

LITERATURE.

YESTERDAY.

I see it now through bygone years,
As plainly as of yore!
Though grief and age have worn life's page,
And stained its traces o'er,
That fairy home of boyhood's time,
When the world was pure and gay,
Comes sweeping back o'er memory's track
As fresh as yesterday.

see again the well-known scene—
I tread the path anew,
Where lily, rose, and eglantine,
Commingle fragrance threw:
You cannot say I'm weak and old,
Or that my locks are gray—
I'm hale and young—I stand among
The scenes of yesterday!

Thou reverend, old, and hallowed oak,
I hail thee once again!
The stately wave thy branches gave
Is solemn now as then;
When underneath thy charmed shade
I mused the hours away,
Nor thought too bright the dreams I made
In sunny yesterday.

Thou creeping vine, that lov'st to twine
Around the cottage door,
And weave thy slender, netty arms
My chamber lattice o'er—
I've clapp'd my little hands for glee,
And thought no vine so gay
As the vine that clustered fruits for me
In childhood's yesterday!

Ye tinted flowers of varied hue,
That fringe the walks along—
Ye modest plants that hide from view
Amidst the blooming throng—
I'm bounding down your garden slope
With my long-forgot 'Hurra!'
I'm shouting loud the song of Hope
You taught me yesterday!

Alas! alas! that boyish song,
For me, is hushed and still;
The blood that danced so light along
Creeps slowly now and chill:
My sight grows dim—my limbs grow old—
The vision fades away;
Though bright it seem, 'tis but the dream
Of bygone yesterday!

TRACINGS OF THE ALPS.

(Concluded.)

We now addressed ourselves to a more particular observation of the glacier and neighbouring scenery, under the care of our guide. The Montanvert is simply a station on the west side of the long-descending hollow through which the glacier descends, and about two hundred feet above the general surface of the ice. As nothing at the place reminds one specially of winter, but, on the contrary, every bit of clear space bears herbage and wild-flowers, it is with curious feelings that we look down this rapidly-sloping valley, occupied from side to side with a still flood of white ice, to which we can see no extremity either up or down. A most startling sight it is to those who have seen nothing of the kind before; the colour a bluish-white, and the surface greatly diversified, as if the mass were composed of a vast huddle of pieces, presenting their sharp ends upwards. The breadth is here about a mile; and on the other side there is a rough face of the mountain, surmounted by two enormously lofty keaps—the Aiguille du Brocard and the Aiguille du Dru—while in some hollow parts rest great patches of ice. It is awful to sit in the quiet of the desert and hear the silence now and then broken by avalanches of stones and snow falling from those eminences. We felt much interested in catching up, amidst the confusion of still objects on the distant mountain-side, a flock of sheep driven by two or three men. So distant were they, that it was all the eye could do to make them out; yet with patient observation we could trace them moving in a faint line for a considerable way, at one place crossing a precipice which we should have thought presented no footing even for such animals. These grazing-grounds are, it seems, cut off from access for cattle by any ordinary paths, and accordingly it is necessary, at particular seasons of the year, to take the cattle thither, and to bring them back again, by crossing the glacier each time. The difficulties of this passage are said to be extraordinary, and the sight of the cows hauled by the peasantry with ropes, or moving cautiously through paths formed in the ice with hatchets, is one which no one can forget who has seen it.

Having descended the hill-side under the Montanvert, and crossed the ridge of rubbishy matter which borders the whole length of the glacier, we at length stood before that grand object itself, the blue-white wall of which seemed in some places to be as high as a house above

our heads. It was not without some difficulty that a place was found where we could conveniently ascend upon the surface of the mass. When we had done so, and gone onward a little way, I became fully sensible of the great inequality of the surface, which may be said to resemble that of the earth itself, ranges of eminences being interspersed with hollows, through which streams pour along much as they do through ordinary valleys, while here and there occur fissures and pits, into which water pours to be seen no more. Thus it is not at all a still scene in reality; but, on the contrary, we hear a continual trickling, as if the mass were rapidly melting; while a certain sustained cracking noise, and sounds as of the tumbling of pieces within internal caverns, betray the progress of destruction still more palpably. The general mass is of intense purity, and of the beautiful colour hinted at; but at many places along the surface it is charged with mud and stones, some of the latter being of huge size. These foreign matters are the spoils of the mountain, either fallen in avalanches, or worn off from the surface by the grinding action of the glaciers itself. It is their accumulation at the sides which forms the ridge just mentioned; and at the bottom there is usually a skirting, of similar matters—in the one case called a lateral, and in the other a terminal moraine. There have been various theories as to the movement of glaciers. Saussure thinking it a uniform sliding of the whole mass through the simple force of gravitation; while Messrs Charpentier and Agassiz believed it to be owing to a dilatation of the mass through the freezing of the waters which intrude into the fissures. While others went on theorising, Mr. Forbes proceeded by himself, with instruments, to make exact observations of a testing character, and quickly discovered the remarkable facts, that the glacier, like a river, moves fastest in the middle, that there is never a freezing of the intruded waters to any depth, and that it moves nearly at the same rate by night as by day, and in winter as in summer, though whatever increases its fluidity promotes its motion in some degree. From these observations, and others on the internal structure of the ice, which he published, to the discomfiture of the native philosophers, he thought himself entitled to lay down the theory, now generally embraced, that a glacier is 'an imperfect fluid, or viscous body, which is urged down slopes of a certain inclination by the mutual pressure of its parts.' It was a beautiful investigation, pursued with unabating ardour, as it has been narrated with consummate precision and eloquence. The rate of motion of glaciers of course depends in some degree on the inclination of the trough in which they lie; that of the Mer de Glace, in the lower part of its course, may be roughly estimated at an average of 500 feet per annum, which is about the third part of the rate of motion of the point of the hour-hand of a common clock. Such also is the rate at which the lower end of this glacier melts off, otherwise it could not maintain the same place, which it does with remarkable uniformity. Mr. Forbes found, at a higher point in the Mer de Glace, some fragments of a ladder which had been used forty-four years before in the expeditions of Saussure, and which in the interval had moved along 16,500 feet, being at the rate of 375 feet in the year, or a little more than a foot a day. He has hence formed a calculation which forcibly seizes the imagination. It has been mentioned that huge blocks of stone are brought down on the surface of the glaciers from the upper parts of their courses, and finally deposited in the moraine or residuum of rubbish at the bottom. In case of the Mer de Glace, twenty miles intervene between the one extremity of its course and the other. A block may therefore be only now laid down in its final rest at the foot of the glacier, which began its onward course so long ago as the reign of Charles I.*

An inevitable result of the motion of a glacier is the wearing of its trough into a state of smoothness. Every projection is softened and rounded away. Even small hollows experience the attrition, and become in time perfectly polished. At the same time, little stones which have melted their way through the mass till they become set in the downward face, like the glazier's diamond in its frame of wood, scratch the smooth surfaces. Thus a part of a hill where a glacier moves, becomes sensibly distinguished from all other parts. I have already mentioned, as a result of this mechanical procedure, that the water which flows from the extremities of glaciers is turbid through a charge of impalpable dust which has been worn away from the mountains—exactly as a grinding-stone soils the water in which it moves.

After spending some time upon the ice, and examining, as well as I could, its many curious phenomena, I returned to the bordering ridge, where we were shown a natural cave formed by a huge slab in connection with other migratory blocks. Over the entrance were inscribed the words, 'POCOCK AND WYNDHAM, 1741,' and we were told that it had actually afforded shelter to these travellers when they were preparing that account of Mont Blanc which first attracted the attention of Europe to its wonders. Some of our fellow-visitors now prepared to set out on excursions into the farther recesses of the mountain, which are admitted to be well worthy of attention from young and active men, and, under good guidance, free from any serious danger. I

* See 'Travels Through the Alps of Savoy and other parts of the Pennine Chain, &c.' By James D. Forbes, F. R. S., &c. 1843.

was forced, however, to content myself with what I had seen, and accordingly commenced the descent towards Chamouni, which our party easily reached before dinner.

Next forenoon, under the care of Pierre Cachat, whose gentle and obliging manners won my regard in a degree not known in similar relations in this country, I devoted a few hours to the examination of some other marvels of the glacial world. It is always an interesting part of the examination of a glacier to see its lower extremity, in the centre of which there is usually a deep vault, out of which flow the pale waters arising from the melting of the ice. In the case of the Mer de Glace, this stream is large enough to bear a distinct name—the Arveiron—though it quickly pours itself into the main stream of the valley. The moraine is another feature here worthy of attention. It lies at the distance of a pistol-shot from the actual present extremity of the glacier, the ice having shrunk back so far within the last few years. A hamlet nestles almost close under it, the inhabitants of which were threatened with the destruction of their houses in 1820, in consequence of the glacier having that year become unusually elongated, so as to throw the moraine almost upon them. This vacillation in the extent of glaciers, to whatever cause it is owing, has a narrow range; but there are memorials of the range once having been much greater. The valley of the Arve, though several glaciers descend into its left side, has now no glacier itself. It is remarkable, however, that just a little way above the point at which it receives the Mer de Glace there is an ancient though broken-down moraine crossing it, showing that at one time a glacier occupied the main valley down to this point. A mile further up there is another such formation, the memorial of a later termination of the same glacier. There cannot be a doubt of these mounds having been moraines, for they are composed of the usual mixture of glacier spoils, including huge angular blocks. They of course record two distinct stages in a change from an ancient state of things to the present, though whether this change was merely one of temperature, or of some other conditions affecting the amplitude of glaciers, it would be difficult to say. It is important to observe that a side glacier—the Glacier D'Argentiere—comes in about a mile above the first of the two mounds, and another side glacier—the Glacier de la Tour—about the same distance above the second: marks of the diminution of the ice in the two cases respectively. Between the presently-forming moraines of these side glaciers and the ancient moraines in the principal valley, there is no trace of lesser or more imperfect deposits of the kind, so that we may infer there having been no intermediate stages of change. Two changes alone had taken place, and they took place at once. It is interesting, however, to observe that the space in each case left vacant had for some time been the seat of a lake, in consequence of the moraine forming a dam across the valley. The traces of this are particularly clear in the space above the lower ancient moraine. We first see the moraine itself—and it cannot be much less than a hundred and fifty feet high—cut through for the passage of the river, the bed of which is still full of its vast blocks, while many others have been scattered along the vale towards Chamouni. Then, looking within the barrier, we readily perceive a range of terraces, three in number, rising above each other along the sides of the valley, each being the memorial of a certain level of the ancient waters, and the whole thus implying that the barrier had broken down at three stages, before the river had been allowed to flow freely through. It is worthy of notice that the uppermost terrace is somewhat above the general level of that part of the ancient moraine which distinctly projects across the valley, from which it may be inferred that some portion of the general elevation of that rampart was worn away before the lake experienced its first great subsidence. This group of terraces becomes the more striking, in as far as nothing of the kind can be traced along the sides of the valley for many miles downward. They therefore stand out very clearly as the proof of a lake having once been produced in this place by what we may call the general glacier of the valley of the Arve.

I had on this occasion a pleasant excursion over lofty hills, and alongside of profound ravines, to Martigny in the valley of the Rhone. This valley is composed of lofty ranges of half-naked hills, with a smooth alluvial floor between, the whole of which is more or less liable to be overflowed. The plain slopes with the fall of the river, and is no doubt formed by it. With the interruption of a narrow space at St. Maurice, it continues all the way to the Lake of Geneva. In my rambles about this district, I nowhere saw anything more remarkable than what are called the *Blocks of Monthey*, a natural curiosity occurring about two miles below St. Maurice, and probably ten above the lake. Lying on the plain itself, the village of Monthey is backed by a mountain which somewhat projects into the valley, and on the face of this eminence, perhaps from two to three hundred feet above the village, there is a belt of enormous blocks of granite extending along for upwards of a mile—a phenomenon almost unique in the country, and apparently the theme of much rustic wonder. These blocks are of all sizes up to the bulk of a pretty large house, some detached, some resting against each other, some curiously poised on their angles, so as to afford shelter for shepherds and flocks underneath them. One is actually so large, that a small house surrounded