I think the man in the middle has the most enviable and irresponsible position. He will be neither foundation- nor key-stone of the majestic pile erected at the finish—a happy medium, indeed!

Again the assault had failed; but a prudent retreat is better than death with victory in your teeth.

And if the mountain taunts you and defies you to go on, then remember that you must also go back, and that everyone who comes home well has already won an honourable day.

The Ascent of the Grand Tèton.

[We are indebted for the following narrative to Mr. W. O. Owen, of Cheyenne, Wyoming, U.S.A. Whilst we are glad to publish Mr. Owen's narrative we have thought it right to print (pp. 559, 560) a letter which we have received with reference to the ascent of Messrs. Langford and Stevenson. On the points at issue between the parties we must not be considered as expressing an opinion.—Editor *A. J.*]

TRAVELLERS and tourists generally agree that there is at least one section of country in the Rocky Mountains that possesses truly Alpine features, and that such section lies immediately S. of the Yellowstone National Park, in North-Western Wyoming, U.S.A.

Here are resplendent sheets of cold blue water extending for miles along the valley of Snake River, from which rises the eastern slope of the Tèton Range, a wild and rugged spur of the Rocky Mountain system, covered to the timber line with magnificent forests of stately pines, whose upper border is gracefully trimmed with a garniture of eternal snow. Turbulent cascades and gentler waterfalls abound in the numerous cañons, whose walls rise from 2,000 ft. to 4,000 ft. above the frothy and impetuous streams at the bottom.

All the waters abound in trout, and the hunter in this locality finds his paradise. Deer, bear, elk, mountain sheep, and moose are still plentiful, and to be obtained with very little effort.

For the mountaineer there is also a fair field of sport, and if it is true that we cannot offer the Alpine glaciers, crevasses, bergschrunds, &c., it is also a fact that the rock-climber will find his cup of satisfaction overflowing when he visits the Tèton Mountains.

The Tèton Range is some eighty miles long, with an average elevation of 10,000 ft., many of the summits rising 2,000 ft. higher, and the loftiest of all, the subject of this

sketch, piercing the clouds at an altitude of 13,800 ft. above the level of the sea.

The Grand Tèton is, beyond question, the noblest and most imposing peak in the United States. It rises from the valley on the E. side with an abruptness that is simply startling. One may approach to within four miles of the summit and still be 7,200 ft. below it. From this point the crest of the peak is viewed under an angle of 20° from the horizontal, and the sight is grand beyond description. The peak extends 4,000 ft. beyond the timber line and 3,300 ft. above the line of perpetual snow, its unusual isolation and lofty reach making it the great landmark for miles around.

With the exception of the renowned Alpine peaks there are few, if any, more widely known than the 'Three Tètons.' They are visible for scores of miles in every direction, and have been particularly noticed by the hosts of tourists who annually visit the Yellowstone Park. The Grand Tèton is the northernmost one of the group, and from the Sawtooth Range, in Idaho, it can be seen two hundred miles away.

On the W. side the range rises much less abruptly, the foothills extending fully twelve miles from the peak. On the E. side there are no foothills whatever, the range rising from the valley in one unbroken, abrupt slope from 6,500 ft. to nearly 14,000 ft. above the sea.

Approaching from the W. one may reach a point on the glacier that is just a mile--horizontal measurement—from the summit and fully 5,000 ft. below it, giving a slope of about 45° from the observer to the peak's highest point; and every foot of this slope is visible from the place of observation.

Viewed from the mountaineer's standpoint the Grand Tèton has no rival in the United States, and few, if any, superiors on the North American continent. There are higher peaks in California, Mexico, and Alaska, but for difficult and dangerous climbing the Tèton is unsurpassed.

Numerous attempts have been made to scale this splendid mountain, the first, so far as records go, being that of Michaud in 1843. The height he reached is not known. In 1872 Stevenson and Langford tried it and failed, reaching a point about 400 or 500 ft. below the summit. In 1876 Professor A. D. Wilson, of the United States Geological Survey, reached the same point attained by Stevenson and Langford. Next came Thomas Cooper and party, in 1877, who reached the highest point previous to the actual ascent, stopping only 200 ft. below the top. In 1891 Dawson and Owen, accompanied by their wives, reached a point on the W. side

about 800 ft. below the summit, this being the highest notch yet reached by a woman. In 1897 Owen tried the peak again, but stopped at the point reached by Stevenson and Langford in 1872. On this occasion he attacked the mountain in five different places, but failed to reach the top, although repeatedly attaining elevations very close to 13,000 ft.

With this discomforting record before us two members of the Rocky Mountain Club—F. S. Spalding and the writer—made an assault on the peak in August 1898, the essential features of which are embodied in the following narrative.

A three-days' journey by waggon landed us in Jackson's Hole, at the E. foot of the Tèton Range, our outfitting point being Menor's Ranch, on Snake River, about 7 miles S.E. of the peak.

Taking packs from Menor's, our party of six set out over the valley of Jackson's Hole, a flat stretch of prairie, dotted here and there with cool, inviting pine groves, and cut by several mountain streams of cold, pure water, teeming with speckled trout.

The air was redolent with the breath of the pine; the wild hollyhocks and geraniums never looked prettier; and with God's own sunshine over all, and the mighty Tèton smiling upon us, there was nothing to be desired.

Four miles from Menor's we left the valley, and immediately began the ascent of the range through dense pine timber and thickets of laurel. Our packers, Petersen and Shive, had done their work well, and we made wonderful progress up the steep slope, reaching a point just below timber line early in the afternoon.

Here, in a cool cluster of firs, with the Tèton in plain view, we pitched our camp at an altitude of 9,500 ft. The party honoured me by naming our bivouac 'Camp Owen,' and at once began preparations for the ascent.

On the following morning the entire party, consisting of F. S. Spalding, Thomas Cooper, Hugh McDerment, John Shive, Frank Petersen, and the writer, headed for the peak, which lay 2½ miles N.W. of our camp. Spalding and McDerment knew of the Tèton by reputation only. The remainder of the party had an intimate acquaintance with the peak, each one of them having tried the ascent and failed—Cooper in 1877, Owen, Shive, and Petersen some twenty years later.

The boasting and predictions of success which had ever been a prominent feature of previous attempts were entirely

wanting on this occasion, for we had learned to respect this mountain, and I was pleased with the spirit of determination and quiet hopefulness which seemed to possess every member of the party.

A toilsome climb of half a mile brought us to the south wall of the great cañon extending E. and W. at the south base of the peak, and which has its origin at the middle Tèton. Through two miles of crystal atmosphere we saw every foot of the south slope of the Grand Tèton—a majestic sweep of granite 5,000 ft. long, with a slope of forty degrees!

Large patches of snow lay upon the naked granite where rifts or niches afforded a lodging, but they were by no means plentiful, the slopes being generally too steep to retain it. Not a spear of vegetation, not a handful of soil could be seen on the mountain above the cañon—nothing but cold granite and snow.

The wall of the cañon is rugged and steep, but we descended to the bottom without great difficulty, where a barometer reading gave us 9,000 ft. for the altitude. Among the rocks where not a vestige of soil could be seen we found numerous clusters of purple gentians, and also a variety of the phlox family, the latter having an odour so vile as to be unbearable. We named this odoriferous plant the skunk flower, and all agreed that the christening was most apt and appropriate. The flower is a bright blue, very small, and has five petals.

The last gentian was found at 11,500 ft., and we found no skunk flower above 12,500 ft. Flies and mosquitoes were plentiful at camp, but we observed none above 10,000 ft., these insects rarely rising above the timber line—in so far, at least, as the Rocky Mountains are concerned—and, while very little has been written on this subject, replies to numerous enquiries I have made point invariably to like conditions in other quarters of the globe.

The timber line in the Tèton Mountains is about 9,800 ft., and I have never seen mosquitoes in that region at 10,500 ft. altitude or upwards.

The ascent of the cañon's north wall was toilsome in the extreme, our path lying over either immense boulders and blocks of granite or steep slopes of small loose gravel which would slide on the slightest provocation. Constant watching to avoid flying rocks was necessary all the way up this wall, and it was with a feeling of relief that we emerged from the cañon and stood upon the snout of the glacier which heads at the saddle connecting the Grand and Middle Tètons.

Although this glacier is quite diminutive it is well defined,

and has perfect moraines, and the characteristic progressive motion. The entire region has at some time been the scene of intense glacial action, the characteristic moraines and *roches moutonnées* being in evidence on every hand.

The slope of the glacier is not steep, generally speaking, but approaching the saddle it assumes an incline of thirty-five degrees from the horizontal, and makes a very neat climb.

At ten o'clock we reached the saddle (altitude 11,700 ft.) and stood between the Grand and Middle Tètons. Turning north-east we soon entered a couloir and proceeded along the west side of the peak. There was neither ice nor snow work, the climb being a rock one in its entirety, but none the less extremely difficult and fatiguing, the slope from the saddle for a distance of 1,500 ft. being all the way from forty degrees to vertical.

At an altitude of 13,000 ft. I discovered the cairn and can left by Dawson and myself in 1891. The enclosed record was perfectly preserved, and I carried it back as a memento.

From this point the climbing is such as to permit of no trifling, and, though we encountered neither ice nor snow, it is work that no mountaineer, however experienced, will despise. Reaching the head of the couloir we observed to our left a pinnacle somewhat lower than the main summit, and upon it found the artificial enclosure described by previous explorers. It is built of slabs of granite, which is the rock composing the pinnacles, and in the bottom of it we found a deposition of disintegrated rock from 1 in. to 6 in. deep. The enclosure is about 6 ft. in diameter, is very nearly circular, and is constructed of triangular stone slabs with the apices skyward, giving to the wall a picket effect.

Its great age may be inferred from the deposit of fine dust —decomposed granite— in the bottom, there being scarcely a doubt that several hundred years have elapsed since its placement there. That it is artificial is absolutely beyond question.

Looking eastward we beheld the W. face of the peak—an unbroken granite wall, 600 ft. high, almost vertical, and about 1,000 ft. distant.

Up this wall we must go, or suffer defeat.

I could distinctly see the niche through which I had tried the ascent in 1897, but no consolation came from that. It seemed cheerless and forbidding as ever.

Descending about 200 ft. we passed over to the foot of this wall, and, after a protracted search, discovered a narrow shelf cut into the smooth granite and running northward

about 40 ft. Just where this shelf ended or what it might lead to was not discoverable, but there was no other avenue open and we proceeded to explore.

The shelf is not above 18 in. wide, is nearly level, and throughout its length extends along the solid granite wall of a cañon fully 3,000 ft. deep and almost as vertical as a plumb line.

There was but one way to pass this point, and that was by lying at full length on the stomach and simply wriggling along like a snake, using one elbow and the abdominal muscles to propel oneself. I recall the fact that my eyes were not for a moment allowed to wander into the depths of that cañon until the shelf had been passed. For a greater portion of the 40 ft. the left arm actually overhung and dangled in empty space—a gulf of air 3,000 ft. deep.

Reaching the end of the shelf we found room to stand erect, and soon discovered a crevice leading upward, which we eagerly attacked.

McDerment, having become indisposed, remained at the enclosure, while Cooper had gone but a short distance above the saddle, reducing our party to four.

The shelf here described is 600 ft. below the summit, and the wall rises with a slope of only 20 deg. from the vertical in one sweep of glassy granite.

I don't know what the 'Badminton' people will say when I assure the world that this last 600 ft. of the Tèton is probably as difficult as many of the celebrated rock climbs in the Alps; but I am constrained to say it, even at the risk of incurring their lasting displeasure. It is as neat a piece of rock work as one would wish to see, and is certainly not surpassed by anything in North America.

Having reached the head of the first crevice, we stood face to face with another, fully 160 ft. long and nearly vertical. Thanks to the ragged nature of this niche, we were able to pass it in safety, and soon had an opportunity of standing upright once more with a level granite slab under our feet.

Three hundred feet higher we left the W. face and passed round to the E. side, halting at the upper margin of the immense snow-field on the S. face of the peak. The sight was most impressive. A single step southward and one would be hurled into eternity—an unbroken leap of 3,000 ft.! The slope of the snow-field is steep almost beyond belief, and it is a mystery to me still how it retains its position, seemingly in opposition to the law of gravitation.

We were now but 100 ft. below the summit, and could see

that victory was to be our portion. Passing squarely round to the E. side, we scaled the last 50 ft. without difficulty, and at 4 P.M. stood upon the topmost rock of the Grand Tèton, where never before rested man's foot.

A picture of surpassing magnitude and grandeur spread itself around us.

Within the gigantic circle of our horizon lay 75,000 square miles of land and water. One hundred miles to the S.E. Temple Peak, in the Wind River Range, shimmered in the blue, while 200 miles to the N.W. we saw the giant peaks of Idaho—a matchless silhouette on the bluest of skies. To the N. we beheld the mountains marking the northern confines of the Yellowstone Park, and somewhat nearer could see the birthplace of three great rivers—the Missouri, the Green, and the Columbia—which take their respective ways to two oceans. To the E., and seemingly directly beneath our feet, lay the valley of Jackson's Hole—a level expanse, 10 by 70 miles, smooth as a cement floor, and cut its entire length by the majestic Snake River, every sinuosity of which could be seen for nearly a hundred miles.

We now made diligent search for possible signs of previous ascents, but found not a shadow of record. The summit of the peak is 14 ft. by 27 ft., and if the slightest attempt had ever been made to erect a monument, or to leave any other evidence of previous visits, we could not possibly have failed to discover them.

We were the first human beings on the summit of the Grand Tèton beyond the shadow of a doubt. We chiselled our names in the granite, erected the metal flag of the Rocky Mountain Club in a mound of stone, photographed the party on the very highest point, and at 5 P.M. began the descent.

The crevices through which we had worked our way to the summit had surely not improved in our absence. They seemed doubly forbidding. The slope was constantly before us, and the certainty that a single false step would launch the unfortunate to the bottom of that cañon 3,000 ft. away was anything but reassuring.

By persistent and painstaking work, however, we reached the saddle at dusk, and the greatest difficulties were disposed of, the remainder of the trip being made in inky darkness.

The large cañon was crossed without difficulty worth mentioning, but in the smaller ravines near camp we were not so fortunate. The darkness was profound, and we groped our way like a flock of lost sheep, never knowing where the

next step would land us, and frequently resorting to the rope to lower ourselves into cañons whose bottoms were an unknown quantity, and whose sides occasionally helped themselves to such of our clothing and flesh as could be taken hold of.

A few bruises and scratches, however, would cover the list of casualties, and they were entirely forgotten in the excitement of our glorious success. At 11 P.M. we reached camp, and on the following day devoted a portion of our time to a celebration befitting our achievement.

Later in the day it was decided that on the morrow another ascent should be made, to secure photographs of the upper portion of the peak, and to erect a monument on the summit that should be visible to the settlers in Jackson's Hole, and thereby verify our ascent.

Petersen, McDerment, and the writer proceeded to the enclosure with the camera, while Shive and Spalding continued to the summit, pausing occasionally to give us a view, and finally reaching the highest point, where a stone monument 6 ft. high was erected, and the national colours waved therefrom.

Two days later the banner and monument were seen by Mr. T. M. Bannon, of the United States Geological Survey, who was engaged in Government surveys in the valley, and subsequently by numerous settlers in Jackson's Hole.

Our first ascent was made August 11, 1898, the second two days later.

One week after we crossed the range on the homeward trip, and looking back could see the giant Tèton, against which our efforts had been directed for so many years. Although vanquished he looked as noble as ever; and as we rounded the Snake River range the whole group came into view, forming a picture whose beauty and grandeur may not be described.

Suddenly the mountains became flooded with sunshine, illuminating the Tèton Range from end to end, and for the last time we beheld the great white peaks glistening in silent majesty—a perpetual reminder of the infiniteness of God's creative power and of the utter insignificance of man in the great economy of Nature.