

that surrounds it. After running about a score of meters, the little stream empties itself into a pool, the water in which glistens with the same fresh and glorious tints as the foliage of the young birches in spring. Then, passing out of the pool at its other end, the streamlet, after traversing yet a second pool, pours itself in a foaming cascade over the brink of the ice, and so seeks the river below. On every side we heard the splashing of these tiny waterfalls, and our ears were filled with their never-ceasing murmur. The ice was thawing rapidly and without ceasing, being attacked as it was at one and the same time by the relative mildness of the summer airs, the rain, and the river. Often the entire glen would echo again and again, as an overhanging eave, eaten through by one of these insidious little streamlets, broke off and tumbled down *en bloc*. And in those parts where the river did not directly brush against the face of the ice big pieces of it, which had in this way snapped off, were heaped up together. But when they fell into shallow water, they were soon destroyed, and when they dropped into deep water, they were quickly swept away by the current.

In consequence of this lively activity, it would be fair to suppose that the bench of ice which we saw on the 21st July would, during what remained of the summer, that is by the end of September, diminish very considerably in extent. It is however in the highest degree unlikely that this solid bank of 2 m. of ice, indeed lower down it was even 3 m. thick, is built up in the course of a single winter; it is rather the result of several winters' frosts. I infer therefore that even in September a very considerable portion of the ice would remain, more especially those parts on the right side of the glen which are almost constantly in the shade. When the river freezes in the autumn and becomes entirely ice-bound, and fresh layers of descending water freeze on the top of the first ice-sheet, — when in a word the bottom of the glen is during the cold season again filled with its own ice, those portions of the ice-bench that still survive become gradually entombed in the new ice-sheet, and so form an integral part of it; and when at length the newly formed ice reaches the same level and the same thickness as the old ice, then, but not until then, does the last-named increase in thickness and in height, and finally the whole forms one single connected, compact mass. During the whole of the winter this mass will go on growing constantly bigger, and will not reach its maximum until well on in the spring, when the amount that freezes during the night is melted again during the following day. After that the thaw will gradually win the upper hand, the glacier stream will gather strength daily, and begin to attack the middle of the ice-sheet both from above and from below, until at last it forces a free passage through it. That accomplished, the stream will flow on between its long walls of ice, which go on decreasing all summer in the way I have described.

I have no doubt that in the autumn, when the ice has still further decreased in extent, and when the volume of the glacier-stream has seriously shrunk, it would be possible to travel down this glen; possibly also it could be done in the winter, when one could march the whole way on the ice. With regard to the volume of the glacier-stream, it varies of course, not only during the course of the 24 hours, but also from day to day. On the 21st July it was clearly much smaller than it *can* be during the summer, for the water was virtually clear; whereas, seeing that