

trawl, a type of beam trawl, was introduced. This trawl is drawn along the bottom to make the catch. The Chinese nets have been used in south San Francisco Bay and the shrimp trawls make their catches in the northern part of the bay. Monterey Bay fishermen found that the bamboo bottle-shaped octopus traps were quite efficient for the taking of small catches of prawns. This trap with modifications made it possible to catch prawns more successfully, with catches of up to 250 pounds per day being recorded.

Shrimping is carried on practically entirely with trawls throughout the shrimp fisheries of the United States. For the most part, otter trawls have taken the place of the older beam trawls. A very recent development in the South Atlantic fishery substitutes a special type of mesh for the bag. The foundation of the mesh is hard laid twine in conjunction with coextensive strands of soft long fibre cotton twine. The hard twine shrinks on contact with the water, whereas the soft twine stretches. The shrimp, with forward pointing spines, become entangled in the soft twine, while fish, whose spines point to the rear, are permitted to escape. The mesh measure, for the hard twine, is approximately 1¼ inches and seven-eighths of an inch for the soft twine. Tests have shown that not only are small fish released but that shrimpers who have used the new type of netting are completely satisfied.

There has been some experimenting with the electronic sounding devices which have recently been tried in so many fisheries. One test in an area near the mouth of the Colorado River, Gulf of California, was quite successful. This method of detecting shrimp beds by the variation in the return of high frequency sound signals sent to the bottom of the ocean would reportedly save many hours of futile dragging operations along with the attendant costs for operation of the gear.

The San Francisco Bay shrimpers are, by law, allowed to dry up to 50 percent of a load. In 1947 slightly over 300,000 pounds of shrimp were dried and 540,000 pounds were sold fresh or frozen for shipment or for future sale. Most of the dried shrimp meat product is exported to China, although part is utilized locally. Shrimp meal, composed of ground shells and waste, is utilized in fertilizers and animal feeds.

Imported fresh and frozen shrimp find retail outlets in California. Arizona and California shrimp imports from Mexico totaled well over 11,000,000 pounds for 1947. A separation for the two states is not available. All of the Mexican imports, except 5,000 pounds of dried shrimp, arrived as fresh and frozen shipments. Since about 1941, a large shrimp has been imported into California from Guaymas, Mexico. These are shipped in the frozen state, without heads, and run 12 to 15 shrimps per pound. They are quite popular in the restaurants of the Los Angeles

TABLE 18
SHRIMP IMPORTS FROM MEXICO INTO ARIZONA AND CALIFORNIA—1947 ¹

January.....	994,843	July.....	309,386
February.....	1,226,217	August.....	126,963
March.....	1,517,088	September.....	354,319
April.....	1,062,913	October.....	1,273,141
May.....	344,452	November.....	1,723,432
June.....	583,973	December.....	1,712,605
Total pounds.....			11,228,432

¹ Record from U. S. Department of Interior, Fish and Wildlife Service, Market News Service, 1947.

TABLE 18
SHRIMP IMPORTS FROM MEXICO INTO ARIZONA AND CALIFORNIA—1947