

The open spaces, the lanes, and the rifts in the ice are, of course, produced, like the pressure and packing, by the shifting winds and the tidal currents that set the ice drifting first in one direction, then in another. And they best prove, perhaps, how the surface of the Polar Sea must be considered as one continuous mass of ice-floes in constant motion, now frozen together, now torn apart, or crushed against each other.

During the whole of our drift I paid great attention to this ice, not only with respect to its motion, but to its formation and growth as well. In the Introduction of this book I have pointed out that, even should the ice pass year after year in the cold Polar Sea, it could not by mere freezing attain more than a certain thickness. From measurements that were constantly being made, it appeared that the ice which was formed during the autumn in October or November continued to increase in size during the whole of the winter and out into the spring, but more slowly the thicker it became. On April 10th it was about 2.31 metres; April 21st, 2.41 metres; May 5th, 2.45 metres; May 31st, 2.52 metres; June 9th, 2.58 metres. It was thus continually increasing in bulk, notwithstanding that the snow now melted quickly on the surface, and large pools of fresh water were formed on the floes. On June 20th the thickness was the same, although the melting on the surface had now increased considerably. On July 4th the thickness was 2.57 metres. On July 10th I was amazed