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ICING OF FISH AT SEA

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The correct icing of fish at sea is of great importance to the fisherman. From 50 to 60 percent of a trip's profit may be lost if the quality of the catch is reduced through inadequate or incorrect icing. For the realization of maximum profits, therefore, it is essential that attention be given not only to the optimum quantities of ice to be used but also to the most effective icing procedures.

In general, the method of icing now followed by New England trawlers is similar to that which has been found to be the most effective in most other regions of trawler fishing. In preparing the pen for the fish, a layer of crushed ice is first placed on the flooring. This layer should be at least two inches in depth--the additional thickness being determined by the estimated length of the trip. The following guide may be used with good results:

Duration of Trip	Depth of Ice on Flooring of Pen
1 - 2 days	2 - 3 inches
2 - 4 "	6 "
4 - 8 "	8 "
More than 8 days	Plus 1 inch for each 24 hours

After the bottom layer of ice has been put into the pen at the desired depth, one or two layers of fish, depending upon their size, are placed over it in such a way that the ice layer is no longer visible (Figure 1--A and B, page 2). Another layer of ice is then placed over the fish in such a way that, while the fish are no longer visible, the layer of ice is progressively thicker away from the center and toward the sides. It is extremely important that this ice layer be concave on the surface, as described, so that the pile can adjust to subsequent settling and melting. Alternate layers of fish and ice, similar to those described, are then placed in the pen until it has been filled. The last or top layer of ice is about a pen-board, approximately 9 inches, in depth and is rounded over (piled up) in the center (Figure 1--A and B).

During settling and melting, the layers of fish in the pen will gradually change from flat (horizontal) to slightly rounded (concave) as in Figure 2--A and B, page 2. This shift

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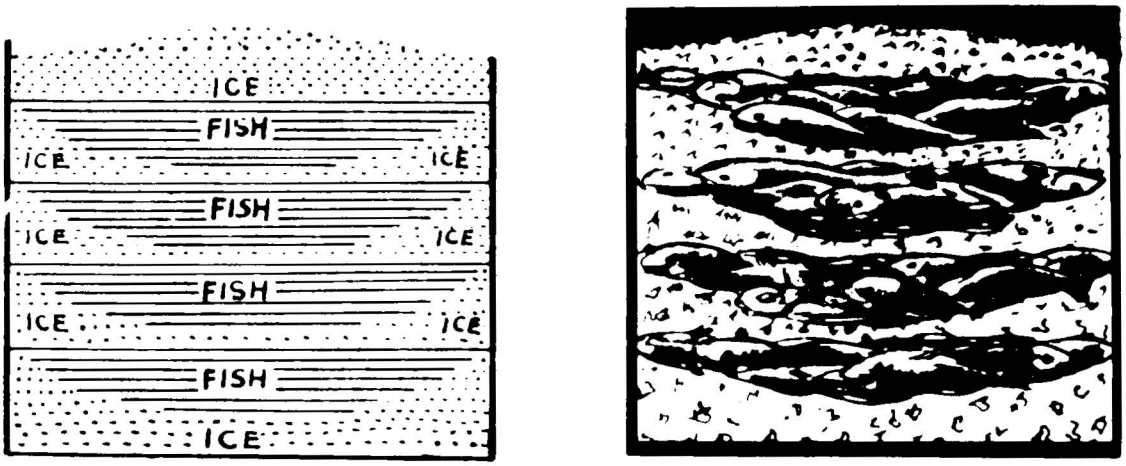
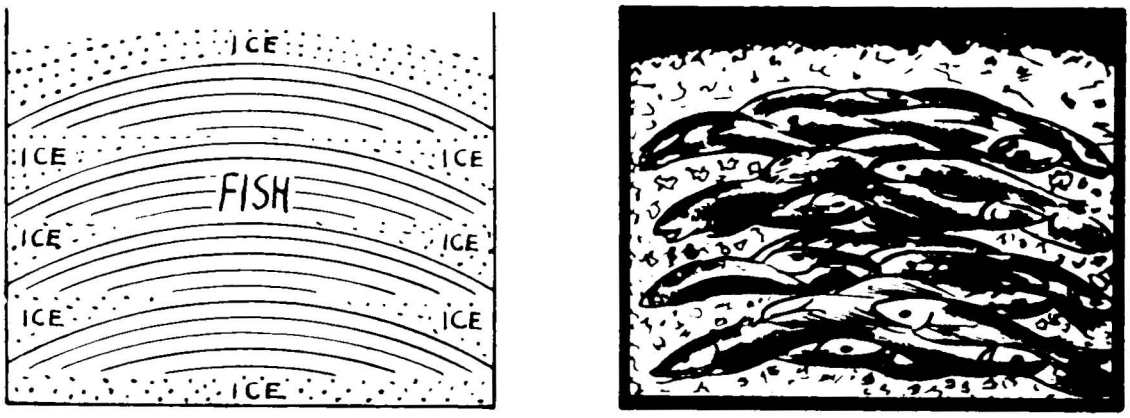
is most desirable, because it allows for good drainage of water and fish slime from the pile. With respect to this drainage, it is highly desirable that the base layer of ice



A B

FIGURE 1

be at least two inches in depth when the trip returns to port. This prevents the bottom layer of fish from remaining in pools of slime which have drained down with the water from the melted ice.



A B

FIGURE 2

The quantities of ice to be "taken-on" for a trip must, in the final analysis, rest upon the judgment of the skipper, since the characteristics of pens vary with individual boats. In general, however, the quantities of crushed ice may be estimated as follows:

Large Trawlers of Over 200,000 Lbs. Fish Capacity

Winter - Approximately 50 tons
Summer - " 30 "

Large Trawlers of From 100,000 to 200,000 Lbs. Fish Capacity

Winter - 30 tons
Summer - 50 "

Medium Trawlers of From 50,000 to 100,000 Lbs. Fish Capacity

Winter - 20 tons
Summer - 30 "

Small Trawlers Under 40,000 Lbs. Fish Capacity

Winter, Summer } Depending upon type of fishing - sometimes none

With the ending of the war, the fishing industry must look forward to increasing sales competition, both from within the industry and outside. Emphasis on market quality of fish will steadily increase--particularly as efforts are made to develop inland markets. In view of these prospects, the importance of correct icing at sea cannot be overemphasized. It is a factor for every fisherman's serious consideration.

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