

A Science Service Feature

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? WHY THE WEATHER ? Mailed October 30, 1935

FRAZIL ICE

By Charles Fitzhugh Talman
Authority on Meteorology

Prof. Howard T. Barnes, of McGill University, in his book on "Ice Engineering", devotes much space to the subject of frazil ice and its effects on stream flow, with special reference to the St. Lawrence.

The term "frazil" is a corruption of the French "fraisil", meaning cinders, and is applied to fine spicular ice found in flowing streams. Similar ice in sea water is called "lolly". Frazil forms in cold weather where a stream flows so rapidly that a sheet of ice cannot form on the surface. The water containing it has the appearance of being loaded with sand. The particles of frazil are found not only at the surface but throughout the body of the river.

Frazil forms in vast quantities in the Lachine Rapids, above Montreal, and is carried downstreams under the surface ice covering the quieter part of the river. The crystals become attached to the under side of the surface ice and gradually build down, sometimes all the way to the bottom. In one case a layer of frazil was found to be 90 feet thick.

When the river under the surface ice becomes choked with frazil the water backs up, resulting in the winter floods with which Montrealers are too familiar.

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2101 Constitution Ave.
Washington, D. C.