

Upon such occasions the water at this point is dammed up to such a height as to change its course, and run into the Ottawa, at the rate of some four or five miles per hour. From thence it eventually finds its way back into the St. Lawrence by the rapids of St. Anne's (celebrated by Moore in the "Canadian Boat Song"), after performing a circuit of some ten or twelve miles. The accumulation of ice continues, probably for several weeks, till the river is quite full, and so thickened as to make the current sluggish and cause a general swelling of the waters. The pieces, too, become frozen together, and form large masses, which by grounding, and diminishing the sectional area of the river, cause the waters to rise still more (there being always the same quantity of water coming over the rapids). Then the large masses float and move further down the river, where, uniting with accumulations previously grounded, they offer such an obstruction to the semi-fluid waters that the channels become quite choked, and what is called a "jamb" takes place.

The surface ice, arrested in its progress, packs into all sorts of imaginable shapes; and, if the cold is very intense, a crust is soon formed, and the river becomes frozen over till many square miles of surface packed ice is formed. As the water rises, the jamb against which this field rests, if not of sufficient strength to hold it in place, gives way; when the whole river, after it is thus frozen into one immense sheet, moves *en masse* down stream, causing the "shovings" so much dreaded by the people of Montreal. The edges of the huge field moving irresistibly onwards, plough into the banks of the river, in some instances to a depth of several feet, carrying away everything within reach. In places the ice packs to a height of twenty or thirty feet, and goes grinding and crushing onwards till another jamb takes place, which, aided by the grounded masses of packed ice upon the shoals and shores, offers sufficient resistance to arrest in its progress the partially broken up field.

As the winter advances and the cold increases, the field of packed ice becomes stronger, and as the lakes above become frozen over, the ice from thence, which had hitherto tended so much to choke the channel, ceases to come down, and the water in the river gradually subsides, till it assumes its ordinary winter level, some twelve feet above its height in summer. The "Ice Bridge" *i.e.*, the complete and solid condition of the ice in the river, now becomes permanently formed for the winter, and this generally takes place about the first or second week in January. The thickest Virgin Ice seldom exceeds three feet. Upon the clear blue waters of the St. Lawrence it is perfectly transparent.

By the middle of March the sun becomes very powerful at mid-day, which, with