float off so as either to drop these in deeper water or to strand them on some other part of the shore.

This kind of transport takes place on a great scale on the St. Lawrence. The islets of bowlder-clay and solid rock are fringed with blocks which have been stranded by ice and which are ready to be again inclosed, and floated off further down stream. Should a gale arise during the breaking up of the frost, vast piles of ice, with mingled gravel and bowlders, may be driven ashore and pushed up the beach; even blocks of stone of considerable size are sometimes forced to a height of several yards, tearing up the soil on their way, and helping to form a bank above the water-level. In the same river, great destruction of banks has been caused by rafts of ice, and particularly of anchor-ice. Crab Island, for example, which was about an acre and a half in extent at the beginning of this century, has entirely disappeared, its place being indicated merely by a strong ripple of the water, which is every year getting deeper over the site.[217] Other islands have also been destroyed. Great damage is frequently done to quays and bridges in the same region, by masses of river-ice driven against them on the arrival of spring. Reference has already been made to the increased power of transport and erosion acquired by frozen rivers, and especially when, as in Siberia, their ice breaks up in the higher parts of their courses, before it gives way in the lower (p. 647).

Hail, the formation of which is not yet well understood,[218] falls chiefly in summer and during thunderstorms. When the pellets of ice are frozen together so as to reach the ground in lumps as large as a pigeon's egg, or larger, great damage is often done to cattle, flying birds, and vegetation. Trees have their leaves and fruit torn off, and farm crops are beaten down.

Snow.—In those parts of the earth's surface where, either from geographical position or from elevation into the upper

[217] Bleasdell, Q. J. Geol. Soc. xxvi. p. 669; xxviii. p. 292.

[218] For an account of the different theories proposed to account for hail, see Prof. Viguier, Assoc. Française, 1879, p. 543; 1880, p. 436.