

essarily comparatively shallow, and are the only places, after all other water is frozen over, where "anchored" ice is formed and found. This differs from lake ice in that the latter melts where it freezes, while anchor ice, when compelled by milder weather to let go its hold upon the bottom, rises, and is immediately drawn under the fixed ice below, and does not dissolve until the river breaks up in the spring. The latent heat of water, disengaged in freezing,—which process occurs so frequently during the five months of winter,—is imparted to the atmosphere, but is not again absorbed by melting ice, as would be the case in lakes, or in deep sluggish rivers.

Again, radiation is supposed to play an important part in "anchoring" the floating particles of ice to the river bottom, which is said to be cooled so rapidly by the ice laden current above it as to become frozen, and then begin to attract the passing ice needles, and fix them to its bed.

If mother earth, in mid-winter, contributes any of her impounded heat to the outer atmosphere, these almost innumerable unfrozen spaces certainly offer great facilities for giving vent to her suppressed emotions.

WATER POWER.

From the Straits of Belle Isle to Montreal, and thence ascending the Ottawa, the tributaries of the St. Lawrence and of the Ottawa descend, through the Laurentian region, from elevations of 1,800 to 1,000 feet above tide, and debouche within a few miles of each other except immediately about the Saguenay. In many cases they bring their principal cataracts very near their outfall, notably in the case of the famous Falls of Montmorency, which, leaping directly into the St. Lawrence from a height of 250 feet, are utilized to light the streets and drive the tram cars of Quebec.

Somewhat similar conditions exist on the south shore of the St. Lawrence until the Richelieu river (the outlet of Lake Champlain) is reached, where at Chambly, water power is about to be used to send the electric current into Montreal in competition with steam and a similar water power from the Lachine Rapids.

The divide between the St. Lawrence and the Ottawa is studded with lakes, west of the Rideau Canal, a principal outlet for which,—on the south,—is the River Trent, discharging into the Bay of Quinte, with large mills and much undeveloped water power at its mouth: and on the north, some half a dozen important tributaries discharging into the Ottawa.