

reefed topsails (waiting for finer weather), showed the velocity of the wind to be 38 miles per hour, the force registered being 7 to 9, 39 miles per hour when the force registered was 8, and 30 miles per hour when the force was registered as being 6 to 7. On the 27th April the anemometer showed the velocity of the wind to be 21 miles per hour, the force of the wind being registered as 5.

On the 8th May the ship dredged in 51 fathoms on the Le Havre Bank off the coast of Nova Scotia, and a large number of Cod-fish were caught by hand lines. At 5.10 A.M. on the 9th the land about Sambro Island was sighted, and the Challenger steamed in for Halifax Harbour. The weather was quite calm, and the mirage so great that it was difficult to distinguish the land, so much was it distorted. It was noticed that the new lighthouse at Chebucto was placed on the summit of the hill over the coast—a questionable advantage in a port so subject to fogs as Halifax. At noon the vessel was lashed alongside the dockyard wharf in the harbour.

#### HALIFAX, NOVA SCOTIA.

The ship remained at Halifax from the 9th to the 19th May. On the 15th, at 11 P.M., the sky was brilliantly illuminated by an aurora borealis, stretching from north to east, which shot up rays of light to an altitude of 30°. Numerous excursions were made by the naturalists and officers into the surrounding country.

Sir C. Wyville Thomson thus describes the glaciated rocks near Halifax:—"We went with the photographer to 'The Point,' a little way out of the town, where there is a very astonishing exhibition of the action of ice. There is a round tower at the top of 'The Point,' mounting a few cannon, with a guard of soldiers, and this tower stands in the middle of an area of one or two acres, where the rock, a highly altered Silurian schist, is perfectly bare and polished. The undulations and contortions in the foliations of the schist are seen in section on the polished surface; and traversing these sinuous markings there is a wonderful system of parallel ruling in grooves of greater or less depth, cut into the stone by boulders and fragments of rock borne by the ice-cap in its slow progress over it" (see Pl. I.).

#### HALIFAX TO BERMUDA.

On the 19th May, at 5 P.M., the Expedition left Halifax for Bermuda, and fine weather was experienced on the passage, the wind on one occasion only exceeding a force of 5, viz., on the 24th and 25th, on which days a moderate gale was experienced from the S.W., lasting 26 hours.

The phenomenon most noticeable in the section from Halifax to Bermuda was the marked variation in the temperature of the surface water. On leaving Halifax the surface temperature was 39°, and it rose gradually as the ship proceeded to the south-