

them of the usual fantastic shapes. Above, the glaciers were covered with snow, which, as one looked higher and higher, was seen to gradually obliterate the crevasses, and assume the appearance of a *névé*. The extent of glacier free from snow was very small; the region in which thawing can take place to any considerable extent being confined to a range not far above sea-level. Here and there were to be seen, on the surface of the glacier, the characteristic deep, vertical, pipe-like holes full of water, which were lined by concentric layers of ice, composed of prisms disposed radially to the centres of the holes and produced by successive night-frosts. Cones of ice covered with sand, and appearing as if composed of sand alone, but astonishing one by their hard and resistant nature when struck with a stick, were also to be seen on the glacier. I have seen closely similar cones in the Tyrol; and, when a tyro at alpine climbing, have jarred my hand in attempting to thrust my alpenstock into them. Here the sand was black and volcanic. Small table-stones were not uncommon upon the glacier, and, in fact, all the phenomena caused by thawing from the action of direct radiant heat were present. The usual narrow longitudinal lines or cracks caused by the shearing of the ice in its differential motion were present, and gave evidence of the grinding together of the closely opposed surfaces forming them. The dirt and stones on the surface of the ice were, as is commonly the case, more abundant towards the termination of the glacier and the moraine, but they were not so abundant as usual, and there were no large stones amongst them, nor were such to be seen in the moraine.

“The harpooneer of the ‘Emma Jane,’ the whaling schooner with which we fell in at Kerguelen Island, told me that he had always wondered where the stones on the ice came from at all; and no wonder, for Big Ben is generally hidden from view, and the glaciers seem to have nothing above from which the stones might come. Most of the stones, no doubt, reach the surface and see the light only when they are approaching the bottom of the glacier. The terminal moraine showed the ordinary irregular, conical heaping, and marks of recent motion of the stones and earth composing it from the thawing of the ice supporting them, and a small stream running from the glacier-bed cut its way to the sea through a short arched tunnel in the ice, as so commonly occurs elsewhere. A small cascade poured out of the ice-cliff on to the sea-shore from an aperture about half-way up it. All the moraines showed evidence of the present shrinking of the glaciers.

“The view along the shore of the successive terminations of the glaciers was very fine. I had never before seen a coast-line composed of cliffs and headlands of ice. None of the glaciers came actually down into the sea, but the bases of their cliffs rested on the sandy beach, and were only just washed by the waves at high water, or during gales of wind. The lateral moraines were of the usual form, with sharp-ridged crests and natural slopes on either side, forming lines of separation between the contiguous glaciers. They were somewhat serpentine in course, and two of them were seen to occur immediately above points where the glaciers on either hand were separated by masses of rock *in situ*, which masses showed out between the ice-cliffs on the shore and had the ends of the moraines resting on them. A stretch of perfectly level black sand about half a mile in width forms the head of the bay, and intervenes between the glaciers and a promontory of rocky rising land stretching out northwards and westwards, and forming the other side of the bay, and on the smooth sandy beach bounding this plain we landed. The surf was not heavy, but we had to drag the boat up at once. In this we were helped by six wild-looking sealers, who had made their appearance on the rocks as soon as the ship entered the bay, with their rifles in their hands, and had gazed on us with astonishment. The boss said, as we landed, he ‘guessed we were out of our reckoning.’ They evidently thought no one could have come to Heard Island on purpose who was not in the sealing business. The sandy plain