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DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

UNITED STATES FISH AND WILDLIFE SERVICE

For Release FEBRUARY 20, 1959

QUEST FOR IMPROVED FISH BONE DETECTING DEVICE SUCCEEDING

An automatic detector-rejector device which will "spot" bone-bearing fish fillets and eject them from the conveyor line is now a probability, the Department of the Interior reports.

The device is being perfected by Barkley and Dexter Laboratories of Fitchburg, Mass., under a contract with the Bureau of Commercial Fisheries, United States Fish and Wildlife Service.

The detector part of the system has already been devised. Future work contemplates a method of adapting the weak electrical signal sent when a bone is detected to activate a mechanical device which will automatically reject fillets containing bones.

The detector system is somewhat similar to that of a closed TV circuit. An X-ray image of the fillet is picked up by a special X-icon tube in place of the standard TV camera. The image is transmitted by wire to a receiving set some distance from the X-ray machine. There it is converted into a visual image by a special monitor. This gives inspectors an opportunity to view the cod and haddock or other fillets and yet be away from the dangers of excessive X-ray exposure.

A truly bone-free fishery product would be much more attractive to the consumer and result in a greater utilization of fish, processors believe. At present a small percentage of bone-containing fillets get past even the most rigid inspection. It is hoped that the Bureau experiments will make it possible for the industry to detect every bone in the early stages of processing.

Previous research had resulted in laboratory use of the fluoroscope to discover fillets containing bones. To protect the worker under this system a reflector was used and the actual inspection of the fluoroscopic image was made in the mirror.

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