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HERRING FISHERY IN SOUTHEASTERN ALASKA

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A limited fishery for herring (*Clupea harengus pallasii*) exists in Southeastern Alaska (see table). The herring is processed for meal and oil.

| Herring Catch in Alaska ^{1/} | | |
|---------------------------------------|----------------------|---------|
| Year | Catch | Value |
| | 1,000 Lbs. | \$ |
| 1964 | 50,000 ^{2/} | - |
| 1963 | 31,216 | 468,240 |
| 1962 | 33,876 | 379,320 |
| 1961 | 49,465 | 559,020 |
| 1960 | 77,913 | 835,675 |

^{1/}Includes catch used for bait.
^{2/}Preliminary figure.

One plant located at Washington Bay can process 2,100 barrels^{1/} of herring in 24 hours when running at full capacity. Oil recovery during 1964 has been unusually high with an average yield of 45 gallons per ton. About 3½ barrels of herring are required to produce 100 pounds of meal. Delivery to the plant varies with the availability of fish. When fish are available, the vessels deliver every day. The plant has two shifts; 7 workers on the day shift and 6 at night.

During 1963, only one herring reduction plant operated in Alaska; in 1964, a second plant reopened because of improvement in the market. The herring plants must produce a much larger quantity than in the past to compete with the South American meal and oil producers. One plant in Washington Bay now processes nearly four times as much herring as it did during earlier years.



Fig. 1 - When a school of herring is spotted near the surface, the seine net is set by launching the skiff which holds the end of the 250-fathom purse seine, while the seiner pays out the net and encircles the school.



Fig. 2 - The 80-foot seiner *Pacific Pride*. The seine used is 250 fathoms long and seven 200-mesh strips deep. The mesh size is 1⅜" stretched. All nylon web is used.

The fishing season for herring is from June 1 (June 15 in some areas) to February 23. Usually there is no fishing after September because the fish are not readily available to the seiners. During the first part of the 1964 season, fishing was in the Noyes Island area. Later, landings came from Turnabout Island, Gut Bay, Cape Fanshaw, and Larch Bay.

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One barrel of herring contains 250 pounds of fish.

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Fig. 3 - A school of herring is enclosed by the seine.

Early in the fishing season, most fishing is done during the day, while in the latter portion of the season (August and September) more night fishing is carried on. A set is made when a sufficiently large school of fish is spotted near the surface. At night, the fish are spotted by the luminescence caused when they disturb the surface of the water. The seine is set to circle the herring school. About 45 minutes is required to complete the operation. A large brailer composed of an iron ring and a nylon web bag brings the catch aboard the vessel. This net transfers up to 25 barrels of herring in a single lift.



Fig. 4 - The set is complete. The seine is now being pursed as the skiff tows the main vessel or seiner to keep her from drifting into the seine.

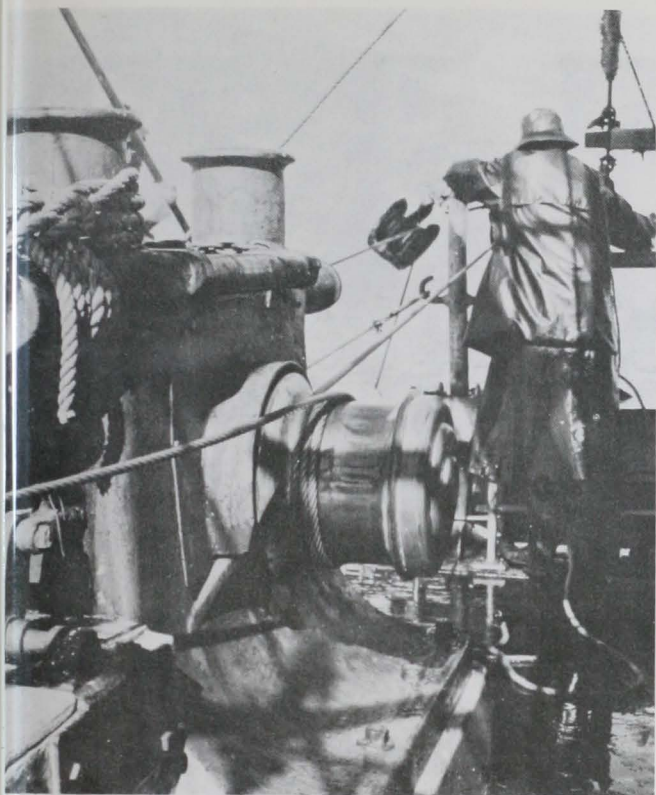


Fig. 5 - The purse cable is being winched aboard. The cable is wound on a drum.



Fig. - 6 After the net is pursed, trapping the fish, the purse rings are brought aboard in preparation for hauling the seine aboard.

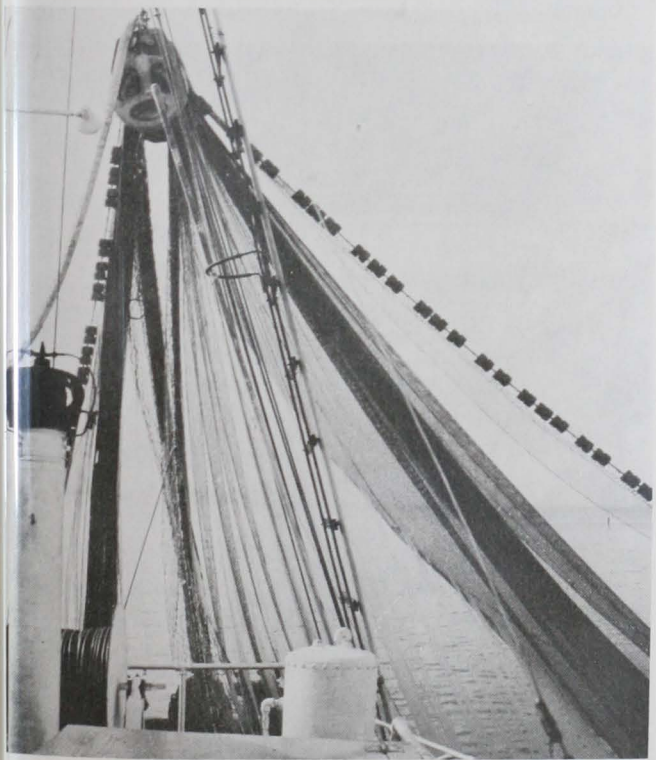


Fig. 7 - A power block is pulling the seine aboard. All herring seiners now use power blocks, which speed up operation considerably.

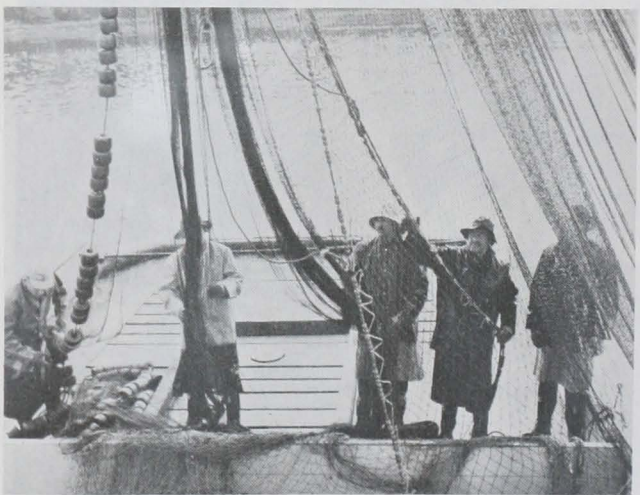


Fig. 8 - The crew of the seiner American Star is stacking the seine on the deck. An 8-man crew is employed, consisting of captain, engineer, cook, and 5 deckhands.

Nine seiners were fishing herring in Alaska in 1964; an increase of 5 vessels over 1963. All the herring vessels are similar, between 75 feet and 85 feet long. The larger vessels carry 900 to 1,200 barrels below decks.



Fig. 9 - The net is now back on the seiner's deck, except for the bunt or section containing the fish. The bunt is located at the "skiff end" of the seine. The crew is pulling the last of the seine aboard to concentrate the catch for loading the fish (brailing).

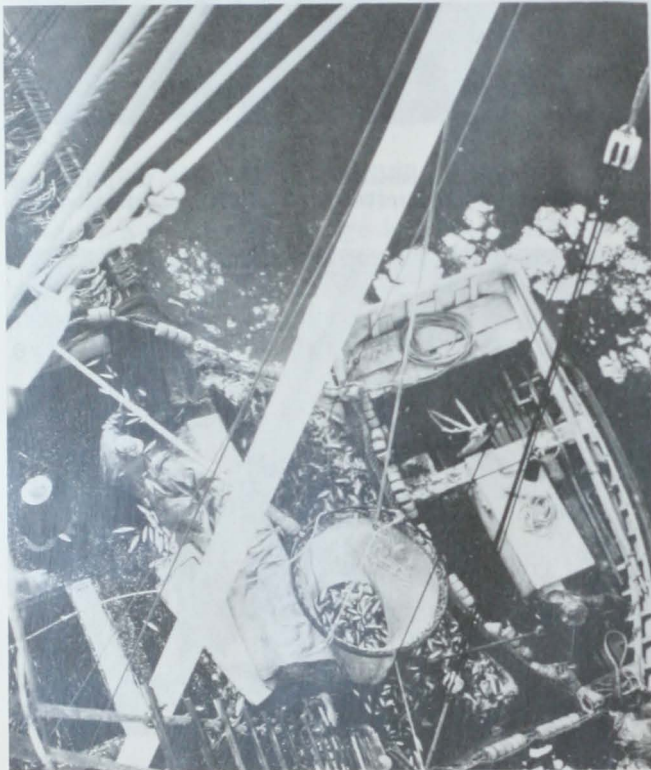


Fig. 11 - The fish are being brailed aboard with a long-handled brailer made of nylon web.

A typical seine is 240 fathoms long and seven 200-mesh strips deep ($1\frac{3}{8}$ " mesh). The leadline is manila and the corkline is nylon with plastic floats. Some vessels use a galvanized chain leadline or polypropylene with lead weights.



Fig. 10 - A catch of about 200 barrels of herring is ready to be brailed aboard. The American Star can carry 900 barrels of herring in her hold; some of the larger vessels can carry more than 1,200 barrels.

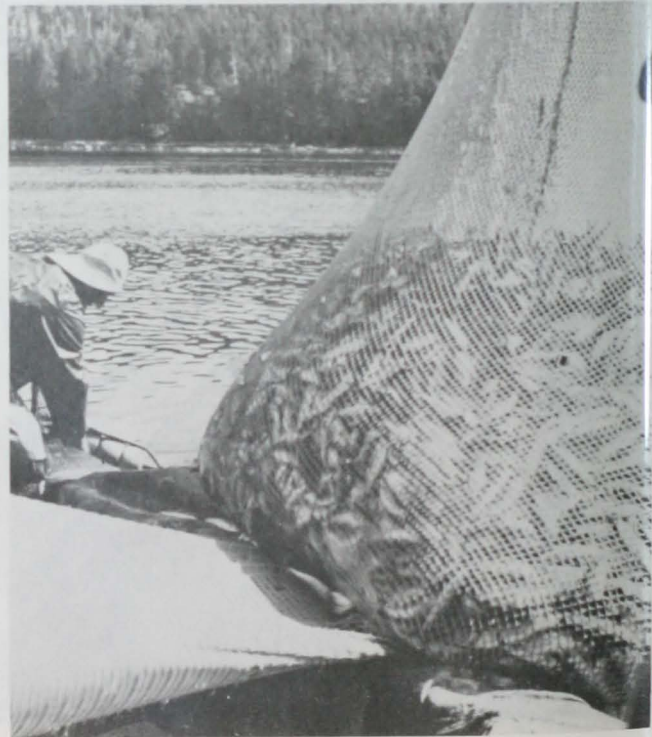


Fig. 12 - A brailer full of fish coming aboard the seiner.

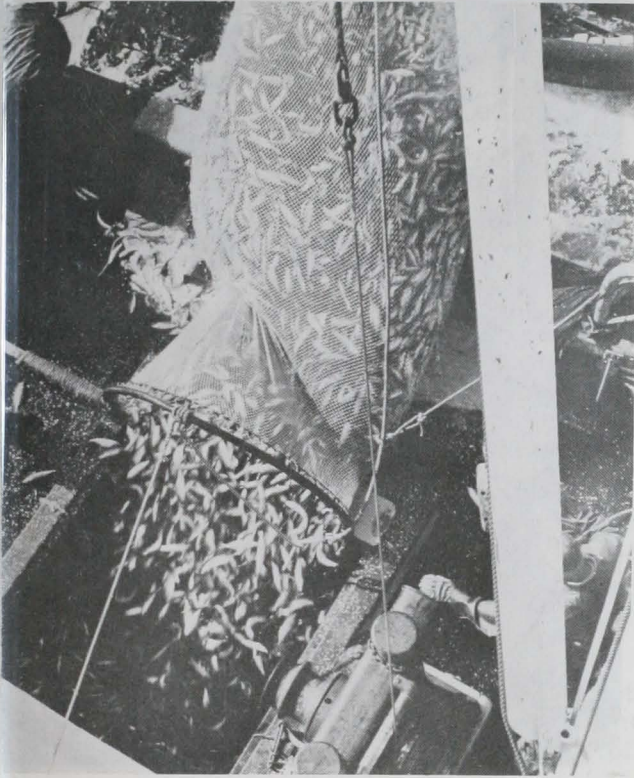


Fig. 13 - The fish are spilled into the hold.



Fig. 15 - The herring are unloaded by conveyor from the hold of the seiner.



Fig. 14 - The herring reduction plant at Washington Bay.



Fig. 16 - The fish are stored in a tank at the plant.

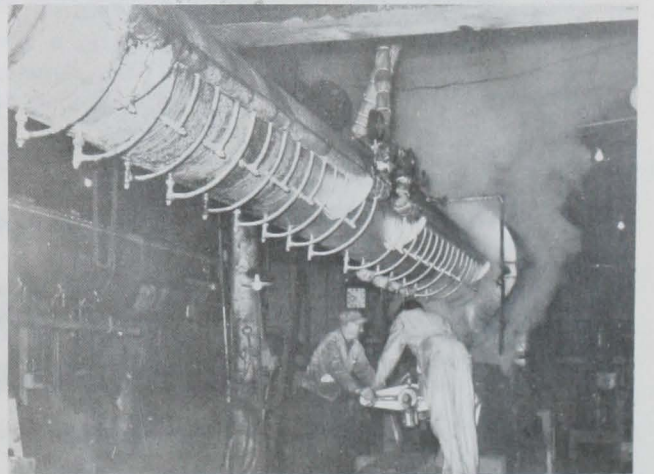


Fig. 17 - After the fish are cooked, the oil is pressed out. During 1964, most of the fish were 6 years old, with an unusually high oil content.

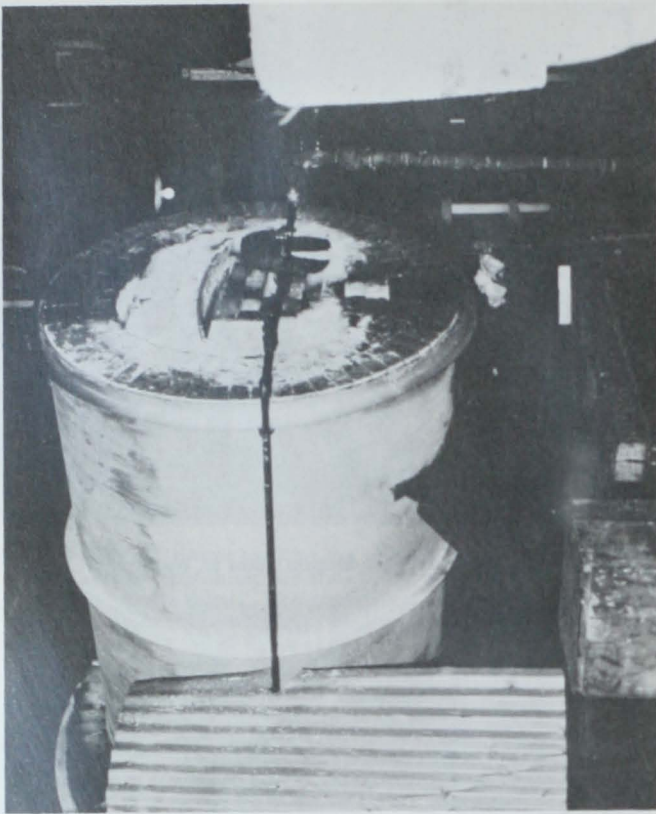


Fig. 18 - After the oil is "pressed" out, the residue is dried in a flame dryer.



Fig. 19 - The dried fish meal is being sacked.

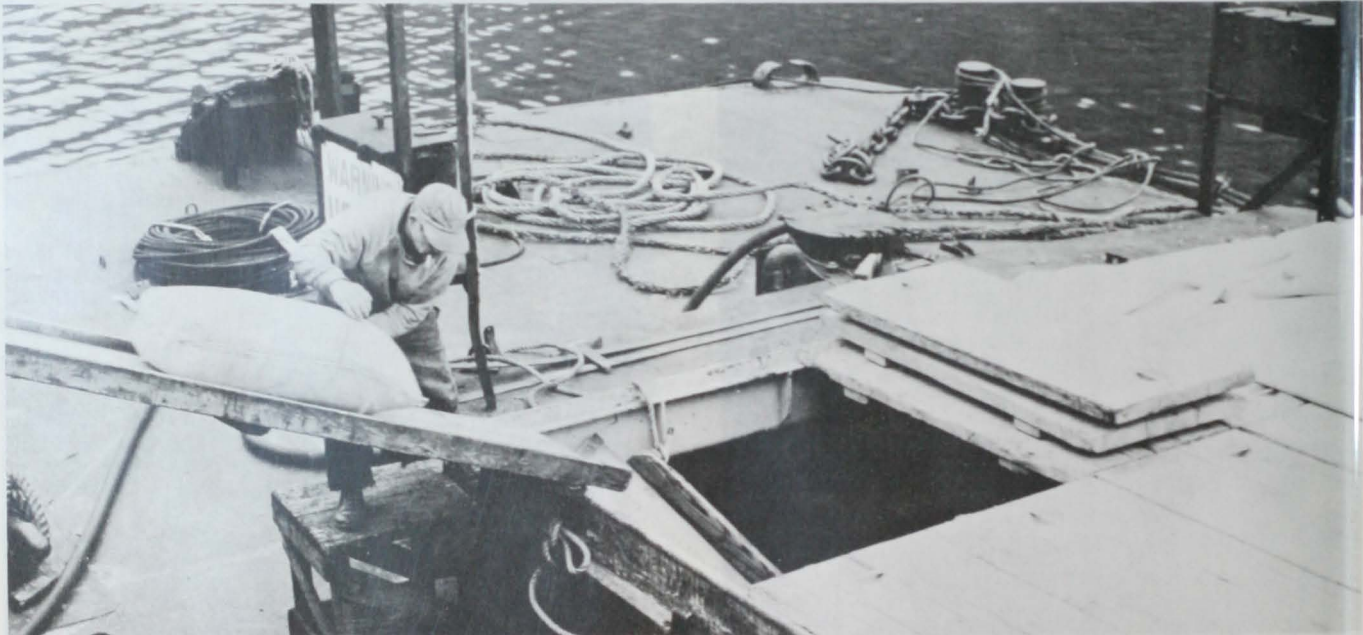


Fig. 20 - The sacks of meal are being loaded aboard a barge for shipment to Seattle.

Boat-owners from one of the plants have recently employed an airplane to spot fish but the long-term results of using this method of locating schools of fish are not yet known.

