

THE COOK INLET FISHING INDUSTRY

Fishing and the processing of fishery products has been a major industry on Cook Inlet since the turn of the century and was of importance for at least twenty years before that.

During this span of nearly ninety years dozens of fish-packing plants have been erected on the shores of the inlet and on the banks of rivers flowing into it, while fishery vessels by the hundreds have crossed and recrossed every mile of inlet waters from Barren Islands to Knik Arm.

Here, as in many places along the Pacific Coast of the United States and Canada, the salmon fishery has been the one providing the greatest dollar value and, in some cases, the greatest poundage as well. Herring, halibut, crabs and clams have also contributed to the economy of the Cook Inlet region.

The inlet's first commercial salmon fishery of which we have record was established in 1878 by the Alaska Commerical Company. It was located on the Kenai River, where the company had a fur trading station. The trader, Captain James Wilson, was also in charge of the fishery. King salmon and red salmon were caught with dip nets, gill nets and weirs and were salted down in barrels. For the most part only the bellies of the fish were utilized. The operation was small and in 1880 the station packed only 150 barrels. The full barrels were shipped out on the regular station tender, which at that time was the schooner St. George, and eventually reached the market at San Francisco where the product sold for from \$12 to \$14 per barrel.

Another of the several fur trading companies that operated on Cook Inlet in early years, the Western Fur and Trading Company, established the second salmon saltery in the area. This was on the Kasilof River, a few miles south of the Kenai, and it began operating in 1879. Captain H. R. Bowen was in charge of the trading station at Kasilof and of the fishery operation, which were similar to those at Kenai. In 1880 the Kasilof pack was 169 barrels of king salmon bellies and 185 barrels of silver salmon. The product was sent off to San Francisco aboard the company's regular trading schooner which in 1880 included the Nellie Edes and Pauline Collins.

The salting of salmon continued at various locations on Cook Inlet but after 1882 a large proportion of the catch was packed in tin cans instead of being salted in barrels. ^{1/}

Alaska's First Canneries

Two salmon canneries ~~ERE~~ were built in Southeastern Alaska in 1878. One was at a place then known as Hamilton's Fishery on the west side of Prince of Wales Island, a place that soon became more commonly known by its Indian name, Klawock. This cannery was a success and Klawock remains a cannery town to this day. ^{2/}

The other cannery built in 1878 was at Old Sitka, about six miles north of Sitka and the site of Alexander Baranof's original Southeastern Alaska fort and trading post, built there in 1799. The fort was burned by the Indians in 1802; the cannery did not suffer this fate, but neither was it much more durable than the fort had been. It packed 2,757 cases of canned salmon in 1878 and 5,855 cases in 1879. Then it closed. ^{3/}

The Old Sitka cannery did not, however, become a complete loss. Lumber was salvaged from the building to erect the first building of what is now the Sheldon Jackson Junior College at Sitka. ^{4/} And the canning machinery and equipment was moved to Cook Inlet in 1882. ^{5/}

At the beginning of that year there was only one operable cannery in all of Alaska, the one at Klawock. Two new canneries were built and placed in operation during the year. Both were in western Alaska. The firm of Smith & Hirsch, which had been engaged in salting salmon on Karluk Spit, on the northwest side of Kodiak Island, erected a cannery there, the first on the island. ^{6/} About the same time, the Alaska Packing Company was organized in San Francisco and acquired the cannery machinery and equipment at Old Sitka. It was decided to build a plant on Cook Inlet, and this was to be the first cannery in that district. ^{7/} The location of this cannery, as well as the locations of all other salmon canneries built on Cook Inlet, is shown on Map A.

Kasilof Site Picked

The site selected for this first Cook Inlet cannery was on the Kasilof River or, according to the spelling then in use, the "Kussilof." This river drains Lake Tustemena on the Kenai Peninsula and flows to the eastern side of the inlet approximately ninety-three miles north of its entrance. "Kasilof" is a Russian surname, but details of the naming of the river have not been found.

At the time of the cannery's founding there, the Kasilof River had long been in use by white men. In 1786 the Russian trading vessel St. Paul, owned by the Lebedef-Lastochkin Company and in charge of one Peredovchik Kolomin, arrived on Cook Inlet to engage in the fur trade. Kolomin built two log buildings, protected by a stockade, near the mouth of the Kasilof River. He called the place St. George. ^{8/} The fort apparently stood on the south or left bank of the river, close to Cook Inlet.

This trading post seems to have been abandoned by the Russian-American Company, successor to the Lebedef-Lastochkin Company, at some later date. It is not included in a list of twenty-three active Russian-American Company trading posts at the time of the sale of Russian America to the United States in 1867. This list was compiled by Captain C. M. Scammon, U. S. Revenue Marine, who visited Russian America several times while acting as Chief of Marine for the Western Union Telegraph Expedition, 1865-1866. ^{9/} The settlement at the mouth of the Kasilof River never achieved great importance and in 1880 was reported to have a population of 31, all Natives. ^{10/}

Whether the Alaska Packing Company, builder of Cook Inlet's first salmon cannery, had any connection with the Western Fur and Trading Company, which was also a San Francisco firm and which had established a saltery at Kasilof in 1879, has not been learned. The canning company selected a site for its plant on the right bank of the river and a short distance upstream from the mouth. 11/

Says "The Coast Pilot," a guide for mariners, of this general locality:

"Temporary anchorage can be had in 4 fathoms about 5/8 mile from shore a little southward of Cape Kasilof. This anchorage is exposed except in northeasterly weather. An extensive flat with boulders in places fills the bight between Cape Kasilof and the mouth of the Kasilof River, and extends offshore $2\frac{1}{2}$ miles. A narrow winding channel, nearly dry in places at low water, leads through the inner shoals to the mouth of the river. The entrance should not be attempted without local knowledge. The river is narrow and has a strong current. Boats up to 6 feet draft can lie in the river at low water. To anchor off the cannery stand for it on a 105° true course. Keep the lead going and anchor 3 to 4 miles from the cannery, in a depth not less than 5 fathoms at low water. It is reported that 10 feet can be carried into the river at half flood." 12/

Little Machinery Employed

Equipment from the Old Sitka cannery was taken to Kasilof and was probably supplemented with new equipment from San Francisco, but there was little in the way of machinery as we know it today. The canning process was then a hand operation, carried on with hand tools. The bodies, bottoms and tops of the cans were cut from flat sheets of tinplate with hand shears and were soldered together by hand. The fish were dressed by hand and cut with crude gang knives into lengths to fit the cans. After the cans were filled by hand and the tops soldered on, they were boiled in big kettles to cook the fish. Salt water was used for the cooking because its higher boiling point was necessary for an adequate cook. After the cans had been boiled, each was vented by punching a small hole in the top with a sharp nail. The steam then escaped and the hole was soldered.

Sailing Vessel Probably Used

It is likely that a single vessel carried to Kasilof the lumber for the cannery buildings, the equipment, the fish boats and gear, the fishermen, the cannery hands, the stores and supplies to last the season. It is likely, too, that this was a sailing vessel. It would have been anchored some distance off the mouth of the river while cargo was discharged into scows or lighters to be carried to the cannery site. There was undoubtedly a small steamer of the tugboat type for towing the lighters and for other work around the cannery.

Most of the fish canned during the first year of the Kasilof operation were probably taken with gill nets. In later years many were caught in traps, sometimes called pound nets. The fishermen were likely a mixture of Americans and foreigners of several nationalities and it is probable, although not certain, that the cannery hands were mainly Chinese. George W. Hume was said to have been the first salmon canner to employ Chinese. This was on the Columbia River in

1872. ^{13/} They were found to be so satisfactory for the work that within a few years Chinese were manning most of the salmon canneries on the Pacific Coast.

This information on the cannery at Kasilof and its operation, it should be stated, is largely speculative, but it is based upon recorded information about other salmon canneries of that period. Only four actual facts have been found about the operations of the Alaska Packing Company at Kasilof: It built the cannery in 1882 and it made packs of 6,044 cases in its first season, 14,818 cases in 1883, and 21,141 cases in 1884. ^{14/}

A Fishery at English Bay

During these early years of commercial fishing on Cook Inlet, a small fishery was operated at Port Graham, near the southwestern end of the Kenai Peninsula. It appears not to have been a great success, although in later years the bay has been a fishing center of considerable importance.

The bay was named Graham's Harbour in 1786 by the English trader-explorer Nathaniel Portlock, who visited it in July. It was his second visit to the area; he had been there in 1778 with Captain James Cook, for whom the inlet was named. The Russians subsequently named the bay English Bay, from the visits of the English explorers. American cartographers subsequently applied the name Port Graham to the entire bay, English Bay to a smaller bay within the large one.

At an early date, possibly as early as the fall of 1786, the Shelikof-Golikof Company, a predecessor of the Russian-American Company, established a trading post on what is now known as English Bay, naming it Alexandrovsk. ^{15/} The trading post seems to have later been abandoned, but the settlement remained. Petroff in 1880 reported a total population of 88, including 1 white, 12 Creoles and 75 Eskimos. ^{16/}

The Alaska Commercial Company opened a trading post on what became known as A. C. Point, near the settlement of Alexandrovsk, sometime after the country was purchased by the United States. Thereafter the settlement was usually known as English Bay, although the older name continued in use for some years. This station may have been opened in 1873; that, at least, is the year the surviving records of it begin.

An entry in the Station Log Book for the English Bay Station on May 27, 1883, notes that "Schooner Kodiak arrived from Kodiak with barrels and salt for fishing interests." Just who these "fishing interests" were has not been learned, but they seem to have been closely associated with the Alaska Commercial Company, which owned the schooner Kodiak.

At least two shipments of salt fish left the English Bay station for Kodiak in 1883, going out on the schooner Mary on July 7 and July 23. In 1884 the schooner Olga arrived at English Bay on July 18 with 100 barrels and 15 tons of salt "for the fishing station," and on August 30 the schooner Matinee sailed from that port for Kodiak with 183 barrels of salt fish. The following year, on May 31, 1885, the Station Log discloses that "the schooner Kodiak arrived with merchandise for the station. Turned over to schooner fishing implements for Kenay station." As there is no further mention of the fishery in the log at English Bay, this shipment presumably transferred the entire operation up the inlet to Kenai. 18/

Kasilof Cannery Changes Hands

In 1885 the salmon cannery at Kasilof was sold by the Alaska Packing Company, which had built it in 1882, to the Arctic Fishing Company, a firm which also had its headquarters at San Francisco.^{19/} The pack that season was 19,217 cases.^{20/}

~~The following year, 1886, the Kodiak correspondent of "The Alaskan"~~
(Sitka) reported under date of October 1:

"The Kasilof cannery of the Arctic Fishing Company on Cook's Inlet ceased operations on the 29th of August with a catch of 29,000 cases and 500 bbl. which were shipped to San Francisco per bark Corea and schooner Neptune. The tug Novelty employed by that firm is laid up here for the winter."^{21/}

The Corea, a Boston-built wooden vessel of 594 tons gross, was owned in 1885 by Francis Cutting of San Francisco. The cannery at Kasilof was sometimes referred to as "the Cutting cannery," and it is assumed that there was some connection between the Arctic Fishing Company and Cutting & Co., a pioneer Columbia River and Alaska salmon-canning firm which had built one of the first two canneries in Alaska, the plant at Old Sitka, in 1878. The Corea continued to serve the Kasilof cannery each season until 1890 when she was wrecked on or near Kalgin Island in Cook Inlet while northbound in the spring.^{22/} Because of this loss, which included the tinsplate and other supplies for the season, the company was unable to make a pack that year. A curve of the shoreline south of the Kasilof River is still known as "Corea Bend." The name appeared on early charts and maps but has been unfortunately dropped from more recent editions. The Neptune was a two-masted vessel of 184 tons gross, and the steam tug Novelty, whose registry port was Sitka, was 71.5 feet in length.^{23/}

Fish From Tyonek

Although the Kasilof cannery probably made the greater part of its annual packs with fish caught in or near the Kasilof River, it also employed fishermen at Kenai and Tyonek and perhaps at other locations. The Alaska Commercial Company agent at Tyonek frequently logged the arrivals and departures of the tug Novelty to pick up fish during the seasons of 1886, 1887, and 1888, and noted in 1887 that "the Novelty took all fish 6 June to 1 July, total 3,649 fish." ^{24/} The pack that year was 30,765 cases of salmon at the Kasilof cannery as reported by Moser. ^{25/} The Kodiak correspondent of "The Alaskan" (Sitka), writing under date of September 8, 1887, had this to say about Cook Inlet fisheries activities:

"On Cook's Inlet the run of fish was reported as very small, but by dint of hard work and energy the Arctic Fishing Company succeeded in putting up 31,000 cases. A new cannery is being erected by the Karluk Packing Company at Kenay. The schooner Viking, chartered by Robinson and others of San Francisco, was last reported at English Bay (Graham's Harbor), Cook's Inlet, salting salmon. Whether they succeeded in finding a site for a cannery, I am unable to say." ^{26/}

No other information about the operations of the Viking have come to light, the English Bay Station Log for 1887 being missing from the files of Alaska Commercial Company Records. They seem not to have found a cannery site, if they actually were seeking one, and it was nearly twenty years before a salmon cannery was built on Port Graham.

John N. Cobb, the historian of the Pacific Coast salmon industry in its early years, reports that the Northern Packing Company built a salmon cannery near the mouth of the Kaknu River (now known as the Kenai River) in 1888. ^{27/}

Built at Kenai Village

The new[#] cannery was built at the village of Kenai which is a dozen miles north of Kasilof, on the same side of Cook Inlet, and which dates back to the same early period of Russian American history. According to Bancroft, ^{28/} one Grigor Konovalof was sent there in the vessel St. George by the Lebedef-Lastochkin Company in 1791 to establish a trading post. The post was named Fort St. Nicholas, and it was later taken over by the Russian-American Company. It seems to have been the only trading post the company was operating on Cook Inlet at the time of the transfer to the United States in 1867. Following the transfer the Alaska Commercial Company maintain a trading post there, and in 1869 the United States Army activated Fort Kenay near the village. The fort was abandoned after approximately a year.

The population of Kenai in 1880 was listed by Petroff ^{29/} as 44 -- two whites and 42 Creoles (people of mixed Russian and Native Indian, Eskimo or Aleut blood) -- while Tarleton Bean, ^{30/} in his previously quoted report on the fisheries of the area at about the same time, listed the population as 53 ^e Creoles and 30 families of Indians. The discrepancy in these figures may not be real. Bean's figures were said to have represented an "actual count taken from the church registers" and hence probably covered the population of the entire parish.

The Kenai River flows from Kenai Lake through Skilak Lake to Cook Inlet. It is somewhat deeper at its outlet than is the Kasilof and ocean-going vessels of moderate size can enter it at high tide, thus eliminating a great deal of the lightering of cargo that was necessary on the Kasilof. Even so, the larger transport vessels were not usually kept in the Kenai River during the summer months when they were not in use but were moored at some safe anchorage elsewhere in the inlet. Tuxedni Channel, on the southwest side of Chisik Island, on the west side of Cook Inlet, was much used for this purpose.

The First Pack at Kenai

The first canned salmon pack at Kenai, in 1888, totaled 12,996 cases. Down at Kasilof that same year the Arctic Fishing Company packed 29,445 cases of salmon. ^{31/} The Northern Packing Company employed the bark Newsboy as a transport that year and she sailed from San Francisco for Kenai on April 7. ^{32/} This was a wooden vessel of 588 tons gross, 168 feet in length, built at San Francisco in 1882. ^{33/} The same source lists also the schooner Jennie as sailing from San Francisco on April 20, 1888, for the Northern Packing Company. The date is probably correct, but the type of vessel is almost certainly an error: the steam tug Jennie was launched for the canning company at Benicia, California, early that year and was used on Cook Inlet during many seasons and for a variety of purposes. She was a wooden vessel 72.9 feet long, with a measurement of 74.11 tons gross. ^{34/} The Arctic Fishing Company at Kasilof, in addition to the bark Corea, used the schooner Orion that year. This was probably the 117-ton, 92-foot two-master built at Humboldt, California, in 1868. ^{36/}

In 1889 the two salmon canneries on Cook Inlet made the largest pack in the district's history to that time, a total of 50,494 cases. ^{37/} At Kasilof the Arctic Fishing Company put up 31,782 cases under its "Arctic" brand. ^{38/} Three shipments from this plant were reported as arriving at San Francisco: the schooner Ida Schnauer came in with 9,211 cases on September 21, the bark Corea with 21,608 cases and 64 barrels of salt salmon arrived on October 12, and the steam tug Novelty, with 450 more barrels of salt fish, got there on October 20. ^{39/} What became of the 963 additional cases of salmon reported by Moser ^{40/} is unknown, but it is entirely possible that he converted barrels to cases for statistical purposes. Sale of the pack was handled through Cutting & Co. of San Francisco.

The two-masted Ida Schnauer, which transported a portion of the pack of the Kasilof cannery that year, was a vessel of 215 tons, 117.6 feet in length, and had been built in 1875 at the famed shipyard of Hall Bros. at Port Ludlow on Puget Sound. She was owned by J. D. Spreckles of San Francisco, known as "the sugar king." When she was not engaged in hauling canned salmon from Alaska the schooner frequently carried sugar from Hawaii to San Francisco. ^{41/}

The Northern Packing Company at Kenai put up 18,712 cases of salmon in 1889 under its "Anchor" brand. Sales agent for this cannery was Louis Sloss & Co. of San Francisco. Louis Sloss was one of the organizers and principal owners of the Alaska Commercial Company and this first cannery at Kenai was sometimes referred to as "the A. C. Company cannery." The pack was shipped south in the barkentine Retriever, which arrived at San Francisco on September 10. ^{43/} The Retriever, built at Seabeck, Washington, in either 1881 or 1882, was 161 feet in length and measured 547 tons gross. ^{44/} The company's steam tug, the Jennie, was also pressed into service as a carrier and delivered 69 barrels of salt salmon to San Francisco on September 11. ^{45/}

A Third Cannery on Cook Inlet

A third salmon cannery was built on Cook Inlet in 1890 and went into operation that summer. Owned by George W. Hume of San Francisco, who had pioneered in salmon canning on the Sacramento and Columbia Rivers, it was constructed on the Kasilof River a short distance above the plant of the Arctic Fishing Company. ^{46/} This new plant put up a pack of 12,750 cases of salmon its first year. The cannery at Kenai packed 15,905 cases that same year, but the Arctic Fishing Company, the original cannery on the inlet, was unable to operate because of the loss of its supply ship. The Corea, carrying all the tinsplate and other supplies for the season, as well as most of the fishermen and cannery hands, went ashore on or near Kalgin Island, in the inlet. There appears to have been no loss of life, but the monetary loss of ship and cargo was placed at \$51,000. ^{47/}

Value of the Salmon Pack

The canned salmon pack on Cook Inlet for the years 1882 to 1890, inclusive, was 242,018 cases according to statistics compiled by Jefferson F. Moser of the United States Fish Commission. ^{48/} It is impossible to state precisely the value of the pack in those years because of a lack of price information.

The pack was largely made up of red salmon, however, with some kings and a few silvers. During the following decade, 1891-1900, Alaska red salmon fluctuated in price from .95¢ to \$1.20 a dozen cans, with kings a little higher and silvers a little lower. ^{49/} A dollar a dozen cans seems a fair estimate of the average market value of the pack for the 1880s, and with four dozen cans to the case this gives a total value of \$968,072 for the nine years.

The Salmon Fishery 1891-1900

The decade began with three canneries operating on Cook Inlet: Northern Packing Company at Kenai; Arctic Fishing Company and George W. Hume at Kasilof. It was a good season for all three and the total pack was 58,897 cases. ^{50/} This was not only the largest pack that had ever been made on the inlet, but the largest that would be made there until the last year of the decade.

The picture in 1892 was quite different. The cannery at Kenai and the Arctic Fishing Company plant at Kasilof did not operate and only the Hume cannery at Kasilof made a pack. This amounted to 20,741 cases of canned salmon, 200 barrels of whole salmon and 15 barrels of salmon bellies. To catch and put up this pack a total of 140 people were employed by the cannery: 40 white employees, who worked 165 days at \$65 per month with board; 30 Native Alaskans, employed for 100 days at \$1.50 per 10-hour day, and 70 Chinese, who worked on contract at 40¢ per case. ^{51/}

Cannery Tender Seized

With its cannery closed and no other employment for its steam tug, the Northern Packing Company of Kenai gathered up a crew of Native sea otter hunters and sent them out on the Jennie, which was in command of Captain R. A. Harding. By June 6 the hunters had taken three sea otters. They were at work that day in the inlet approximately nine miles northeast of Cape Douglas when, soon after noon, the Jennie was overhauled by the U. S. S. Mohican, Commander Henry L. Johnson. The Mohican was assigned to the Bering Sea Squadron which patrolled the North Pacific and Bering Sea to prevent illegal fur seal and sea otter hunting.

Only Alaska Natives were permitted to hunt the sea otter in Alaskan waters and Commander Johnson seized the Jennie on the grounds that her white captain and crew were also engaged in hunting. A Navy prize crew was put aboard and she was ordered to Sitka. Two other vessel^s, the Alaska Commercial Company's schooners Kodiak and Lettie, were seized the same day in the same vicinity -- northeast of Cape Douglas -- and were also ordered to Sitka.^{52/} There all three were released on bond for an appearance in the fall. When the cases came to trial the United States District Judge at Sitka found the crew of the Kodiak "not guilty" and the actions against the Jennie and Lettie were dismissed.^{53/}

Alaska Packers Formed

The year 1892 saw one of the most momentous events in the history of the Alaska salmon industry, the beginning of the organization of the Alaska Packers Association, a firm that is still in business in the state. The organization was completed in 1893 and it took in canneries from the southern part of Southeastern Alaska to Bristol Bay. All three canneries on Cook Inlet joined the Packers, but two of them remained closed. The Kenai cannery was kept on a stand-by basis, to be operated if needed, for several years. After that the machinery was removed, although the buildings were kept for gear and boat storage. The oldest cannery on the inlet, the Arctic Fishing Company plant at Kasilof, was selected to be continued and the machinery and equipment from the Hume plant, also located at Kasilof, was moved there. 54/

~~The pack in 1893 was the single plant was 31,665 cases and the catch~~

The catch in 1893 was 30,000 king salmon, 170,000 reds and 34,000 silver, which made a pack of 31,665 cases of canned salmon and 200 barrels of salt salmon. Employed in the operation were 42 whites, 30 Natives and 68 Chinese. The fishing operation used 80 gill nets and 40 boats and lighters; there were two steamers, the Jennie, which had been brought down from Kenai in the consolidation, and a smaller one. A sailing vessel of 1,376 tons, under charter, carried north the crew and supplies in the spring, took back the pack in the fall. During the summer the vessel was anchored across the inlet at Tuxedni Bay. 55/

In addition to the production at Kasilof, a Cook Inlet fur trader named C. D. Ladd, who had his station near the village of Tyokek, in 1893 began packing salt salmon. He put up 446 barrels of fish that first season.

The fishing industry on the inlet continued without major change until 1898, the Kasilof cannery packing 34,033, 30,188, 34,767 and 32,532 cases, respectively, in the seasons 1894-1897. In the same years Ladd put up 2,064, 350, 850 and 100 barrels of salt salmon. 56/

A New Producer

~~The year 1898 saw a new salmon producer, the Pacific Steam Whaling Company,~~

The year 1898 saw a new salmon producer, the Pacific Steam Whaling Company, on Cook Inlet. As its name indicates, the firm had started in the whaling business. That was in the early 1880s. In 1889 it began to branch out by building a salmon cannery at a place known as Odiak which is presently on the southern edge of the city of Cordova. Other canneries were built, in Southeastern Alaska, on Kodiak Island, and on the Alaska Peninsula, and the company also entered the steamship business, carrying passengers and freight. One of its vessels, the Excelsior, made several trips into Cook Inlet during the gold rush to Turnagain Arm in 1895-96, and this may have aroused the company's interest in the Kenai location.

At any rate, the Whalers put up buildings at Kenai, near the old Northland Packing Company site, during the summer of 1897. Equipment was moved in ~~from~~ before the next season started. The initial equipment, according to Moser, 57/ included a soldering machine, used in making cans; a fish cutter, to chop the salmon into a size to fit the cans; a filler for cramming fish into the cans; four steam boxes for pre-heading the cans of salmon to exhaust the air; and two retorts, or big pressure cookers, for cooking the canned fish.

The pack at the new Kenai cannery the first year was 18,000 cases, valued at \$63,000 and derived from a catch of 6,500 king salmon, 150,000 reds and 18,000 silvers. These were caught with 20 gill nets and one seine. There were employed 50 whites, 10 Natives and 60 Chinese, with wages listed at \$24,000, this figure apparently including the amounts paid to fishermen.

Down the inlet at Kasil^of that year the Alaska Packers put up 39,566 cases and 189 barrels of salmon for a total value of \$139,965. The catch there was 9,889 kings, 401,168 reds and 65,412 reds, and the employees numbered 188, including 63 whites, 25 Natives and 100 Chinese. 58/

Inlet Widely Fished

Even at that early date the canneries were finding it necessary to fish a large portion of Cook Inlet in order to secure enough fish for their needs. Following his visit in 1898, Jefferson Moser of the U. S. Fish Commission wrote:

"On the western shore, below Tyonek, three streams of considerable size are said to empty into Cook Inlet. These streams are no doubt known to the cannerymen, as the gill net fishermen drift their nets from Kalgin Island to Tyonek. The fish value of the district is fairly well known, except in Kamishak Bay, which is difficult of access and is reported to be foul and dangerous to navigate." 59/

And in 1899 Special Treasury Agent Howard M. Kutchin, who visited the Alaska Packers cannery at Kasilof on July 10, wrote that "Fishing ground worked by this company extend along the shore of the inlet for 100 miles." 60/

To fish these grounds, the Alaska Packers cannery employed 45 white and 10 Native fishermen, and operated eight traps and 30 gill nets. Three steam vessels were used to pick up the catch and convey it to the cannery: the Jennie, of 69 tons with a crew of 6; the Reporter of 26 tons with a crew of 3, and the launch Arthur, 5 tons, with a crew of 2. The company by that time was operating its own sailing vessels rather than chartering, and had the wooden ship Centennial, 1,138 tons, on Cook Inlet. The white fishermen served as crew of the ship coming north and returning south, receiving \$50 apiece as "run money" for this service. For the season they received their board and one cent apiece per case of fish packed. Thus, in 1899, each of the fishermen received \$50 plus \$288.15 and his board for the season. The Native fishermen did not receive run money or board and perhaps received less than the cent a case paid white fishermen, although figures on this are not available.

The situation was very similar up at Kenai at the Pacific Steam Whaling Company plant except that the company did not use a sailing vessel for transport there. Supplies, crew and pack were carried in the small steamers which the firm used in its freight and passenger business and to service its mail contracts. In 1900 the Kenai cannery was using 40 white and 10 Native fishermen, with five traps and 20 gillnets. There were 6 white, 6 Native and 60 Chinese cannery hands. Cannery tenders were the 28-ton steamer Salmo and the 30-ton gas-boat Duxbury with crews of 6 and 5, respectively. 61/

Cannery at Chulitna River

A third operating salmon cannery, the fifth plant to be built on Cook Inlet, appeared in 1900. The previous year the Alaska Salmon Association of San Francisco had purchased the C. D. Ladd saltery. In the spring of 1900 a small cannery was built on the left bank at the mouth of the Chuitna River, six miles above the village of Tyonek. ^{62/} The company chartered the 1,131-ton bark Prussia and sent her north with the needed materials, supplies and 105 cannery hands and fishermen, 51 chinese and 54 whites. They put in four traps and used 20 gill net boats to make a catch of 1,630 king salmon, 36,166 reds, 7,722 silver and 12,050 pinks. The total pack was 4,893 cases and 47 barrels of salmon. The steam launch Kingfisher of 7 tons was the only tender, indicating that the fishing was done close to the cannery. ^{63/}

The total pack of canned salmon on Cook Inlet in the decade 1891-1900 amounted to 415,709 cases. The value of this pack cannot be determined precisely because there is no breakdown of the pack by species in several of the years and there is very little price information. An approximation is possible. The opening price per dozen cans of Alaska red salmon varied from .95¢ to \$1.25 during this decade. Pink salmon began to be utilized and was quoted at from .60¢ to .80¢ per dozen. ^{64/}

In 1897, at a time when salmon prices were at the low for the decade, the 38,538-case pack of Alaska Packers at Kasilof was valued at \$115,614, or just under \$3 per case. In 1900, with prices at their highest for the period, the same cannery packed 33,781 cases with a reported value of \$135,124, or \$4 per case. Taking the average at \$3.50 per case gives a value of \$1,454,981.50 for the ten-year production.

Decade Marked by Disasters

Salmon canning on Cook Inlet in the decade 1901-1910 got off to a slow start in its first year, picked up very considerably in the second year, and was thereafter struck by disasters which swept away every cannery on the inlet.

One of the first events of the new century was the sale of all six canneries of the Pacific Steam Whaling Company, including the one at Kenai, to a new organization, the Pacific Packing & Navigation Company. This firm seems to have been patterned after the Alaska Packers Association, which at that time operated 22 canneries in Alaska. The new company, which had headquarters in Seattle, brought together 18 canneries, a number of them brand new and not previously operated.

Two of Cook Inlet's three canneries had poorer packs in 1901 than in 1900. At Kasilof the Alaska Packers put up 31,082 cases compared to 33,781 the previous year, while at Kenai the pack dropped from 24,532 to 17,925 cases. Only the Alaska Salmon Association at Chuitna River increased its pack, putting up 11,344 cases as against 4,893 the year before. Even this was a disappointment, however, as the cannery had outfitted for 30,000 cases.

There was improvement in the packs of all three plants in 1902, with a total production for the inlet of 93,867 cases. This was by far the best year to that time. The Packers at Kasilof put up 41,455 cases, which was also its largest pack to that date; the P. P. & N. Co. canned 29,500 cases, and up at Chuitna River the pack was 22,912 cases.

Dispite this latter figure, this was the last season for the Alaska Salmon Association. The Alaska Packers and P. P. & N. were engaged in a price war that year, with Alaska reds being driven down from \$1.25 a dozen to \$1, and pinks from .75¢ to .65¢. The Alaska Salmon Association got caught in the squeeze, along with a lot of other independent canners. The Chuitna River site was abandoned and to this day has not been occupied by another salmon cannery despite the fact that more than 50 additional canneries have been built on the inlet.

Two Canneries Burn

The two remaining canneries on Cook Inlet, at Kasilof and Kenai, experienced good runs of fish in 1903. Alaska Packers put up 45,388 cases, nearly 4,000 more than its best previous record. At Kenai the Pacific Packing & Navigation Company was also working on a record and by July 19 had packed 18,991 cases, some 6,000 more than the best previous pack for that date. About midnight that night, however, the cannery caught fire and was completely destroyed, only the dock being saved. ^{65/} The company was on the verge of bankruptcy anyway and this loss did not improve its financial position. Before the next season came around the big company went out of business.

This left only the Alaska Packers Association with its Kasilof cannery, the original Cook Inlet cannery, for the 1904 season. The pack there was 46,500 cases. Before the end of the 1905 season this cannery was also swept away by fire. The disaster occurred on July 12, when 11,765 cases had been packed and the salmon run was at its height. ^{66/} The plant was rebuilt in time to operate in 1906.

In 1906, too, the federal government made a change in the reporting of Alaska fisheries information, transferring the job of compiling the report from the Treasury Department to the Bureau of Fisheries in the Department of Commerce and Labor. This agency continued to list salmon canneries by company and location of plant, but did not continue to report the annual pack of individual plants. Instead, for reporting purposes, Alaska was divided into three broad regions -- Southeastern, Central, Western -- and these regions are still in use for the purpose.

The Central region includes everything from Cape St. Elias to Unimak Pass and local area figures, such as those for Cook Inlet, are not available for most years. This lack of official figures was to some degree offset for many years by the annual reports of a trade journal, "The Pacific Fisherman," but the production tables in this publication of some shortcomings, too. Companies with several canneries in a region, for instance, such as Alaska Packers Association, often reported only the total pack for all plants in the region. This practice thwarts efforts to compile district totals.

Developments at Kenai

A new firm, the Northwestern Fisheries Company, purchase many of the canneries of the bankrupt Pacific Packing & Navigation Company. Included in the purchase was the cannery site at Kenai where the plant had burned in 1903. Most of the stock in the new company was owned by the North^{est}ern Commercial Company which centered its operations at Nome and which also owned the Northwestern Steamship Company. The concern soon became a part of what was called "the Alaska Syndicate." This was a Morgan-Guggenheim combine that included the Copper River & Northwestern Railroad, the Kennecott and other copper mines, and the Alaska Steamship Company which had been merged with the Northwestern Steamship Company.

Northwestern Fisheries did not at once rebuild on the Kenai site, which remained idle during the seasons of 1904, 1905 and 1906. Then in 1907 the site was leased by the San Juan Fishing & Packing Company of Seattle and this firm put up buildings for a saltery. San Juan concentrated on king salmon which were ~~mild~~ mild cured for the smoked fish trade, but after the king run had passed it put up a small pack of hard-salted reds and cohoes. 67/

That same season J. A. Herbert built a saltery down the inlet at English Bay and put up a pack of reds and silvers. This was the first time there had been a commercial salmon pack in that area, as nearly as can be determined, since 1885.

San Juan made mild cure packs at Kenai in 1907 and 1908, then closed down the operation because of unfavorable market conditions. At English Bay, J. A. Herbert operated through the season of 1910, when he, too, closed. As more and more salmon canneries were built there was less and less demand for salt salmon.

Northwestern Builds

It was in 1910 that the Northwestern Fisheries Company decided to build a one-line cannery on its Kenai site. The company purchased from the San Juan Fishing & Packing Company the buildings that had been put up for a milt^d cure plant and these were utilized as part of the new construction. The plant was completed in time to make a pack that season, but production figures are not available.

The decade thus ended with two canneries in operation on Cook Inlet. It had started with three, and during most season^s there was only one.

The building of this new cannery at Kenai by Northwestern Fisheries marked the beginning of new interest in the salmon potential of Cook Inlet. No fewer than seven additional canneries were built on the inlet during the decade 1911-1920. Not all of these new plants survived the decade. 68/

Northwestern Sold

The Northwestern Fisheries Company was sold in 1911 by the Alaska Syndicate, whose business otherwise was largely oriented to mining. The purchaser was Booth Fisheries Company, a nationwide organization, but the name Northwestern was retained for the cannery operations. At the time of the sale, Northwestern owned nine canneries and seven big sailing vessels, used as transports. The St. Paul, Captain Walter Myers, was the vessel assigned to the Kenai cannery in 1911. The pack there that year was reported as about 40,000 cases.

The first of the new salmon canneries was built at the village of Seldovia, near the southern end of Cook Inlet, in 1911. This was the first Cook Inlet cannery that was not constructed on the bank of a river. The builder and operator was the Seldovia Salmon Company. Seldovia dates back to Russian times but it had not been of commercial importance until the 1890s when both the North American Commercial Company and the Alaska Commercial Company established fur trading stations there.

Prior to the establishment of the cannery there seems not to have been any type of commercial fishery at Seldovia, but it was destined to become one of the fishing centers of the region. This first cannery did not, however, have a long active life.

The Seldovia Salmon Company operated its cannery in 1911 and 1912, without the use of fish traps and was the only cannery on the inlet do so at that time.^{69/} Three traps were installed for the 1913 season ^{70/} and this was increased to six in 1914 ^{71/} and seven in 1915. ^{72/} At the end of that season the company went into the hands of a receiver. The cannery was operated in 1916 by the Columbia Salmon Company, then was sold to the Northwestern Fisheries Company which had a cannery at Kenai. Northwestern operated the Seldovia plant in 1917 and 1918, when the salmon business was booming because of World War I, then closed it and held it in reserve for several years. ^{73/} ~~The company continued to operate the traps, packing the fish at Kenai~~

Two New Canneries in 1912

Two new salmon canneries appeared on Cook Inlet in 1912, both built by firms that were new to this area but had previously engaged in the salmon business elsewhere in Alaska.

The Fidalgo Island Packing Company, which had been canning salmon at Ketchikan since 1901, built its cannery on Port Graham, near the southern end of the inlet and a short distance west of Seldovia. ^{74/} This became one of the most stable cannery properties on the inlet and operated for many years under the same ownership. The company installed two traps when it built the cannery ^{75/} and later increased the number.

The second of the new canneries in 1912 was built by Libby, McNeill & Libby, a nationwide packing concern. ^{76/} The firm had been operating a salmon saltery on Nelson Lagoon in Port Moller for several years but had not previously engaged in salmon canning in Alaska. It purchased a site at Kenai from the Cook Inlet Trading Company, and put in a two-line cannery using what were known as sanitary cans and were just coming into widespread use. In this type of can the edges are crimped together instead of being soldered. The company started in 1912 with one trap ^{77/} but by the following year increased this to 11. ^{78/}

Libby, McNeill & Libby, as well as Northwestern Fisheries and the Alaska Packers, used big square-rigged sailing vessels for transports in those years. In 1913 Northwestern had the Charles E. Moody for its Kenai operation, Libby used the Abner Coburn, and down at Kasilof the Packers employed the Star of Russia. ^{79/} The Packers' ship sailed from San Francisco, the other two from Seattle. They usually started north about the first of April and took from two to three weeks for the trip. After the ships were unloaded at their respective canneries, they were taken across the inlet to an anchorage behind Chisik Island until it was time to load them with the salmon packs in the fall.

The other two canneries on Cook Inlet at that time, as well as all the new canneries that followed, utilized the regular commercial steamers to do their hauling.

Goose Bay Cannery

In 1915 the Deep Sea Salmon Company, which already had an operation in Southeastern Alaska, built a cannery at Goose Bay, Knik Arm, at the upper end of Cook Inlet. ^{80/} This location is some distance up the arm and across from the site where the city of Anchorage was then just beginning to get its start. The Goose Bay cannery began with two traps and increased this to five in 1916 and to seven in 1917. ^{81/} The cannery was closed at the end of the latter season and the machinery moved to Southeastern Alaska. ^{82/}

Fire again struck the Cook Inlet salmon canning industry in 1916 when Northwestern's plant at Kenai burned on May 22, just before the opening of the season. Destroyed, in addition to the main cannery building, were two big warehouses and the net house, with the contents of all of them. The loss was placed at about \$190,000 and it was too late to rebuild in time for that season. ^{83/}

The Northwestern Fisheries Company rebuilt its Kenai cannery in plenty of time for the 1917 season and for the big boom in salmon canning that was generated by the war. Prices of canned salmon soared in this period. Alaska red salmon, which had hovered between \$1.15 and \$1.60 a dozen cans for a decade, climbed to \$2.35 a dozen in 1917 and to \$3.25 before the boom ended. Other grades rose comparably. ^{84/}

Three More Canneries

Three additional canneries were built on Cook Inlet in the last years of the decade. In 1919 the Surf Packing Company put up a small plant on Snug Harbor, Chisik Island, on the western side of the inlet, to process both salmon and clams. ^{85/} The 1919 pack was 1,695 cases of salmon and 3,207 cases of clams, ^{86/} In 1920 it packed 11,826 cases of salmon but only 249 of clams. ^{87/} The location was a good one and a salmon cannery has continued to operate there.

In 1920 the Arctic Packing Company built a plant at English Bay on Port Graham, near the old Alaska Commercial Company trading post, while the Seldovia Canning Company opened an operation at Seldovia. ^{88/} Arctic made a first-year salmon pack of only 200 cases but it also put up 75 cases of what were then called "Spider" crabs, one of the first Alaska packs of the variety today known as King crab. ^{89/}

Salt Salmon Packs

In addition to the packs of canned salmon, there was some salmon salting on Cook Inlet during the decade with both mild cure and hard salt packs being made. In 1916 Dr. Knut A. Kyvig of Anchorage had a salting operation, under the name Kyvig Packing Company, at Swanson Creek, ~~Turnagain Arm~~. This creek, now known as a river, became better known 40 years later when Alaska's first major oil strike was made near it. No report of the production of this plant has been found. 20/

In 1917 and 1918 the Beluga Whaling Company, whose primary business was catching beluga whales for their oil and hides, salted salmon at the mouth of the Beluga River near the upper end of the inlet. In 1918 the company packed 670 barrels of salt salmon. Other salt salmon production that year included Fidalgo Island Packing Company at Port Graham, 37 barrels; K. McCullough, Halibut Cove, 250 barrels, and G. W. Mitchell, on Kachemak Bay, 200 barrels. 21/

Dr. Kyvig, in addition to his interests on Turnagain Arm, was one of the partners in the Kachemak Canning and Salting Company at Seldovia. This company never did get around to building a cannery but it did engage in the salting of both salmon and herring. The production was 40 tierces of mild cure in 1918 and 21 tierces in 1919. 22/ In the latter year, J. B. Jakobsen was listed as "agent" for the producers of 174 tierces of mild cure and 272 barrels of hard salt salmon on Cook Inlet. 23/

Canning Increases

At the beginning of the 1911-1920 decade there were three salmon canneries operating on Cook Inlet; at the end of the decade there were seven. Packs of six of the seven 1920 operators were published and totaled 119,492 cases. ^{94/} It is probable that the seventh, the Alaska Packers' cannery at Kasilof, put up at least 30,000 cases that season, to make an over-all total of around 150,000 cases for the inlet. Of these, 7,274 cases were kings, 82,159 were reds, 27,009 were silvers, 24,065 were pinks and 8,575 were chums with a few steelheads mixed in.

Using the opening prices as reported by Pacific Fisherman ^{95/} -- \$3 a dozen for king, ^{96/} \$3.25 for reds, \$2 for silvers, \$1.50 for pinks and \$1.15 for chums -- would make the value of the 1920 pack around \$1,555,300.

Decade Brings Changes

The decade brought changes to the salmon industry, to Cook Inlet, and to Alaska. New canning machinery was invented and older machines were improved to speed up the processing of the fish. Fishing methods on Cook Inlet remained much the same as they had been, but there was an increase of fishing gear. In 1912, the first year of the decade for which a count is available, 27 salmon traps were in use on the inlet. ^{96/} By 1920 this total had increased to 53. ^{97/} Three of the inlet's canneries still used sailing ships for transport at the end of the decade ^{98/} but there was a general shift from steam power to internal combustion engines in the cannery tugs and tenders that, in increasing numbers, ploughed the waters of the entire inlet to pick up fish from the traps or from mobile fishing gear.

On Cook Inlet the decade's greatest change resulted from passage by Congress of the Alaska Railroad Act in 1914. This brought about the start of construction of the railroad from Seward to Fairbanks and the founding of the town of Anchorage near the head of the inlet. It was not until 1922 that a cannery was built at Anchorage, but long before that it had become a supply and communications center for many of the Cook Inlet canneries. The communications were especially important. In 1903 when the cannery burned at Kenai the superintendent had to go all the way to Valdez to reach a telegraph station (a year earlier he would have had to go to Skagway), but after the 1916 cannery fire at the same place it was necessary to go only to Anchorage to reach telegraphic communication.

Alaska a Territory

Alaska was granted limited territorial government in 1912. This did not include control or management of the fisheries as had been the case with other territories, so the impact on the salmon canning industry was far less than it might have been. The new territory did have the power to tax and one of the early Acts of the First Territorial Legislature levied a tax of seven cents a case on king and red salmon, half a cent a case on other species. ^{99/} This gross tax was in addition to an existing federal levy of four cents a case on all species. ^{100/}

The other principal industry of Alaska at that time was gold mining, and the legislature let that industry off with a tax of half of one per cent on net income over and above \$5,000 per annum. ^{101/} This difference in attitude toward Alaska's two main industries might be explained by the fact that of the 24 members of the First Legislature, 11 listed their occupations as "miner" or "mine operator" ^{102/} and three other members had been miners at one time, while there were no cannerymen and only one fisherman in the legislature.

Hit By a Slump

The decade 1921-1930 started with one slump and ended with another and more serious one, but between the two the canning business boomed and many new plants were build on Cook Inlet.

The dumping upon the market of a great lotvof canned salmon that the government had purchased during the war years, plus a general over-production in 1919 and 1920, caused the price to dip sharply. From an opening of \$3.25 per dozen for Alaska reds in 1920, the market slid to a \$2.85 opening in 1921 and to \$2.25 by the end of the year. Pink salmon, quoted at \$1.50 in 1920, fell to .90¢ in 1921. 103/

The price decline brought about the closing of many canneries in 1921. The Alaska Packers' plant at Kasilof remained closed this year for the first time since its rebuilding after the 1905 fire. Kenai was particularly hard hit: the Northwestern Fisheries plant did not operate at all and the Libby cannery burned on July 21. The plant had packed about 25,000 cases of salmon at the time of the fire and 7,000 of them were destroyed, as well as most of the cannery buildings. 104/

The total pack for the year, not including the 7,000 cases lost by Libby, was 81,328 cases with a value of something under three-quarters of a million dollars. 105/

Many Canneries Built

In 1922 the salmon market firmed and overall prospects for the industry brightened. This year saw the start of construction that would bring 26 new salmon canneries to the Cook Inlet area during the decade. They were:

1922: Anchorage Packing Company, at Anchorage; Kamishak Canning Company, at Kamishak Bay. 106/

1923: Alaska Year Round Canneries Company at Seldovia; Henry J. Emard at Point Possession. 107/

1925: Cook Inlet Packing Company at Seldovia; W. A. Keller at Deep Creek; 108/

1926: Alaska General Fisheries, at Anchorage. 109/

1927: Arctic Packing Company, at Port Graham; Kenai River Packing Company, at Kenai; Edward Gustan, at Point Possession; Nordin & Wik, at Nikiska. 110/

1928: Walter G. Culver, at Point McManus; Henry J. Emard, at Anchorage; Sunset Packing Company, at Anchorage; J. F. Toman, at Anchorage; George Valaer, at Nikiska Bay; Nordin & Sandvik, at Swanson Creek; San Juan Fishing & Packing Company, at Tutka Bay; Nilson & Young, at Portlock. 111/

1929: Kustatan Packing Company, at Kustatan; Ninilchik Packing Company, at Ninilchik; Point Possession Fish Company, at Point Possession; Harvey Smith, at West Foreland; West Coast Canning Company, at Polly Creek. 112/

1930: Redoubt Bay Packing Company, at Redoubt Bay. 113/

Many of the new canneries were small; some packed fewer than 1,000 cases a season. A number of them had very short lives and others, although they continued in operation, changed owners with frequency.

Last Year for Kasilof

The 1923 season was the last year of operation for the inlet's original cannery, the Alaska Packers' plant at Kasilof. Since its building in 1882 it had missed only three seasons -- 1890, 1892, and 1921 -- and while pack figures for many seasons are not available, it undoubtedly averaged at least 25,000 cases a season, or an estimated total of not less than 975,000 cases of salmon having an estimated value approximately equal to the purchase price of Alaska -- \$7,200,000.

The year 1923 was the last in which square-rigged sailing ships were used to carry cannery supplies to Cook Inlet and to transport salmon packs from the inlet to market. In that year the St. Paul came up to Kenai for Northwestern Fisheries and the Star of Russia was at Kasilof for Alaska Packers, and this was their last appearance on Cook Inlet although both vessels were used at canneries farther west in subsequent years. Libby, McNeill & Libby, which had used sailing vessels in its earlier years in the Alaska canning business, had begun sending its motorship, the Libby Maine, to the Kenai cannery at least as early as 1920. ^{114/} Other cannery operators on the inlet utilized steamers, either common carriers or chartered vessels. A few sailing schooners did continue to appear on the inlet for a number of years, but they were used mainly in connection with the salt herring business.

Prices and Pack Rise

Canned salmon prices, which in 1922 began to recover from the post-war decline, generally continued to rise through the decade, although there were some fluctuations. The U. S. Bureau of Fisheries reported these average prices per case of 48 one-pound cans of salmon for the years and species indicated: 115/

<u>Year</u>	<u>Red</u>	<u>King</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>
1921	\$ 8.96	\$ 10.22	\$ 5.63	\$ 4.21	\$ 3.68
1922	9.24	8.08	5.47	4.34	3.98
1923	9.27	8.56	5.74	4.86	4.65
1924	9.53	8.89	6.83	4.93	4.68
1925	13.12	11.91	9.72	5.28	4.44
1926	9.89	10.37	8.40	5.39	5.01
1927	12.08	11.25	8.51	5.87	5.47
1928	9.41	11.13	7.12	6.56	6.06
1929	10.71	11.92	7.59	6.06	5.35
1930	12.57	13.32	8.26	4.17	3.60

The annual pack on Cook Inlet increased substantially in this decade over the previous one, and the total value of the pack, with higher prices, increased even more: 116/

<u>Year</u>	<u>Canneries Operated</u>	<u>Traps Operated</u>	<u>Total Pack Cases</u>	<u>Value</u>
1921	5	22	81,328	\$ 715,692.
1922	9	57	112,666	816,510.
1923	10	52	190,480	768,111.
1924	8	29	124,101	1,093,788.
1925	7	44	110,829	1,364,943.
1926	9	61	193,873	1,720,877.
1927	14	79	184,374	1,950,211.
1928	20	106	202,566	1,694,796.
1929	23	104	160,566	1,618,729.
1930	22	92	203,138	1,816,243.
			<u>1,463,921</u>	<u>\$ 13,559,900.</u>

Changes Continue

Several important changes took place in the salmon canning industry and on Cook Inlet in the 1921-1930 decade.

One was the almost complete shift, from Chinese to Filipino cannery hands, on the inlet as in canneries elsewhere in Alaska.

Communications continued to improve as several of the larger canneries installed their own wireless stations. This enabled to keep in touch with other canneries similarly equipped, with the ships that plied Alaskan waters, and with the larger towns and was a forerunner of the radio telephone which came into widespread use among the canneries only a few years later.

The airplane arrived on Cook Inlet, too, to speed both transportation and communication. The year 1922, which was just one year before the last square-rigger disappeared from the inlet, the first airplane arrived at Anchorage and was put into charter service. Before many years the seaplane or float plane was a common sight at salmon canneries and on the fishing grounds of the inlet.

The greatest change of all, however, came in the law governing salmon fishing in Alaska, which had not been revised since 1906.

The first law for the protection of the Alaska salmon had been enacted by Congress and approved by the President on March 2, 1889. This law was amended or added to in 1896, 1897, and 1905, after which a more comprehensive law had been enacted, with presidential approval on June 26, 1906.

The new law required a license tax, provided for salmon hatcheries, prohibited barricades, fences, traps, fish wheels and other obstructions in certain waters, established closed periods (with Cook Inlet specifically excepted from this provision), required detailed reports from packers, gave the Secretary of Commerce and Labor the authority to make rules and regulations, provided penalties for the violation of such rules and regulations, prohibited the wanton waste of salmon or other food fishes, made it unlawful to use misrepresentative brands on canned salmon, and prohibited the canning or salting for sale for food of any salmon more than 48 hours after it had been killed. 117/

The new era in Alaska fisheries management began in 1922 with the creation of two fisheries reservations in western Alaska by executive order. The first of these covered the Aleutian Islands and much of the Alaska Peninsula; the second included Cook Inlet, Kodiak Island and Bristol Bay and was known as the Southwestern Alaska Fisheries Reservation. 118/

The order provided, among other things, that "Fishery operations within the said Southwestern Alaska Fisheries Reservation shall be subject to such regulations and restrictions as shall be issued by the Secretary of Commerce, in addition to the general fisheries laws and regulations of the United States as administered by the Secretary of Commerce." 119/

Regulations were issued by the Secretary of Commerce on December 16, 1922, and these established the Cook Inlet District within the reservation: "Embracing all that portion of the reservation east of Bristol Bay and north of the latitude of Cape Douglas (approximately $58^{\circ} 50'$), including the Barren Islands, the shores and outlying islands of the Kenai Peninsula, and all the shores and waters of Cook Inlet. ¹¹ 120/ The eastern boundary of both the reservation and the Cook Inlet District were at 149° West longitude for the northern portion of the inlet and at 151° West for its southern portion, so that every part of the inlet itself was included.

A system of permits for both fishermen and processors was provided for in the regulations, and these were generally somewhat restrictive both as to the pack allowed and the area to be fished. It was intended to curtail production of salmon because it was felt that the salmon runs were being depleted, but just how much effect the system had upon production is difficult to determine now. On Cook Inlet the pack was smaller than in 1922 -- 90,480 cases as compared to 112,666 -- but the permits granted to ten canneries on the inlet allotted them a total pack of 213,500 cases of salmon, and not a single cannery came close to fillings its allotment. ^{121/}

In addition to the salmon cannery permits, 146 permits were issued for various fishing operations, six were issued to pack herring, two to pack clams, one to pack crabs, and one to pack both crabs and clams. ^{122/}

The permit system was used again in 1924 until Congress passed a bill containing a series of amendments and additions to the Act of June 26, 1906, and the two reservations were abolished. The bill became known as the White Act and was approved by President Coolidge on June 6, 1924. On the following day the president ordered the Alaska Peninsula and Southwestern Alaska reservations discontinued. ^{124/}

The White Act greatly strengthened the authority of the Secretary of Commerce in the field of fishery regulation and included the power to create fishery districts and special rule^s and regulations for each district. The Act declared it to be the policy of Congress "that in all waters of Alaska in which salmon run there shall be an escapement of not less than 50 per centum thereof," and it established a minimum period each week during which there would be no fishing, to assure escapement throughout the fishing season. The Act also guaranteed to all citizens of the United States equal rights in taking fish in the waters of Alaska. ^{125/} It became the basic fishery law of Alaska from its enactment in 1924 until the coming of statehood in 1959.

In compliance with the provision of the Act, the Secretary of Commerce on June 21, 1924, issued fishery regulations for the 1924 season. ^{126/} This included the establishment of fishery districts, one of which was Cook Inlet: "The Cook Inlet area is hereby defined to include Cook Inlet, its tributary waters, and all adjoining waters north of Cape Douglas and west of Point Gore. The Barren Islands are included within this area." ^{127/} This was exactly the same area as had been established under the reserve, and its boundaries were to remain unchanged during the years of federal regulation of Alaska's fisheries.

Depression Years, 1931-1940

Although the salmon canning business suffered far less than did some others during the great depression which began with the stock market crash of 1929, there were economic effects in it, too, and they were felt on Cook Inlet as they were elsewhere along the Pacific Coast.

New cannery construction, for one thing, almost halted during the decade. In the years 1921-1930 a total of 26 new canneries had been built on the inlet, but between 1931 and 1940 there were only three new plants. Two of these three were very small and one of these two packed only one season. 128/

No fewer than a dozen small canneries, most of them built during the 1920s, closed their doors in the 1930s, as well as one of the largest and oldest plants on the inlet. The latter was the Kenai cannery of the Northwestern Fisheries Company. This firm, which had canneries strung along the Alaska coast from Dixon Entrance to Bristol Bay, went into bankruptcy early in the depression. It had operated 11 canneries in Alaska in 1930; in 1931 the number dropped to eight, and in 1932 all of its plants were closed. In 1933 the company's various properties were sold to Pacific American Fisheries, but that company did not reopen the Kenai plant and it never again operated. Pacific American did operate some of the fishing gear acquired in the purchase, but the fish were packed in another plant. 129/

The number of canneries operated each season also declined drastically during the depression years. In the 1930 season there were 22 salmon canneries in operation on Cook Inlet. The number dropped to 17 in 1931 and to nine in 1932. During the remaining years of the decade from eight to ten canneries operated on the inlet each season. 130/

Canned salmon prices tumbled with the deepening of the depression. They hit bottom in 1932, then began to climb upward, with some fluctuations, during the remainder of the period. They did not, however, reach the high levels of the 1920s.

Red salmon, a Cook Inlet mainstay which had reached an average price of \$13.12 per case in 1925, skidded to \$5.61 in 1932. The high for the decade, as reported by the U. S. Bureau of Fisheries, was only \$10.12 per case. ^{131/} The prices of other species, generally speaking, fluctuated with the red salmon price. Chums in 1932 averaged \$2.79 a case, or slightly less than six cents a can. Fortunately, that species made up only a small percentage of the Cook Inlet pack. Pink salmon, however, were an increasingly important part of the production on the inlet and in 1932 the average price for pinks was only \$3.14 a case.

One thing that was not affected by the economic depression was the fish. Although salmon had been fished commercially on Cook Inlet for 50 years, and fished intensively for nearly 30 years, they swarmed into the inlet and were caught in unprecedented numbers during the entire 1931-1940 decade, with bumper harvests in 1936 and 1940. In all, the inlet produced 2,258,033 cases of canned salmon during this ten-year period compared to 1,463,921 cases in the previous decade. ^{132/}

The principal statistics for the decade on Cook Inlet were: 133/

<u>Year</u>	<u>Canneries Operated</u>	<u>Traps Operated</u>	<u>Total Pack</u>	<u>Value</u>
1931	17	77	138,335	\$ 980,881.
1932	9	55	168,602	818,091.
1933	9	34	140,867	904,905.
1934	10	46	256,837	1,535,881.
1935	8	44	175,440	1,384,036.
1936	10	47	314,261	2,219,137.
1937	10	47	182,684	1,649,117.
1938	9	44	290,684	1,923,994.
1939	8	39	249,230	2,095,296.
1940	8	48	<u>341,093</u>	<u>2,505,732.</u>
			2,258,033	\$ 15,717,070.

Average prices, per case, for canned salmon, during the decade were: 134/

<u>Year</u>	<u>Red</u>	<u>King</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>
1931	\$ 9.20	\$ 9.40	\$ 6.51	\$ 3.46	\$ 3.19
1932	5.61	5.46	4.12	3.14	2.79
1933	6.71	7.51	5.20	4.52	4.12
1934	6.72	6.85	5.23	4.10	3.65
1935	9.32	8.70	6.40	4.14	3.83
1936	8.38	7.95	6.51	3.94	3.58
1937	10.12	9.94	8.14	4.95	4.62
1938	7.77	7.50	6.29	3.86	3.61
1939	9.18	9.26	6.77	4.95	4.52
1940	9.57	10.05	7.25	5.37	4.84

The increasing efficiency of the canneries themselves is indicated by the fact that in 1920 seven Cook Inlet canneries, operating at near capacity, packed approximately 150,000 cases of salmon, while in 1940 a pack of 341,093 cases was put up by eight canneries. Partly this was due to faster and more efficient canning machinery, both other factors were larger and faster cannery tenders and better communications. The radio telephone came into common use in the canneries during this decade and it enabled them to better schedule a steady and adequate flow of fish through their machinery.

A canning practice that began, in a small way, as an economic measure in the depression years was to become quite common during the next decade as a manpower conservation measure. "Consolidation," as it was known, consisted of packing the fish of two or more separate companies in a single plant. On Cook Inlet this began in 1932, the year canned fish prices hit rock bottom. That year the Kenai River Packing Co. of Kenai and the North Coast Packing Co. of Ninilchik both canned their fish at Seldovia in the plant of the Cook Inlet Packing Company, which also put up a pack of its own. Another Seldovia plant, that of the Alaska Year Round Canners, Inc., canned most of the production of the Ninilchik Packing Co. of Ninilchik, while Farwest Fisheries, Inc., of Anchorage, put its fish into the plant of the Snug Harbor Packing Co. for processing.

The center of salmon canning on Cook Inlet tended to shift during this decade from near its middle toward its two ends, and this trend was in no way diminished by the closing of the big Northwestern cannery at Kenai. Kasilof and Kinai had dominated the Cook Inlet cannery scene from early years, and with the big Libby cannery still operating at Kenai, it remained a major fishing center. But Anchorage in the north and Seldovia-Port Graham in the south were producing more and more of the inlet's total salmon pack each year.

The War Years

The salmon canning industry, like many other enterprises, escaped from the economic perils of the depression years only to plunge into the multiple frustrations of the war years.

Even before the United States entered the war, the demand for canned salmon was high and in 1941 prices for the product climbed back to the levels they had reached in the mid-1920s. The year 1942 brought even heavier demands for canned salmon, for the military services, for Lend Lease, and for the civilian market, but with the demand came several serious impediments to production. These included:

Manpower shortages. As more and more men went into the military or into such relatively high-paying industries and the building of ships and aircraft, it became increasingly difficult for the canneries to recruit the labor they required. The short-term, seasonal nature of the industry compounded the difficulty, and salmon canners found themselves scraping the bottom of the labor barrel in order to man their plants at all.

Transportation. A large part of the United States merchant fleet, including much of the portion that operated to Alaska, was converted to military transport service or other wartime use. The shortage of shipping made it difficult and sometimes costly to get supplies to the canneries and to get the pack to market. Of the two problems, getting rid of the pack was the greater. Cannery supplies could be shipped well in advance of the season, but the canners along much of the Alaska coast had for many years been able to make several shipments during the canning season and consequently did not have warehouse space for a full season's pack. Storing the pack until it could be shipped created a real problem at some plants, and school houses, woodsheds, tents and temporary structures were resorted to, sometimes at considerable expense.

Boats and Floating Equipment. Fishing boats, cannery tenders and barges, as well as large ships, were requisitioned by the government to be used by the Navy and Army for tugs, patrol boats and utility craft. In many instances these had to be replaced at the canneries, when they could be replaced at all, with ancient vessels, some of them hauled out of boneyards. Carrying the catch from the fishing grounds to the canneries became a major problem of the war years.

Price Ceilings. Like many other industries, and perhaps more than most, the salmon canners were caught in a squeeze between rising costs of production and price ceilings imposed by the government. In theory all prices, including wages, were "frozen," but little if any allowance was made for such additional costs as temporary storage facilities and the operation of decrepit water craft. Prices for canned salmon were pegged at just above \$15 per case for reds and kings, \$12 for medium reds, \$8 for pinks and \$7.50 for chums during the war years, 1942 through 1945. 135/

The various impediments perhaps did not actually curtail Cook Inlet production to any great extent. At any rate, the canneries there made substantial prack in each of the war years.

New cannery construction was limited, but not entirely absent, during the war. In 1941, before the United States got into the war, a new cannery was opened at Homer, and in the war year 1943 three small plants were started, one each at Ninilchik, Nikiska Bay and West Foreland. There were 10 operating canneries on Cook Inlet in each 1941 and 1942, 11 in each 1943 and 1944, and 12 in 1945. 136/

Canned Salmon Prices Go Up

Once the war was over and ~~the~~ ceilings on prices were removed, canned salmon prices skyrocketed to new highs. Red salmon went to \$19.55 a case in 1946 and on up to \$23.38 in 1947, \$26.55 in 1948, \$26.36 in 1949 and \$29.43 in 1950. 137/

This apparent bonanza attracted a number of new, small packers. At Kenai a new cannery was built in 1946 138/ and at Seldovia in 1947 a plant that had theretofore packed only shellfish was converted to salmon canning. Two brand new canneries, both small, also appeared in 1947, and in 1948 there were two more on the scene. 139/ Several of the new firms lasted only a year or two and a number of the older small companies also went out of business -- the costs of operating a cannery had risen with the market price for fish.

Cook Inlet production continued at high levels through the decade and in 1950 the inlet produced the largest pack in its 70-year history of salmon fishing. The pack that year totaled 419,944 cases and the figure has not since been surpassed.

Statistics for Cook Inlet in the 1941-1950 decade were: 140/

<u>Year</u>	<u>Canneries Operated</u>	<u>Traps Operated</u>	<u>Total Pack</u>	<u>Value</u>
1941	10	48	212,379	\$ 2,156,674.
1942	10	47	284,601	3,397,522.
1943	11	50	242,878	2,978,367.
1944	11	58	327,914	4,048,912.
1945	12	56	252,659	3,220,315.
1946	13	37	249,785	4,013,227.
1947	17	49	222,584	5,032,988.
1948	18	45	309,742	6,607,773.
1949	15	44	264,588	6,345,342.
1950	14	40	419,944	11,242,572.
			<u>2,787,074</u>	<u>\$ 49,043,692.</u>

Average prices, per case of 48 one-pound tall cans, for canned salmon during the decade were:

141/

<u>Year</u>	<u>Red</u>	<u>King</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>
1941	\$ 12.48	\$ 12.00	\$ 8.92	\$\$\$66766	\$ 6.36
1942	15.33	15.18	11.48	7.94	7.56
1943	15.04	15.43	12.12	7.90	7.52
1944	14.23	15.75	12.05	8.00	7.57
1945	15.51	16.70	12.12	8.04	7.68
1946	19.55	21.25	17.30	10.67	10.53
1947	23.38	27.54	22.68	17.92	17.64
1948	26.55	28.94	25.55	22.65	20.33
1949	26.36	25.14	20.82	16.00	15.17
1950	29.43	28.54	26.43	23.42	19.55

Changes in the 1950s

The decade 1951-1960 brought a great change to Alaska and with this a major change for the salmon canning industry in Alaska.

At the beginning of the year 1959 Alaska achieved statehood, and one of the first acts of the first state legislature was the outlawing of salmon traps which had been a fixture of the canning industry since its earliest years. Many canneries had depended on traps for the greater part of their salmon supplies.

On Cook Inlet one such cannery was the plant of Libby, McNeill and Libby. This firm had built its first salmon cannery at Kenai in 1912 and thus, in 1959, was one of the inlet's oldest operators. When traps were eliminated, the company quit the salmon business and sold its canneries in Alaska. Fortunately for Cook Inlet production, the company that bought the Kenai cannery continued a large-scale operation there.

During this decade the two principal reporters of canned salmon statistics for many years -- "The Pacific Fisherman," a trade journal, and the U. S. Fish and Wildlife Service in its annual reports -- considerably decreased²~~X~~ the volume of published information. This was especially true during the last two years of the decade, so that it is impossible to compare this period fully with the three previous ones.

It is clear from production figures that were published, however, that while the total Cook Inlet pack was holding up fairly well -- 2,575,656 cases in the 1950s as compared to 2,787,074 in the 1940s and 2,258,033 in the 1930s -- the composition of the annual pack was changing. Reds, the most valued species, were on the decline while chums and pinks, the least valuable, formed an increasing part of the pack.

In the 1930s the pack consisted of approximately 57 per cent red salmon. By the 1950s this had dropped to approximately 34 per cent of the total pack. King salmon remained at about the same level, forming approximately 8 per cent

of the pack in each period. Cohos, which are sold as medium reds, declined from about 12 per cent to about 7 per cent of the pack, while chums increased from 7 per cent to 23 per cent of the pack and pinks from approximately 16 to approximately 28 per cent of the total production. ^{142/}

Near the end of the decade and just prior to statehood the "Pacific Fisherman" published a tabulation showing the number of fishermen and the quantities of fishing gear registered for the principal fishing areas of the territory. ^{143/} This tabulation shows 994 resident and 148 non-resident fishermen registered for Cook Inlet. There were 50 salmon traps on the inlet that year. In the gill net department, 213 king salmon drift nets and 453 king salmon set nets were registered. There were 346 drifters and 467 set nets for red salmon, a total of 813 nets fishing for that species, while 198 drifters and 326 set nets fished for cohos. In addition, the inlet had 112 beach seines registered.

Six new canning plants were opened on Cook Inlet between 1951 and 1955 but all of them were small and none survived until the end of the decade. In addition, a number of the small canneries that had started operations in earlier years went out of business during the 1950s. Fast-rising costs and uncertain markets seem to have accounted for these casualties.

Ownership changes were also frequent during this period and, particularly in the later years, a single cannery often made the packs for two or more different companies. This was true at Port Graham in 1959, when Fidalgo Island Packing Company, Alaska Year Round Canneries and Whitney & Company all packed there. This same arrangement apparently was scheduled for continuation in 1960, but in March of that year the plant was completely destroyed by fire. It had been built originally in 1912 by Fidalgo Island Packing Company and was thus one of the oldest on the inlet. It was not rebuilt until 1968.

Available figures for the decade on Cook Inlet include these: *211*

<u>Year</u>	<u>Canneries Operated</u>	<u>Traps Operated</u>	<u>Total Pack</u>	<u>Value</u>
1951	16	44	304,890	\$ 8,690,091
1952	12	49	283,895	6,374,830
1953	13	38	217,703	4,891,330
1954	14	45	381,831	8,318,387
1955	12	40	199,642	5,151,147
1956	11	60	309,352	8,207,232
1957	11	*	221,219	5,389,599
1958	16	*	300,728	6,638,587
1959	5	**	100,541	3,066,213
1960	8	**	255,855	6,941,279 ⁺
			<u>2,575,656</u>	<u>\$ 64,118,695</u>

* Information not available in published reports.

** Traps abolished by state legislature.

+ 1960 average prices not available; 1959 prices used to calculate the value of the 1960 pack.

Average prices of canned salmon during this decade were: 144/

<u>Year</u>	<u>Red</u>	<u>King</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>
1951	\$ 31.85	\$ 28.41	\$ 25.28	\$ 20.84	\$ 15.18
1952	28.60	26.76	21.34	18.52	15.66
1953	28.50	27.64	19.67	17.59	13.43
1954	28.89	26.76	22.87	19.55	14.66
1955	31.81	28.65	26.68	21.29	17.39
1956	34.35	31.22	28.81	22.58	18.74
1957	34.99	31.95	27.40	23.04	18.49
1958	33.77	29.76	26.34	20.76	16.31
1959	36.65	33.89	30.92	23.63	20.46
1960	Not available				

Cycle Develops

As Alaska got into the decade that marked its centennial under the American flag, the salmon runs on Cook Inlet appear to have settled into a pattern that had become noticeable toward the end of the previous decade, with good runs in the even-numbered years, poor ones in the odd years. The years 1955, 1957 and 1959 had much poorer packs on the inlet than did the years 1956, 1958 and 1960.

The pattern continued in 1961 when Cook Inlet canneries packed only 133,879 cases of salmon. ^{145/} This was better than the disastrous pack of 1959 but otherwise the smallest in many years. In 1962 the Cook Inlet pack bounced back to top the 300,000-case mark once more. The up-and-down pattern appears to have continued in 1963 and 1964 although statistics for those years as well as subsequent ones are too incomplete to make comparisons possible.

Cook Inlet Herring Production

Alaska herring provided one of the food staples of the coastal Natives long before the coming of the white man, and herring oil was a standard article of trade between the coast Indians and those living in the interior.

Commercial utilization of the herring by whites began in Southeastern Alaska at a place called Killisnoo in the early 1880s. Fish meal and oil were manufactured there, and some of the larger, fatter fish were salted for food.

In those years most of the herring packed for food in Alaska were dry salted and shipped to the Orient. The American demand for pickled herring -- that is, herring packed in brine -- was principally supplied from the State of Maine and by imports from Europe, mostly from Scotland and Norway. The Norwegian cured herring were hard salted and usually reached the table as boiled salt herring. The Scotch cure was milder and the product was usually smoked or spiced before being eaten uncooked. Until 1917, such Alaska herring as were not dry salted were prepared by the Norwegian method. In 1917, because of a demand created by World War I, the federal government hired a Scotch cure expert and sent him to Alaska to instruct herring packers in that method.

The production of salt herring on a commercial scale was apparently confined to Southeastern Alaska until 1907, when a small saltery was installed in the Shumagin Islands. ^{146/} Herring salteries were later opened at Chignik and on Kodiak Island, but all were operated on a limited scale until World War I created an increased demand for foodstuffs of all kinds and virtually shut off herring shipments from Europe to the United States.

As nearly as can be determined from available records, it was during the war that commercial herring packing began on Cook Inlet. That the inlet had a herring population is indicated by the fact that "Seldovia," the name of one of the principal bays of the southern inlet, is the Russian word for herring. The village of Seldovia on the bay of the same name became one of the centers of Cook Inlet herring packing and this entire section of the inlet became widely known for its herrring and its herring pack.

Halibut Cove and Seldovia were the two main centers of herring salting on Cook Inlet, although packs were also made at Tutka Bay, Port Graham, Ninilchik and aboard floating plants in various parts of the Kachemak Bay area of the southern inlet.

For the most part, the herring here were taken in gill nets, although in later years some of the larger producers utilized seines. A gill net of proper mesh size assured a pack of large and even-sized fish. The business had some real advantages for the fishermen of this area because it was mostly carried on in the fall and winter months when the salmon were not running and there was little employment. It was possible to get into the business with very little capital. No machinery was required and a rough shed was sufficient for a packing house. Beyond that, the packer needed only a net, some barrels and a supply of salt, plus a willingness to engage in a lot of hard work. Many of the fishermen of the Halibut Cove - Seldovia area packed their own herring catches.

In 1918 a total of 10 packers produced 6,625 barrels of Scotch cure herring and 7,700 barrels of Norwegian cure herring on Cook Inlet. ^{147/} This represented about 11 per cent of the Alaska pack of the former and 16 per cent of the latter type of product.

Based upon the value of the entire Alaska pickled herring pack that year, as reported by the U. S. Bureau of Fisheries -- approximately \$14.20 per barrel for Norwegian cure and \$15.40 for Scotch cure herring -- the Cook Inlet product would have been worth \$211,365. ^{148/} The figure is perhaps low. There were a great many grades of pickled herring, based upon the size and fatness of the fish and the care used in packing them. In fat content and size, at least, Cook Inlet herring ranked somewhat above average.

The pickled herring business had hard times in 1919 and 1920. This resulted from the end of the war in Europe and the resumption of herring imports from Norway and Scotland, especially the latter. In addition, no large market for the product had yet developed in America. Such demand as there was for pickled herring in this country definitely favored the Scotch type.

In 1919 the Cook Inlet pack was 5,500 barrels of Scotch cure and 4,215 barrels of Norwegian cure herring. In 1920 the total was 4,600 barrels, all Scotch cure.

Thereafter the herring business on the inlet generally improved, although 1923 was an off year because of a poor market. In that year, however, the U. S. Bureau of Fisheries licensed 20 herring fishermen-packers on Cook Inlet, most of them located at Halibut Cove. ^{149/}

Not all of the Cook Inlet herring packers were small operators and some of the salmon canners branched out into herring packing during the fall and winter months. One of these was the Fidalgo Island Packing Company at Port Graham made off-season use of its salmon warehouses as a saltery and also did some herring packing at Seldovia. San Juan Fishing & Packing Company, which had salmon, halibut and herring plants elsewhere along the Alaska coast, built a saltery at Tutka Bay, Cook Inlet, and later converted it to a salmon cannery. Libby, McNeill & Libby, which had operated a salmon cannery at Kenai for many years, began a herring pickling operation aboard the old sailing schooner Salvatore, a vessel of 385 tons, in the Kachemak Bay area. And at Ninilchik the North Coast Packing Company, one of the smaller salmon canners, also put up herring packs for several years.

In addition to Libby's floater, there were several others on Cook Inlet. The North American Fisheries company used the schooner Rosamond, 1,035 tons; Ottar Hofstad had the schooner Esther, 222 tons; Nassau Fish Company used a motor vessel, the ZR3, and another motor vessel, the Donna Lane of 1,597 tons was used as a saltery by Utopian Fisheries Company. The Aurora Fish Company had the schooner Alice Cooke, 781 tons, for its base. ^{150/} These floaters complicate present attempts to compile Cook Inlet statistics of the herring business in those years because they almost all packed herring at other localities such as Kodiak Island and Prince William Sound as well and reported the entire production in lump figures.

In 1926 the trade magazine "Pacific Fisherman" listed 42 Cook Inlet herring packers, with a production of something in excess of 22,000 barrels.^{151/} In 1927 there were 43 packers, but production was down to some 10,000 barrels.^{152/} Both the number of operators and the production dropped in 1928, and that was the last year of any substantial herring production on Cook Inlet. The herring simply failed to show up there in numbers in 1929, and those that appeared in later years were too small for the purpose.

Several theories have been advanced to account for the disappearance of large-sized herring from Cook Inlet. Overfishing is one; another is that an excess of offal and dead fish were dumped into the bay and drove the herring to a new habitat.

Whatever the reason, the herring industry on Cook Inlet, after a relatively short life, ended abruptly and, apparently, finally.

Clam Canning on Cook Inlet

Clams have been of economic importance on Cook Inlet since people began living there, and early villages were often located in close proximity to good clam beds. But the processing of clams for export from the inlet, although it has at times during the past fifty years assumed some commercial importance, never became a major industry there as it did, for example, at Cordova on Prince William Sound.

Most of the clams that were canned on Cook Inlet were razor clams, which are found mainly on the beaches along the western side of the inlet from Cape Douglas northward to the vicinity of Tuxedni Bay. Clams from some of these beaches, particularly in the vicinity of Cape Douglas, have also been transported from the inlet for processing at plants on Kodiak Island or at Kukak on the Alaska Peninsula.

The commercial canning of Cook Inlet clams, so far as the record shows, began in 1919 when the Surf Packing Company built a cannery at what was known as Snug Harbor on Chisik Island, Tuxedni Bay. This was primarily a salmon cannery but the company made an experimental pack of clams as well. ^{153/} The experiment was evidently successful because it was followed up in 1920 with a pack of 249 cases of clams ^{154/} and the following year the production was 1,500 cases. ^{155/}

In 1922 the Surf Packing Company was succeeded at Snug Harbor by Polar Fisheries Company and this firm packed 10,634 cases of clams along with 6,228 cases of salmon. ^{156/} That was, however, the company's only year of operation. In 1923 Pioneer Canneries, Inc., took over the plant and stepped up the clam operation, packing 13,916 cases of that product while the salmon pack remained about the same, 6,646 cases. ^{157/}

Pioneer Canneries, Inc., also operated but one season and in 1924 the plant at Snug Harbor was taken over the the Chisik Island Corporation, which packed clams exclusively. It produced 5,236 cases in its first and only year of operation. 158/

Neither clams nor salmon were packed at Snug Harbor in 1925 or 1926, and so far as published records show there was no clam canning anywhere on Cook Inlet in those years.

In 1927 the Snug Harbor Packing Company was organized and took over the cannery on Chisik Island, making packs of both clams and salmon that year. The clam pack was relatively small, however, and consisted of only 1,052 cases. Salmon production was 15,259 cases. 159/

That was the last year clams were canned at Snug Harbor, although the Snug Harbor Packing Company continued as a salmon cannery. It was also several years before clam canning was resumed at any point on the inlet. This fact appears to have been due more to market conditions than to a shortage of clams; the number of clam packers in all parts of Alaska decreased during this period. There was, during this time, however, a clam canning operation around the corner from Cook Inlet, at Kukak Bay, and some Cook Inlet clams were processed there. "Alaska Fishery and Fur-Seal Industries, 1932," page 54, states that clam digging continued on "the mainland shore from Kukak Bay to Snug Harbor."

The year 1932 saw a resumption of clam canning on Cook Inlet itself, but not at the old location on the western side of the inlet. The new plant was at Seldovia where the North Pacific Packing Company put up 3,910 cases of razor clams, its efforts being devoted exclusively to clams. 160/

The North Pacific Packing Company was joined on Cook Inlet in 1933 by four other clam packers, all operating on razor clams but all of them small producers. North Pacific turned out 9,435 cases that year. The others were Frank Cooper at Ninilchik, 73 cases; Enterprise Sea Food Co., Ninilchik, 78 cases; Ninilchik Packing Company, Ninilchik, 137 cases; and Kustatan Packing Company at Cape Kustatan, 131 cases. ^{161/} All of these except Frank Cooper also engaged in salmon canning during the year. ^{162/}

Of the five 1933 clam packers, only Ninilchik Packing Company operated on clams in 1934 and it produced but 189 cases. ^{163/} That was the end of Cook Inlet canned clam production until 1938, when Enterprise Packing Company put up 150 cases at Ninilchik and O. G. Teide packed 350 cases at Anchorage. ^{164/} In 1939 the only production was 190 cases packed by Cooper & Son at Ninilchik. ^{165/} The following year Cooper & Son and Enterprise Seafood Co. were listed as a joint operation but produced a total of only 155 cases of razor clams. ^{166/}

Cook Inlet canned clam production ceased again during the war years and it was not until 1945 that another small pack was made. This was again at Ninilchik and the firm was Polar Sea Foods which packed 625 cases that year ^{167/} and 476 cases in 1946. ^{168/} before dropping out of the clam business to concentrate on salmon.

In 1947 two firms produced canned clams on Cook Inlet: Alaska-Seldovia Packers, Inc., at Seldovia, with 409 cases, and R. A. Kester at Polly Creek near Tuxedni Bay with 90 cases. ^{169/} The two operations that year apparently were the last attempts to make commercial packs of canned clams on Cook Inlet.

Cook Inlet Halibut Fishing

Halibut fishing has never played a big part in the fishing industry of Cook Inlet, but there has been some commercial fishing of halibut there, at least intermittently, since about the end of World War I. In those years much of the North Pacific halibut fishery was carried on by dories which were transported by larger vessels. These vessels included a number of steamers and it was the steam halibuters that fished Cook Inlet, these waters being too distant from the market for the smaller vessels powered by gasoline engines.

The three steamers that were most involved in the Cook Inlet halibut fishery were the New England, owned by the New England Fish Company, and the Chicago and Zapora, owned by the Booth Fisheries Company. These steamers, equipped with twelve or more dories apiece, were capable of carrying 200,000 pounds or more of iced halibut and not infrequently made catches of that magnitude.

The New England landed her fares at Ketchikan, where her owners had a cold storage plant, or at Vancouver, B.C., while the Chicago and Zapora made their landings at either Sitka or Seattle, their owners having a freezer plant at each of these ports.

Aside from an occasional mention in a trade paper that one or another of the steamers had landed a fare from Cook Inlet, however, there is almost no published information about this fishery. In those years there were as yet no laws or treaties regulating the halibut fishery, and all vessels engaged in it were classed in the "sea fishery" even though they did not leave territorial waters. They were thus required to clear through customs when leaving port on a fishing voyage and to enter customs again upon their return, but were not required to specify where they had fished.

The first interference by the government with halibut fishing in Cook Inlet seems to have been an occurrence of 1924 in connection with the Southwestern Fisheries Reserved, created two years earlier. This reserve included all of Cook Inlet and was established by executive order on November 3, 1922. Fishing operations within the reserve were subject to regulations issued by the Secretary of Commerce, in whose department the U. S. Bureau of Fisheries then reposed.

The regulations, as adopted for the season of 1923, required a special permit to engage in the taking of salmon, clams, crabs, herring, halibut, and cod. ^{170/} A total of 142 permits were issued for Cook Inlet, but only one of these covered halibut fishing. ^{171/} This one, No. 29, was issued to one Arne C. Olson and was for halibut and cod fishing in Kachemak Bay. So far as can be learned, no permit was issued for any of the three halibut steamers named above. ^{172/} This may be because none of them fished in the inlet in 1923, although the Chicago and Zapora, at least, were fishing halibut north of Sitka during the year. ^{173/}

In 1924 at least two steamers were fishing halibut in Cook Inlet on May 27. On that date the Zapora, with her dories out, was southwest of Anchor Point when she was boarded at 12:40 p.m. by Agent Studdert from the fisheries patrol vessel Kittiwake. ^{174/} She was ordered to stop fishing until she secured a permit. At 1:10 p.m. the same day the steamer New England was boarded and given the same order. ^{175/} It is not clear from available records whether the masters of the two steamers requested permits and were refused, or whether they did not apply to the fisheries agent. Nothing more is known of the New England's actions, but Captain Kehoe of the Zapora used his ship's wireless to notify his Chicago headquarters that he had been stopped from fishing. We do not have this message, but the message sent by P. L. Smithers, president of Booth Fisheries Company, has been preserved:

WESTERN UNION TELEGRAM

129 FY OD 48

CHICAGO ILL 155P MAY 28 1924

HENRY OMALLEY

COMMISSIONER OF FISHERIES DEPARTMENT OF FISHERIES
WASHINGTON DC

OUR CAPTAIN HALIBUT BOAT ZAPORA WIRES FISH COMMISSIONER WILL NOT ALLOW HIM FISH FOR HALIBUT IN COOKSINLET WITHOUT PERMIT FROM YOUR DEPARTMENT ALL OTHER FISHING GROUNDS COVERED BY OTHER SCHOONERS AND WE RESPECTFULLY REQUEST PERMIT FISH COOKINLET AS OTHERWISE WILL INCUR SUBSTANTIAL DAMAGE AND LOSS TO THIS COMPANY

P L SMITHERS

315P

176/

Commissioner of Fisheries Henry O'Malley responded promptly by sending this telegram:

MSH - 17
May 28, 1924

Studdert, Fisheries agent,
Seldovia, Alaska

Master Zapora wires you will not allow him fish for halibut Cook Inlet without permit from Department (stop) You should issue permit immediately.

O'Malley.

Copy to Seattle office.

177/

Ten days after Mr. O'Malley sent his directive, the Southwestern Alaska Fisheries Reserve came to an end. This was a result of the enactment of a comprehensive fisheries law for Alaska, known as the White Act. Ended with the reserve was the necessity for fishing permits in the reserve area, but it was not the end of regulation for the halibut fishery. On the same day, June 7, 1924, a new law, "An Act for the Protection of the Northern Pacific Halibut Fishery" was approved by the President. And this was followed, later in 1924, by the ratification of a Convention between the United States and Great Britain (Canada) to provide for the protection of halibut in all North Pacific waters.

Both the halibut law and the halibut convention applied not only to the territorial waters of Canada and the United States, but to "the high seas, including Bering Sea, extending westerly from the limits of the territorial waters of the United States and of Canada." ^{178/} It was these and subsequent enactments of the same type that brought about the restoration of dwindling halibut stocks and put the industry back on its feet.

The Zapora went out of the halibut fishery soon after the 1924 season, but the New England continued fishing, mostly in Cook Inlet, through the season of 1930. At the beginning of the 1931 season her owners announced that she was being laid up. ^{179/} She remained laid up, at least partly because of the low prices paid for fish during the depression years, and never fished again.

The first cold storage plant for the freezing of halibut built within range of small vessels fishing in Cook Inlet was established at Seward in 1917 by the San Juan Fishing & Packing Co. Two years later the Alaska Ocean Food Co. began construction of a similar plant at Port Chatham, at the southwestern tip of Kenai Peninsula. The location was named Portlock. Alaska Ocean Food Co. got into financial difficulties and the property was taken over by the Pacific Sea Products Association. This was a cooperative association made up of some of the members of the Halibut Fishing Vessel Owners Association, of Seattle. It was the announced intention of this group to finish a freezer plant with a storage capacity of two and a half million pounds of fish and to handle the catches of members. Many of these men fished on Portlock Bank and other waters close by. Few of them seem to have regularly fished in Cook Inlet itself. ^{180/}

Machinery was shipped to Portlock in January, 1920, but the plant was only partially completed and was never much used for halibut. This may have been due in great part to the general economic depression of that period plus the very

bad condition of the entire North Pacific halibut fishery, which included low prices and poor catches because of depleted stocks. The buildings at Portlock were later used for a salmon cannery and for other purposes.

There were reports of halibut fishing on Cook Inlet, both by local boats and by larger vessels from Seattle or elsewhere when there was a local newspaper to report such happenings, which was seldom. Outside of Anchorage, which was far from the fishing grounds both in distance and in interest, there was in fact but one such paper until quite recent years. This was "The Seldovia Herald" which was published for a little more than a year in 1930 and 1931. This paper reported in May, 1931, that Emil Sandvik, who owned a salmon cannery at Swanson Creek, was fishing halibut with his boat Myrtle and delivering his catches to Anchorage. ^{181/} Presumably the fish were sold on the fresh market there.

Later the same year the "Herald" reported the sinking of the halibut boat Democrat, a 56-foot vessel, near Yukon Island in Kachemak Bay on August 13. The halibuter had earlier hit a rock while fishing at Iniskin Bay, according to the news story. Apparently she sustained more damage that was realized as she continued fishing but suddenly filled and plunged to the bottom, taking down about 25,000 pounds of halibut but without loss of life. ^{182/}

Soon after these two fishing reports were published, "The Seldovia Herald" went out of business. Whatever halibut fishing took place on the inlet thereafter was unreported in the press. It is almost certain that there was some fishing for the local fresh fish market at Anchorage and along the railbelt, and no doubt some of the larger Seattle vessels made occasional trips into the inlet.

It was not until after World War II that another fisheries cold storage plant was built on the inlet. This came in 1946 when the Alaska Fish & Farm Products, Inc., built its plant at the mouth of Ship Creek on the Anchorage waterfront, opening it for business on June 1. The firm handled halibut, clams, crabs, salmon and eulachon as well as some farm products. ^{183/}It apparently was successful. At any rate, it continued in operation and provided a market for such local vessels and fishermen as wanted to try for halibut in Cook Inlet waters. It cannot be said, however, despite this outlet that the halibut fishery has ever grown to great importance or made any substantial contribution to the area's economy.

The Crab Fishery

The crab packing industry is relatively new on Cook Inlet, although it had its initial beginnings nearly half a century ago when, in 1920, the Arctic Packing Co., a salmon canner at Seldovia, and Eda O. Kitzman combined their efforts to catch and pack a few cases of canned crab meat as an experiment. ^{184/} It is not known how much of an effort was made to market this experimental pack, but it must have enjoyed some success because the experiment was repeated. The species used in making it was Paralithodes camtschatica, which was more commonly known along the Alaska coast at that time as "spider" crab and, in some places, as "devil" crab. Neither name was particularly helpful to a marketing effort, although it was this species that the Japanese had been successfully canning and selling for some years.

In 1921 the Arctic Packing Company put up another 60 cases of the product and the Alaska-Year-Round Canneries Co. was organized, also at Seldovia, to process "spider" crab, although no pack was reported that year. ^{185/} In 1922 the new firm produced 150 cases of crab meat and Arctic Packing Co. put up 45 cases. ^{186/} Except for a few cases packed in the Alaska Year-Round plant in 1925, however, that was the last canned crab production on Cook Inlet until 1937 or 1938.

In the spring of 1937 Leon S. Vincent arrived at Seldovia with a variety of both crab and shrimp fishing gear, and with it he began prospecting local waters. ^{187/} Both crabs and shrimp were found in some abundance and either later that year or in 1938 he put up a small pack of canned crab meat. The operation seems to have been continued, on rather a small scale, until beginning of World War II. So far as can now be learned, there was no crab operation on Cook Inlet during the war.

The Alaska king crab fishery got its real start after the war, beginning in Bering Sea and spreading to the Kodiak Island area and to Cook Inlet. In 1951 Cook Inlet production amounted to only 3,119 pounds of crab in the round; in 1952 it climbed to 87,968 pounds and in 1953 to 1,710,880 pounds. 188/ It is next to impossible, in the literature on the subject, to separate the Cook Inlet portion of the development from that of other areas, but Jay Staüter of Alaska Methodist University has prepared a paper on the industry which is appended here. 189/

Much of the Cook Inlet crab catch, in early years of the fishery there, went elsewhere for processing, but plants for both canning and freezing crab meat and for freezing whole crabs were built, with Seldovia becoming the center of the industry on the inlet, followed by Homer. The Seldovia plants were hard hit by the earthquake of 1964 and the entire industry has suffered a loss of production, in the past few years, because of declining crab stocks. It is hoped that conservation measures now being taken will restore it to near its former level.

REFERENCES

1. Goode, George Brown, "The Fisheries and Fishery Industries of the United States," Section III, 47th Congress, 1st Session, Misc. Doc. 124, part 4, Washington, 1887; Section C, "The Fishery Resources and Fishing-Grounds of Alaska," by Tarleton H. Bean, pp. 90-94. [Wickersham No. 8766. State of Alaska No. 32.]
2. Cobb, John N., "Pacific Salmon Fisheries," Third Edition, Appendix I to the Report of the U. S. Commissioner of Fisheries for 1921, Bureau of Fisheries Document No. 902, Washington, 1921, 268 pages. Page 38. [Wickersham No. 8866, State of Alaska No. 33.] Hereafter cited as Cobb.
3. Moser, Jefferson F., "The Salmon and Salmon Fisheries of Alaska," in "Bulletin of the United States Fish Commission, Vol. XVIII, for 1898," Washington, 1899, 178 pages. Page 51. [Wickersham No. 8790, State of Alaska No. 35.] Hereafter cited as Moser.
4. "History of the Presbyterian Mission School," author not named, "The Alaskan," Sitka, November 7, 1885, Vol. I, No. 1.
5. Cobb, p. 38. [State of Alaska No. 33]
6. Cobb, p. 50. [State of Alaska No. 33]
7. Cobb, p. 50. [State of Alaska No. 33]
8. Bancroft, Hubert Howe, "History of Alaska," San Francisco, 1890, p. 334. [State of Alaska No. 100]
9. Letter from Charles S. Bulkley, Engineer-in-Chief, Russo-American Telegraph, to Hon. N. P. Banks, M.C., San Francisco., Cal., Nov. 20, 1868; 40th Congress, 2d session, House Misc. Doc. No. 131, page 12. [State of Alaska No. 103]
10. Petroff, Ivan, "Report on the Population, Industries and Resources of Alaska, U. S. Census Office, Tenth Census, Vol. 8, p. 178. Hereafter cited as Petroff. [Wickersham No. 7655, State of Alaska No. 37.]
11. Cobb, page 50. [State of Alaska No. 33]
12. "United States Coast Pilot - Alaska, Part II - Yakutat Bay to Arctic Ocean," Third Edition, 1931, page 123. [State of Alaska No. 106]

13. Cobb, page 27. [Alaska No. 33]
14. Moser, page 51. [Alaska No. 35]
15. Bancroft, pages 262 and 321. [State of Alaska No. 100]
16. Petroff, page 178. [State of Alaska No. 37]
17. "Alaska Commercial Company Records: 1868-1911." The voluminous records of most if not all of the company station in its Kodiak Division, including those on Cook Inlet, are in the Archives of the University of Alaska Library at College, Alaska. Because these records are largely in unpagged books and on unnumbered loose sheets, they are cited by the location of the station, the date of the entry, and the type of record: "Log Book," "Inventories and Accounts," "Letters," etc. A catalog of these records is available from the University Library. Because of the poor quality of the originals and the lack of readily accessible copy equipment at the time they were examined, copies are not included. Cited hereafter as "Alaska Commercial Company Records."
18. "Alaska Commercial Company Records," Log Books, English Bay Station, May 13, 1882 to May 14, 1883; May 15, 1883 to July 3, 1884, and July 4, 1884 to September 22, 1885, entries for dates mentioned in text.
19. Cobb, page 50. [Alaska No. 33]
20. Moser, page 51. [Alaska No. 35]
21. "The Alaskan," Sitka, November 6, 1886, Vol. II, No. 1, page 4.
22. Knapp, Lyman E., "Report of the Governor of Alaska for the Fiscal Year ended June 30, 1890," page 14. [State of Alaska No. 104]
23. "List of Merchant Vessels of the United States, 1887," Bureau of Navigation, Treasury Department, Washington, D.C. [State of Alaska No. 102]
24. "Alaska Commerical Company Records," Station Log, Tyonek, July 1, 1887.
25. Moser, page 51. [Alaska No. 35]
26. "The Alaskan," Sitka, October 15, 1887, Vol. II, No. 47, page 1.
27. Cobb, page 50. [Alaska No. 33]
28. "History of Alaska," page 335. [State of Alaska No. 100]
29. Tenth Census Report, page 178. [State of Alaska No. 37]
30. "Fishery Resources and Fishing-Grounds of Alaska," page 94. [State of Alaska No. 32]

31. Moser, page 51. [State of Alaska No. 35]
32. Davidson, George, "Resources of and Development in Alaska," in Coast & Geodetic Survey Bulletin No. 4, vol. 1, May 25, 1888, page 24. Hereafter cited as Davidson. [State of Alaska No. 101]
33. "List of Merchant Vessels of the United States, 1889," Bureau of Navigation, Treasury Department, Washington, D.C. [State of Alaska No. 102]
34. Ibid.
35. Davidson, page 24. [State of Alaska No. 101]
36. "List of Merchant Vessels of the United States, 1889," op. cit. [State of Alaska 102]
37. Moser, page 51. [State of Alaska No. 35]
38. Moser, page 51. [State of Alaska No. 35]
39. "Bulletin of the United States Fish Commission," Vol. IX, for 1889, page 202. [State of Alaska No. 96]
40. Moser, page 51. [State of Alaska No. 35]
41. Wright, E. W., ed., "Lewis & Dryden's Marine History of the Pacific Northwest," Portland, Oregon, 1895, page 237.
42. Moser, page 51. [State of Alaska No. 35]
43. "Bulletin of the United States Fish Commission," Vol. IX, for 1889, page 202. [State of Alaska No. 96]
44. "List of Merchant Vessels of the United States, 1889," Bureau of Navigation, Treasury Department, Washington, D.C. [State of Alaska No. 102]
45. "Bulletin of the United States Fish Commission," Vol. IX, for 1889, page 202. [State of Alaska No. 96]
46. Cobb, page 50. [State of Alaska No. 33]
47. "List of Wrecks in Alaskan Waters, from Pacific Fisherman," in "The Washington Historical Quarterly, January, 1916, Vol. VII, No. 1, page 46. [State of Alaska No. 102]
48. Moser, page 51. [State of Alaska No. 35]
49. Cobb, page 177. [State of Alaska No. 33]
50. Moser, page 51. [State of Alaska No. 35]
51. Pracht, Max, Special Treasury Department Agent, "Report on the Salmon Fisheries of Alaska," 13 pages, Treasury Department, Jan. 23, 1893. Pages 10-11 [State of Alaska No. 47]
52. Johnson, Commander Henry L., letter to Commander R. D. Evans, U.S.N., in Command Naval Forces in Bering Sea, dated Port Etches, Alaska, June 16, 1892 (Microcopy 625, Roll 302, Frames 446 & 447); same, "List of Vessels Boarded," dated June 19, 1892 (Microcopy 625, Roll 302, Frame 483). [State of Alaska No. 105]

53. "The Alaskan," Sitka, June 18, 1892, page 3, column 2; July 2, 1892, page 2, column 3; October 1, 1892, page 3, column 1; October 8, 1892, page 2, column 3; December 10, 1892. [State of Alaska No. 48]
54. Cobb, page 50. [State of Alaska No. 33]
55. Murray, Joseph, "Report on the Salmon Fisheries in Alaska, 1894," Washington, 1896. [State of Alaska No. 9]
56. Murray, Joseph; Tingle, George R.; Kutchin, Howard M., "Salmon Fisheries of Alaska" for years indicated. [State of Alaska Nos. 9, 10, 11, 12]
57. Kutchin, Howard M., "Report on the Salmon Fisheries of Alaska, 1898," Treasury Document No. 2095. [State of Alaska No. 13]
58. Ibid.
59. Moser, page 143. [State of Alaska No. 35]
60. "Report of the Special Agent for the Protection of the Alaska Salmon Fisheries," Washington, 1900. [State of Alaska No. 14]
61. Moser, Jefferson F., "Salmon Investigations of the Steamer Albatross in the Summer of 1900," in "Bulletin of the United States Fish Commission, Vol. XXI, for 1901," Washington, 1902. [State of Alaska No. 36]
62. Cobb, page 51, [State of Alaska No. 33] and Moser [State of Alaska No. 36]
63. Kutchin, Howard M., "Report on the Salmon Fisheries of Alaska, 1900," Washington, D. C. 1901. [State of Alaska No. 15]
64. Cobb, page 177. [State of Alaska No. 33]
65. "The Valdez News," July 25, 1901, page 1. [State of Alaska No. 49]
66. Cobb, page 50, [State of Alaska No. 33]:
67. Ibid., page 51.
68. Ibid., page 51; "Alaska Fisheries and Fur Industries," Bureau of Fisheries, Documents 766, 780, 797, 819, 834, 838, 847, 872, 891 and 909, 1911-1920, inclusive. Hereafter cited as "Alaska Fisheries Industries." [State of Alaska No. 52]

69. "Alaska Fisheries Industries," 1911, page 41; same, 1912, page 49. [State of Alaska No. 52]
70. "Alaska Fisheries Industries," 1913, page 97. [State of Alaska No. 52]
71. "Alaska Fisheries Industries," 1914, page 31. [State of Alaska No. 52]
72. "Alaska Fisheries Industries," 1915, page 33. [State of Alaska No. 52]
73. Cobb, page 51. [State of Alaska No. 33]
74. Ibid.
75. "Alaska Fisheries Industries," 1912, page 49. [State of Alaska No. 52]
76. Cobb, page 51. [State of Alaska No. 33]
77. "Alaska Fisheries Industries," 1912, page 49. [State of Alaska No. 52]
78. "Alaska Fisheries Industries," 1913, page 97. [State of Alaska No. 52]
79. "Record of Special Clearance of Vessels in Coastwise Trade, 1908-1947," Alaska Customs District. Federal Record Center, Seattle, Record Group No. 30136.
80. Cobb, page 51. [State of Alaska No. 33]
81. "Alaska Fisheries Industries, 1915, page 33; same, 1916, page 43; same, 1917, page 34. [State of Alaska No. 52]
82. Cobb, page 51. [State of Alaska No. 33]
83. "Alaska Fisheries Industries," 1916, page 50. [State of Alaska No. 95]
84. Cobb, page 178. [State of Alaska No. 33]
85. "Alaska Fishery Industries," 1920, page 52. [State of Alaska No. 52]
86. "Pacific Fisherman Yearbook, 1920," page 81. [State of Alaska No. 95]
87. "Pacific Fisherman Yearbook, 1921," page 38. [State of Alaska No. 95]
88. "Alaska Fishery Industries" 1920, page 52. [State of Alaska No. 52]
89. "Pacific Fisherman Yearbook, 1921," page 38. [State of Alaska No. 95]
90. Cobb, page 51. [State of Alaska No. 33]
91. "Pacific Fisherman Yearbook, 1919," pages 124a, 125. [State of Alaska No. 94]
92. "Pacific Fisherman Yearbook, 1919," page 124; same, 1920, page 131. [State of Alaska No. 94]
93. Ibid.
94. "Pacific Fisherman Yearbook, 1921," page 38. [State of Alaska No. 95]
95. "Pacific Fisherman Yearbook, 1921," page 59. [State of Alaska No. 95]

96. "Alaska Fishery Industries," 1912, page 49. [State of Alaska No. 52]
97. "Alaska Fishery Industries," 1920, pages 51-52. [State of Alaska No. 52]
98. The three were Libby and Northwestern at Kenai, Alaska Packers at Kasilof.
99. "Session Laws of Alaska, 1913," Chapter 52. [State of Alaska No. 98]
100. "Compiled Laws of Alaska, 1913," Section 259. [State of Alaska No. 97]
101. "Session Laws of Alaska, 1913," Chapter 52. [State of Alaska No. 98]
102. "House Journal" and "Senate Journal," 1913. [State of Alaska No. 98]
103. "Pacific Fisherman Yearbook, 1922," page 61. [State of Alaska No. 89]
104. "Anchorage Daily Times," July 22, 1921. "Alaska Fishery Industries," 1921, incorrectly gives the date of the fire as June 21.
105. "Pacific Fisherman Yearbook, 1921," pages 38 and 59. [State of Alaska No. 95]
106. "Alaska Fishery Industries," 1922, page 68; "Pacific Fisherman Yearbook, 1923," page 43. [State of Alaska Nos. 54, 89]
107. "Alaska Fishery Industries," 1923, page 91; "Pacific Fisherman Yearbook, 1924," page 43. [State of Alaska Nos. 55 and 89]
108. "Alaska Fishery Industries," 1925, page 114; "Pacific Fisherman Yearbook, 1926," page 64. [State of Alaska Nos. 57, 89]
109. "Alaska Fishery Industries," 1926, page 281; "Pacific Fisherman Yearbook, 1927," page 84. [State of Alaska Nos. 58, 89]
110. "Alaska Fishery Industries." 1927, page 120; "Pacific Fisherman Yearbook, 1928," page 74. [State of Alaska Nos. 59, 89]
111. "Alaska Fishery Industry," 1928, page 271; "Pacific Fisherman Yearbook, 1929," page 68. [State of Alaska Nos. 60, 89]
112. "Alaska Fishery Industries," 1929, page 284; "Pacific Fisherman Yearbook, 1930," page 68. [State of Alaska Nos. 61, 89]
113. "Alaska Fishery Industries," 1930, page 43; "Pacific Fisherman Yearbook, 1931," page 74. [State of Alaska Nos. 62, 89]
114. "Record of Special Clearance of Vessels in Coastwise Trade, 1908-1947," Alaska Customs District. On deposit at Federal Record Center, Seattle, Record Group No. 30136.
115. "Alaska Fishery Industries," 1931, page 58. [State of Alaska No. 63]

116. Compiled from statistics in "Alaska Fishery Industries," volumes for 1921 - 1930, inclusive. [State of Alaska Nos. 53-62.]
117. "Compiled Laws of Alaska, 1913," Chapter Three, "Salmon Fisheries," pages 197-202. [State of Alaska No. 97]
118. Executive Order No. 3752, issued November 3, 1922, by President Warren G. Harding. [State of Alaska No. 54.]
119. "Alaska Fishery Industries," 1922, page 12. [State of Alaska No. 54]
120. Ibid., page 13. [State of Alaska No. 54]
121. "Alaska Fishery Industries," 1923, page 57. [State of Alaska No. 55]
122. Ibid. [State of Alaska No. 55]
123. Omitted.
124. "Alaska Fishery Industries," 1924, page 70. [State of Alaska No. 56]
125. Ibid., page 68. [State of Alaska No. 56]
126. Ibid., page 74. [State of Alaska No. 56]
127. Ibid., page 76. [State of Alaska No. 56]
128. "Alaska Fishery Industries," 1933, page 270; same, 1934, page 31; same, 1938, page 122. [State of Alaska Nos. 65, 66, 70]
129. Beginning in 1936 PAF made joint packs with the Snug Harbor Packing Co. in the latter's cannery at Tuxedni Bay. "Pacific Fisherman Yearbooks," 1937, 1938, 1939, 1940, 1941. [State of Alaska No. 90]
130. "Alaska Fishery Industries," 1930, page 45; table, page 43, this report. [State of Alaska No. 62]
131. Table, page 43, this report.
132. Tables, pages 36 and 43, this report.
133. Developed from information in "Alaska Fishery Industries," issues 1931-1940, inclusive. [State of Alaska Nos. 63-72]
134. Average prices for each species are given each year in "Alaska Fishery Industries." The 1940 issue, page 34, contains a table showing prices for the entire decade. [State of Alaska No. 72]
135. "Alaska Fishery Industries," 1950, page 38.
136. "Alaska Fishery Industries," 1941, pages 27-28; 1942, pages 23-24; 1943, pages 23-24; 1944, pages 26-27; 1945, pages 24-25. [State of Alaska Nos. 73-77]
137. "Alaska Fishery Industries," 1950, page 38. [State of Alaska No. 82]
138. "Alaska Fishery Industries," 1946, page 23. [State of Alaska No. 78]
139. "Alaska Fishery Industries," 1947, page 26; 1948, page 23. [State of Alaska Nos. 79, 80]

140. From information in the annual reports, "Alaska Fishery Industries," for the years indicated. [State of Alaska Nos. 73 through 82.]
141. "Alaska Fishery Industries," 1950, page 38. [State of Alaska No. 82.]
142. Percentages calculated from pack information in "Alaska Fishery Industries," the annual reports of the U. S. Bureau of Fisheries and its successor, the U. S. Fish & Wildlife Service.
143. Pacific Fisherman Yearbook, 1959, page 188. [State of Alaska No. 92]
144. "Alaska Fishery Industries," 1951-1956, incl.; Annual Report, Alaska Department of Fish and Game, 1959, page 110. [State of Alaska Nos. 83-88, 99]
145. "Pacific Fisherman Yearbook, 1962," page 43. [State of Alaska No. 93]
146. "The Fisheries of Alaska in 1910," U. S. Bureau of Fisheries, Document No. 746, Washington, D.C., 1911, page 46. [State of Alaska No. 94]
147. "Pacific Fisherman Yearbook, 1919," page 122a. [State of Alaska No. 94]
148. Calculated from values reported in "Alaska Fisheries and Fur Industries in 1918," page 63. [State of Alaska No. 94]
149. "Alaska Fishery and Fur-Seal Industries, 1923," pages 58-60. [State of Alaska No. 55]
150. "Alaska Fishery and Fur-Seal Industries, 1927," page 132. [State of Alaska No. 59.]
151. "Pacific Fisherman Yearbook, 1927," page 198. [State of Alaska No. 89]
152. "Pacific Fisherman Yearbook, 1928," page 180. [State of Alaska No. 89]
153. "Alaska Fisheries and Fur Industries in 1919," U. S. Bureau of Fisheries Document No. 891, Washington, 1920, page 59.
154. Pacific Fisherman Yearbook, 1921, page 91. [State of Alaska No. 107]
155. Pacific Fisherman Yearbook, 1922, page 76. [State of Alaska No. 107]
156. Pacific Fisherman Yearbook, 1923, page 87 [State of Alaska No. 107]; same, page 43. [State of Alaska No. 89].
157. Pacific Fisherman Yearbook, 1924, page 89 [State of Alaska No. 107]; same, page 43 [State of Alaska No. 89].
158. Pacific Fisherman Yearbook, 1925, page 108. [State of Alaska No. 107].
159. Pacific Fisherman Yearbook, 1928, page 74 [State of Alaska No. 89]; same, page 155 [State of Alaska No. 108].
160. Pacific Fisherman Yearbook, 1933, page 139 [State of Alaska No. 108].
161. Pacific Fisherman Yearbook, 1934, page 147 [State of Alaska No. 108].
162. Pacific Fisherman Yearbook, 1934, page 61 [State of Alaska No. 90].

163. Pacific Fisherman Yearbook, 1935, page 155 [State of Alaska No. 108].
164. Pacific Fisherman Yearbook, 1939, page 284 [State of Alaska No. 109].
165. Pacific Fisherman Yearbook, 1940, page 292 [State of Alaska No. 109].
166. Pacific Fisherman Yearbook, 1941, page 277 [State of Alaska No. 109].
167. Pacific Fisherman Yearbook, 1946, page 287 [State of Alaska No. 110].
168. Pacific Fisherman Yearbook, 1947, page 209 [State of Alaska No. 110].
169. Pacific Fisherman Yearbook, 1948, page 297 [State of Alaska No. 110].
170. Bower, Ward T., "Alaska Fishery and Fur-Seal Industries in 1923," Bureau of Fisheries Document No. 973, Washington, D.C., 1925, pp. 62-63. [State of Alaska No. 138]
171. Ibid., pp. 58-60. [State of Alaska No. 138]
172. Examination of carbon copies of permits issued, in the National Archives, Washington, D.C., failed to disclose any except those listed above in Note 171.
173. "The Pacific Fisherman," Vol. XXI, No. 4, April, 1923, p. 39; Ibid., Vol. XXI, No. 12, December, 1923, p. 41.
174. "Log of U.S.F.S. Kittiwake," Month of May, 1924, p. 4, in Records of U. S. Bureau of Fisheries, National Archives, Washington, D.C., Box 118.
175. Ibid.
176. Records of U. S. Bureau of Fisheries, National Archives, Washington, D.C. Box 118, Monthly Reports, 1918-1932. [State of Alaska No. 137]
177. Carbon copy in Records of U. S. Bureau of Fisheries, Note 176 above. [State of Alaska No. 137]
178. Bower, Ward T., "Alaska Fishery and Fur-Seal Industries in 1924," Bureau of Fisheries Document No. 992, Washington, D.C., 1925, pp. 71-74. [State of Alaska No. 139]
179. "The Pacific Fisherman," Vol. 29, No. 4, March, 1931, page 53.
180. "The Pacific Fisherman," Vol. XVIII, No. 3, March, 1920, p. 46.
181. "The Seldovia Herald," Vol. I, No. 17, May 9, 1931.
182. "The Seldovia Herald," Vol. I, No. 39, August 15, 1931.
183. "The Pacific Fisherman," Vol. 44, No. 10, September, 1946, p. 73.

184. Bower, Ward T., "Alaska Fishery and Fur-Seal Industries in 1920," Bureau of Fisheries Document No. 909, Washington, D. C., 1921, p. 69.
185. "Pacific Fisherman Yearbook, 1922," pp. 76-77. [State of Alaska No. 107]
186. Ibid, 1923, p. 87-88.
187. "Pacific Fisherman," Vol. 35, No. 7, June, 1937, p. 61.
188. "1954 Annual Report, Alaska Fisheries Board and Alaska Department of Fisheries," Juneau, Alaska, no date, p. 38. [State of Alaska No. 140]
189. Stauter, Jay, Lecturer in History, Alaska Methodist University, "A Memorandum History of the Alaska King Crab Industry," manuscript, 18 pages. [State of Alaska No. 141]