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REVIEWS.

MR. H. DIXON'S SWITZERS.*

INTELLIGENT SWISS complain with reason that, while their country is treated as the playground of all nations, little or no attention is bestowed on themselves. Mr. Dixon's professed object is to remove this grievance by laying before British ignorance an adequate account of the political and social institutions of the Alpine Republic. In the pure blaze of his own newly-acquired knowledge, Mr. Dixon has perhaps somewhat exaggerated the previous darkness. Most climbers have learnt a little more than they are here given credit for about 'the boys who tie you up in ropes.' Constant intercourse with guides who are also looked on as companions can scarcely fail to teach their employers something of the simple pleasures, the hardships, and the interests of a Swiss peasant's life.

Yet we willingly confess that our knowledge is very imperfect and fragmentary; and we were ready to turn with eagerness to any teacher ready and capable to instruct us. Our only hesitation in trusting ourselves at once to the author of 'The Switzers' arose from the recollection that on previous occasions American and Russian acquaintances had hinted to us their belief that Horace's maxim as to the making of money had been applied by Mr. Dixon to the manufacture of books. We determined, therefore, to make use of an obvious and easy test. The opening chapters are full of topographical details, and on simple matters of this sort we felt ourselves competent to play the critic. If our proffered guide proved himself at the outset able to tread without stumbling on the beaten paths of Alpine geography, we would follow him with confidence into the more difficult and less-frequented region of Swiss politics.

The results of the inquiry are amusing, if not satisfactory. In the first few pages of the book we find a mass of geographical names chiefly from the neighbourhood of the St. Gothard Pass. Catalogues of obscure peaks show that the author pretends to an intimate knowledge of at least this corner of the Alps. So great minuteness might give us a right to expect accuracy as to leading facts, such as the name of the highest mountain of the district, or the passes which traverse one of its principal watersheds. Still we were not disposed to give up Mr. Dixon for sharing the until lately common belief in the Galenstock,

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* *The Switzers.* By W. Hepworth Dixon. Hurst & Blackett.

or even for ignoring the Kreuzli, the Brunni, and the Sandgrat, in his statement that 'from Oberalp to Trons in the Vore-Rhine Valley, there is not a chamois trail across the northern heights.' Our precise geographical mind received, however, a severe strain when required to draw an imaginary line through points loosely described, as 'Six Madun and thence to Toma, Aldez, Suisen, Teufelstein,' the first a mountain, the second a lake, the third a village, the fourth undiscoverable on Dufour's map, the fifth a roadside rock. It underwent a far severer shock on finding that Mr. Dixon's pen, more powerful than Roland's sword, had hewn down two lofty ridges, one the Alpine watershed, in order to make the 'Toccia start beneath the Saashorn.' After this we learnt with comparative indifference that the Ticino no longer rises thirteen miles west of Airolo, but 'drops from Lago Sella,' beside the St. Gothard road, and that Val Blegno has taken to 'nestling in between the peaks and crests of Scopi and La Bianca.' The same magic weapon which can with so much ease remove rivers and mountains can also create them. From one of Mr. Dixon's lists of peaks we gather that two pasturages above the Gerenthal have lately lifted up their horns on high, and become mountain summits. We commend these babes of Anak breed (we have Mr. Dixon's authority for calling any mountain over 10,000 feet 'of Anak breed') to Mr. Tuckett's attention next month. They must necessarily be unconquered peaks, and we can only hope they may have grown sufficiently to afford fair sport to that excellent giant-killer.

Idle schoolboys anxious to swell their essay to the due number of lines, and at the same time to give it a false air of research, sometimes seize the nearest atlas and copy down a string of names. Mr. Dixon's Swiss topography seems to have been concocted on a somewhat similar principle. He trusted, no doubt with sufficient grounds, to the carelessness or credulity of the general public. But he must surely have forgotten that, in dedicating the volume to Mr. Forster, he was showing up his exercise to one who, as an active member of the Alpine Club, was likely to be among the first to detect any such trick. In ancient days authors' dedications seldom went wholly unrewarded. To learn by heart at least one volume of the 'Alpine Guide' is the recompense which would we think best meet Mr. Dixon's deserts, and remembering the positions which they respectively hold with regard to public education, we have some hope that Mr. Forster may have the power of bestowing it upon him. In this case, the often-asked question 'Quis custodiet ipsos custodes?' which may perhaps be translated, 'Who shall teach the school-board?' would for once meet with a satisfactory answer.

The references to mountaineering matters contained in 'The Switzers' are, fortunately, few and far between. The following extracts, referring to the Matterhorn, are stupid and pernicious nonsense: 'Now boys and girls go up that cone in sport. Two-thirds of the way from Zermatt to the peak a hut has been erected by the guides; a few years more, and what is now a lonely hut will be a pleasant populous inn.' The others we have marked are little better: 'There is a scatter of stone houses on the several roads (up Mont Blanc), one house on

the Aiguille du Gouter.' . . . 'In a hundred years the summit of Mont Blanc may be a town.'

Mr. Dixon has also a new theory about glaciers, which will certainly astonish Professor Tyndall. He thinks that the surface of the lower portion of the Rhône glacier 'has been smoothed and rounded by the noon-day heat,' and that its ice-fall has been 'jagged and broken by the midnight chill.' He pretends seriously to believe that the 'glaciers are dripping and wasting,' and the 'snow-fields melting,' before the advance of a few needy peasants and the Alpine Club. 'As nature owns her master,' he writes, 'she retires before him step by step.' 'Not long ago you found the pines and larches at Sierre, in Canton Valais, now you have to seek for them at Brieg. A vine will sprout to-day where pines would hardly cling some years ago.' These statements are, we need hardly say, directly opposed to the historical evidence offered by local archives.* But in this 'altogether novel' work, as a daily paper happily calls it, Mr. Hepworth Dixon lives and writes in a region far removed from local archives or facts of any kind.

We shut up the volume in despair. In all that concerns the physical features and topography of the Alps we find nothing but a pretence of minute knowledge coupled with a great deal of real ignorance. Into the main matter of the book it is hardly the province of the 'Alpine Journal' to accompany the author, of whose general untrustworthiness our readers are probably by this time sufficiently convinced.

THE MOUNTAIN.—BY JULES MICHELET.†

We confess that to our mind the adornment of a bright blue binding graced with the traditional gilt châlet and chamois, and the promise of numerous woodcuts, scarcely makes up for the loss which M. Michelet's prose poem inevitably suffers by being done into a foreign tongue. Between an 'illustrated work' like this and a 'book with illustrations' like Mr. Whymper's there is little distinction, but a great difference. The present volume is 'eminently fitted to lie on the drawing-room table.' But for a place on our Alpine bookshelf we should prefer the less pretentious French edition.

We shall not attempt to criticize in detail the substance of the original work, which is probably well-known to most of our readers. M. Michelet's volumes, despite their frequent extravagancies, are always inspired with fancy, genius, and a true love of nature, and there are few who will not find in them some interest or charm. In the present instance, it is some disappointment to discover that our author's *montagne* is the same, or at least does not extend higher, than the *montagne* of the Swiss peasant, and that of the inner beauties of the gla-

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* See "Denkschriften der allgemeinen schweizerischen Gesellschaft für die gesammten Naturwissenschaften, 1. Band, zweite Abtheilung, Zurich, 1833, Orell und Fussli. 1 Mémoire sur la Variation de la Température dans les Alpes de la Suisse, par M. Venetz, ingénieur en chef du Canton du Valais, rédigé en 1821."

† *The Mountain.* From the French of Michelet, with 54 Illustrations from designs by Percival Skelton. London: T. Nelson & Sons. 1872.

ciers and the upper snow-fields, of wave-like snow-crests and shining ice-falls, he has no knowledge. It is in the middle zone of the Alps, amongst the flowers and pine forests of St. Gervais, or the chestnut woods of Chiavenna, that he is thoroughly at home. More fortunate than most English travellers, he revels in the beauties of May on the shores of the Lake of Geneva, and dwells with characteristic fancy on 'the loves of the flowers,' which Nature has lavished so bountifully on the slopes of Veytaux and Villeneuve.

His nearest approach to the snow level is in the Engadine, where he and Mdme. Michelet still find their chief enjoyment amongst the flowers of the Val du Fain, or in studying with a precision and love of detail worthy of a Dutch master the interior of a Pontresina farmhouse and the life of its inmates. Despite, however, M. Michelet's somewhat unexpected sympathy with the stern mountain scenery of the Graubunden, he draws a very dismal picture of the future prospects of the valley, which, thanks to foreign princes and London doctors, is now enjoying such unexampled prosperity. The Engadine, he declares, will before long be rendered uninhabitable by the constant diminution of the forests. For our part, we put no faith in the prediction. The Engadiners are far too shrewd a race to allow their pines to perish, and, even if they do, we doubt the consequence. In other mountain regions further east, men live and prosper despite the lack of firewood and the unrestrained fury of the avalanches in narrow treeless glens quite as exposed and fully as high as the Engadine.

To his fellow travellers, M. Michelet, or perhaps his translator, is scarcely polite. Circular tourists are forcibly described as 'the noisy dregs of society.' 'Alpine Climbers' is the title of an amusing sketch, the original of which (often to be found in great distress and a new Parisian *costume de voyage* on the rocks in the neighbourhood of the Montanvert and Mauvais Pas) would not be classed under that head except in a country as yet denied the blessing of an Alpine Club. 'On this subject' the reader is told 'he should consult those who know the most—the guides who haul the climbers to the summit, who for a little money afford them the pleasure of the boast, who up to the very glaciers carry their viands, dishes, and liqueurs. They relate with what peril they guide the great drunken and terrified *marmots* in their descent, hewing out for them flights of steps, planting their feet in each secure position, and frequently only able to extricate them from their danger by literally carrying them in their arms.' M. Michelet has evidently been hoaxed by some vain boaster of the Chamouni cafés; from Almer or Anderegg he would have heard a very different account of the nature and spirit of modern mountaineering.

Both in its merits and failings, 'La Montagne' is thoroughly French. The reader must not look for a comprehensive and minutely accurate account of Alpine life, such as has been given us by the German pens of Berlepsch and Tschudi. The charm of the book is due to the unaffected love of nature, which breathes through every page, and to the happy mixture of poetical fancy and truth with which natural phenomena are described. Here and there in the English translation we perhaps notice some hasty generalisation or ingenious

epigram, resting too lightly on solid fact to be able to afford the loss of that lightness and flexibility which render the French language at once the handiest and the most dangerous of tools. But these are mere surface blemishes, and scarcely affect our judgment of the real merits of the volume.

The translator has, on the whole, performed a difficult task with considerable spirit and success. But there are some traces of haste or carelessness about his work which might be removed with advantage. The following sentence at the end of a chapter leaves a peculiarly unpleasant impression :—'We could scarcely see the glaciers, and only by a narrow angle, but their verdurous margin promised nothing reliable.' We are told that the Righi and Pilatus look down on the Lake of Geneva; that the lakes and glaciers of the Engadine contribute largely to the Rhone; mistakes for which there is no warrant in the original.

The geography of the new foot notes, which are apparently by the same hand, is equally shaky. We quote at random. 'The glaciers on the flanks of Ararat give birth to four streams, of which the Axares [*sic*] is the principal.' Now, although the snows that rest on the mountain's head are eternal, they feed no glaciers. The Araxes rises far away south of Erzeroum, and, in place of giving birth to four streams, Ararat only feeds a few unimportant rivulets, all of which fall into the Araxes. Nearer home, the writer is not more fortunate. The Dent du Midi is described as one of the most picturesque summits of the *Piedmontese* Alps, and the principal summit of the Bernina group is said to be the Piz Morteratsch.

The exquisite care Mr. Whymper has lately lavished on the drawings of his own work has somewhat spoilt us in the matter of woodcuts of Alpine scenery. But we can honestly say that the illustrations to this volume are above the average. We may point out as especially praiseworthy a very faithful drawing of Mont Blanc from some point behind the Aiguilles Rouges, miscalled 'from the Brévent,' and two small cuts representing the approach of bad weather, and the arrest of an avalanche by a pine forest. These drawings give truthful impressions of scenes familiar to most mountaineers. There is, however, one sketch entitled 'mists on the glacier,' which is of a different order, and will at once strike the educated eye as shamelessly false to nature. But even this is not so bad as a chromolithograph lately to be seen in shop-windows, and intended to represent Zermatt, in which the Vispbach is turned into a quiet English stream with reedy banks, a French grove of poplars appears in the middle distance, while a degraded pyramidal peak, without an outline in common with the mighty Matterhorn, is introduced in the background. Yet this caricature is, according to the salesman, 'very popular with the public.'

MOUNTAINEERING IN THE SIERRA NEVADA.*

The title of this volume will probably convey an altogether false notion of its contents to many English readers. The Sierra Nevada most in our minds on this side of the Atlantic is the Spanish range of that name, and we have lately been apt to fancy that we know enough about those somewhat formless and arid mountains; and that we do not care to hear any more about Granada, the Alhambra, or Spanish mules.

The Sierra for which Mr. Clarence King claims our attention proves to be the far nobler chain which forms the back-bone of North America, and divides for a distance of four hundred miles the sun-dried deserts of Nevada from the rich plains of the Sacramento and San Joachin, and the Pacific coast. One scene in this great mountain region has already attained European celebrity. Of the precipices, waterfalls, and 'big trees' of the Yosemite valley, we have had of late years descriptions enough and to spare. But the writers as a rule, however strong their passion for mountain scenery—and some of them, if judged only by their language, are passionate indeed—give no information whatever as to what lies above, and beyond, and on every side of the waterfall-draped defile. They come and go like the people who drive up to Lauterbrunnen, rave for a few moments over its dust-fall and mural cliffs, and never give a thought to what beauties may be hid in the surrounding Oberland.

The author of 'Mountaineering in the Sierra Nevada' is the exact reverse of a tourist of this class. His notes are the result of many years' rambles undertaken by him as geological member of the Government survey of California, through the length and breadth of the Sierra Nevada. His book gives an intelligible and satisfactory account of the features of these American Alps; and enables us to realise to a great extent the character of their scenery and the possibility and difficulties of mountaineering in their recesses. It is likely to suggest to many of us a new motive for a visit to America; and we shall certainly be disappointed if the Alpine Club does not secure for itself some of the still maiden summits of the Far West.

Mountaineers who have a general horror of geology, and a particular dislike to look on while their beloved peaks are dissected and labelled with hard names, need not be repelled by the branch of science to which Mr. King devotes himself. Here is his own confession: 'The paleontologist of our survey, my senior in rank and experience, had just said of me, "I believe that fellow had rather sit on a peak all day and stare at those snow mountains than find a fossil in the metamorphic sierra." Can it be? I asked myself. Has a student of geology so far forgotten his devotion to science? Am I really fallen to the level of a mere nature-lover?' Perhaps out of kindness to his readers Mr. King in his book comparatively seldom rises above the level to which he

* *Mountaineering in the Sierra Nevada.* By Clarence King. London: Sampson Low & Co. 1872

fancies himself to have fallen. His 'dry-enough' chapters will obtain the epithet from no one but their author. The whole volume is written with wonderful freshness and vigour of style, and only gains additional piquancy from the tendency occasionally shown by the author to find new verbs and substantives in order to express more tersely what he wants to say. We perhaps look too much on our language as a great instrument perfected by our fathers, which it would be sacrilege to alter. Americans, and especially residents in the Western States, deal with it as still capable of indefinite change and improvement, and do not scruple at any moment to adapt it to their needs.

The book opens with a general sketch of the Sierra Nevada, from which we can make but a few extracts. 'From latitude 35° to latitude 39° 30′ the Sierra lifts a continuous chain, the profile culminating in several groups of peaks separated by deep depressed curves or sharp notches, the summits varying from eight to fifteen thousand feet; seven to twelve thousand being the common range of passes. Near its southern extremity in San Bernardino county, the range is cleft to the base with magnificent gateways opening through it into the desert. From Walker's Pass for two hundred miles northward the sky line is more uniformly elevated, the passes averaging nine thousand feet high, the actual summit a chain of peaks from thirteen to fifteen thousand feet.' . . . 'In the north domes and cones of volcanic formation are the summit, but for about three hundred miles in the south it is a succession of sharp granite aiguilles and crags. Prevalent among the granite forms are singularly perfect conoidal domes, whose symmetrical figures, were it not for their immense size, would impress one as having an artificial finish.'

The two following quotations describe the character of the country lying on either side of the great chain, and are at the same time good specimens of Mr. King's descriptive power:—

'Spread out below us lay the desert, stark and glaring, its rigid hill-chains lying in disordered grouping in attitudes of the dead. The bare hills are cut out with sharp gorges, and over their stone skeletons scanty earth clings in folds like shrunken flesh; they are emaciated corses of once noble ranges now lifeless, outstretched as in a long sleep. Ghastly colours define them from the ashen plain in which their feet are buried. Far in the south were a procession of whirlwind columns slowly moving across the desert in spectral dimness. A white light beat down, dispelling the last trace of shadow, and above hung the burnished shield of hard pitiless sky.' Let us change the picture. 'Brown foothills, purple over their lower slopes with "fil-a-ree" blossoms, descended steeply to the plain of California, a great inland prairie sea extending for five hundred miles, mountain-locked, between the sierras and the coast hills, and now a broad arabesque surface of colours. Miles of orange-coloured flowers, cloudings of green and white, reaches of violet which looked like the shadow of a passing cloud, wandering in natural patterns over and through each other, sunny and intense along near our range, fading in the distance into pale bluish-pearl tones, and divided by long, dimly-seen rivers, whose margins were edged by belts of bright emerald green. Beyond rose three

hundred miles of Sierra, half lost in light and cloud and mist, the summit in places sharply seen against a pale, beryl sky, and again buried in warm, rolling clouds. It was a mass of strong light, soft, fathomless shadows, and dark regions of forest. However, the three belts upon its front were tolerably clear. Dusky foothills rose over the plain with a coppery-gold tone, suggesting the line of mining towns planted in its rusty ravines—a suggestion I was glad to repel, and look higher into that cool, solemn realm where the pines stand green-roofed in infinite colonnades. Lifted above the bustling industry of the plains and the melodramatic mining theatre of the foothills, it has a grand silent life of its own, refreshing to contemplate even from a hundred miles away.

'While I looked, the sun descended, shadows climbed the Sierras, casting a gloom over foothill and pine, until at last only the snow summits reflecting the evening light glowed like red lamps along the mountain wall for hundreds of miles. The rest of the Sierra became invisible. The snow burned for a moment in the violet sky, and at last went out.'

It is now time to turn to the mountaineering exploits which especially recommend the volume to our notice. By an Act of Congress the Yosemite valley has been given for ever to the State of California as a public pleasure-ground. One of Mr. King's duties was to make a survey defining the boundaries of the grant, and in the chapter headed 'Around Yosemite Walls' he gives an interesting account of the numerous scrambles which his task involved. In addition to these and other minor expeditions, he accomplished the ascent of four lofty peaks, one of them exceeding 15,000 feet in height.

The most exciting portion of the book is the account of the attack on a mountain named by the author Mount Tyndall. In May 1864, the members of the Californian survey were encamped near one of the sources of the King's River, at the western base of the chain. An eight hours' climb carried two of the party to the summit of one of the towers of the great mountain wall which rose above their heads, and which they believed to be the culminating crest and watershed of the Sierra Nevada. To their surprise they saw that, connected further to the south with the range upon which they stood by a transverse ridge, but separated immediately below them by a gulf 5,000 feet in depth, rose a group of snowy mountains, the summits of which towered from 1,200 to 1,500 feet above their heads. On their return to camp they reported the discovery to their companions, and at the same time assured them that 'they might as well attempt to get on a cloud as to try the further peak.' Such news only incited Mr. King to make the attempt. He was fortunate in possessing a thoroughly able companion in a camp servant named Cotter. Laden with provisions for a week, contained in packs weighing forty pounds apiece, the explorers set out, and reached the pass over the nearer range, about 12,000 feet in height, without serious difficulty. Hence they 'looked down into a gulf 5,000 feet deep, sinking from our feet in abrupt cliffs nearly or quite 2,000 feet, whose base plunged into a broad field of snow lying steep and smooth for a great distance, but broken near its foot by craggy steeps often a thousand feet high.'

'Rising on the other side, cliff above cliff, precipice piled upon pre-

cipice, rock over rock up against sky, towered the most gigantic mountain-wall in America, culminating in a noble pile of Gothic-finished granite and enamel-like snow. How grand and inviting looked its white form, its untrodden, unknown crest, so high and pure in the clear strong blue! I looked at it as one contemplating the purpose of his life; and for just one moment I would rather have liked to dodge that purpose'

This feeling soon passed, leaving a 'cheerful resolve to go ahead.' The position of the climbers may now be compared to that of a party standing on the Petersgrat, and looking for a way to reach the base of the Bietschhorn. After some hesitation, they determined that the cross ridge offered the least repulsive route. Impeded by their heavy knapsacks, they had a long and toilsome climb to reach its commencement, and were compelled to pass their first night on a granite shelf, below the junction of the chain they had just crossed with the transverse ridge.

Before daybreak next morning they were again on foot. At first a great snow-field was traversed towards the base of a gap in the crest, which they trusted would serve as an arch of Al Sirat to bring them to the object of their hopes. As they advanced 'the snow sloped more and more steeply up towards the crags, till by and by it became quite dangerous, causing us to cut steps with Cotter's large bowie-knife—a slow, tedious operation, requiring patience of a pretty permanent kind.' Perhaps greater experience might have taught our climbers not to trust to a granite arête for a practicable path. At any rate, after gaining the top by a severe climb, they found, as Alpine climbers would expect, that the ridge was cut into towers and pinnacles, and absolutely useless for their purpose, and that the next thing to be done was to get down again. The only prospect of reaching their goal seemed now to be by descending to some distance on the southern side of the cross ridge, the opposite to that by which they had mounted.

The three hours' work which ensued seems to have been about the most difficult Mr. King ever met with. The climbers were forced to descend a high face of smooth glacier-polished rocks. The first was let down from ledge to ledge with a lasso, which was then passed up again to the second, who hooked it round some granite knob before he attempted to follow. Their exertions were rewarded by finding that, the descent completed, the base of their mountain lay only six miles away, and with no great difficulty between them and it. A little grove of pines on its skirts offered an ideal bivouac towards which they bent their course.

On the third morning the actual ascent of the peak was commenced. Its earlier portion does not seem to have offered any more serious obstacle than the customary inconvenience of unsteady boulders. Higher up, steep iceslopes and granite cliffs were one after another encountered and vanquished. But the most desperate struggle was reserved for the last, and we must leave Mr. King to describe it in his own words. 'If Nature had intended to secure the summit from all assailants, she could not have planned her defences better; for the smooth granite wall, which rose above the snowslope, continued apparently quite round the peak, and we looked with great anxiety to see if there

was not one place where it might be climbed. It was all blank except in one place; quite near us the snow bridged across the crevice, and rose in a long point to the summit of the wall—a great icicle column frozen in the niche of the bluff, its base about ten feet wide, narrowing to two feet at the top. We climbed to the base of this spire of ice, and with the utmost care began to cut our stairway. The material was an exceedingly compacted snow, passing into clear ice as it neared the rock. We climbed the first half of it with comparative ease; after that it was almost vertical, and so thin that we did not dare to cut the footsteps deep enough to make them absolutely safe. There was a constant dread lest our ladder should break off and we be thrown either down the snowslope or into the bottom of the crevasse. At last, in order to prevent myself from falling over backwards, I was obliged to thrust my hand into the crack between the ice and the wall, and the spire became so narrow that I could do this on both sides, so that the climb was made as upon a tree, cutting mere toe-holes, and embracing the whole column of ice in my arms. At last I reached the top, and with the greatest caution wormed my body over the brink, and rolling out upon the smooth surface of the granite, looked over and watched Cotter make his climb. He came steadily up with no sense of nervousness until he got to the narrow part of the ice, and here he stopped and looked up with a forlorn face to me, but as he climbed up over the edge the broad smile came back to his face, and he asked me if it had occurred to me that we had by and by to go down again.

'We had now an easy slope to the summit, and hurried up over rocks and ice, reaching the crest at exactly twelve o'clock. I rang my hammer upon the topmost rock, we grasped hands, and I reverently named the grand peak Mount Tyndall.'

Mr. King's icestalk will no doubt try the faith of some of his readers. It would certainly be hard to find in Alpine literature the record of any 'perilous position' exactly similar to that here described. We can imagine, however, some such a rock-gully thinly coated with ice as Mr. Whitwell climbed to the Cimon della Pala, but blocked at its head by a snow corniche, of which one of the gigantic and not necessarily perpendicular icicles might prove of use to an expert mountaineer. At any rate, we think Mr. King tells us nothing of a character to disentitle him to the belief, which, unless he can be directly proved untrustworthy, every traveller has a right to claim.

Turning his eyes to the panorama, Mr. King found that Mount Tyndall was surpassed by at least two other peaks in the same range. Of the general aspect of the view we have no room to speak, but we cannot at all agree in the notion it suggested that Gothic architecture was inspired by granite forms, and that the models for early cathedrals of that order were furnished by the Alps. Mr. Swinburne by no means exaggerates the mediæval view of mountains when he makes his pilgrim describe how

> 'before us rose and fell
> White cursed hills like outer skirts of hell,
> Seen where men's eyes look through the day to night
> Like a jagged shell's lips, harsh, untunable,
> Blown in upon by devils' wrangling breath.'

And the reputed resort of semi-diabolical creatures of all sorts was about the last model an architect of the Middle Ages would have dreamt of imitating for the purpose of a sacred edifice.

When the time for descent arrived the climbers were dismayed to find that during their stay on the summit the upper half of the icicle had broken off and disappeared. This apparent misfortune led, however, to the discovery of what—as we are expressly told the rope was not called into use—must have been a comparatively easy line of descent.

The return journey proved of equal length, and was even more exciting than the earlier days of the expedition. How the travellers' boots fell to pieces; how they determined to descend into and cross the great gorge or cañon of the King's River; how, arrived at the bottom, they had to choose between scaling a perpendicular cliff and swimming an ice-cold lake; with what heroism Cotter behaved; and how, finally, the camp was regained in safety, we must leave to be learnt from the book itself.

The next feat of climbing recorded by Mr. King is the ascent (with a different companion) of the Obelisk, as its name implies, a 'spire of stone' overhanging the Yosemite. There he found one decidedly 'mauvais pas.' 'About seven feet across the open head of a cul-de-sac (a mere recess in the west face) was a vertical crack riven into the granite, not more than three feet wide, but as much as eight feet deep; in it were wedged a few loose boulders; below it opened out into space. At the head of this crack a rough crevice led up to the summit. . . . . There was no discussion; but, planting my foot on the brink, I sprang, my side brushing the rough projecting crag. While in the air I looked down, and a picture stamped itself on my brain never to be forgotten. The débris crumbled and moved. I clutched both sides of the cleft, relieving all possible weight from my feet. The rocks wedged themselves again, and I was safe.'

The ascent of Mount Shasta, a volcano about 11,000 feet in height, and situated at the northern extremity of the Sierra Nevada, was a more common-place undertaking. 'There is no reason,' we are told, 'Why any one of sound wind and limb should not, after a little mountaineering practice, be able to make the Shasta climb. The fact that two young girls have made the ascent proves it a comparatively easy one.' The circumstance of the mountain being already, in 1870, under the tutelage of a regular guide, shows that mountaineering is assuming in California the place of a recognised pursuit.

Shasta is rendered interesting mainly by the huge glaciers which encase its flanks; their lower portions are described as covered, to an extraordinary extent, with débris. Strange to say, we cannot find any mention of glaciers in the higher but more southern portions of the chain, and we are unable to determine whether any now exist there. Of notices of their past action the volume is full, and the author shares Professor Tyndall's views in assigning to them at any rate an important part in the excavation of Alpine valleys.

Mr. King's 'crowning mercy' was the ascent of the highest summit of the Sierra Nevada, named after his chief Mount Whitney, and situated

in the same ridge, and only about six miles south of Mount Tyndall. The expedition proved shorter and easier than might have been expected. The dangers were confined to the last few hundred feet, and were then of a character which a larger party, armed with the usual implements of Alpine warfare, would have regarded but lightly. On the summit they met with a surprise. 'Close beside us a small mound of rock was piled upon the peak, and solidly built into it an Indian arrow-shaft pointing due west. I hung my barometer from the mound of our Indian predecessor, nor did I grudge his hunter pride the honour of first finding that one pathway to the summit of the United States, fifteen thousand feet above two oceans.' The climbers were able to return the same evening to a settlement called 'Lone Pine,' from which they had started on the previous day.

Beside the mountaineering adventures which give it a title, the volume contains accounts of other dangers encountered by the author in the course of his wanderings. One chapter, entitled 'Kaweah's Run' —Kaweah is a favourite horse, the run an escape from two Spanish brigands, who pursued Mr. King on and off for several days—reads as if cut out of Mayne Reid, and is certainly not inferior to the original of which it reminds us.

In other parts of the book we make the acquaintance of various strange characters, drawn with much humour and vividness. 'The Newtys of Pike' strikes us as a family group of great merit. Almost as good, although slighter, are the sketches of the painter of the Yosemite valley, or, as he preferred to call himself, 'The Pacific Slope Bonheur; or of the profane but modest teamster, who, having just succeeded by sheer force of language in inducing a team of mules to drag out of a soft spot a fast-stuck waggon, checks a compliment with the reply, 'Swear, me swear?' in a tone of incredulous questioning. 'No, I can't blaspheme worth a cuss. You'd jest orter hear Peter Green. *He can exhort the impenitent mule.* I've known a ten-mule team to renounce the flesh, and haul thirty-one thousand through a foot of clay mud under one of his outpourings.'

Enough has been said to show the varied fund of information and amusement to be found in this volume. It has but one serious defect —the want of a good map, for which, as well as for illustrations of the region here described, the reader must refer to the magnificent but somewhat ponderous volumes which sum up the information collected by the Geological Survey of California.

In conclusion, we must congratulate the Americans on the possession of a chain of mountains, surpassing in vegetation, and rivalling in height and picturesqueness of form, if not in extent of glacier and snow-fields, the Swiss Alps. Human habitations have already spread to within a day's journey of their highest summits, and, at the pace at which civilisation progresses in these regions, there is no reason why the Sierra Nevada should not in a year or two become a haunt of mountain-climbers, and in a few more be frequented by hundreds of pleasure tourists. We quite sympathize with Mr. King's protest against the introduction of the accompaniments of Swiss travel—guides, porters and hotel-keepers—into this new region. Still, unless breaking one's

neck is to be held the main object of mountain-climbing, we may, without any disparagement of our author's personal prowess, venture to think that some of the rules adopted by European climbers might advantageously be introduced in the Far West. Had Mr. King's party generally consisted of four, instead of two members, he would have had far fewer hairbreadth escapes,—but he would also have written a far less exciting volume.

PROCEEDINGS OF THE ALPINE CLUB.

January 30.—Mr. W. Longman, *President, in the Chair.*

The following gentlemen were balloted for, and elected Members of the Club—viz., Lieut.-Col. G. B. Malleson; Capt. R. F. Burton; Capt. Utterson-Kelso; Messrs. A. B. Hamilton, J. Stevenson Lyle, J. Smyth Osbourne, and R. Pendlebury.

The Secretary read a letter from Mr. Moggridge, giving some particulars of a fatal accident which occurred on December 4, 1870, near Mentone, to the Rev. R. Crosse, a Member of the Club.

After some remarks by Mr. Hawker, the President expressed the regret of the Club at the occurrence, and observed that it was satisfactory that the accident was in no way the result of carelessness on the part of Mr. Crosse.

Mr. Packe submitted the accounts for the year 1871, which, after some discussion, were passed.

The President introduced to the meeting Mr. L. Coleman, the brother of Mr. E. T. Coleman, a Member, who has been for some time travelling in British Columbia. Mr. L. Coleman made some observations on the subject of the ascent of Mount Baker by his brother, and exhibited some drawings by him.

Mr. Moore read a paper entitled 'Variations on the High Level Route,' which appeared *in extenso* in our February number.

Mr. Tuckett, referring to a remark of Mr. Moore that almost every imaginable pass out of Zermatt had now been made, observed that there might be reason to hope that in consequence of the oscillations of temperature in the Alps certain passes now easy might in course of time become difficult, and quoted in support of this view a statement by Mons. Venetz, that, in the early part of the century, the Col d'Erin had been an ordinary pilgrim's route from Zermatt to Evolena.

Mr. Murray Browne, adverting to the recent very great diminution of glaciers in the Alps mentioned by Mr. Tuckett, stated that a similar diminution had taken place of late years in many of the Norwegian glaciers.