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A Science Service Feature

? WHY THE WEATHER ?

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ANCHOR ICE IN RUSSIA

Newspaper reports that the rivers of Alaska were freezing upside down - i.e., from the bottom upward - created widespread interest one autumn a few years ago, though the process in question - the formation of "anchor ice" - is a very common one, even in the United States. In our latitudes such ice forms when the bottom of a stream or other body of water becomes very cold on account of the nocturnal radiation of heat through the water to a clear sky overhead, but where permanently frozen ground exists at a moderate depth the chilling of the bottom below the freezing point is partly and perhaps chiefly due to the proximity of such ground. Writing of northern Russia, W.G. Bogoras says:

"On account of the ever-frozen ground, the rivers begin to freeze not only from above but also from beneath. Very soon the water flows as if encased in a round tube of frozen material. The surface sheet of ice is formed of small tablets, thin and brittle as the thinnest glass, but on the very bottom the water begins to form the bottom ice, the so-called "salo," which has the shape and consistency of half-dissolved snow. In this double manner the river freezes with the utmost rapidity. Shallow currents in the mountains in more quiet places freeze to the bottom."

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