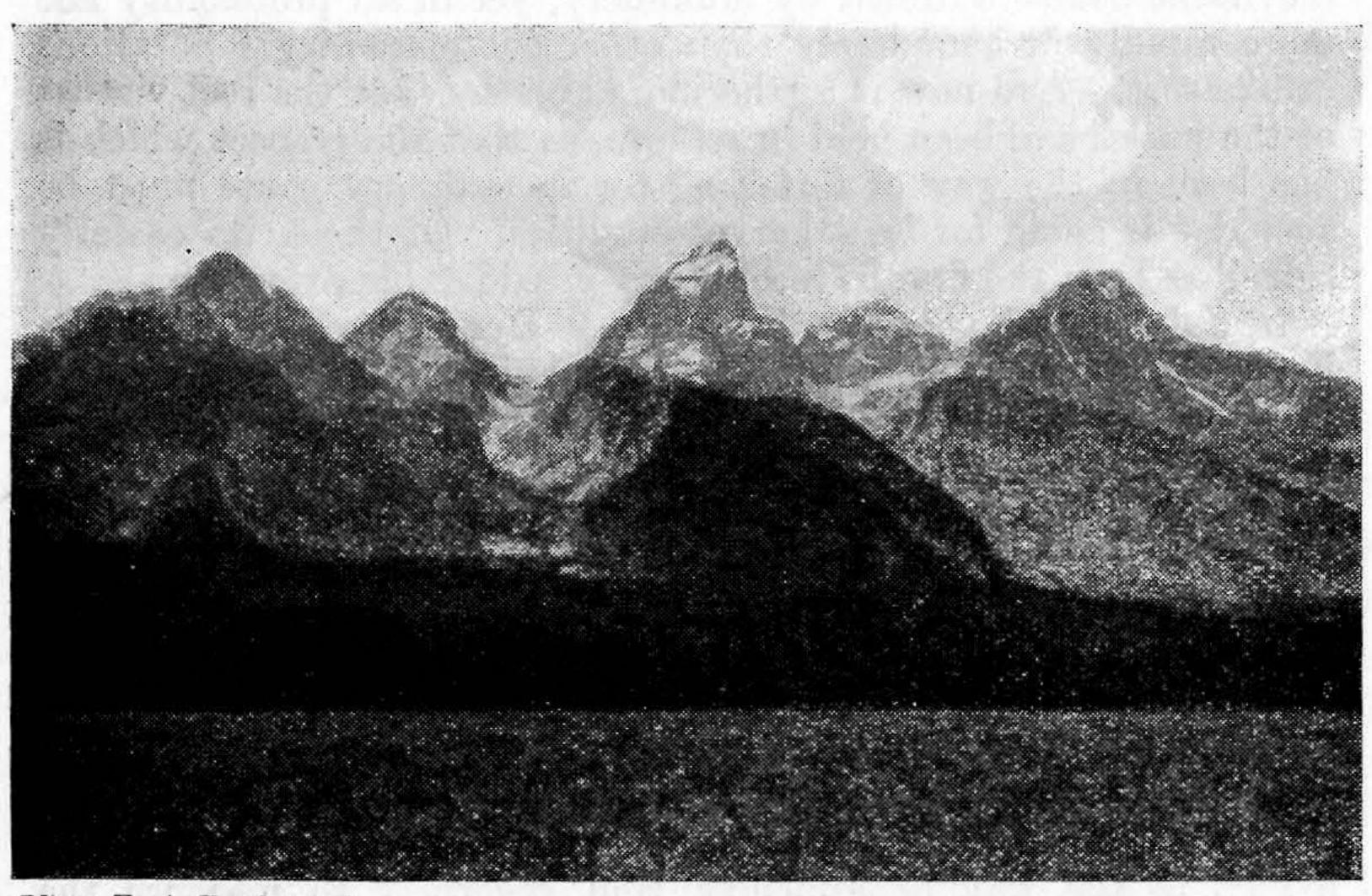
<sup>&</sup>lt;sup>1</sup> The name 'Tetons' ('breasts') was originally given to the mountains by French fur-traders of the eighteenth century who worked north-west to them from Louisiana.



Photo, L. I. Grinnell.

GRAND TETON, from somewhat N. of E.

extends southward its average elevation drops off considerably. The group as a whole is the finest mountaineering district in the United States. Others of the country's summits are higher, others again carry larger glaciers, and still others afford harder rock climbs, but there are no better American representatives of that combination of snow, ice, and good rock which have made the great peaks of the Alps the ideal of what a mountain ought to be. In February of last year (1929) the merits of the Tetons finally secured their inclusion in a new National Park, named after their chief summit, and the extension of the admirable policies of the National Park



Photo, K. A. Henderson.]

THE TETONS FROM JACKSON HOLE.
Grand Teton in centre.

Service to the region will prove of much advantage to tourists in the future.

Jenny Lake, the climbing base for the Grand Teton, in Jackson Hole, can be reached by auto-stage in several different ways: from Yellowstone Park on the north; from Lander, terminus of the Chicago and North Western Railway, via Moran on the east; and from Victor, Idaho, on the Union Pacific System, via Jackson Village on the west. (There is also a southern road, from Rock Springs, Wyoming.) We came in from the east, after ten days' climbing in the neighbouring Wind River Range, which carries the Continental Divide, and obtained our first view of the Tetons across Jackson Lake from the little town of Moran. European visitors are prone to find the mountain scenery of the American West characterless. They miss the classic Alpine landscape, with its

near views of crowding, sharply-cut peaks, its strong contrast of snowfields and forested slopes, and its detailed valley foregrounds. These things are indeed beautiful, but yet there is a certain obviousness of accentuation about them, as I suspect anyone must come to feel who sets himself to look through at one sitting the collection of photographs in some Alpine Prachtwerk. With this classicism in Nature the romantic cast of a scene such as the Tetons presented to us, seen miles away across Jackson Lake and the flat of Jackson Hole, has nothing in common. In the late afternoon light, hazy after a day of storms, sky and lake were a faint blue, and the mountains between them were but another shade of the same colour, merging softly into the blues above and below them. I had never seen such mountains. Totally unreal they seemed, a range of mirage, capable of existing only in an impressionist imagination. And if contrast were wanted, it was at hand in its most fantastic form. No two things could be more harmonious than Swiss alps and Swiss chalets, but here at our feet lay a little Western town, clapped together out of planks and breathing effort and practicality, while across in the distance floated seemingly enchanted mountains that had nothing to do with the spirit of the age and place.

packer and a cook (let the latter, A. D. Altenried, of half Swiss parentage, be at once introduced; he cared throughout for our camp, entered thoroughly into the spirit of our proceedings, and assisted us in numerous ways not strictly in his contract), and set out to establish a climbing camp within striking distance of our peak. We knew that the ordinary route started up Bradley Canyon, a deep valley running W. up to a saddle just S. of the Grand Teton, and that the usual camping place lay somewhere up this; we had as yet no notion what starting-point would prove adapted to the E. ridge. As the Bradley Canyon route was difficult for horses our packer suggested that we ascend a broad ridge to the N. of it, which bore the only real trail as yet constructed in the region, to a camping place often used by tourists visiting the Teton Glacier; we should then find ourselves between the ordinary route (to the S.) and the foot of the main E. ridge (in the Teton Glacier to the N.), and favourably situated for both. This advice, inspired as it of course was solely by consideration of the needs of a pack train, proved to be very poor indeed as regards the ordinary route,

At Jenny Lake we 2 hired riding and pack horses, engaged a

but very good as regards the E. ridge; on the whole we profited

by accepting it. Late on the afternoon of July 19, therefore, we

pitched camp at 'Amphitheatre Lake,' a striking little body of

<sup>&</sup>lt;sup>2</sup> Henry S. Hall, jun., had joined us and was with us upon our preliminary ascent of the Teton, leaving for the East however, before the climb by the E. ridge, in order to fulfil a climbing engagement in the Alps.

water practically enclosed by cliffs and precipitous slopes, at an altitude of about 9500 ft.

The next day, at the scandalously late hour of 6 (but one can by no means get away from a camp as quickly as from a wellequipped hut, and the American breakfast may not be dispatched with the promptitude of the Continental), we left for our preliminary ascent by the ordinary route.3 We had hoped, by continuing up the ridge above us, to effect a traverse to the saddle S. of the mountain without descending into Bradley Canyon, but that proved impossible, as the ridge broke off abruptly at a deep inaccessible notch above a pair of steep snow-filled couloirs. Before accepting our fate and returning to a point whence we could descend a gully into the canyon, however, we took the opportunity of inspecting the E. ridge, which now lay clearly before us to the N., across an arm of the deep-lying Teton Glacier. It was fairly clear at once that the primary difficulties of the ridge would lie in two great towers and the stretch between them.4 Both the towers, each of them several hundred feet high, were of formidable appearance, while the intervening ridge was steep and slabby. We had the gravest doubts whether we should be able to pass even the first of these great towers, and realized that it must have been at its foot that previous attempts to climb the ridge had failed.5

We now descended into Bradley Canyon, losing to our disgust some 800 ft. of elevation in so doing, and climbed W. up to the saddle S. of the peak, where we lunched (11.30–12.00). On our way N. from here, up the broad couloir just behind (W. of) the S. ridge and parallel to it, a violent thunderstorm, from which we thought it advisable to take shelter under an overhanging rock, held us up for an hour, so that we reached the 'upper saddle,'

<sup>&</sup>lt;sup>3</sup> This route has several times been described in detail. The best account is by A. R. Ellingwood in *Outdoor Life* for September 1924, pp. 181–186. *Cf.* also *A.J.* 19, 536 et seq.

<sup>&</sup>lt;sup>4</sup> See photograph facing p. 257. The upper great tower is clearly marked against the high snowfield, and indeed it appears distinctly in nearly all photographs of the Teton; the lower is to the left of and below the upper, almost in the extension of the line from the summit to the latter, and nearly the same apparent distance farther. The stretch between the towers, due to foreshortening, here appears simply as the wall or face of the upper and larger tower, but in reality it is a distinct section of ridge. The point from which the observations noted were made is shown at the extreme left centre of the picture.

<sup>&</sup>lt;sup>5</sup> On the day of our E. ridge climb a native who was apparently conversant with these earlier attempts, visiting our camp and hearing what we were about, remarked laughingly: 'Well, I'll tell you just how far they'll get—to the foot of that first big tower. Then they'll come back!'

between the main peak and a lower western summit, only at 3.30. Here we roped up and attacked the final 700 ft., where are con-

centrated all such difficulties as this route has to present.

The first of these is an exposed traverse to the N., under an overhanging rock, along the western side of the peak. (The ordinary route ascends the mountain in a spiral, running W., N., and E.) This passage, often popularly played up as a rather fearsome bit, has been christened 'The Wriggle,' on the supposition that one will effect it by lying down upon the shelf under the overhanging rock and squirming along, pushing one's pack before one. As a matter of fact, however, no such contortions proved to be necessary: a series of adequate footholds runs along the rock face a few feet below the level of the ledge, and the use of these, together with a touch upon the ledge itself for balance, made possible an easy and comfortable crossing of this brief narrow portion of the traverse.

At the end of the traverse a chimney, commencing in two arms, leads up to the right (E.). If the first arm is chosen the initial step apparently presents a difficulty: there are stories of throwing the lasso, using a human ladder, and jumping for a hold. We did not put the necessity for any of these to the test, for the second arm of the chimney, a few feet farther on, is perfectly simple. Why it has not regularly been taken, especially as its existence is sometimes

noted in the accounts, is a complete mystery to us.

Above this chimney a succession of broad ledges and other relatively easy chimneys, followed at length by broken rock, lead to the summit. (Arrival, 4.30.) Of this route as a whole the confession must be made that it is long, toilsome, and uninteresting, save for its last 700 ft. The grind up Bradley Canyon to the lower saddle, and the tedious scramble from there to the upper saddle, are devoid of enjoyment, and not compensated for by the inconsequential bits of real rock-climbing found at the top. Save for the strategic quality of the traverse, which must justly have entranced him who first discovered it, most climbers will find little to appreciate upon this route. It can scarcely be compared with the Matterhorn.<sup>6</sup>

Arrived at the summit we at once looked down to the E. at our prospective ridge. The summit itself is constituted by a crest of broken rock running N. and S.; to the E. a steep wall drops some 300 ft. to the head of a sharply inclined snowfield. We took note of a chimney, apparently climbable, which cut this wall directly toward the summit. The snowfield itself sloped away E., S.E., and S.; along its northern edge it abutted on rock precipices falling

<sup>&</sup>lt;sup>6</sup> With more justice with the Zinal-Rothhorn, as has been done by a Swiss writer in *Die Alpen* for September 1929, p. 330. (This writer is sadly in error in his information concerning the literature of our mountain, its climbing history, and the present popularity of its ascent.)

<sup>&</sup>lt;sup>7</sup> See photograph (p. 267).

thousands of feet toward the head of the glacier, and, as the slope toward the S.E. and S. continued at a high angle while that to the E. diminished, this northern edge took shape lower down as a ridge of snow—the beginning of the great E. ridge (or perhaps one should rather say, the end, above which it merged into the summit snowfield and rock wall). However, this ridge was not continuous, but broke off sheer in a face of rock; 8 down at the right 9 a small knife-edged snowy gap then led across from the side of the ridge to the upper face of the upper great tower already mentioned. (That is, the E. ridge at this point made a jog to the right, or S.) The snowfield, snow-ridge, and gap themselves would clearly present no unusual difficulties; whether we could get from the gap up to the crest of the ridge could not be determined, but the presumption seemed to be in its favour, and clearly it was proper to take a chance on the possibility. The crucial matter was obviously the working over or around the great tower to the little gap. This face of the tower appeared perpendicular and very smooth; if we were to descend it a rappel would be necessary. But the height (we estimated it later at 250 ft.) seemed too great for any rappel, while the peculiar poise of the tower taken together with the slenderness of the gap made it questionable whether one could under any such method effect a landing at the required place. Clearly it would be necessary to turn the tower. It could with improbability be turned on the S., as it there bulged out and away from the gap. Whether there were ledges that would enable us to turn it on the N. could not be ascertained at such a distance. We pointed out to each other indeed such a suggestion of one as seemed to make this possibility a fighting chance, but the general sheerness of the walls gave small reason to hope continuous ledges could be found, or that if present they would debouch just at the height of the col where we needed them. We turned away with the whole matter assuming a most problematic character in our minds.

Our descent by the ordinary route, with its final tug up out of Bradley Canyon to the ridge whereon lay our camp, was laborious indeed. We reached camp by moonlight, and agreed that the next day should be devoted to a rest, before the climb itself was attempted. This proved unexpectedly wise, as during the early afternoon of that day a series of exceptionally severe thunderstorms swept over the peak. Later on, when they had passed away, I climbed up to the N. end of our ridge, where it overlooked the Teton Glacier, to reconnoitre the beginning of our climb, as we

<sup>8</sup> Shown, in the photograph (p. 267), at the level of the upper tower and to the right of it, across the apparent snow patch.

<sup>&</sup>lt;sup>9</sup> Left, in the photograph; i.e. to the S.

<sup>&</sup>lt;sup>10</sup> This snowy gap is barely visible in the photograph. It crosses the apparent snow patch mentioned at about half its altitude. A tongue of snow at the right marks its end.

had now seen as much as we could from a distance of its middle and end.

The E. ridge splits the small Teton Glacier, out into which it lies, and then continues in the form of a high medial moraine. From the top of this moraine, at the heel of the ridge, to the base of the lower great tower, where the major difficulties would begin, was a rise of over 2000 ft., broken into two large steps. The going did not promise to be difficult, as the ridge, although slabby, was broad and not very steep in this lower portion. I observed that a course, not directly up its crest, but a little below this to the S., taking advantage of a series of grassy ledges, seemed to offer the best

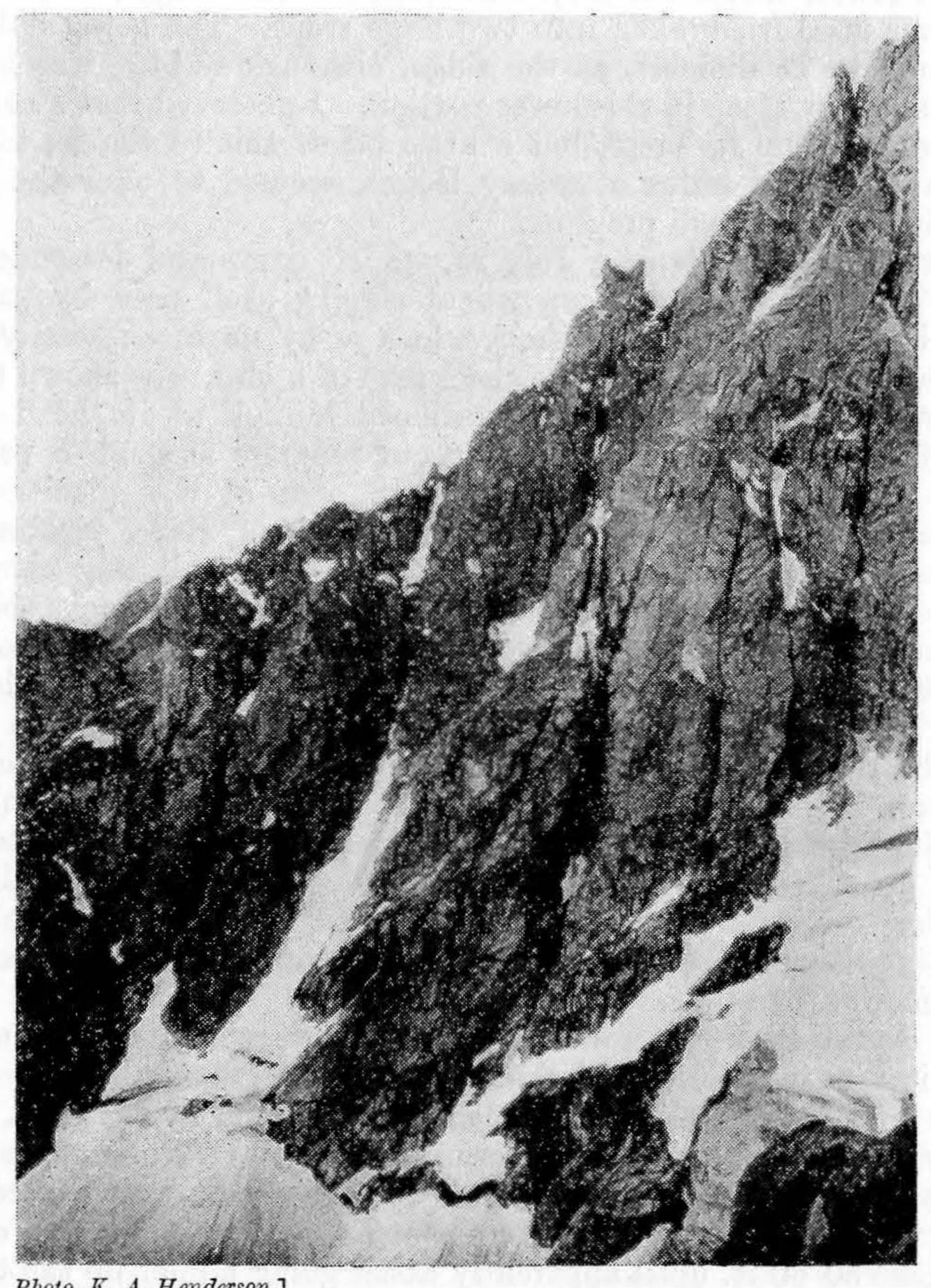
possibilities for rapid progress.

At 6 the next morning, July 22, we left camp and descended to the Teton Glacier by a convenient sloping shelf used by parties visiting this spot. 11 This shelf, which is by no means easily discovered upon what seems the sheer face of a cliff, was shown to us by Altenried, who thereupon stationed himself at its head with the friendly intention of following our progress through a pair of binoculars. We crossed the southern arm of the glacier and mounted to the top of the medial moraine. Here, yielding to immediate appearances, we at first essayed an alluring chimney that ran directly up the heel of the ridge, but, as the rocks shortly became of a difficulty which would make them too long to negotiate at this early stage of the climb, we resigned ourselves to wisdom and returned to follow the diagonal course upward below the crest of the ridge which had commended itself to observation the day before. This brought us, in a couple of hours' simple climbing, to the beginning of a series of small gendarmes leading up to the first great tower. Here (8.45) we roped, and in a delightful succession of steps passed these gendarmes, going over some and turning the remainder upon one side or the other. Thus we reached the foot of the tower.

A close view of this now occasioned no agreeable disappointment, for it was indeed most forbidding. The only possibilities—very slim ones—of direct attack seemed to be afforded by the right wall, very steep but split by a number of fissures, and a chimney, capped by a chockstone and succeeded above by a crack, which faced the ridge as we had come. Either meant an extremely exposed climb of some 50–60 ft. until apparently easier going higher up the tower was reached. Having brought along rubber soles I was delegated to examine these possibilities. Working up a subsidiary crack to the foot of the wall, I soon discovered that the distances between its fissures bore no favourable relation to the arm and leg reach of a human climber. I then tried the chimney, where on account of wetness nails proved better than rubber, but after getting up

This descent brought us somewhat below the level of our camp site. The total height of the climb was thus slightly over 4300 ft.

to and around, outside of the chockstone, saw that the crack above was a desperate proposition. I therefore descended, and we agreed that our predecessors had done precious well to leave this tower alone. In our attentions to it we had expended over an hour.



Photo, K. A. Henderson.]

E. RIDGE OF GRAND TETON FROM THE N. First tower in upper right centre; gendarme preceding second tower in extreme right.

Having been defeated in our attempt at a frontal attack, we now turned to strategy. A careful survey of the situation disclosed a narrow ledge, well down upon the ridge at our right (N.), which ran along to a corner where it disappeared from view; beyond the corner appeared a chimney of very rotten rock. We retreated along the ridge for a few yards, returning over one of the small gendarmes to a point where we could descend to this ledge by means of a short rappel.<sup>12</sup> (The rope-sling used for this rappel, cut off from a piece of lariat rope supplied us by Altenried in default of a proper reserve rope, was left behind and should mark the spot for a later party.) Following the ledge about 100 ft. to the corner, we now saw that this gave on a precipitous couloir filled with ice and hard snow. A dozen steps cut with the axe brought us across it, 13 and we proceeded to ascend carefully the short chimney of rotten rock beyond. A movement around to the right, out upon the face again, here brought us to another ledge, which was followed for some 75 ft. farther to a second and larger couloir. This last, below the point where we met it, was an awesome affair plunging directly to the head of the glacier, but above it was climbable over ice and loose rock to its rocky head, which in turn was then surmounted by a slight détour to the left to a deep cleft in the ridge beyond the first great tower. The initial difficulty was thus behind us.

From the cleft where we now stood the ridge rose toward the second great tower with a steepness and slabbiness that fully confirmed our distant impression of two days earlier. Henderson now took over the lead and gave a brilliant exhibition of slab climbing. Upon the first step, and once or twice thereafter in ticklish situations, it was advisable to steady the leader's feet. The steps were all long, and there was an absence throughout of adequate belays. This section, lasting for some 300 ft., after which the going became progressively somewhat easier for a like distance, is undoubtedly, from a technical viewpoint, the most difficult part of the climb. It would make an attempt to descend this ridge a very precarious proceeding (since the lack of belays precludes the use of the doubled rope).

We had now reached the foot of a gendarme which, with one or two others, stood as outposts of the second or upper great tower. In an attempt, first, to turn this on the right, we ascended in that direction until we could gain a view around upon that side of the ridge. It then appeared that our immediate flanking movement would not succeed, but we were able to determine our exact position and to discover, in pleased excitement, what seemed a possible key to the problem of the great tower itself. Ahead, at some distance, lay the little snowy gap, to reach which, we considered, would ensure the success of our climb. We could not espy a continuous route to it, but nearer us, along the right side of the great tower somewhat

<sup>12</sup> The steps would have been climbable in the event of a reascent.

<sup>&</sup>lt;sup>13</sup> Conditions in this couloir must vary greatly with the year and season. At times the crossing might be much harder. The most awkward bit is the swing downward and inward into the bed of the couloir from the corner where the ledge breaks off.

below the level of the gap, lay an unmistakable section of ledge, such as we had scarcely dared hope for, which promised at least the beginning of the required traverse. The problem was, how to arrive at the start of this ledge, and the question, whether it would see us safely through to the gap, or leave us in the lurch at the critical juncture.

Redescending a bit we set about turning our present gendarme on the left. This promised to go easily, and we decided that the moment was auspicious for a rest and lunch (12.30–1.00: this was our only halt during the 10 hours of the climb). Continuing, we rounded the gendarme and, at Henderson's suggestion, climbed up to and crossed the little notch between it and the next, thus returning to the N. side of the ridge. We proved to be at the right spot, for a short and not difficult descent, using one (unnecessary) rappel, brought us to the beginning of our ledge. This we then followed, passing behind a curious detached flake of rock which had obscured a complete view of the ledge from our earlier outlook, to a point where it proved to terminate before an exposed overhang.

Psychologically, this remains in our minds as the crucial moment of the climb. What—whether anything—lay above and beyond the overhang we could not see. Should no further traverse here be possible our chances of passing the great tower were very feeble. A redescent over the slabs we had come up was not to be thought of with equanimity. I shall not, therefore, forget the thrill of exultation with which, pulling up over the overhang, I cast a glance beyond and called to Henderson that the day was ours. Ahead, a veritable route à bicyclettes sloped gently up to the exact beginning

of the little snowy gap.

The little gap itself was sharp, but we found the snow in good condition. At its farther end steep but well-stepped rocks led up to the beginning of the high snow-ridge. At first we were able to keep to a narrow line of rocks at the right of this ridge, but soon we had to take to the ridge itself and almost continuous cutting became necessary. The snow varied considerably in consistency, but there were few places, especially after the ridge had steepened and merged into the general S.E. snowfield, where steps could be formed without some use of the axe. The ascent of that ridgeit represents a rise in elevation of some 600 ft.—seemed to us under the circumstances interminable. Again and again we estimated that two more rope-lengths would bring us to the summit rock wall, until after many disillusionments we gave up estimating and confined ourselves to the labour in hand. When we finally did reach the rocks, and Henderson stepped into the lead again, I had had quite enough of work for the day.

We had identified the chimney seen two days before from the summit and approached the rock wall with it as objective. A zigzag right and left now brought us into its foot. Three difficult steps followed, the second of them requiring a human ladder, and

then we moved diagonally out to the right over easy rocks to meet the summit crest a few yards N. of the summit itself. At 4 precisely we stood upon this latter. It pleased us to suppose that a shot which rang out from the valley was in response to our gesticulations, but, alas, the matter was only a coincidence, for, as it turned out later, Altenried had lost sight of us early in the climb and returned to more profitable occupations at camp.

The day was perfectly clear, nor had there been any sign of bad weather throughout its course. (Indeed, the usual Wyoming afternoon thunderstorm would be a most unwelcome concomitant of a climb by the E. ridge, as there is no shelter along any of its upper reaches.) The view from so immense a height over a level plain such as Jackson Hole has frequently been condemned as featureless: it is set equal to that from an aeroplane and its object compared in appearance to a map. To me such a view is most fascinating. Unlike that from an aeroplane it possesses a solid basis and continuous foreground which maintain the relationship between the observer and the object observed at the same time that they remove the one from the other; the observer has the curious sensation of being both of the world he contemplates and yet not of it. And surely no one can fairly liken the infinitely varied shadings of lakes, plains, and forests with the stock colours of a map.

At 4.30 we started down. Knowing the simplicity of the ordinary route we had already taken off the rope and stowed it in a rucksack, and we now literally ran down the mountain, reaching camp again, with the toilsome climb up out of Bradley Canyon included, in exactly 3 hrs. Altenried had heard our call from some distance away and hot soup was ready for us. He accepted our return from another direction as proof that we must have attained the summit, congratulated us most heartily, and remarked: 'Now when you two fellows go down I'm going with you to back up your story. No one ever hesitates to call anyone else a liar in this country, and it's well known here that that ridge can't be climbed.' We were not unprepared to believe that his witness might indeed be essential to us, but luckily our return to Jenny Lake brought us at once into contact with Forest-Ranger Smith, himself a mountaineer, and Assistant-Park-Superintendent Bruce, who accepted our account without ado. We are most grateful to them for the cordial reception they accorded us.

As for the E. ridge of the Grand Teton, while judgments formed upon a first ascent are notoriously untrustworthy, and while the proprietary interest one takes in a peak with which one has struggled inevitably colours one's valuation of everything connected with it, we hazard the estimate that the route belongs in the class of about the 'Schalligrat' and 'Z'muttgrat.' No doubt later comers will eventually reduce it to an everyday affair, but at the moment its existence and practicability should initiate a new cycle in the mountaineering importance of the Teton.