

to find that the ice had increased to 2.76 metres, notwithstanding that it would now diminish several centimetres daily from surface melting. I bored in many places, but found it everywhere the same—a thin, somewhat loose ice mass lay under the old floe. I first thought it was a thin ice-floe that had got pushed under, but subsequently discovered that it was actually a new formation of fresh-water ice on the lower side of the old ice, due to the layer of fresh water of about 9 feet 9 inches (3 metres) in depth, formed by the melting of the snow on the ice. Owing to its lightness this warm fresh water floated on the salt sea-water, which was at a temperature of about -1.5° C. on its surface. Thus by contact with the colder sea-water the fresh water became cooler, and so a thick crust of ice was formed on the fresh water, where it came in contact with the salt water lying underneath it. It was this ice crust, then, that augmented the thickness of the ice on its under side. Later on in the summer, however, the ice diminished somewhat, owing to melting on the surface. On July 23d the old ice was only 2.33 metres, and with the newly formed layer 2.49 metres. On August 10th the thickness of the old ice had decreased to 1.94 metres, and together the aggregate thickness to 3.17 metres. On August 22d the old ice was 1.86 metres, and the aggregate thickness 3.06 metres. On September 3d the aggregate thickness was 2.02 metres, and on September 30th 1.98 metres. On October 3d it was the same; the thickness of the old ice was