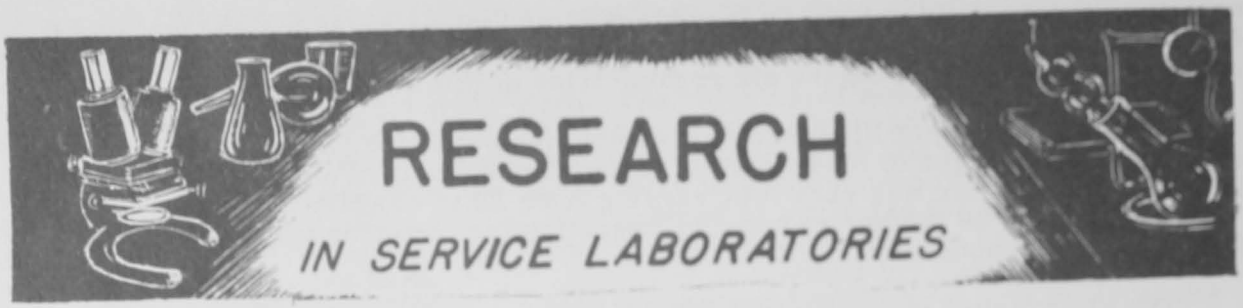


## OCEAN PERCH FILLETING MACHINE SUCCESSFULLY FILLETS YELLOW PERCH

A lot of Great Lakes yellow perch shipped from Vermilion, Ohio, was successfully filleted by an ocean perch filleting machine in Gloucester, Mass. The filleting machine had been received from Germany in mid-September 1959 and installed in a Gloucester, Mass., fillet plant. The machine was designed to fillet fish 7-14 inches in length. The yellow perch from Lake Erie have a minimum legal length of 8½ inches, and a maximum commercial length of about 11 inches. The fish that were sent from Vermilion measured about 8½ to 9 inches long.

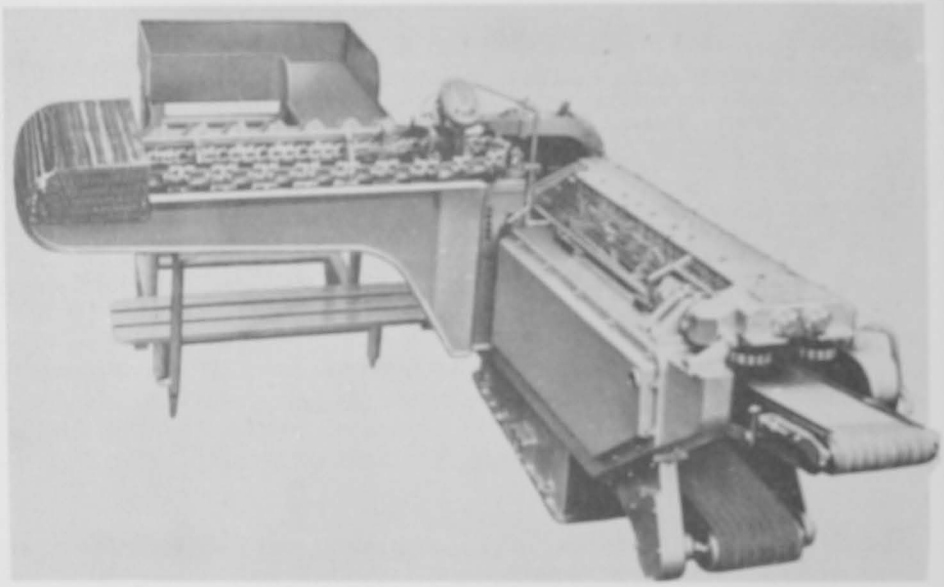

Fig. 1 - German ocean perch filleting machine used for tests on filleting of yellow perch.

The trial filleting was quite successful in that about 85-90 percent of the fillets were free from bones. The necessary trimming concerned cutting off a few rib bones, fins, and tag ends. The yield of fillets was about 51 percent by weight. This machine only cuts single fillets. It was estimated that the machine will cut about 1,000 pounds of fillets an hour with two persons feeding the machine and one person packaging. The capacity of the machine is limited by the speed of the feeding lines.

The feeding line consists of an endless belt of nylon gutters into which the fish are placed head forward and back to the left. The head is cut off with a circular stainless steel knife while the fish are held in the before-mentioned gutter. The fish are then carried to the filleting part, and are dropped head forward, back up into a gutter. The fish are carried forward principally by means of two rubber belts, one on each side. The first operation of filleting is slitting the belly from head end to tail by means of a vertical circular knife. The entrails are pulled out by means of a stainless steel tooth-edged circular pulley. The fish are then carried forward to a flat inverted "V" which spreads the fish and pressure is applied to the belly walls from on top. Two circular knives cut the fillets while the fish is held on this distance piece. The frame drops below the knives to a belt which car-

ries heads and frames away. The fillets are carried by a second belt to the packaging table. The machine is very well built and should be satisfactory for filleting Great Lakes yellow perch.

The price of the German filleting machine is $27,500 landed, duty paid, ex-dock United States port of entry. All machines are installed by factory-trained technicians who also train the operating personnel with all details as to service and maintenance of the equipment. The cost for the services of such technician is $25 a day, plus living expenses and travel expenses within the United States.

Note: For the name of the filleting machine and the name and address of the United States distributor, write to the Bureau of Commercial Fisheries, U. S. Department of the Interior, Washington 25, D. C.

## LABORATORY WORK ON FROZEN SALMON STEAK STANDARD COMPLETED

The laboratory work on the frozen salmon steak standard is essentially complete. This standard will be in effect by early in 1960.

After the completion of the written standard, the U. S. Bureau of Commercial Fisheries carries out a grading survey to test the applicability of the standard. Based on the examination of 391 sample units (249 retail size units and 142 institutional-size units) taken from processors' warehouses the following findings were noted:

(1) The average point score for the retail size units was 82 points, and for the institutional-size units 88 points. These data indicated that the quality of the institutional-size pack was significantly better than the retail-size pack.

(2) The principal factor contributing to the Grade "B" and "Substandard" classification was flavor, primarily rancidity of the fatty portion.

(3) The percentage glaze, free drip, and cook drip were not considered as factors of quality in grading of the frozen salmon steaks inasmuch as meaningful relationships could not be established.

An example of the close liaison maintained between the standards development and product inspection groups is demonstrated by the following:

The control of net package weights was found to be a serious problem in this survey. Our inspection personnel in following up on this problem during routine checking of net weight noted that the glaze water used in glazing salmon steaks was occasionally at some elevated temperature at the start of the steaking operation. As the steaking progressed, the temperature of the glaze water was continuously lowered until equilibrium temperature was attained. Adjustment for glaze pickup to meet net weight requirements if based on the initially warmer glaze water, resulted in underweight as the glaze water temperature dropped, due to the greater pickup of glaze at these lower temperatures. Thus, in order to control the percentage of glaze and thereby glaze allowance and net weight, the inspector found it necessary to routinely check glaze water temperature in order to protect the processor against excessive overweights or underweights.