

A Science Service Feature

Released upon receipt
but intended for use
April 17, 1931

? WHY THE WEATHER ?

Mailed April 10, 1931

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SEA ICE

When ice forms on the ocean the ice crystals contain no salt, but a large amount of unfrozen brine is usually mixed with them, so that, when the ice melts, it yields salty water. When, however, floating ice forms hummocks under the effects of pressure, the brine drains out so that the resulting masses of ice are entirely fresh. Icebergs consist of glacier ice, formed on land from snow, and contain no salt. Those of Arctic origin examined by Prof. H. T. Barnes were composed of ice as pure as distilled water, containing only 4 parts of solids per million.

Newly formed sea ice is extremely flexible, owing to the fact that the crystals are separated by layers of brine or salt, and even when it is several inches thick the sheet of ice can be moved up and down unbroken by a swell. When the ice grows thicker, this is no longer possible. The sheet breaks up into pieces, which grind together and soon form the roundish cakes, with raised rims, known to navigators as "pancake ice."

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