

mercial companies, continued to push forward the work of Arctic exploration; so that the additions to geographical knowledge included Hulsøn's Strait and Bay, Davis' Strait, Baffin Bay, as well as the North Atlantic from Greenland to Nova Zembla.

The next hundred years were spent in settling the ownership of the discovered lands and in reaping the profits of the different industries established, rather than in prosecuting the discovery of either the north-east or the north west passage.

In the beginning of our own century, however, the interest in Arctic exploration was revived; for in 1818 a reward of £20,000 was offered by the English government for making the north-west passage and of £5,000 for reaching  $89^{\circ}$  north latitude. Judging by this it would seem that it was then considered an easier task to reach the  $89^{\text{th}}$  parallel of latitude than to round North America; but the north-west passage has long since been discovered, yet the highest latitude so far attained is  $83^{\circ} 24'$ . As a consequence of the renewed interest, several expeditions were sent out under Ross, Parry, and Franklin, all of whom afterwards signalized themselves by their great achievements in Arctic exploration. Parry in 1820 sailed from Baffin Bay to the west into Lancaster Sound, where, being stopped by the ice, he successfully passed the winter on Melville Island. This was the most westerly point so far attained; and, in fact, had Parry been able to pass through the strait which lay before him, he would have entered upon the open sea and have easily reached Behring Sea. But the very obstacle which impeded him, afterwards brought disaster to many an Arctic expedition. For on the American side of the Arctic Ocean, the only openings for the tremendous fields of ice constantly drifting southward from the pole, are those of Lancaster and Smith's Sounds. Both are too narrow and shallow to allow the vast floes to pass, so the ice is jammed between the islands and piled together in vast irregular masses. In this way the channels are almost continually blocked, and navigation is rendered very difficult and dangerous, for when a vessel is caught in the ice nothing can save the ship itself, and the only means of escape for the crew,

is to trust to the ice and endeavor to reach the coast. After his return to England Parry undertook another expedition, but failed to accomplish anything further in regard to the north west passage. Finding it useless to attempt to proceed further to the west, he turned his attention toward the pole, and proceeded by way of Spitzbergen, in the North Atlantic. Leaving his ships there he took to the moving ice, and attempted to reach the pole in sledge-boats. He succeeded in attaining the high latitude of  $82^{\circ} 45'$ , but his attempt proved that it is useless to trust to the drifting ice in polar exploration.

Captain John Ross, a contemporary of Parry, whilst on a voyage in 1829 to the north-western seas, located the north magnetic pole in latitude  $70^{\circ}$  N. and longitude  $96^{\circ}$  W. The magnetic needle in the northern hemisphere points to the magnetic pole, and consequently for all places east of the  $96^{\text{th}}$  meridian the needle will deviate west if true north; and for all positions west of it the needle will deviate to the east. Another interesting feature about the magnetic pole is its scientific bearing, for it is the centre of the great auroral displays so frequent in the far north. The monotony of the long winter darkness, which lasts for more than four months, is broken by this beautiful aerial phenomenon occurring here in all its grandeur.

The northern lights have their centre at the magnetic pole, and hence it is generally believed that they are connected with electricity. Directly over the pole a crimson arch is formed and bright rays shoot out from it covering the sky in all directions with an ever changing sheet of flame. For miles around the arch can be seen, and the position of the magnetic pole located. One of the chief scientific objects of northern voyages is to determine clearly the cause of these brilliant displays, and thereby to shed light on the real nature of magnetism and its phenomena.

After Ross several navigators were sent out from England, but it was not until Sir John Franklin's famous voyage that anything of interest or advantage occurred. Franklin had been appointed Governor of Tasmania in recognition of his great services in the exploration of Arctic America. At the end of his term of office he was