SCHOONERS OUT OF COOS BAY

by

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PREFACE

The Coos Bay Times of January 17, 1953, devoted an entire page to some pictures and an article entitled "Coos Bay's Founding Era of Wooden Ships Makes Lively History." In conclusion the story stated: "But all that is past now. It lives only in long memories and pages of history." There can be little doubt of the truth of this statement, but neither the memories nor the pages of history have been compiled in such a fashion as to be available to one who would relive the days when Coos Bay-built ships were frequent visitors to the seaports of the Pacific Coast and to foreign waters as well. It is the aim of this study to remedy the situation.

The era of shipbuilding in the Coos Bay region covered nearly a century, from 1859 when Asa M. Simpson had the Arago built until 1944 when the minesweeper and rescue tug building programs of World War II were completed. During this period upwards of 180 sea-going vessels slid from builders' ways into the waters of Coos Bay and the Coquille river, and at the zenith of activity, during World War I, shipbuilding bade fair to dethrone that perennial monarch

of southern Oregon occupations, the logging and lumber industry.

Any account of shipbuilding must be concerned with the ships themselves, and the following pages include details of their characteristics and final dispositions, as well as a description of their construction. Seafaring men generally are prone to anthropomorphism with regard to ships, and the writer, diffidently naming himself to their company, chooses to follow their course; these vessels, both sailers and steamers, merchant ships and warships, have lived for him.

This account makes no attempt to describe the building of the myriad boats and launches which have been so essential to the fishing industry and transportation on Coos Bay. The writer considers the work of such small craft builders as John Swing and Frank Lowe beyond the scope of a study of the shipbuilding industry because their activity neither provided employment for many men nor produced ocean-going vessels. With few exceptions, only the established shipyards and the ships launched from their ways are the subjects of this work.

Unfortunately, the information on this topic is severely limited. The records of the Simpson Lumber Company were consumed by the fire which destroyed the L. J. Simpson home at Shore Acres, and the bookkeeping methods of the other

builders usually were quite haphazard. Therefore the writer has had to content himself with newspaper accounts and scattered references in various publications. Wherever possible Fred Kruse, the last vice president of the Kruse and Banks Shipbuilding Company, has corroborated these accounts. But for his willingness to talk ships and shipbuilding at any time the task of research would have been insuperable.

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CHAPTER I

PACIFIC COAST SHIPBUILDING GETS UNDER WAY

Shipbuilding on the West Coast of North America was carried on by the earliest explorers to reach the area. Cortes' Spaniards built four small vessels in Mexico in 1527 for use in exploring the coast and in developing pearl fisheries. Some few ships were built by the Russians after they occupied Alaska, but shipbuilding was of little importance until Alexander Baranof arrived as governor in 1799. During his tenure, ending in 1818, fourteen vessels were launched, mostly at Sitka. His successors allowed this activity to lapse and few ships were built during the remainder of Russian control. The small schooner North West America, launched at Nootka by John Meares in 1788, was the first British vessel built on the Pacific Coast. Later several small craft were built near Fort Vancouver on the Columbia river, but few ever went to sea. Neither Spain, Russia, nor Great Britain ever established shipbuilding as a continuing industry on the West Coast.[1]

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[1]John W. Caughey, History of the Pacific Coast of North America (New York, 1938), passim.

While Baranof's activity was at its height, the little thirty-ton schooner Dolly was built at Astoria in 1811 for the Pacific Fur Company. Thirty years passed before the next American ship was launched in the Oregon territory. She was the Star of Oregon, a schooner, sailed to California by her builders who sold her there and drove a herd of cattle back overland. During the next few years ships sailing from the Atlantic by way of Cape Horn remained the most important carriers in coastal shipping. Not until after the United States gained control of the Pacific Coast from Cape Flattery to San Diego were small shipyards established in some of the northwestern ports.[1]

One of these was Coos Bay, a harbor on the southern Oregon coast. Virtually unknown even after Perez explored the coast in 1773-1774, Coos Bay was mentioned in the report of Lieutenant W. P. McArthur of the U. S. Coast Survey schooner Ewing. This officer, commanding the surveying party in 1849-1850, stated that the "Kowes river" had not yet been explored, but the appearance of its mouth made it seem likely that the "river" would prove useful for steamers.[2] In January, 1852, the schooner Captain Lincoln, carrying

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[1]Hubert H. Bancroft, History of Oregon (San Francisco, 1888), II, passim.

[2]L. P. McArthur, "The Pacific Coast Survey of 1849 and 1850," Oregon Historical Quarterly, XVI (1915), 266.

troops and supplies to avenge an attempted massacre by Coquille river Indians, was wrecked on the beach north of Coos Bay. The survivors of the wreck were removed four months later by the Nassau, the first ship known to have entered the bay itself. The reports carried back by these men were probably not as accurate as the following Coast and Geodetic Survey description, but they were enough to stimulate interest in the region.[1]

> From the entrance (43° 21' North latitude) the bay extends northward for about 6 1/2 miles, with an average width of about 3/4 mile, and then bends sharply southeastward for 3 3/4 miles, terminating in a shallow basin about 1 1/2 miles in width, surrounded by marshland intersected by several sloughs. The western shore of the bay as far as the bend is formed by a sand spit, covered with sand dunes, reaching in some places a height of 100 feet. On the eastern shore and above the bend are low, rolling hills covered with timber.[2]

In May, 1853, Asa M. Simpson visited the area and decided that it could be developed easily. This California shipowner and sawmill operator, originally from Maine, noted the wealth of timber around the bay and decided to establish a sawmill there. His equipment arrived in 1856, but the ship carrying it was wrecked while entering the bay and one of Simpson's brothers lost his life in the mishap. Owing to this delay, the first sawmill in the area was built by another man, H. H. Luce, at Empire City,

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[1]Binger Herman, "Early History of Southern Oregon," OHQ, XIX (1918), 61-62.

[2]United States Coast Pilot, Pacific Coast (Washington, 1903), 111-112.

a small settlement on the eastern shore of the bay about four miles north of the entrance. Simpson salvaged his machinery soon after and set up a mill at North Bend, on the east side of the point around which the bay bends. By 1861 these two mills were capable of sawing about 15,000 feet of lumber a day.[1]

Coos Bay was completely dependent on the sea for transportation and communications. San Francisco, the only city worthy of the name on the coast in 1860, was 376 miles away by sea, a voyage which could be made in two or three days if winds were favorable. Coos Bay became the port of entry for many of the settlers and much of the merchandise for southwestern Oregon, but the barriers presented by the Coast and Cascade ranges limited the carriers to mule trains for several years. During the seventies the Coos Bay wagon road to Roseburg was opened and the carrying trade inland increased. More important at first was the port of Scottsburg, which was located at the head of navigation on the Umpqua river. Ocean-going ships of light draft called here to discharge their cargoes which moved by mule train into the interior. Scottsburg's brief period of prominence as a seaport was ended by the flood of 1861-1862 which washed

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[1]James F. Imray, Sailing Directions for the West Coast of North America between Panama and Queen Charlotte Island (London, 1868), 253.

away much of the town.[1]

Coal, lumber, and farm produce were the important exports of the Coos Bay area, but today only lumber is shipped in any quantity. Most of the agricultural produce now travels overland; and the Coos Bay coal mines, producing a type of lignite, were abandoned after oil from the California wells supplanted coal as fuel for stationary engines and steam schooners soon after 1900.

Difficulty was encountered when the two-decked, Atlantic Coast-built ships called at Coos Bay for lumber cargoes. It was all but impossible to handle long timbers in their holds, so temporary ports had to be cut in bow or stern and the cargo was loaded through these.[2] Simpson, with a Maine man's knowledge of shipbuilding, thereupon decided to build his own ships for the lumber trade. The necessary requirements for a shipyard at this time, plentiful timber and a suitable launching place, were easily met by Coos Bay. An area was cleared right beside the sawmill (now known as Old Town) and the ship ways were laid down. These consisted of wide planks firmly placed on bed logs in somewhat the manner of railway tracks, the whole structure sloping toward the water so that the force of gravity would be sufficient for launching the

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[1]Bancroft, History of Oregon, II, 711.

[2]"Wooden Shipbuilding on the Pacific Coast," International Marine Engineering, XXI (1916), 401-407.

completed hull. An outfitting wharf and small buildings to house the material and equipment were built and a spar yard and mold loft were established.[1]

The origin of the design of the ships built for the lumber trade on the Pacific Coast is obscure, but its influence was clearly visible in vessels of the area for the next seventy-five years. Henry Hall depicted the ships as "flat, one-decked vessels, with long bows, handsome square sterns, and broad beam, . . . excellent sea boats."[2] The first ships were small and carried only about 200,000 feet of lumber,[3] two-fifths stowed in the hold and the remainder lashed on deck. The increased demand for lumber required larger ships and the biggest built carried upwards of two million feet when fully loaded.

As in other parts of the country, there were no special skills within the shipbuilding industry on Coos Bay at first. The master builder was in charge of the construction and to him fell the responsibilities of instruction, leadership, and management. The Simpson yard had no permanent master builder until 1868. Eleven ships had been built up to this

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[1]Harvey W. Scott, History of the Oregon Country (Cambridge, 1924), III, 51.

[2]Henry Hall (Special Agent), Report on the Shipbuilding Industry of the United States (Washington, 1884), 133. Hereafter referred to as the Hall Report.

[3]A. M. Simpson, "Lumber History of the Pacific Coast," Coos Bay Harbor, September 25, 1913.

time with six different master builders supervising at various times.[1] Most of these men had learned their trade on the Atlantic Coast of the United States or in the Scandinavian countries. The shipwrights were expected to perform any duties which might be assigned and were usually few in number, one of the reasons why there was no attempt on their part to organize into a union until the twentieth century, although a few such groups already existed on the Atlantic Coast. Only one shipyard ever recognized a union during the entire period of shipbuilding activity on Coos Bay. Union members frequently were employed at the other yards, but had the same status as non-union men. Wages and hours for the shipbuilders generally were comparable to the union scale.

Very little power equipment was used in Coos Bay shipyards at first, but later innovations included power drills, lathes, and steam driven saws for all purposes. Steam cranes and derricks were used to hoist heavy timbers into position, and teams of horses or bulls furnished the power for moving loads around the yard. In all respects the Coos Bay builders followed the general practice, but they were usually a few years behind the East Coast shipyards.[2]

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[1]Keith V. Kruse, "Shipbuilding on Coos Bay" (1943). In the possession of Fred Kruse.

[2]In conversation with Fred Kruse.

The hulls were generally built of Douglas fir and white cedar, and long, smooth-grained sticks of Oregon pine were used for masts and spars. The underwriters at first refused to insure fir-built ships because they deteriorated rapidly. This prejudice was overcome, however, when it was found that fir was very durable if cut in the winter and salted heavily.[1] The West Coast ships frequently lasted longer than their sisters of the Atlantic because timbers and planking of greater length were available to the shipbuilders of the Pacific Coast.[2] The timber for the Eastern yards had to be transported long distances because the heavy shipbuilding in that region had seriously depleted the forests near the shipyards.

The first step in building a ship was construction of a model from which the lines could be transferred to the mold loft floor at their actual size. Light wooden forms were made for all frames and other curved pieces and the actual frames were shaped from these. All of these timbers were cut down to their final size with broad axe and adze during the early period of shipbuilding on Coos Bay, but later it became the practice to saw them to proper dimensions.

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[1] Hall Report, 249.

[2] Hall Report, 248.

The heavy timber which formed the keel was laid on the keel blocks and the stem and sternpost were raised into position. Next the floor timbers which outlined the bottom of the ship were bolted in place and a derrick hoisted the frames or ribs to their proper stations. Attaining the correct position and angle for each frame was the most difficult part of the building of the ship and called for all of the skill of the master builder. The heavy keelson, which contributed much to the longitudinal strength of the ship, was hauled into place on top of the floor timbers and bolted to the keel. When the ribs had been braced, the ship was said to be "in frame" and the work of ceiling and planking her could be started.

The ceiling or internal sheathing was put on before the outside planking. The planks were heated so that they could be bent more easily and screws and wedges were used to force them into place. Planking was started with the garboard strakes (the planks next to the keel) and continued up the sides of the vessel. Last to be fastened in their positions were the sheer strakes (planks immediately below the rails). When the planks had been forced into the desired place a hole was bored through plank, frame, and ceiling and a treenail was inserted. This was a tapered wooden peg, usually made of locust, the smaller end of which was split to receive

a wedge. After it was hammered into the hole any unnecessary length was cut off and a wedge was driven into the split to secure it in place. Properly seasoned treenails would last longer than the ship in most cases. The seams in the bottom and side planking were calked with oakum, while tar or pitch was used in the deck seams. When the planks swelled slightly after the ship was launched, a watertight seal was formed which would last for years. After the planking and calking had been completed, the entire hull was smoothed with planes and its watertight integrity was tested by filling the space between the planking and ceiling with water from a pump. Leaks caused by failure to insert treenails in the holes bored for them or by other sins of omission or commission were thus discovered before the ship was launched.

When satisfied that the vessel was ready for launching, the master builder would choose a time when the flood tide assured a sufficient depth of water to float her. Preparations were simple: the ways were greased and hawsers were readied to stop the ship after she was afloat. The shores were then knocked out and the keel blocks were removed. If everything had been calculated properly, the ship would begin to slide down the ways before all of the keel blocks had been removed, splintering the others as she gained speed on her way to the water. Quite often, however, the incline of the

ways had been misjudged and the vessel would stop before reaching the water. In this case the inshore end of the ways had to be jacked up to finish the launching. If the ship refused to move even after the shores and keel blocks had been knocked out, the builders used a huge wooden ram against the stem to push her down the ways. Once afloat, the vessel was stopped by snubbing the hawsers on piles driven for the purpose. Even the most experienced master builder must have felt a thrill of achievement when he beheld his latest creation riding out on the waters of Coos Bay.[1]

The new ship was towed alongside the outfitting wharf where each mast was hoisted above the deck by a crane and then eased into the holes in the decks. After the lower end was wedged into the step cut in the keel to hold it, the standing rigging which supported the mast was set up. Masts on which square sails were set normally consisted of three sections (lower mast, topmast, and topgallant mast), while schooner masts were in two pieces or, in the case of a bald-headed schooner,[2] one piece. The lower masts were

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[1]Description adapted from John G. B. Hutchins, The American Maritime Industries and Public Policy, 1789-1914 (Cambridge, 1941), 116-119, and checked by Fred Kruse.

[2]A fore-and-aft rigged vessel having two or more masts. A bald-headed schooner has no topmasts or topsails.

always stepped first and the topmasts and topgallant masts, if carried, were hoisted into place later. Once the masts had been stepped and rigged, the various spars on which the sails were spread were put aboard and the running rigging to hoist and control them was rove. When the sails had been bent on, the ship was ready to be towed to the mill where she was to receive her first cargo.

While the ship was being rigged all of the other work in her outfitting was completed also. The early vessels probably had only crude accommodations for the master and a few passengers, but later Coos Bay-built ships were noted for the cabinet work and panelling which went into the officers' and passengers' quarters. Myrtle wood, highly polished, was used extensively for interior finishing. The cost of the early ships cannot be calculated accurately, but it seems likely that it was about the same as that of ships built in Maine during the same period--around seventy dollars per gross ton.[1] The very low cost of lumber for the Pacific Coast yards was offset by the higher labor cost and the necessity of shipping all metal fittings and other equipment from San Francisco.

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[1] Hall Report, 133.

The first of the lumber ships were rigged as two-masted schooners or brigantines.[1] As the increased trade brought about the building of larger lumber carriers, three, four, and five-masted schooner and barkentine[2] rigs were adopted for them. Few full-rigged ships[3] and barks[4] were built on the Pacific Coast because they were not able to compete with the fore-and-aft rig on the coastwise runs. Not only could the schooner sail closer to the wind, but her less elaborate rig required fewer men to handle it. The barkentine, which won great favor on the West Coast, was a compromise between the schooner and the full-rigged ship. The square sails on her foremast, set when the wind was abaft the beam, were extremely useful in the long stretches of trade winds found in the Pacific. When running close-hauled, the square sails were furled and the barkentine was sailed in much the same fashion as a schooner. A barkentine required a slightly larger crew than a schooner of comparable size.

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[1]A two-masted vessel, square-rigged on the foremast, and fore-and-aft rigged on the mainmast.

[2]A vessel with three or more masts, of which the foremast is square-rigged and the other masts are fore-and-aft rigged.

[3]Usually a three-masted vessel with all masts square-rigged.

[4]A three-masted vessel carrying square sails on all masts except the after mast which is fore-and-aft rigged.

The hazards faced by the little sailing ships built for use along the Pacific Coast were numerous. A sudden shift of the wind or an inshore current while she was becalmed might push her into the breakers at any time that she was close to the beach. Frequently windjammers piled up on the shore during a period of fog or storms when accurate navigation was impossible. Driven far off his course by a gale, the first warning many a master mariner had of his peril was the lookout's scream, "Breakers ahead!" In such circumstances the ship was almost certainly doomed. Even if the water was shoal enough for the anchors to be dropped, by the time they had been cleared for letting go the ship would be aground. She could only come about and try to claw her way off the lee shore, but in low visibility there was usually too little sea room to permit this. A lee shore was particularly dangerous for the ship headed northward in ballast or carrying general cargo which was generally lighter than the lumber carried on the southward voyage. Riding high in the water, she was prone to make a great deal of leeway and could not sail nearly so close to the wind as when heavily laden. Many of the small ports along the coast were difficult to enter and the prudent master waited for a steam tug to tow his vessel to her mooring. Coos Bay itself had a bar that was almost

impossible to cross if more than a moderate wind was blowing. Yet another danger was that caused by the tendency to carry the smallest possible crew. The schooner which could not shorten sail quickly enough when hit by a squall would be lucky to escape with a few sails split; more often she would capsize or, if poorly rigged, be dismasted. Although there was less danger of collision than later when speed became a paramount object, collision was not unknown in the days of sail.

Coos Bay was typical of the small shipbuilding centers on the Pacific Coast in that the industry depended almost entirely on orders for lumber carriers. General fluctuations in the business on a national scale might be reflected on Coos Bay, but far more important was the condition of the lumber market. Among West Coast shipbuilding ports, Coos Bay was unique in that its leading builder of ships for nearly a half-century built largely for his own use. Practically all of the ships launched from the Old Town yard sailed under the Diamond S house flag of the Simpson Lumber Company.

CHAPTER II

THE ERA OF SAIL

From 1859 to 1867 the Simpson shipyard had no rival on Coos Bay. Its first ship was the brigantine Arago, built in 1859. No description of this first launching on Coos Bay has survived, but no great imagination is required to picture the stubby little ship slipping down the ways with a few white men and some curious Indians as spectators; and on every hand the vast rain forest of the region pressing to the water's edge, seemingly ready to push the nondescript buildings of the shipyard right into the bay.

Ten more ships were built and fitted out at Old Town by 1867: the brigantines Blanco and Advance; the two-masted schooners Florence E. Walton, Mendocino, Hannah Louise, Enterprise, Isabella, and Juventa; and the three-masted barkentines Occident and Melanchthon, all small vessels of about 200 tons and a little over 100 feet in length.[1] The Arago outlived all of these younger sisters, remaining in

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[1]Orvil Dodge, Pioneer History of Coos and Curry Counties, Oregon (Salem, 1898), 158.

the lumber trade for years. She was finally retired from this occupation because of her small capacity, and, rerigged as a schooner, she sailed north to work in the Alaska fishing industry.[1] Her name last appeared in the Annual List of Merchant Vessels of the United States in 1907, a tribute to the endurance of Douglas fir and white cedar and to the craftmanship of master builder Donaldson. By way of contrast, the Blanco, the second ship built on Coos Bay, met with disaster in 1864. Her wrecked hull was discovered on the beach near the mouth of the Siletz river and there was no trace of her crew.

The second shipyard on Coos Bay was established at Marshfield, four miles south of North Bend, in 1867. John Pershbaker sent Captain James Magee to start a sawmill and the shipyard. Magee built the steam tug Escort #1 and the two-masted schooners Staghound, Louisa Morrison, and Ivanhoe before 1873.[2] Also built at Marshfield but by another master builder were the schooner Annie Stauffer and the barkentine Amelia. In 1873, E. B. Dean and Company took over the mill and shipyard and continued to build ships for the lumber and coal trade until 1884. These vessels were

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[1]Coos Bay Harbor, September 25, 1913.

[2]E. W. Wright, ed., Lewis and Dryden's Marine History of the Pacific Northwest (Portland, 1895), p. 177, n. 35.

much like their contemporaries from the North Bend yard, but probably had more sheer than Simpson allowed on his vessels.[1]

Luce entered the shipbuilding field at Empire City in 1868. His first construction was the steamer Alpha, which was used for towing and passenger service around the bay. In the next thirteen years seven more vessels, sail and steam, were launched at Empire City, all, like the Alpha, intended for use on inland waters. The eight ships totalled only 900 tons.[2]

Meanwhile the Simpson yard was not idle. In 1868, mill superintendent John Kruse was named master builder, a position which he held until just before his death in 1896. He was from Denmark and had spent some time at sea before settling at San Francisco. The Oregon coast attracted him and he built a few small schooners on the Umpqua river before entering Simpson's employ at North Bend.[3] His first ship was the three-masted schooner Bunkalation, and the three-masted barkentines Web Foot and Portland, the two-masted

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[1]Sheer is the amount of rise from a level, of the lengthwise lines of a vessel's hull.

[2]Bancroft, History of Oregon, II, 728.

[3]Joseph Gaston, Centennial History of Oregon, 1811-1911 (Chicago, 1912), III, 339-340.

schooner Gotama, and the three-masted schooner Oregonian all left the yard before 1874. The Portland, 493 gross tons,[1] was the largest of these ships. The Bunkalation was the first of the Kruse-built vessels to be lost. She was hardly two years old when set afire by a sea washing down an open hatch while she was discharging a cargo of lime at Cape Arago lighthouse.[2] The Web Foot, on the other hand, sailed until 1904, when her crew abandoned her in sinking condition off Tillamook light after a severe gale. Even then she did not sink, but was towed into Portland where her unrepaired hulk laid for several years.[3]

One of the few ships built on Coos Bay for something other than the lumber trade was the Western Shore of 1874. This beautiful two-decker was the only true clipper built on the West Coast[4] and one of the three full-rigged ships to hail from there. In her, A. M. Simpson designed a ship much more nearly akin to the deep cargo carriers of his native Maine than to the shallow lumber schooners of the Pacific Coast. Although she was much smaller than most of the Maine-built clippers, her 1,188 tons made her the largest

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[1]Annual List of Merchant Vessels of the United States (Washington, 1895), 164.

[2]Bancroft, History of Oregon, II, 728.

[3]James A. Gibbs, Jr., Pacific Graveyard (Portland, 1950), 169-170.

[4]Basil Lubbock, The Down-Easters, American Deep-Water Sailing Ships, 1869-1929 (Boston, 1929), 87.

vessel yet built on the Pacific Coast. Her rig, designed by Captain R. W. Simpson, was worthy of the largest clipper as she crossed skysail yards on all three masts.[1] Double topsails were fitted to facilitate her handling by a relatively small crew. Her outfitting was as beautiful as the rest of the ship. The master's cabin was finished in polished myrtle wood relieved by doorposts of tamana from the Hawaiian Islands.[2] A. M. Simpson owned half the stock in the ship, Captain J. W. McAllep one-eighth, and San Francisco and Coos Bay parties the remainder. The total cost of her building and outfitting was $80,000, slightly less than would have been required to build a comparable vessel in Maine at the time.[3]

The Western Shore's career was as brilliant as that of a meteor and nearly as brief. Almost every passage sailed by this magnificent ship approached or broke a record; probably the greatest run she made was ninety-seven days from the Columbia river to Liverpool.[4] Despite her swift

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[1]Skysails were light sails set above the royal sails on a square-rigged ship. Few ships other than clippers carried them because they necessitated very high masts.

[2]Bancroft, History of Oregon, II, 728.

[3]Coos Bay Harbor, May 13, 1915.

[4]Hall Report, 133.

sailing and excellent cargo carrying qualities (in three years she paid the extremely small amount of forty dollars for cargo damage)[1] she was considered an unlucky ship. Several narrow escapes from disaster were responsible for this reputation which was enhanced when her master was killed by a falling spar in 1878. A few months later she stood out from Seattle with coal for San Francisco. Racing along at twelve knots on the night of July 11, 1878, the Western Shore struck Duxbury Reef, a few miles from her destination. The impact tore practically all of the bottom planking from her port side and her crew abandoned ship just before she broke up.[2] Her owners apparently decided that the coal and grain trade did not warrant the expense of another such ship although she had made money during her short life and was partially covered by insurance. At any rate, her design was never repeated.

Until this time Coos Bay had been keeping pace with Puget Sound as far as shipbuilding was concerned. These two centers were not the only points on the coast where ships were built; indeed, every cove large enough to float a vessel was turning out a few small schooners for coastwise

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[1]Coos Bay Harbor, May 13, 1915.

[2]Wright, L & D Marine History, 264.

or inland use. These yards, however, were very temporary, usually just a set of ways and a small shack or two; and they were often abandoned as soon as the ship was completed. California builders were handicapped by a lack of timber at first, and only the Humboldt Bay region in northern California could claim prominence as a shipbuilding center.[1] After 1875 both Humboldt Bay and Coos Bay were outstripped by Puget Sound both in number and size of ships built. The northwestern corner of Washington possessed many more excellent shipyard sites and had the advantage of deep water in most of its ports. The industrial development of that area contributed to the expansion of shipbuilding while A. M. Simpson, who owned most of North Bend, did not desire that Coos Bay become a thriving metropolis. He wanted only a small town sufficient to house the employees of his sawmill and shipyard.[2] Moreover, since most of his mills were situated on small harbors, the ships built for his coastwise lumber fleet were never very large. Henceforth, although Coos Bay shipbuilding did become more important and the ships themselves increased in size, Puget Sound steadily increased its lead over the southwestern Oregon region.[3]

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[1] Hall Report, 132.

[2] Marshfield Sun Annual, January, 1901.

[3] Hall Report, 134-136.

A new addition to the ranks of Coos Bay shipbuilders was Hans R. Reed, a Norwegian who had previously built several ships at Port Madison on Puget Sound. Reed worked as a master builder and calker at the bay yards and occasionally built a ship himself at one of the small yards about the area that he owned at various times. His first job was the steamer Eastport, which he built for the coal and passenger business. Howard and Pool of San Francisco were the owners of this Marshfield-built vessel.[1]

During the years between 1874 and 1880, twelve ships were built on Coos Bay: seven schooners at Marshfield, one two-masted schooner by John Murray at Empire City, and two schooners and two barkentines at the Simpson shipyard. The first construction at the latter yard after the Western Shore was launched was the lovely barkentine Tam O' Shanter. Although much smaller than her illustrious predecessor, this three-master was even more beautifully finished and was designed to better the clipper's record on the run between Portland and San Francisco.[2] There is no indication that this hope was ever realized, but the Tam O' Shanter rendered good service for thirty-two years.

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[1]Wright, L & D Marine History, p. 201, n. 50.

[2]Coos Bay News, August 11, 1875.

The career of the three-masted schooner Sunshine was far shorter than that of the Scottish-named barkentine. Like the winter sunshine in Marshfield where she was built in 1875, this little ship vanished after only a brief appearance. E. B. Dean and Company owned the controlling interest in the schooner and the remainder of the stock was held among various parties including her master. The Sunshine carried lumber to San Francisco on her maiden voyage, and cleared that port for Coos Bay on November 3, 1875, with machinery, general cargo, passengers, and $10,000 in gold coin which the San Francisco stockholders were sending to her builder in Marshfield. Fifteen days later her capsized hull was sighted off Cape Disappointment and she drifted ashore on November 22. There was no sign of the twenty-five persons who had sailed nor of the $10,000. Shipping men thought that she was oversparred and that the mast-hoops were too small, causing her to capsize when her crew was unable to shorten sail promptly. Sometime later a rumor had it that some of the Sunshine's passengers had learned of the money and seized control of the ship. They were supposed to have murdered the other people aboard and then driven the schooner ashore just north of Coos Bay. After being abandoned, according to the rumor, the flood tide and wind had set her adrift and, with no one to tend her sails

and helm, she capsized and floated north to Cape Disappointment. The gold was said to be buried on the beach near where she was abandoned, and searchers rushed to the scene, but nothing was ever found to substantiate the story. The nature of the disaster which befell the Sunshine remains a mystery.[1]

The development of the great schooner which brought on the last revival of wooden shipbuilding on the East Coast had much influence on that industry on the Pacific Coast. The yards where wooden ships were built in the latter area had not experienced the period of inactivity which ruined so many builders on the Atlantic seaboard, but the trend toward larger fore-and-afters was obvious. The great schooners of four, five, and six masts, among them some of the largest sailing ships ever built of wood, supplanted the square-riggers and steamers as carriers of bulk cargo on coastwise runs. Requiring neither the expensive machinery and fuel of the steamer nor the large crew of the square-rigger, the schooners were the most economical ships of their day for transporting wheat, coal, timber, and other bulk cargo.[2]

The West Coast builders lagged behind the Eastern yards in construction of great schooners and only a few of the Puget Sound ships rivalled their Atlantic contemporaries

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[1]Gibbs, Pacific Graveyard, 103-105.

[2]Hutchins, American Maritime Industries and Public Policy, 545 ff.

in size. The first four-masted schooner, the William L. White of 996 tons, was built at Bath, Maine, in 1880. Six years later Coos Bay's first four-master, the 592 ton Novelty, left the ways at the Simpson yard. The Pacific Coast schooners differed from those built in Maine in several respects. Generally they had higher forecastles and more sheer, but the Simpson ships were exceptions to this rule.[1] The West Coast ships were rigged with a comparatively short spike bowsprit instead of the usual long bowsprit and jib-boom and a jib-headed after sail replaced the customary gaff sail of the Down-Easter.[2] Most of the West Coasters crossed a yard on the foremast on which a square sail was set when the wind was abaft the beam. This sail was divided in two halves, only the weather part of which was set since the lee side would have been blanketed by the fore-and-aft sail also set on the foremast.[3] Occasionally a raffee, divided in the same manner as the square sail, was carried.[4] A feature of the great schooner era peculiar to

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[1]In conversation with Fred Kruse.

[2]B. B. Crowninshield, Fore-and-Afters (Boston, 1940), 52. A jib-boom projects beyond the bowsprit so that more light headsails may be carried. A jib-headed sail is triangular while a gaff sail is quadrangular.

[3]Captain P. A. McDonald, "Square Sails and Raffees," American Neptune, V (1945), 142-145.

[4]A raffee is a triangular topsail set above the square sail on a schooner's foremast.

the Pacific Coast was the building of several large barkentines, also of four, five, or six masts. West Coast builders estimated that the foremast complete with spars, sails, and cordage cost as much as the remaining masts and their equipment together, but with a quartering wind the barkentine could leave a large schooner hull down on the horizon astern in a day's run.[1] These big barkentines were among the most beautiful and able ships built during the declining days of the wooden shipbuilding industry.

In the six years before the Novelty was built, twenty-three ships were completed in the Coos Bay area. Three schooners and six small steamers, most of which were tugs, departed from the Simpson yard; five schooners, two barkentines, and two steamers, one of them a tug, were built at Marshfield; and the Coquille river was the building site of five schooners. Most of the tugs built at North Bend were intended for use at the various ports where Diamond S ships frequently called for lumber cargoes, and the Marshfield-built steamer Coos Bay was built to carry freight and passengers along the coast.[2]

Shipbuilding on the Coquille river began with the construction of the schooner Nora Harkins at S. Danielson's

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[1]Howard I. Chapelle, History of American Sailing Ships (New York, 1935), 292.

[2]Coos Bay News, June 18, 1884.

Parkersburg yard in 1882. Eight more small ships left this shipyard in the next twenty years, and the same builder launched one ship at Bandon and two at Prosper during this time. These vessels were all two or three-masted schooners, somewhat smaller than the ships built on Coos Bay during the same period. Most of them ran between San Francisco and Bandon and had to have a shallow draft to cross the Coquille river bar. A sailing ship drawing little water is very apt to drift to leeward, so the Coquille-built schooners were equipped with centerboards which increased their draft when lowered. As the ships increased in size it became necessary to divide the centerboards so that they could still be raised easily when entering the river.[1]

After the Coos Bay was launched in 1884 the Marshfield shipyards fell idle and, with the exception of Henry Sengstacken's little two-masted schooner Alton of 1886, no seagoing ship was built there for the next sixteen years. Hans Reed moved to the Coquille river and John Ross built the steam schooner Maggie Ross for Otto Greenewald and H. Levi of San Francisco in 1888. Ross launched this ship from a small yard which he had established at his ranch on Isthmus Slough, south of Marshfield.[2] North Bend continued

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[1]Bandon Recorder, September 23, 1901.

[2]Marshfield Daily Mail, August 25, 1892.

to turn out ships every year. The tug Ranger and the steam schooner Signal were completed in 1887, and the Louis, designed as a steamer, was launched in 1888.

Steamers built at the small coastal yards were usually sailed to San Francisco under a jury (temporary) rig for the installation of their boilers and engines.[1] The Louis was no exception, but she was unique in that she was rigged as a five-masted bald-headed schooner for her maiden voyage. On the run down she hogged[2] and her owner feared that she would be unable to carry the weight of her machinery, so her sail rig was made permanent. She was a better-than-average sailer and could not be considered a failure. The Louis was the smallest five-master ever built[3] and carried lumber to all ports of the Pacific from Grays Harbor until she was lost on a reef in 1907.

It has been common for maritime historians, most of whom wrote on the Atlantic Coast, to award the honor of having built the first five-masted schooner to Leavitt Storer of Waldoboro, Maine.[4] Actually, the first ship to

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[1]In conversation with Fred Kruse.

[2]A ship is said to hog when she sags at the ends due to structural weakness.

[3]John Lyman, "Five-masted Schooners," American Neptune, V, 138.

[4]B. B. Crowninshield and J. G. B. Hutchins are among the men who have made this error.

carry this rig seems to have been the David Dows, built at Toledo, Ohio, in 1881 to carry grain on the Great Lakes.[1] The second five-master, the first built at an ocean port, was the Louis. She was built at the Simpson Lumber Company shipyard at North Bend, Oregon, by John Kruse and was ready for sea on August 11, 1888.[2] The Governor Ames of Waldoboro was not completed until some months later.[3] The third sea-going five-master was the Inca, built at Port Blakely, Washington, in 1896, and the only other one built on Coos Bay was the K. V. Kruse of 1920.

It is unlikely that the rig of the Louis had any influence on that of the Ames, for the five-masted schooner was a logical outgrowth of the four-master, and the Maine builders had originated that rig. A. M. Simpson, the designer and owner of the Louis, was born in Maine, so it is possible that he may have informed friends in that state of the success of his experimental rig, or West Coast maritime writers might have called it to the attention of the Down-Easters. In the absence of any documents proving the contrary, however, it is likely that the little bald-

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[1]Hall Report, 140.

[2]Master Builder's Account Book, Simpson Lumber Company shipyard (1888-1900), 3-18. In possession of Fred Kruse.

[3]Lyman, "Five-masted Schooners," American Neptune, V, 139.

header from North Bend did not influence the Maine builders to try the rig for themselves.

The Louis cost only about thirty-six dollars per gross ton, while contemporary Maine-built ships cost at least twenty dollars more.[1] The cost per ton of Coos Bay-built vessels fell steadily, in part because the price of lumber dropped as logging and sawmilling methods became more efficient.[2] The Louis was probably the cheapest ship of her size ever built on Coos Bay, and the fact that she proved structurally weak suggests that economy was carried too far in her construction. It must be remembered, too, that she was built in her owner's yard and that most of the timbers and lumber used came from his sawmill. This undoubtedly helps to explain the low construction cost.

After the Louis was launched Kruse supervised the building of six more vessels at the Simpson yard. They were the two-masted schooner Volante, the four-masted schooner Gardiner City, the tug Columbia, and the four-masted barkentines Willie R. Hume, Arago, and Omega. The Omega was well named, for her completion marked the end of the career of this master builder who retired in 1894. His place was taken by Emil Heuckendorff who built the four-

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[1]Master Builder's Account Book, 18.

[2]Bancroft, History of Oregon, II, 728.

masted barkentines Addenda, Echo, and Encore, and the four-masted schooners Repeat and Manilla. Both the Encore and the Manilla were blown up at sea by German raiders in 1917.[1]

In 1891 Hans Reed built the steam schooner Homer at Bandon and two years later he launched the little sailing schooner Winchester at Prosper. This small village was the building site of two more steam schooners in the next decade: C. Christensen built the Coquille River in 1896, and Muir and Ross of San Francisco launched their Aurelia in 1902.

The steam schooner Brunswick was built at Old Town in 1898 under the supervision of Austin Sperry. This small single-ender,[2] cut in half and lengthened forty feet some years later, was one of the very few wooden steam schooners to survive World War II. Heuckendorff laid the keel of the four-masted schooner Aguinaldo in 1899, but during the course of her construction he became involved in an argument with A. M. Simpson and quit. Simpson sent to San Francisco for a man to replace him. The new builder was K. V. Kruse, originally from the same Danish village as John Kruse.[3]

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[1]Lowell Thomas, Count Luckner, the Sea Devil (New York, 1928), 218.

[2]A steam schooner with engines and superstructure at her after end.

[3]K. V. Kruse's family believes that the two men were not related.

He had sailed as a ship's carpenter for some time before settling in San Francisco. Kruse's new position was complicated by the attitude of some of the older employees who felt that one of their number should have become master builder. They made bets that the new schooner, renamed Admiral when enthusiasm for the Philippine insurrectionist dwindled, would stick on the ways when launched, but Kruse spent hours aligning and greasing the ways and the Admiral left them so swiftly that one of the men snubbing a hawser to check her progress suffered a broken leg.[1] The Admiral was wrecked in 1912 while homeward bound from Valparaiso to Grays Harbor. Driven sixty miles off her course by a full gale, she crashed over the Columbia river south jetty, onto which her crew escaped, and then drifted ashore on Peacock Spit after capsizing in the channel.[2]

The development of the Alaska territory and the Klondike gold rush at the turn of the century resulted in a great demand for shipping. Many of the coastwise vessels left their accustomed traffic and were chartered for the northern voyage. Almost every shipyard on the coast received all of the orders it could handle, and the cry for more ships was increased by the expanded Hawaiian and Philippine trade.

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[1] In conversation with Fred Kruse.

[2] Gibbs, Pacific Graveyard, 57-60.

San Francisco built a larger number of vessels during this boom than did any other port on the coast, but all profited from it.[1]

At the Old Town yard Peter Logge and Victor Anderson built the four-masted schooner Churchill, and William Lackstrom launched the steam schooner Mandalay in 1900. Hans Reed used John Ross' Isthmus Slough ways to build the steamer Santa Ana while Hueckendorff established his own yard in Marshfield and built the schooner Forest Home and the barkentine Joseph L. Eviston.

Kruse completed the fast-sailing four-masted schooner Alumna at North Bend in 1901 and then laid down the three-master Advent. This vessel had a low forecastle deck over the windlass and directly aft of this, on the main deck, was the forward deck house where the crew would live. A. M. Simpson, a very dignified man who was always formally attired, came aboard in his usual dress and told Kruse that they would put the crew's head[2] under the forecastle deck instead of in the forward deckhouse. Kruse protested that the deck was too low, so Simpson undertook to prove him wrong. Squatting down, he backed into the space but was unable to lower his trousers. He crept into the open and stood erect to half-mast

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[1]"Pacific Coast Shipbuilding," Scientific American, LXXXIII (1900), 338.

[2]Nautical term for toilet.

his nether garment and again backed under the forecastle. This time his head hit a deck beam with a resounding crash. He considered his point proved, but directed Kruse to have a niche cut in the deck beam so that no more heads would be cracked on it. Simpson was leaving for San Francisco the next day, so Kruse decided to wait until he had departed and then install the head in the forward deckhouse. Simpson must have sensed something of Kruse's reluctance, however, for early the next morning he went aboard the new vessel with an axe and notched the offending beam himself. As soon as he had sailed, the workmen replaced the notched beam and put the head in the place Kruse thought suitable.[1]

Heuckendorff completed the four-masted schooners James Sennet and David Evans at Marshfield and built the steam schooner Marshfield for C. A. Hooper and Company of San Francisco in 1901. The Sennet ran aground on Unimak Island in the Aleutians in September, 1901, and Heuckendorff took a crew north to refloat her. The attempt failed, so the wreck was stripped and the salvaged gear was used to rig another Heuckendorff schooner.[2] The Marshfield, renamed the Bertie M. Hanlon, enjoyed a long career in the lumber and passenger service before ending her days as a fish-reduction ship.

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[1]In conversation with Fred Kruse. A. M. Simpson is said to have been the prototype for Peter B. Kyne's lumber and shipping tycoon in Cappy Ricks.

[2]Coos Bay News, September 3 and October 8, 1901.

Hans Reed established a shipyard at Bay City, east of Marshfield on the southeastern side of the bay, and built the steamer Arctic in 1901. He then received an order for a four-masted barkentine, to be the largest vessel ever built on the bay. A crew was put to work grading the area adjacent to the shipyard so that the ways could be extended for the ship's great length. Construction was started and Reed went south to investigate the financial status of the San Francisco parties who had ordered the vessel. Apparently his suspicions were well founded, because work was halted for three months. At the end of this time Captain Ackerman of San Francisco agreed to finance her and a crew again was employed. Progress was again stopped after a short time, and not until April, 1902, was Ackerman able to order the ship completed. She was destined never to be finished, however, and the failure of his backers forced Reed to close his yard.[1] He worked for builders on the Coquille for some time and then returned to Coos Bay, where he was employed by K. V. Kruse. The big barkentine was in frame when abandoned, and her gaunt skeleton remained on the ways for several years before being dismantled. Most of her timbers were cut up for firewood and the rest was burned for the bolts it contained.

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[1]Coos Bay News, June 11, June 18, and September 24, 1901, and Bandon Recorder, April 10 and April 24, 1902.

1902 also marked the end of operations at two more of the Coos Bay shipyards. Heuckendorff built the four-masted schooners Polaris, Argus, and Taurus before the lease on his yard site expired and he was unable to renew it.[1] A. M. Simpson, now seventy-six years of age, had turned his North Bend operations over to his son Louis and the latter had little interest along this line. Logge and Anderson completed the four-masted schooner Marconi and the shipyard was closed after some sixty-six vessels of all types had been launched from its ways in forty-four years.[2] The Marconi was lost in 1909 when being towed out over the Coos Bay bar by the tug Columbia. The towing hawser parted and the Marconi drifted into the breakers under Coos Head where she soon broke up. Four years later the Advent met her doom at almost the same place. Her master was sailing her into the bay when the wind died down and she too went on the beach.

Throughout the United States shipbuilders turned to the production of vessels propelled by machinery soon after the close of the nineteenth century. On Coos Bay, as elsewhere, a few more big sailers were built, but they were completely overshadowed by the new steam schooners. The era of sailing ship construction on Coos Bay ended with the closing of the Simpson Lumber Company shipyard.

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[1]Marshfield Sun, November 30, 1905.

[2]Edgar M. Simpson (son of A. M. Simpson) to writer, April 6, 1953.

CHAPTER III

STEAM SCHOONERS

Emil Heuckendorff built launching ways at Porter, an undeveloped townsite just south of North Bend, and launched the three-masted schooner Alpha in 1903 and the gasoline launch Wenonah in 1904. He then left that location and moved to Bandon.

Meanwhile K. V. Kruse, ex-Simpson master builder, came from San Francisco to build a four-masted schooner for California stockholders. He chose a site in Ferndale, about a mile north of Marshfield,[1] and laid down the Annie E. Smale. Assisting in her construction was Captain Colstrup, late of the James Sennet and prospective commander of the new vessel. The three-masted schooner Hugh Hogan was built in 1904 and the gas schooner Oakland followed a year later.

The first of nine gas schooners to leave the Kruse yard, the Oakland was designed for freight service on the Washington coast and around Puget Sound. Her flat bottom allowed her to carry a large cargo on a shallow draft, but

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[1]This site is presently occupied by the Union Oil Company.

did not result in sea-kindliness.[1] Power was supplied by gasoline engines, a feature that made ships of this type impossible to insure. Most of the gas schooners, built for service around the shallow bays of the Oregon coast, were even smaller than the 146 ton Oakland.

In 1905 Kruse took Robert Banks, whom he had known in San Francisco, into his business as a partner. Banks, a native of Nova Scotia, had learned shipbuilding as a Down-Easter but later worked on the Pacific Coast.[2] The Kruse and Banks Shipbuilding Company thus established became one of the leading builders of wooden ships on the Pacific Coast, and the shipbuilding industry on Coos Bay ended when its yard was sold just before the conclusion of World War II.

The first ships completed by Kruse and Banks were the gas schooner Washcalore, with a name composed of the abbreviated names of the three coastal states, and the steam schooner Casco. The former was built for the Wendling Lumber Company of San Francisco at a cost of $40,000, and was the largest gas schooner launched on Coos Bay. She was wrecked near Cape Sebastian in 1911 while the Casco was

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[1]Refers to the ease with which a vessel rides in heavy seas.

[2]Gaston, Centennial History of Oregon, IV, 666.

stranded at Piedras Blancas on the central California coast in 1913.

The Casco was, of course, not the first of her type to be built on Coos Bay, but she was the first of twenty-two steam schooners built by Kruse and Banks; ships that were to win for their builders a reputation unsurpassed in Pacific Coast maritime circles. The steam schooner of the early twentieth century was the successor to the sailing schooner of the nineteenth in importance to the lumber industry and to Pacific Coast shipbuilding. In all, thirty-six vessels of this type were built in the Coos Bay area, ranging in size from Simpson's tiny Mandalay of 1900 to the sister ships Johanna Smith and C. A. Smith built by Kruse and Banks in 1917.

Designed specifically for the lumber trade, the steam schooner seems to have been unique to the North Pacific. Sources disagree as to the identity of the earliest vessel of this type, but it is probable that she was a sailing schooner with a small auxiliary steam engine installed during an overhaul period. The early vessels were all of the single-ender type, carrying their entire cargo forward of the superstructure and propelling machinery. This allowed handling of greater lengths of lumber in the cargo and also caused the ships to trim by the stern (draw more water aft

than forward), permitting them to nose into some of the smaller ports or "dogholes"[1] on the northern California coast. One or two masts and cargo gears[2] handled the lumber, two-fifths of which was usually carried in the hold and the remainder lashed on deck.

The first steam schooners rarely carried more than 500,000 feet of lumber, but experience showed the practicability of larger ships, and the aforementioned Johanna Smith carried 1,440,000 feet of lumber when fully loaded.[3] When the single-enders sailing north empty or with light general cargo aboard encountered heavy weather, they steered very poorly and labored excessively. To remedy this defect and to speed cargo handling the double-ender was evolved. In ships of this type the superstructure and machinery were carried amidships with cargo holds both forward and aft of the deckhouse. Two or three masts were stepped, one on the forecastle forward of the cargo space and one or two on the superstructure. A few ships had runways through the deckhouse to allow extra long timbers to be carried on deck. It must not be supposed, however, that all of the large

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[1] So-called because supposedly nothing much larger than a dog could enter them.

[2] A cargo gear consisted of a mast, two booms, a winch, and the necessary lines. One mast might have two cargo gears.

[3] David W. Dickie, naval architect, to writer, January 22, 1953.

steam schooners were double-enders. The old design was popular, and shipping men generally dislike innovations. Several of the lumber shippers, among them the C. A. Smith Lumber Company of Marshfield, installed double cantilever cranes on their wharves by which "packaged" lots of lumber were transported directly from the sawmill to the ship. The cranes could be extended over the ship's hatches so that her cargo handling gear was unnecessary for loading.[1] This solved one of the main objections to large single-enders and both the C. A. and Johanna Smith were of this type.

The construction of the Kruse and Banks-built A. M. Simpson of 1911 required nearly 800,000 feet of lumber and timbers, eighty tons of bolts, 300 kegs of spikes, and 11,000 treenails. The main deck planking was seven inches thick and her frames were only six inches apart.[2] She was intended to carry 760,000 feet of lumber, slightly less than the amount used in her building. All of the steam schooners may not have been so well built, but the Simpson was fairly typical of the ships launched by Kruse and Banks.

The first steam schooners always carried sail as well as steam power, using the former whenever favorable winds were blowing. Sail and steamwere seldom used at the same

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[1]"Evolution of Lumber Handling Methods," Timberman, L (1949), 188.

[2]Coos Bay Harbor, December 7, 1911.

time because their limited sail area could add little to the speed attained under steam alone. By 1910 most of the ships were appearing under "bare poles," their owners finding that the saving in fuel was not sufficient to warrant the extra cost of rigging the masts for sail.[1]

Power was furnished at first by coal burning Scotch boilers and small compound steam engines.[2] Coos Bay was one of the major sources of fuel for the coal-fired schooner boilers. Later vessels had more efficient water-tube boilers[3] and triple-expansion engines.[4] The Marshfield, launched by Heuckendorff in 1901, was among the first of these ships originally fitted with oil-fired boilers, but coal remained the usual fuel until about 1911.[5] The older

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[1]Jack McNairn and Jerry MacMullen, Ships of the Redwood Coast (Stanford University, 1945), 18.

[2]A cylindrical boiler in which the fire is led through tubes surrounded by water. A reciprocating steam engine works on the same general principle as an automobile engine. A compound engine has two cylinders; the steam expands first in the smaller and then is exhausted to the larger where it again expands as it cools.

[3]A boiler in which the water is circulated through tubes surrounded by fire and hot gasses.

[4]A reciprocating engine with three cylinders. The steam passes through them in order from the smallest to the largest and expands in each. Called "three-legged" engines because the three connecting rods resembled legs in their action.

[5]McNairn and MacMullen, Ships of Redwood Coast, 18.

engines were comparatively feeble, but the ships built for the J. R. Hanify Company by Kruse and Banks in 1920 boasted engines rated at 1,000 indicated horsepower.[1] Ten knots was the average top speed, the Hanify sisters being capable of thirteen. Very few wooden vessels of any type were equipped with steam turbines, and the only steam schooners to be so powered were the big twins of the C. A. Smith Lumber Company. Turbines are economical as compared with the standard triple-expansion reciprocating engines, but the costly reduction gearing necessary for efficient operation was one argument against their use.[2] Another was the fact that the roughest sort of mechanical skill would suffice to keep the "three-legged" reciprocating engines running, while turbines required precision engineering and maintenance. Most of the steam schooners were propelled by a single screw, but the Bandon and the oft-mentioned C. A. and Johanna Smith had twin screws. The greater number of the steamers built on Coos Bay and all of those launched on the Coquille river were towed to San Francisco by a sea-going tug or another

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[1]IHP is the power developed by the steam in the cylinders of a reciprocating engine. It does not include losses arising from resistance in the machinery.

[2]For efficient operation a turbine must revolve much faster than is possible for a propeller. Thus reduction gears are necessary for transmission of the power to the propeller shaft.

steam schooner for installation of their engines and boilers. A full cargo of lumber was usually carried on this maiden voyage to help meet expenses.

The steam schooners, able to maintain fairly regular schedules, were also utilized to carry passengers, generally between San Francisco and the northern ports of call. Before the coming of the coast highway this passenger traffic was of some importance and the vessels had one or more staterooms available for passenger use. As a rule, they were not furnished with great luxury, although the Bandon was said to have well-appointed staterooms "more commodious than on many passenger ships."[1] Her captain's cabin and the owner's stateroom were fitted with hot and cold running water and the ship was lighted by electricity throughout. Lumber or logs were usually carried on the southward run, while general cargo was loaded for the return trip north. A few of the steam schooners even had contracts to carry mail to their more remote ports of entry.

The steam schooners were staunch, well-constructed ships as a general rule, and those with short careers usually came to an end through some navigational error as their captains followed a course perilously close to the shoreline.

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[1] Coos Bay Harbor, November 1, 1907.

The "dog-bark" navigation[1] of the coastwise masters was rarely the precision science of their trans-oceanic brethern and their navigational equipment was frequently quite crude. In justice to the old skippers of the "Scandinavian Navy,"[2] it must be remembered that the hazards of coastwise navigation are much greater than those faced by the deepwater mariner. The threat of fog was ever present on the Pacific Coast during the spring, summer, and autumn months, and the smoke from forest fires added to this danger in the summer and early fall. Many steam schooners became casualties of collision or stranding during periods of low visibility. Fire, that major enemy of the wooden ship, took its toll of the lumber carriers also, numbering among its victims the Coquille-built Wellesley and Daisy. Others grounded on the bars of the various harbors and were broken up within a short time, for not even the most stoutly built vessel was able to resist the pounding surf for long. The Coos Bay and Humboldt Bay bars had a particularly evil reputation

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[1]The coastwise navigators were reputed to know the barking of every dog along the coast. All they had to do when in doubt of their position was to steer inshore until a dog's bark could be heard and their location was revealed.

[2]So many of the coastwise masters were named Olsen, Johnson, Walgren, Hansen, etc., that the steam schooner fleet received this name.

in this respect. The operators of the coastwise fleet seldom had much capital to expend on upkeep of the ships and in their later years it was a frequent occurence for seams to open under the buffeting of the heavy seas encountered with winter gales. Lumber cargoes usually sufficed to keep the ships afloat in such cases until they could be towed into port by the Coast Guard. Often the aging vessels were operated only during the months when few storms were expected and spent the winter moored in some out-of-the-way creek or slough with only a watchman aboard.

If the steam schooner survived the perils of fire, stranding, foundering, and collision, reaching an age when further maintenance and repair seemed unjustifiable, it was not unusual for the owner to secure a cargo for the tropical islands of the Pacific. When the ship ran on a reef in those unfamiliar waters, as was expected, her crew had little difficulty in reaching the shore and the underwriters covered the loss. This practice was known as "selling the ship to the insurance company."[1] Still others of the lumber carriers were converted in their later years for service as garbage scows, salvage ships, gambling barges, and fish-reduction ships, while some were sold to foreign interests.

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[1]In conversation with Fred Kruse.

World War II ended the era of the wooden steam schooner on the Pacific Coast of the United States. During that conflict most of the remaining ships were requisitioned by the Maritime Commission and utilized to transport general cargo among the Pacific islands. Practically all of them ended their lives in the service of the country. The post-war lumber fleet is made up of large steel freighters for offshore use and smaller steel steamers and converted landing craft which are employed in the coastwise trade.[1] A few veteran steel steam schooners such as the little Cricket carry on in the old tradition, but no longer seen are such once-familiar sights as the venerable Phyllis wallowing down the Coos Bay ship channel, outward bound with a deckload of lumber seemingly larger than the ship herself, while Captain Jacobsen, standing on the bridge-wing, pumped lustily on his accordion.

The Coquille river also experienced a renaissance of shipbuilding activity when, in 1905, Heuckendorff established a shipyard at Prosper. His first vessel at the new location was the three-masted sailing schooner Oregon, launched for local stockholders in October, 1905. Many of her fittings had been salvaged from the stranded schooner Onward, purchased

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[1]Robert C. Hill, "Old Lumber Vessels and New," Timberman, L (1949), 130.

by Heuckendorff after attempts to refloat her had failed.[1] The steam schooner Raymond for Sudden and Christensen of San Francisco left the Prosper ways in 1906 and the sister ships Wellesley and Bowdoin were built in 1907, the former for C. A. Hooper and her sister for W. G. Tibbets, both of San Francisco. During the construction of these vessels from thirty to fifty men were employed.[2]

A second shipyard had been established on the Coquille by James H. Price late in 1906. Originally employed by the well-known Bendixsen Shipbuilding Company of Eureka, he had later operated a general ship repair yard in San Francisco. This was completely destroyed by the earthquake and fire in 1906, so he moved to Bandon, a location which he felt was superior to Coos Bay because timber was more easily accessible.[3] His first yard was located close by a sawmill, nearly opposite Prosper. The bad luck which had forced Price to leave San Francisco at first seemed to have followed him to Bandon, for soon after work in the yard started a gale demolished some sheds and capsized his piledriver. Matters then went more smoothly for several months as steam schooners were laid down for S. S. Freeman and A. F. Estabrook of

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[1]John Nielson of Bandon to writer, January 25, 1953.

[2]Bandon Recorder, March 21, 1907.

[3]Bandon Recorder, April 30, 1908.

San Francisco and for the McKay Company of Eureka. The launching of Freeman's Daisy had been scheduled for July 20, 1907, and Estabrook's Fifield was due to follow about six weeks later when the bad luck again took a hand.

Early on the morning of July 10 the watchman discovered a fire on the upper deck of the Daisy and it spread rapidly through the yard, fed by the seasoned lumber and the pitch and tar with which seams had been calked. A crew of forty men present at the cookhouse was unable to save more than a few portable tools as the Daisy, the Fifield, and almost all of the shipyard buildings and equipment were consumed by the flames. A spark from the donkey boiler on the Daisy was blamed for the conflagration which did damage estimated at between $75,000 and $100,000. Both vessels were partially covered by insurance, as was the shipyard, but the loss was considerable. Estabrook and Freeman immediately wired Price to offer their backing so that a new yard could be established.[1]

As soon as the insurance matters had been settled, work was begun on the new shipyard, this time in Bandon itself, beside another sawmill, where both ship timbers and fire protection were available. All of the machinery lost in the fire could not be replaced at once, so only the Freeman

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[1]Bandon Recorder, July 11, 1907.

and McKay orders were taken, the Fifield order going to Kruse and Banks. This time Price's work was not in vain, as the Daisy was launched in May, 1908, and the J. J. Loggie left the ways a month later. For the next few months the Price yard was busy with the big tugs Klihyam, for the Coquille Mill and Tug Company, and Gleaner, for use on the Umpqua river. After their completion no more contracts were secured and Price left Bandon, going first to Fairhaven, California, and then to St. Helens, Oregon, building several ships in each of these locations.

Bandon lost its other shipbuilder when Emil Heuckendorff died of diphtheria at North Bend on September 30, 1908. His last few months had been occupied by a lawsuit seeking to collect $10,000 due on the Raymond, for which Sudden and Christensen had never paid in full, a not unusual occurence.[1] After Heuckendorff's death, his stepson, Nels P. Nielson, built the seventy-two foot tugboat Myrtle for use on the Columbia river and then the Heuckendorff yard also closed. A few small river craft and fishing boats were later built on the Coquille, but no more ocean-going ships were launched there for thirty years. In August, 1938, some of the more optimistic citizens of Bandon foresaw a new era of shipbuilding beginning with the construction of the large Diesel tug

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[1]Bandon Recorder, March 12, 1908.

Port of Bandon at Prosper. With her completion, however, the industry relapsed into its previous somnolent state, and today there is no expectation that it will ever be revived.

Of these Coquille-built vessels, the Bowdoin was sold to Eastern interests in 1917 and went to the Atlantic, the Raymond was broken up in 1931 as was the Wellesley some twelve years later after partially burning, and the J. J. Loggie went ashore near Point Arguello, California, in October, 1912. Far more eventful and bizarre was the Daisy's career. Her crew considered her as tempermental as one of the fair sex and felt that their opinion was verified in August, 1926, when, fully loaded, the Daisy sank at her moorings in China Basin, San Francisco Bay. Owners and crew were still speculating about this latest whim of the little steamer when, a few days later, she suddenly refloated herself. Drydocking showed no major damage, so she soon returned to her usual run, gaining some notoriety for plowing into wharves at her various ports of call. Finally the Redwood (ex-Thomas F. Elliot, ex-Daisy) burned off Humboldt Bay in October, 1939.[1]

North Bend, without a shipyard since 1904 when Heuckendorff departed after building the Wenonah, also was looking

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[1]McNairn and MacMullen, Ships of Redwood Coast, 51.

forward to a resumption of shipbuilding activity in 1907. A short article from the Harbor of July 29 demonstrates this attitude:

> Mr. W. S. Turpin tells us he has started a new shipyard in North Bend. He has two scows under construction at the woolen mill dock. Mr. Turpin must be careful in these small enterprises. It is hard to keep them down in North Bend and the first thing we know he may be building men-of-war.

No men-of-war were ever built by Turpin, whose "shipyard" produced only the two scows, but the Harbor's optimism was not unwarranted. In 1907 Kruse and Banks obtained a ten-year lease on the site where the Alpha had been built and laid down the steam schooner Bandon for Estabrook. At the same time the steamers R. D. Inman and F. S. Loop were built at Ferndale yard for the Loop Lumber Company, as was the tug E. P. Ripley for the Santa Fe Railroad Company. After the completion of the Ripley the Ferndale shipyard was abandoned and all of the Company's equipment was moved to the Porter location.

The Inman was wrecked on Duxbury Reef in 1909, but the other steam schooners built in 1907 by Kruse and Banks enjoyed long lives. The F. S. Loop finally suffered the indignity of conversion to a fish-reduction ship for transforming non-edible fish into commercial fertilizer and a nauseous stench, and the Bandon was towed to Mexico for

some mysterious purpose after spending most of World War II moored at Coos Bay in a water-logged condition, causing the Coast Guard port captain much anxiety lest she sink alongside the wharf.

Shipbuilding activity continued through 1908 as Kruse and Banks launched two steam schooners and one gas schooner. The Fairhaven was built for J. E. Davenport of San Francisco and the Fifield, absorbing some of the timbers salvaged from the first Price yard, was delivered to Estabrook. Kruse narrowly escaped injury when knocked from his feet by a trailing hawser at the Fairhaven launching, but this apparently was not serious enough to be considered bad luck as the ship had a fairly uneventful career until she foundered in Mexican waters some fourteen years later.[1] Shorter lived were the gas schooner Wilhelmina, built for Charles Thom of Marshfield, and the Fifield which were stranded in 1912 and 1916, respectively.

The gas schooner Oshkosh was constructed for the Hamlin and South Coast Transportation Company of Astoria in 1909 and cost $25,000. She was lost less than two years later while attempting to cross in over the Columbia river bar during a storm. Her fresh water supply and provisions had been lost in heavy seas north of Florence, so her master

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[1]Coos Bay Harbor, April 3, 1908.

disregarded warnings from other vessels to wait offshore until the weather moderated, and the Oshkosh capsized with a loss of six men out of her crew of seven.[1] This was the most disastrous gas schooner wreck on the Oregon coast.

A large car ferry for the Santa Fe railroad was also built by Kruse and Banks in 1909. She required the employment of sixty men and cost $36,000. Writing of her building, the Harbor reported that Kruse and Banks was one of the most important industries of North Bend, having paid out more than $100,000 to employees in the two years of operation at Porter. The workmen were paid an average wage of three dollars for an eight hour day; union wages and hours, but Kruse and Banks, like the earlier shipbuilding companies, did not recognize the union. Despite this, many union members were employed and there was no friction between the Company and its employees. Concluding the article, the Harbor stated: "The shipyards seems (sic) to be busy no matter what the conditions elsewhere, or in other lines of business are."[2]

This statement was belied somewhat in 1910 when only a tugboat for the Simpson Lumber Company and some barges were built. Four gas schooners and a steam schooner were

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[1] Coos Bay Harbor, February 15, 1911.

[2] Coos Bay Harbor, April 30, 1909.

launched in 1911. The Patsy and the Tillamook were built to the order of the owners of the ill-fated Oshkosh, the Patsy being powered by the engines removed from that vessel's broken hull. She received her name from the initial letters of her expected ports of call: Portland, Astoria, Tillamook, Siuslaw, and Yaquina.[1] Built for other interests were the gas schooners Rustler and Owl, neither of which was much larger than a fishing boat.

> Knock down your blocks and let her go!
> The flood tide soon will cease to flow,
> Then I'll baptize thee with champagne,
> And with one voice we will proclaim:
> Simpson is thy name; ride proudly at sea--
> Neptune, God of the brine, watch over thee.
>
> Tuesday (December 5, 1911) noon the large steam schooner built by Kruse and Banks for the Simpson Lumber Company was successfully launched. The blocks were released at 12:20 and the boat slid gracefully and swiftly into the water amid cheering and blasts from the various mills on the bay. It is said to be the prettiest launching ever taken place here.
>
> Miss Isabelle McGenn, daughter of the well-known skipper of the Breakwater, read the verse quoted above and broke a bottle of champagne across the bow christening the boat the A. M. Simpson.[2]

So the Harbor depicted the launching of the last ship built for the Simpson Lumber Company. Instead of having her

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[1] Coos Bay Harbor, July 27, 1911.

[2] Coos Bay Harbor, December 7, 1911.

engines installed at San Francisco, the A. M. Simpson received the old compound engine and Scotch boilers removed from her owner's tug Astoria at North Bend. She sailed on her maiden voyage at the end of a towing hawser, however, because Coos Bay machine shops were unequal to the task of refitting the coal-fired boilers for the use of oil fuel.[1] Renamed the Martha Buehner when, after A. M. Simpson's death in 1915, his heirs sold the lumber company and fleet, the vessel named for Coos Bay's pioneer shipbuilder spent her last days as a fish-reduction ship.

1912 was one of the boom years for the small West Coast shipyards, Kruse and Banks taking so many contracts that work was delayed for a time by a shortage of material, and Banks denied a rumor that sixty families were to be brought in for employment in the shipyard.[2] The steam schooners Davenport, for the Davenport Steamship Company of San Francisco, and Speedwell, for Estabrook, and the gas schooner Mirene, for the T. C. Barnes Cannery Company of Portland, were all under construction in the early months of the year. Each of the steam schooners cost over $100,000 and the owners of the Davenport were so pleased with her performance that J. E. Davenport, president, made his satisfaction known

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[1] In conversation with Fred Kruse.

[2] Coos Bay Harbor, February 29, 1912.

in a letter to her builders, promising them the first chance to bid on any wooden vessels his Company might order in the future.[1] Well might her owners be satisfied, for the Davenport continued in operation until taken over by the Maritime Commission during World War II.

The launching of the Davenport and Speedwell did not leave the Kruse and Banks yard without orders, for the keel of a larger steam schooner had already been laid. The San Ramon, built for the E. J. Dodge Company of San Francisco, was completed in 1913, the largest and costliest steam schooner yet built on Coos Bay: 993 tons and $150,000.[2] She ended her career on the Humboldt Bay bar in 1941 after many years in the lumber trade as the Katherine Donovan.

Also built in 1913 were the steam fisheries tender Akutan and the steam schooner Wilmington, which was unique in carrying her boilers on her main deck so that more cargo could be stowed in her hold. This innovation was viewed with some skepticism, it being feared that she might prove top-heavy, but she was successful in service, so this feature was incorporated in several later ships.[3] The

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[1]J. E. Davenport to Kruse and Banks, quoted in Coos Bay Harbor, January 30, 1913.

[2]Coos Bay Harbor, February 6, 1913.

[3]In conversation with Fred Kruse.

Wilmington's owners suggested that the forthcoming wedding of Kruse's son be held on the vessel's forecastle just before she was launched, but Fred Kruse, feeling that Kruse and Banks' contract called only for the building of the ship, declined rather vigorously, so launching and nuptial ceremonies were held separately.[1] The Wilmington, owned by the Charles Nelson Steamship Company of San Francisco, transported many millions of feet of timber along the coast before she too broke up on the Humboldt Bay bar in 1934.

Completion of the Wilmington left Kruse and Banks with no more contracts, so all employees except the office man and a watchman were discharged in late September, 1913.[2] It was expected that the lull in activity would be short-lived as Banks was in San Francisco furnishing estimates for new contracts, but the end of the year found the launching ways empty at a strangely silent shipyard.

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[1] In conversation with Fred Kruse.

[2] Coos Bay Harbor, October 2, 1913.

CHAPTER IV

WAR-BORN PROSPERITY

Any hopes which had been held for a speedy reopening of the shipyard seemed to grow dimmer as 1914 lengthened into spring and then summer. The Harbor was reduced to publishing reports that some barges and a small launch, under construction for a San Francisco firm and the Southern Pacific Railway Company respectively, were up to the usual standard of Kruse and Banks workmanship. Conversion of the freight and passenger boat Flyer, also for Southern Pacific, drew as much comment as had the first departure of a new steam schooner in earlier, more prosperous days. For the first time since master builder Donaldson laid the keel for the little Arago in 1858, Coos Bay experienced an appreciable period during which there were no ocean-going vessels under construction.

This inactivity was not peculiar to Coos Bay alone. The disorganized state of the lumber market during this time caused lumber operators to be very cautious about ordering new ships for the lumber trade, and the steam schooner builders up and down the Pacific Coast discharged

all save a few employees while awaiting the end of the slump.[1] The shipbuilding industry of the United States as a whole was not retarded. The slight drop in the number of steamships built in the nation could be attributed almost entirely to the idleness of the wooden shipyards on the Pacific Coast.[2] This was a clear indication of the importance of the lumber industry to West Coast shipbuilders, and especially to those of Coos Bay.

News from Europe, however, made the future for shipbuilders appear brighter as 1914 ended and 1915 brought a mounting toll of merchant ships lost in the war zone. Already some of the steam schooners were being sold to Eastern interests and were making their way to Atlantic waters through the newly opened Panama Canal. Among the ships thus deserting the traditional steam schooner traffic was the Kruse and Banks-built Speedwell, which apparently found Central American storms more formidable foes than Pacific gales, for she succumbed to a hurricane in the Gulf of Mexico in 1920. Not until the end of 1915 did the loss of vessels in the Atlantic reach such proportions as to affect Coos Bay.

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[1] In conversation with Fred Kruse.

[2] F. G. Fassett, Jr., ed., The Shipbuilding Business in the United States of America (New York, 1948), I, 69.

On December 9, Banks revealed that Charles Nelson of San Francisco had ordered another steam schooner from the North Bend yard, and at the same time said that the demand for ships was the greatest in the history of the Pacific Coast shipping industry.[1] Work on the Nelson vessel and on another steam schooner for Bixby and Clark of San Francisco was started early in 1916 with a crew of thirty men which was increased as the ships progressed. This renewed activity in the shipyard was welcomed by North Bend as it came at the time when work in logging camps and sawmills was at a low ebb, largely because of inclement weather.[2]

Responsible citizens of North Bend were disturbed by the fact that men of both Marshfield and Bandon, neither of which had had any shipyards for some years, were attempt-int to entice Kruse and Banks to transfer its yard to one of their cities.[3] Disadvantages of the Porter site were the difficulty of obtaining ship timbers from the mills and the limited area of the shipyard which had made it necessary for the Company to turn down some contracts. To remedy the ship timber situation, the Bay Park Lumber Company was incorporated on May 19, 1916. Capitalized at $25,000, the

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[1]Quoted in Coos Bay Harbor, December 9, 1915.

[2]Coos Bay Harbor, December 23, 1915.

[3]Coos Bay Harbor, May 25, 1916.

new concern obtained a fifteen year lease on Simpson's Old Town mill, log-boom, wharf, and office buildings. Kruse and Banks was among the stockholders, Banks being treasurer while Kruse was one of the directors. Dennis McCarty, vice president, owned a tract of timber considered excellent for shipbuilding, so the mill was assured a steady supply of logs when it commenced operations on July 1. Waterfront acreage adjacent to the shipyard was made available, and those who had been alarmed by the prospect that the yard might be moved were successful in their efforts to prevent such an occurence.[1] It remained the Kruse and Banks Shipbuilding Company of North Bend, Oregon.

The demand for ships had resulted in a nine hour day for workers at Kruse and Banks, but on July 1, the Company decided to revert to the eight hour standard in response to a petition presented by the employees. The petition had asked for a wage raise, in place of which Kruse and Banks offered to pay the same wage scale for the shorter day. This solution was acceptable to the men and it was adopted.[2]

By September the shipyard was the busiest place on Coos Bay with over 200 men employed.[3] Bixby and Clark's big

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[1] Coos Bay Harbor, May 25, 1916.

[2] Coos Bay Harbor, July 6, 1916.

[3] Coos Bay Harbor, September 21, 1916.

Stanwood had been launched in July, and Nelson's Port Angeles followed in September. The keel for a sister ship of the Stanwood was laid on the same ways immediately after the former was launched. This ship, the Florence Olson, built for Oliver J. Olson of San Francisco, took to the water in December. For a time the Stanwood was the biggest vessel built on Coos Bay, but her dominance was short-lived. Two months after she left the ways the Johanna Smith, largest ship of the wooden steam schooner fleet, was laid down.[1] The existing ways in the shipyard were crowded with new ships, so new ways were constructed on the tideflats south of the plant itself, and her keel was laid there.

The Stanwood remained active through World War II, although the terrible storm of December, 1940, which wreaked havoc with the steam schooners caught at sea, almost claimed her. The Coast Guard answered her distress signals and she was towed into Humboldt Bay, kept afloat by her buoyant lumber cargo. The Port Angeles was sold to Russian interests and groped among the icy and foggy waters of the northwestern Pacific until 1937, when she was broken up at Antioch, California. Few of the steam schooners navigated more forbidding seas than this single-ender. The Florence Olson was sold when her owner acquired steel ships after

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[1] W. T. Cleverdon, Pacific Coast Lumber Fleet--Coastwise (San Francisco, 1925), 33.

World War I. The Hart-Wood Lumber Company renamed her the Willapa, and she remained in their service until she foundered off Port Orford in 1941.[1]

The wartime shipping shortage meant many contracts for Kruse and Banks, as for all shipyards, large and small. The big Johanna Smith slid down the ways in April, 1917. Two more steam schooners were launched in July: the single-ender Horace X. Baxter and the double-ender Virginia Olson, for J. D. Baxter and Oliver Olson, both of San Francisco. September saw the Fred Baxter admitted to the ranks of Kruse and Banks-built vessels, and the C. A. Smith joined her sister on October 1, 1917, the last ship built on Coos Bay for private interests until after the war. This total of five large steam schooners launched in one year was a creditable record for any West Coast shipyard, but the initiation of the Emergency Fleet Corporation's building program soon made it seem insignificant.

The launching of the Johanna Smith caused some shaking of heads in the maritime circles, for she was the longest wooden ship built on the Pacific Coast up to this time and there was some doubt that she would be successful.[2] Wood has a resiliency which makes it impractical as a building

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[1]McNairn and MacMullen, Ships of Redwood Coast, 129 ff.

[2]"Hough Type Wooden Ships Prove Successful," International Marine Engineering, XXIV (1919), 535-537.

material for ships beyond a certain size. Since the greatest beam (breadth) is located in that portion of a ship's hull just forward and aft of amidships, it is this part of the ship which has the greatest buoyancy. If the ship is weak structurally, she will tend to hog because the narrowing bow and stern sections do not possess the buoyancy necessary to carry the heavy weights imposed upon them at the same level as the midship section. Well-built ships were braced strongly enough to prevent hogging, for a hogged ship would "work" in a seaway, opening her tightly calked seams, and would be slow in "answering her helm."[1] A length of about 250 feet was considered the maximum for wooden single-decked ships such as the steam schooners because of the difficulty in securing the massive timbers needed to prevent hogging and because of the valuable cargo space occupied by such timbers. Moreover, the Johanna Smith was a single-ender with all the weight of boilers and engines concentrated aft in the area of little buoyancy. Small wonder that veteran shipping men looked dubious when informed that she was 257.2 feet in length.

The Johanna Smith was designed by Edward S. Hough, naval architect of San Francisco, especially for the C. A. Smith Lumber Company.[2] Her cargo, 1,440,000 feet of lumber

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[1]Refers to the way in which a vessel obeys her rudder.

[2]D. W. Dickie to writer, January 22, 1953.

carried on deck and in six holds reached through four hatches, could be loaded in ten hours by the "package-handling cranes" installed on her owner's wharf. Her propelling machinery was also unique for a steam schooner: two oil-fired water-tube boilers equipped with superheaters[1] supplied steam for two DeLaval turbines, rated at 750 shaft horsepower[2] and geared independently to twin screws.[3] Turbines and superheaters were almost unknown to the coast-wise engineers, many of whom would have abandoned ship at the sight of a boiler gauge indicating a pressure of 225 pounds.

Delivery of boilers and engines for the Johanna and her nearly identical sister was held up by war contracts, so the two ships entered service as barges, being towed by sea-going tugs or steam schooners. Not until September, 1918, did both make their first voyages to Coos Bay under their own power.[4] By 1920 her owner had enough data on the Johanna's performance to make a comparison between the

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[1]A portion of the boiler wherein steam is reheated to remove water particles which might injure the turbine blades.

[2]SHP is the power actually transmitted to the propeller shaft.

[3]"Hough Type Wooden Ships Prove Successful," International Marine Engineering, XXIV, 535-537.

[4]Coos Bay Harbor, September 13, 1918.

wooden vessel and the steel Nann Smith, powered by Scotch boilers and triple-expansion reciprocating engines. The turbine-powered ship showed a forty per cent reduction in operating costs per 1,000 feet of lumber carried.[1] Despite this apparent success, these two giants remained the only steam schooners with turbines as well as being the largest vessels of the wooden fleet designed specifically for the coastwise lumber trade. This may be explained by the fact that they appeared almost at the end of the wooden ship era and that few operators could afford the high initial cost of the vessels.[2]

The Johanna Smith remained in the lumber trade for some time, but her last years were spent in a business that could hardly be considered respectable. After her engines and boilers had been removed, she was fitted with the paraphernalia usually associated with the back-room of a tavern, and moored off the southern California coast just beyond the three mile limit, her declining days devoted to service as a gambling barge. The Port Orford (ex-Horace X. Baxter) foundered in Alaskan waters in 1942, and the Fred Baxter went to the ship-breakers in 1933. The Virginia

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[1]"A Steam Turbine Schooner," Pacific Marine Review, XVII (1920), 106-107.

[2]In conversation with Fred Kruse.

Olson, renamed Yolande when sold to French stockholders, was returned to American registry by the E. K. Wood Lumber Company as the Sierra. She burned at San Pedro in 1926.

The C. A. Smith came to a spectacular and tragic end on December 16, 1923. Captain Blomburg had decided to cross out over the Coos Bay bar from San Pedro that Sunday morning despite high winds and a warning from the master of the tug Oregon that the bar was quite rough. Heading well south because of the southerly wind, the big lumber carrier struck the rocks of the south spit, tearing away rudder and propellers. Heavy seas wrenched her from the rocks and she was driven onto the north spit on the other side of the channel. An alert Coast Guard lookout had noticed her plight even before her distress signals were received, and Captain Jensen soon had his power lifeboat alongside to remove the crew. Nine men were swept overboard from the C. A. Smith, and the first mate of the Oregon, standing by to assist the Coast Guard, suffered a like fate. The remainder of the crew, fourteen in number, was removed from the wreck by Captain Jensen, whose work was praised by Captain Skogg of the steam schooner Cleone, also standing by to help, as the most courageous and wonderful rescue he had ever seen.[1] The rising seas soon battered the C. A.

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[1]Southwestern Oregon Daily News, December 17, 1923.

Smith to pieces and she was a total loss.

The period when the Johanna Smith was built was the busiest Kruse and Banks had experienced, but it seemed quiet when compared with the months after the American entry into World War I. The first Emergency Fleet Corporation hulls were rising on the ways at Porter when the C. A. Smith was launched.

CHAPTER V

THE CLIMAX OF COOS BAY SHIPBUILDING

The lull in shipbuilding activity which had idled the small coastal yards might have become a permanent stagnation but for the shipping shortage caused by World War I. The wooden ship's last stronghold on the West Coast was the lumber trade, and already this area had been invaded by steel ships. In the vanguard of the steel squadrons came the Redondo, built at Toledo, Ohio, in 1903. Next came C. A. Smith's Nann Smith and the Hammond Lumber Company's George W. Fenwick, both launched on Chesapeake Bay in 1907. Three Puget Sound-built steel steam schooners followed in 1908, and in each succeeding year more steel vessels were added to the lumber fleet until the trend was temporarily halted by war.[1]

The steel steamer could claim several advantages over her wooden counterpart. She could be much larger in size without developing structural weakness, and her smaller operating cost was further reduced by low insurance rates because fire was not a major hazard for a steel ship. It

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[1]In conversation with Fred Kruse.

was very difficult to keep the seams of a wooden vessel absolutely tight, so many items could not be carried in her hold; the steel ship operator, however, could accept sugar, salt, and cement as cargo, secure in the knowledge that they would not be damaged by "weeping" seams. Finally, the steel steam schooner could carry more cargo than her wooden sister of comparable size: the steel Nann Smith (length--276 feet, beam--43 feet, and depth of hold--21 feet) was designed to carry 2,250,000 feet of lumber[1] while 1,440,000 feet was a full load for the wooden Johanna Smith (length--257.2 feet, beam--51 feet, and depth of hold--15 feet).[2] Only the higher initial cost of the steel vessel and the innate conservatism of shipping men maintained the wooden ship in the lumber trade long after the steel steamer had supplanted her elsewhere.

The increased demands on existing shipping in 1916 and 1917 forced the United States Government to take steps to relieve the shortage. The Shipping Act of 1916 established the United States Shipping Board to regulate carriers by water in both foreign and coastwise trades and to encourage the building of a merchant marine adequate for our requirements.[3] It also authorized the creation of a Government-

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[1]"Steam Lumber Schooners for the Pacific Coast," International Marine Engineering, XIII (1908), 153.

[2]Cleverdon, Pacific Coast Lumber Fleet, 33.

[3]United States Shipping Board, First Annual Report (Washington, 1917), 5-6.

owned corporation to build, purchase, charter, and operate ships, and the Emergency Fleet Corporation was formed on April 16, 1917, with all of its stock being subscribed by the Shipping Board.[1] Despite the well-known advantages of steel ships over those built of wood, it was feared that the wartime steel shortage would result in an undesirably low delivery rate for steel vessels, so the building program included wooden ships as well.[2]

The country was divided into seven districts under the Corporation, two of which, the Southern Pacific and Northern Pacific Districts, were on the West Coast. Coos Bay was the northernmost shipbuilding area in the former district, and the remainder of the Oregon yards were grouped in the Northern Pacific District with those of Washington. Later the wooden shipyards of Oregon were separated from the others and put into the Eleventh District, but Coos Bay continued as before under the supervision of San Francisco. Agitation to have the Coos Bay area also classed in the Eleventh District was carried on by local and Portland interests, but the Corporation apparently felt that Coos Bay was properly a part of California and it remained in

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[1]Shipping Board, First Annual Report, 6.

[2]Shipping Board, First Annual Report, 7.

the Southern Pacific District.[1] In all, the Emergency Fleet Corporation let contracts for 703 wooden cargo ships to eighty-two shipyards with 336 building ways. The thirty-five West Coast yards had 152 ways and received orders for 360 of these ships.[2]

The method by which the E. F. C. ordered the building of ships is clearly explained by the Shipping Board's Second Annual Report:

> On the basis of the construction program, as approved by the Shipping Board, shipbuilders are notified as to the numbers, types, and tonnage of vessels for which the Corporation will consider bids, and they submit detailed proposals accordingly, with full data as to their producing capacity, labor supply, availability of material, financial standing, etc. . . In general, the E. F. C. has preferred to utilize and expand existing plants . . . In the case of wood vessels, there are two general types of contracts--(1) for the completed vessels and (2) for hull only. In the latter case the E. F. C. furnishes and installs the engines and equipment.[3]

The Kruse and Banks Shipbuilding Company of North Bend was interested in the development of the E. F. C. building program, but its ways were crowded with ships being built on private order, so E. F. C. contracts could not be taken until the yard was expanded or the vessels under construction

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[1]"News of the Ports," Pacific Marine Review, XXV (1918), 140.

[2]"Cost of Ship Construction," Senate Documents, No. 315, 65 Cong., 3 Sess. (Washington, 1919), 33.

[3]Shipping Board, Second Annual Report (1918), 118.

were completed. Property adjoining the shipyard to the south was acquired and piles were driven for two new building ways. On June 29, 1917, Kruse and Banks was notified that its bids had been accepted, and it was awarded a contract for the construction of six ships of the Hough type on August 25, 1917. Even before the contract was officially received the keel for E. F. C. Hull No. 426 was laid, the seventh wooden vessel laid down for the E. F. C. in the entire country up to that time.[1]

The initiation of the E. F. C. building program was accompanied by the formation of many new shipbuilding companies to take advantage of these contracts, and Coos Bay was chosen as the site for one of the new shipyards. Representatives of San Francisco interests had considered various locations in the area in May, and soon after the Coos Bay Shipbuilding Company was formed.[2] Early in July, Charles Hall, president of the new company, stated that construction of the yard would begin at once on a twelve acre tract between the C. A. Smith Lumber Company sawmill and the coal bunkers at the southern end of the bay. Four building ways were planned and piles were soon being driven.[3]

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[1] "Cost of Ship Construction," 17-22.

[2] Coos Bay Harbor, May 11, 1917.

[3] Coos Bay Harbor, July 6, 1917.

R. H. Corey, vice president, reported from San Francisco that the Company had been awarded a contract to build four E. F. C. ships.[1]

By autumn of 1917 the progress of the E. F. C. building program had been delayed seriously by a series of strikes, particularly on the Pacific Coast. These mostly affected the yards building steel ships, and the two Coos Bay shipyards had experienced no difficulty in their labor relations. To relieve the general situation, the Shipbuilding Labor Adjustment Board (known as the Macy Board because V. Everit Macy of New York was its chairman) was established with the specific duty of setting standard wages and hours for the industry as a whole. The base wage for the West Coast was set at $5.25 a day, with shipwrights in the wooden yards receiving $6.00 and wood calkers $6.50 a day. Later decisions of the Macy Board raised the basic wages somewhat and set the standard overtime wage rate. An eight hour day was accepted for the entire industry. Contracts given the shipyards were changed so that the Government bore the load of the adjusted wage rates.[2]

On the whole, both Kruse and Banks and the Coos Bay Shipbuilding Company had little trouble with labor until after the Armistice. Just after the Macy Agreement went

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[1] Coos Bay Harbor, July 13, 1917.

[2] Fassett, Shipbuilding Business in the U. S., I, 273-280.

into effect the Kruse and Banks employees were somewhat dissatisfied when that firm desired to continue its usual practice of paying once every month instead of every two weeks as stated in the Agreement. The Company soon met their demands[1] and there was no more trouble on that score. Many of the workmen at both yards were members of the Loyal Legion of Loggers and Lumbermen, a super-patriotic organization, but at no time was there a serious movement afoot to force the employers to adopt the closed shop. A rumor that the Kruse and Banks shipyard was to be burned by the International Workers of the World was current during the summer of 1917, but Kruse and Banks was sure that it was unfounded.[2] The members of the Loyal Legion were constantly alert against the infiltration of the I. W. W., and in July, 1918, forced Kruse and Banks to discharge a calker who was suspected of being a member of the "Wobblies."[3]

Kruse and Banks made its own arrangements for materials for the first three E. F. C. hulls, but thereafter the builders made their requirements known to the E. F. C., which, through the Lumber Bureau at Washington, distributed

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[1] Coos Bay Harbor, July 20, 1917.

[2] Coos Bay News, July 17, 1917.

[3] Coos Bay Harbor, July 30, 1918.

the orders equitably among the various sawmills of the South and West. A uniform price of $35.00 per thousand feet was paid for ship lumber.[1]

The keel of Hull No. 426 was laid on July 28, 1917, and thereafter construction of the E. F. C. vessels was started at the North Bend yard as fast as the ways were cleared of private orders. The building ways were roofed over so that the work could proceed in spite of inclement weather. Two shifts of workmen were employed. The top employment figure for Kruse and Banks during World War I was slightly over 800 men. No shortage of labor was experienced, and many men from all walks of life went to work in the shipyards as that was considered almost as patriotic as enlisting in the armed forces.[2]

Several of the Columbia river shipyards were competing for the honor of launching the first wooden cargo vessel built under an E. F. C. contract, and the race was well covered by the press. No news came from Coos Bay until December 14, 1917, when it was announced that Hull No. 426 would be launched by Kruse and Banks the next day, the

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[1] Hearings before the Select Committee on United States Shipping Board Operations, House of Representatives, 66 Cong., 2 Sess. (Washington, 1920), Vol. I, Pt. I, p. 839. Hereafter referred to as USSB Operations.

[2] In conversation with Fred Kruse.

first wooden ship completed for the E. F. C. in the entire nation. The name of the vessel, selected by Mrs. Woodrow Wilson, was to remain a carefully guarded secret until an unidentified sponsor christened the ship.[1] Promptly at 1:30 the following afternoon a very diminutive, veiled lady, guarded by two attendants lest she fall from the platform in the rain and high wind, announced that the ship's name was the North Bend. No one was very surprised at this, but there were a few murmurs when the lifted veil revealed the face of Miss Mary Banks, the thirty month old daughter of the Kruse and Banks president.[2]

After the outfitting work on the new ship was finished, she was loaded with lumber at the C. A. Smith mill and then, on January 30, 1918, she was towed out for San Francisco by the tug Tyee. On May 27, having received her engines and boilers at the Murray Iron Works, the North Bend was delivered to the E. F. C., which placed her in service between San Francisco and the Hawaiian Islands, carrying general cargo on the outward run and sugar on the return voyage.[3]

Three hundred and three days had elapsed between the laying of the North Bend's keel and her delivery to the

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[1] Coos Bay Harbor, December 14, 1917.

[2] Coos Bay Harbor, December 21, 1917.

[3] "Cost of Ship Construction," 9.

E. F. C. Later ships would be delivered in less time, but most of the saving was made in the time required to fit the hull with propelling machinery. The North Bend was on the ways only 140 days before she was launched,as compared with an average of 179 days for the first five Kruse and Banks-built E. F. C. ships. None of the other Southern Pacific District yards could even approach this record, but it was broken several times on the Columbia river and at Grays Harbor.[1]

Citizens of North Bend became quite irate when the E. F. C. informed Kruse and Banks that the vessels built on Coos Bay would be listed as registered at the customs office in Marshfield. This was a logical move, as North Bend had no customs office, but the Government had not taken into account the bitter rivalry between the two cities. North Bend was very proud of the fact that its shipyard had turned out the first of the wooden ships for the E. F. C, but under no circumstances would its people sit idly by while that vessel's counter bore the inscription "North Bend of Marshfield." Nor were their efforts in vain. The home port for all E. F. C. ships built by Coos Bay Ship-building and Kruse and Banks was Coos Bay.[2]

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[1] "Cost of Ship Construction," 19-20.

[2] Coos Bay Harbor, January 30, 1918.

The North Bend was followed in 1918 by the Quidnic in March, the Kickapoo in April, the Baladan in May, the Coconino in June, and the Yanix in August. These vessels had been laid down as Hulls No. 427 to No. 431 in 1917, and names were assigned by the E. F. C. as they approached completion. All were of the Hough type, three-island two-deckers[1] 275 feet long and 3,004 gross tons. Two oil-fired water-tube boilers furnished steam for the triple-expansion reciprocating engines driving twin screws. The two engines developed 700 indicated horsepower each, and eight knots was the designed full speed. Larger than the biggest steam schooners, these ships were strengthened by their two decks so that little structural weakness was encountered.[2] The Hough type ships were variously described as "glorified packing boxes"[3] and "large scows."[4] Despite this disparagement, it seems likely their size alone seriously restricted their use. They were too large for efficient service in coastwise trade and could not compete with steel ships for

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[1]A vessel with raised forecastle, deckhouse, and quarter-deck, and two continuous decks below the main deck.

[2]"Hough Type Wooden Lumber Steamer," International Marine Engineering, XXV (1920), 399-400.

[3]USSB Operations, Vol. IV, Pt. 11, p. 4185.

[4]USSB Operations, Vol. IV, Pt. 11, p. 4187.

the trans-oceanic traffic. They were designed and built specifically to relieve the emergency situation resulting from the war, and for this purpose they were adequate.[1]

In the meantime, plans for the Marshfield shipyard had been completed on July 18, 1917, and three months later the keel for the first of four Hough type vessels was laid. O. E. Adelsperger had replaced Hall as president, and Nels Nielson, builder of the Myrtle at Prosper some years earlier, was the master builder. As might have been expected, the new Company encountered many difficulties, mostly due to inexperienced workmen. When Nielson found more profitable employment elsewhere, the work underway was shortly in such a state that the Marshfield yard found it necessary to "borrow" Fred Kruse from Kruse and Banks to put things back in order.[2]

By the end of February, 1918, work had progressed far enough on the first hulls at Coos Bay Shipbuilding so that the management could begin to make plans for their launching. Much to their chagrin, they found that even at flood tide there would be an insufficient depth of water to float Hough type vessels from the building ways. The Company was not eager to bear the additional cost of the necessary dredging

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[1]In conversation with Fred Kruse.

[2]In conversation with Fred Kruse.

so an ingenious and somewhat unscrupulous escape was found. The Port Commission of Coos Bay consisted of five members, three from Marshfield and two from North Bend. The local men were consulted and proved willing to authorize the use of Port Commission funds for the dredging, but it was feared that the North Bend members would not accept this expenditure of public money for private interests. A meeting of the Port Commission was called for the afternoon of Saturday, March 2, so late that the North Bend men did not receive word of it until the meeting was over. The three members present voted $2,000 for the dredging operation and there were no dissenting votes. The North Bend members, Banks and Peter Logge, were not unnaturally disturbed by this arbitrary action and promptly acted to stop it. Carefully explaining that they were acting in the public interest and not from any desire to hold up completion of ships by the Marshfield shipyard, the dissenting members questioned the legality of such improper expenditure so effectively that the money was withdrawn and the Coos Bay Shipbuilding Company had to meet the expense of the dredging.[1]

Early in the morning of April 28, 1918, the Coos Bay left the ways and floated out on the flood tide, 198 days after her keel had been laid.[2] E. F. C. Inspector

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[1] Coos Bay Harbor, March 8, 1918.

[2] "Cost of Ship Construction," 18.

C. K. Cadman was slightly injured when struck by a keel block, and this event gave believers in the superstitions of the sea another example to prove that ill luck at a launching follows a ship throughout her career.[1] Less than five months later the Coos Bay, on her maiden voyage to South America in ballast, foundered without loss of life. Thus both of the southwestern Oregon shipyards could claim distinctions: Kruse and Banks that of having launched the first wooden cargo ship for the E. F. C. and the Marshfield yard that of having built the first of these ships to be lost. It is true that the Grays Harbor-built Blackford was lost in the same storm, but she was abandoned prematurely and later drifted ashore where she broke up before she could be salvaged. The Coos Bay sank so rapidly that it was impossible to determine the exact cause of her loss, but no blame was placed on the builders, as the E. F. C. had accepted the vessel.[2]

The Balliett was launched at Marshfield a month after the Coos Bay, and the Cohasset followed in July. When the Mesa left the ways in August, Coos Bay Shipbuilding's first contract had been completed, but it had received a contract for the construction of two Hough type ships in February

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[1] Coos Bay Times, April 29, 1918.

[2] USSB Operations, Vol. I, Pt. 1, p. 485.

and another for four more vessels of the same type in June so that there was continued employment for the nearly 500 workmen at the Marshfield yard.[1]

Kruse and Banks received its second contract in July, 1918, but even previous to this time had laid the keel for one of the six Ferris type ships included in this order. The Ferris type ships were three-island single-deckers of about the same size as the Hough-designed vessels, but were reinforced with iron strapping to prevent structural weakness.[2] Their fine lines made them faster and more popular vessels than the Hough type, but few of them were placed in service. All of the Ferris ships built in North Bend had Fort names, and the Fort Leavenworth was launched in October, 1918, followed by the Fort Logan in December, the Fort Lewis in February, 1919, and the Fort Laramie in March. The other two vessels included in the contract had not been laid down by November 12, 1918, so the order for their construction was cancelled.[3]

The six later Hough vessels built at Marshfield were the Marshfield, the Burnside, the Burnwood, the Convermichuk, the Pamunkey, and the Selanvya, the last of which left the

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[1]Shipping Board, Second Annual Report, 108.

[2]"Shipping Board Contracts," Pacific Marine Review, XXV, 147.

[3]USSB Operations, Vol. I, Pt. 1, p. 833.

ways on July 15, 1919. Owing to the shortage of marine engines, most of the ships launched by the Coos Bay Shipbuilding Company were never completed as steamers. Only the Coos Bay, the Balliett, the Marshfield, and the Burnside served as cargo vessels, and of these the Balliett and the Marshfield were broken up in 1925, the Coos Bay foundered in 1918, and the Burnside was destroyed by fire off Land's End, England, in 1920.[1]

The six Marshfield ships moored at Coos Bay were joined by two of the Kruse and Banks-built vessels, the Yanix and the Fort Lewis. The former was complete except for her engines, while the latter had been finished, but not rigged, as a five-masted schooner. Late in 1919 these hulls were all towed to the Liberty mooring on San Francisco Bay where they remained until sent to the ship-breakers some years later. All of the other ships built at North Bend were completed as steamers except the Fort Laramie, which entered the lumber trade as a six-masted schooner. Sold to W. S. Scammel and Company of San Francisco for $56,500, hardly more than one-tenth of her original cost, she was finally scrapped in 1935, one of the longest-lived of all the E. F. C. wooden ships and the last of the six-masted sailing schooners.[2]

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[1] List of Merchant Vessels of the United States (Washington, 1920), 452.

[2] John Lyman, "Six-masted Rigs," American Neptune, IV (1944), 325-326.

In contrast to the ships completed and sent to active service by the Marshfield yard, half of which met with disaster, none of the Kruse and Banks-built vessels encountered any notable difficulty and were eventually broken up with most of the other E. F. C. wooden ships, the last of those built at North Bend being the Fort Logan which went to the ship-breakers in 1926.[1]

Some fear of sabotage at the shipyards was felt until the Armistice was signed, and in September, 1918, nineteen soldiers of Company D, Sixth Infantry Division were sent from the Presidio to guard the two Coos Bay yards. Nine men were assigned to Kruse and Banks, while ten formed the detail at the Coos Bay Shipbuilding Company.[2] The worst delay in the shipbuilding program, with the exception of those caused by material shortages, was not caused by sabotage or enemy action. The Spanish influenza epidemic which swept the nation in the autumn of 1918 did not miss Coos Bay, and well over one-tenth of the shipyard employees were absent from their jobs at its peak. An effort was made to have the men wear protective masks while working, but these were very unpopular and their use was discontinued.[3]

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[1] Merchant Vessels of the United States (Washington, 1926), 859.

[2] Coos Bay Harbor, September 15, 1918.

[3] Coos Bay Harbor, November 1, 1918.

By the end of November most of the men were back at work.

Dissatisfaction with the terms of the Macy Agreement had been voiced in many of the Pacific Coast yards, but the men had agreed to abide by it for the remainder of the war, so no serious labor trouble came until 1919. The last weeks of 1918 found employees of both the North Bend and Marshfield yards hopeful that there would be no strike, and the year ended on an optimistic note.[1] But on January 6, 1919, the members of the Calker's Union employed at both shipyards left their work demanding higher wages and a closed shop. Other workers walked off in sympathy, and it was apparent that the Coos Bay area was experiencing its first big strike. The strike was not limited to Coos Bay and, had the Union not called the strike, it is likely that the workers in that region would never have left their jobs, for most of them were quite well satisfied.[2]

On January 17, the Coos Bay Shipbuilding Company came to terms with strikers and commenced operations with a full crew, many of whom had been employed in North Bend previously. Kruse and Banks refused to enter into any agreements, standing firm in the belief that the Macy Agreement covered the

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[1] Coos Bay Harbor, December 13, 1918.

[2] Coos Bay Harbor, December 6, 1918, and January 10, 1919.

situation until the last of the E. F. C. ships was completed. A crew of nearly 200 men remained at work in the Kruse and Banks yard, both union and non-union men among them.[1] Within a few months most of the old employees who had deserted to the Marshfield yard returned to Kruse and Banks which never did recognize any union, although always meeting the union scale of wages and hours.[2]

The Southern Pacific District and seven shipyards building wooden vessels for the E. F. C. These yards received contracts for sixty ships, but only fifty were launched. Twenty of these ships were built by the two Coos Bay yards, so that it was easily the most important area of the District with regard to wooden ships. Compared to the Northern Pacific and Oregon Districts, however, the efforts of the Marshfield and North Bend yards are far less impressive, for 146 ships were ordered from the Northern Pacific District and 154 from the Oregon District. During this period the Columbia river region far surpassed Coos Bay in the production of wooden ocean-going ships for the first time, and Puget Sound had long since eclipsed the southern Oregon port in this respect.[3] The reasons are

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[1] Coos Bay Times, January 17, 1919.

[2] In conversation with Fred Kruse.

[3] "Cost of Ship Construction," 33.

easily seen: both of these areas had more potential shipyard sites, more available manpower, better industrial facilities, and better communications with the rest of the nation than did Coos Bay. Moreover, the E. F. C. building program was not based on the lumber industry which had long made it possible for Coos Bay to challenge the supremacy of more likely locales in the field of wooden ship construction. The period of World War I marked the zenith of the shipbuilding industry in the Coos Bay area, but it was followed by almost total oblivion.

CHAPTER VI

BECALMED BETWEEN WARS

Forseeing the decline of shipbuilding in the Coos Bay area as the Emergency Fleet Corporation contracts were either completed or cancelled, some of the workers decided to take steps to assure themselves of continued employment. About 150 of them, mostly Swedish-Finns who had learned their trade in the "old country," gathered at Marshfield's Suomi Hall early in January, 1919, and subscribed over $75,000 for the establishment of the Scandia Shipbuilding Company. William Hagquist, William Hillstrom, and William Lackstrom were appointed to a committee to investigate suitable sites for the shipyard, but it was apparent that the new firm hoped to take over either the North Bend yard of Kruse and Banks or that of Coos Bay Shipbuilding at Marshfield.[1] These hopes proved vain, and the Harbor of January 17, 1919, reported that locations in Empire and North Bend were under consideration. The newspaper had it "from good authority" that the men could obtain foreign contracts immediately.

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[1]Coos Bay Harbor, January 10, 1919.

Two months later a site at Bullard's Ferry, near Bandon, was offered on attractive terms, but no contracts could be had, so Scandia remained only a name.[1] Rumors of impending activity by Scandia continued to appear, but not until September 3, 1919, did the Company get a contract. On that date the North Bend City Council announced that it had awarded the Scandia Shipbuilding Company a contract to lay a sewer in the north end of Sherman Avenue.[2]

Finally, a year after the Company had been formed, it secured its sole "shipbuilding" contract. A scow was built for the Government on the site of Simpson's spar yard at Old Town. The Bay Park mill furnished the lumber for the scow which was to float a bucket dredge for use on the Coquille river. With the launching of this ungainly craft, Scandia both initiated and concluded its career as a builder of vessels.[3] The Scandia Shipbuilding Company, however, did remain in existence for some years as a builder of garages and a paver of streets. One of its more bizarre activities was the rescuing of a cow which had fallen into a well at the J. A. Sandquist home. This operation nearly

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[1] Coos Bay Harbor, March 14, 1919.

[2] Coos Bay Harbor, September 5, 1919.

[3] In conversation with Fred Kruse.

ended disastrously when the sling in which the cow was suspended slipped, almost strangling the animal before she was deposited on solid ground.[1] Not until the summer of 1926 did the Company finally go out of business, and when it did a number of its backers suffered severe financial loss.[2]

The inability of Scandia to secure either of the two shipyards in the area in 1919 is evidence of the yard owners' confidence in more contracts. With its reputation as a builder of steam schooners, Kruse and Banks could expect further employment, but it is difficult to understand how Coos Bay Shipbuilding could hope to receive private orders. Most of the war-born yards could match its record and the foundering of the Coos Bay was not easily overlooked. At any rate, no more contracts were secured by Adelsperger and his associates. The Coos Bay Shipbuilding Company went out of existence in the summer of 1919 when an option on the yard site was given to some Eastern mill interests.[3]

In the meantime, Kruse and Banks had received contracts for two steam schooners from the J. R. Hanify Company of San Francisco, and a five-masted sailing schooner was laid

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[1]In conversation with Fred Kruse.

[2]Coos Bay Harbor, July 16, 1926.

[3]Coos Bay Times, August 1, 1919.

down for private interests. Under the terms of the E. F. C. contracts the Company took over all of the material ready in the shipyard when the Armistice was signed.[1] This was utilized in the new construction, as was material purchased in Astoria and Marshfield when the yards there suspended operations after the completion of Government contracts.

The five-masted schooner was the largest sailing vessel to be built by Kruse and Banks, the principal stockholder. Costing about $200,000, whe was 242.3 feet in length and was to carry 1,750,000 feet of lumber on deck and under three hatches. Named for her designer and master builder, K. V. Kruse, she was to be operated by the Davenport Steamship Company of San Francisco, for which Kruse and Banks had built the steam schooners Fairhaven and Davenport. The big five-master was launched on December 20, 1919, with Miss Virginia Conrad, the five year old granddaughter of Kruse, as sponsor.[2] At the outfitting wharf, her masts, towering 131 feet above the main deck, were stepped and the big schooner was towed to Marshfield where she was partially loaded with lumber. Towed to sea, she proceeded under sail to the Columbia river to top off her deckload

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[1] USSB Operations, Vol. I, Pt. 1, p. 966.

[2] Coos Bay Harbor, December 19, 1919.

before sailing to Sydney, Australia. Her full load draft of twenty-two feet was considered too much for the Coos Bay channel, thus necessitating the Columbia river visit.[1] At Sydney a shipment of coal for Callao, Peru, was secured, and from Callao the K. V. Kruse returned to the West Coast of the United States in ballast.

The steam schooners built for the Hanify Company were identical sisters designed by David W. Dickie and Renwick Z. Dickie, naval architects of San Francisco. These double-enders carried 1,350,000 feet of lumber, 615,000 feet in the holds and the remainder lashed on deck. The twins were 235 feet long and were manned by crews of 28.[2] The first of the two, the Anne Hanify, left the ways in January, 1920, and the Ryder Hanify followed her sister ship on April 17. Unlike most of the steamers built on Coos Bay, they were completely outfitted by their builders. The Main Iron Works of San Francisco furnished the engine for the Anne Hanify, while the Pacific Marine Iron Works built that of the Ryder Hanify. Both of these vessels enjoyed long lives, being taken from lay-up for World War II, which both survived. The Anne Hanify, renamed the Salina Cruz when sold to Panamanian owners, burned in the north Pacific.

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[1] Coos Bay Harbor, February 20, 1920.

[2] D. W. Dickie to writer, January 22, 1953.

The last of the steam schooners built on Coos Bay was the Pacific, 221.5 feet in length with a capacity of 1,325,000 feet of lumber. She was built on speculation with Kruse and Banks furnishing the capital for the hull and the Pacific Marine Iron Works of Portland providing the propelling machinery which was installed by Kruse and Banks. The Pacific was launched at midnight, July 14, 1920, and was soon acquired by W. R. Chamberlin and Company of San Francisco. Her name was changed to the Barbara C., and she was a familiar visitor to Pacific Coast ports until she was requisitioned by the Maritime Commission in 1943. This ship and both of the Hanify schooners were given the highest possible rating by the inspectors of the American Bureau of Shipping.[1]

Completion of the Pacific left only one vessel on the ways at the North Bend yard. Originally designed as a shallow draft steam schooner for use on the Umpqua river, the North Bend was completed as a four-masted sailing schooner when her builders ran low on capital. Stock in the new ship was sold to people of the Coos Bay area, many of whom were Kruse and Banks employees, and the money so acquired was used to rig her for sail because propelling

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[1]Coos Bay Harbor, October 29, 1920.

machinery was deemed too expensive.[1] Somewhat smaller than the K. V. Kruse, the North Bend was to carry 1,000,000 feet of lumber. This schooner was not only the last sailing vessel built on Coos Bay and one of the last built on the West Coast, but was also the last sea-going merchant vessel launched on Coos Bay. Marshfield was listed as her port of registry and Kruse and Banks as owner. When completed, she was loaded at the Bay Park Lumber Company wharf and cleared for Callao, Peru. Most of her ten man crew was from the Coos Bay region.[2]

After an uneventful run of seventy-eight days to Callao, the North Bend returned to Coos Bay in ballast, having been unable to obtain cargo for the return voyage. A monotonous career of long lay-ups broken by an occasional charter to South America or the south Pacific with lumber was apparently ended when she ran aground on Peacock Spit while entering the Columbia river under sail. Attempts to free her from the Spit failed, and she was stripped by a working party from North Bend. Fred Kruse feared that she might work herself free and become involved in a collision, so he sought permission to burn her hull, but the Coast Guard would not permit this. He then tried to chop a hole in her

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[1] In conversation with Fred Kruse.

[2] Coos Bay Harbor, March 9, 1921.

bottom so that she would fill with sand more readily, but her sturdy timbers were too obstinate and she was abandoned, already some eleven feet in the sand.[1]

On February 11, 1929, thirteen months after grounding, the North Bend refloated herself, having worked all the way across Peacock Spit. Her escape from the "graveyard of the Pacific" was considered almost miraculous and was featured by Robert Ripley in his Believe It or Not. The ship's hull was still in excellent condition and was returned to service as a barge.[2] No more vivid testimonial of her builders' skill could have been furnished than that given by the North Bend's "overland" cruise. The second and final end to her career came in 1940 when her hull was burned for its metal fittings after she had grounded at the entrance to Coos Bay. The same year the K. V. Kruse, also converted to a barge, ended her life off Cape Flattery.

With the exception of Government vessles, the ship-building industry on Coos Bay ended on that bleak afternoon of December 27, 1920, when Miss Lena Kruse christened the North Bend. That schooner was the last commercial vessel larger than a fishing boat to be built in the area. The dearth of private orders was not limited to the Pacific

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[1]In conversation with Fred Kruse.

[2]Gibbs, Pacific Graveyard, 91.

Coast, for the shipbuilding industry throughout the United States was entering one of its most inert periods. The reason was quite apparent: the activity of the E. F. C. during World War I had resulted in an unparallelled expansion of American merchant shipping. Without the stimulus of a world conflict this fleet found little employment and large numbers of the ships were laid up, or, in the case of some wooden vessels, sold for as little as $2,100 in 1921.[1] From a total of 965 steam propelled merchant vessels aggregating 3,602,769 tons built at American shipyards in 1920, the decline continued until the nadir was reached in 1936 when nine merchant steamers totalling 41,169 tons were built.[2] Not until World War II did the nation's shipbuilding industry revive under the impetus of Government contracts and this was true also of the activity on Coos Bay.

It is ironical that the last Coos Bay-built merchant ship should have been a sailing vessel, larger and more efficiently rigged than the Arago of 1859, to be sure, but fundamentally the same. Both the big schooner and the little brigantine were built for the same purpose, that of transporting lumber, and both depended on favorable winds to drive them to their ports of delivery. The rigging of the

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[1]Coos Bay Harbor, April 12, 1921.

[2]Fassett, Shipbuilding Business in the U. S., I, 72.

K. V. Kruse and the North Bend for sail alone showed a trend which enjoyed some popularity among the veteran seamen and shipbuilders of Washington, Oregon, and California in the years just after the Armistice. These men felt that the wooden sailing schooner would be able to compete with steamers for foreign markets, particularly in the lumber trade. Perhaps the most ardent exponent of this theory was Captain W. J. Eyres, master mariner in sail and Inspector of Hulls for the E. F. C. Writing in 1919, he concluded his argument as follows:

> (For the purpose of transporting timber from the Pacific Northwest to all parts of the world) I will unequivocally and positively state that the wood (fir) fore and aft schooner of the sailing type, with single deck and five masts, and with a carrying capacity of from 1½ million up to 2 million feet, has not and can have neither a rival nor a competitor, until such time as some motive power is devised which will be cheaper than wind . . . for the propulsion of ships.[1]

This argument seemed to be borne out by the fact that neither the Kruse nor the North Bend had any difficulty in obtaining charters when first built, the latter having received her first charter before she was even launched.[2] But such auspicious beginnings meant little, as neither was able to find a cargo for the return from her maiden voyage. Unable

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[1]Captain W. J. Eyres, "An American Shipmaster's Letter," Pacific Marine Review, XVI (1919), 81.

[2]Coos Bay Harbor, December 31, 1920.

to maintain the slightest semblance of a schedule, the sailing vessel simply could not compete in a modern world. Neither of these big sailers made their owners any money. The North Bend never paid a dividend to her stockholders.[1] They were expensive failures which cost Kruse and Banks much of its profits from the World War I shipbuilding boom.

It must not be supposed, however, that the Kruse and Banks Shipbuilding Company remained idle during the years between the completion of the North Bend and the receipt of the first Government contracts in 1941. Barge orders and repair work kept a small permanent force employed and there were occasional flurries of activity when a self-propelled vessel was to be built. Among these was the Roosevelt, a sidewheel steam ferryboat, built for the Coos County Road Commission and taken over by the Oregon State Highway Commission when the Oregon Coast Highway was opened. Launched July 21, 1921, and placed in service May 5, 1922, the Roosevelt was later replaced by the larger and faster Oregon as the volume of traffic grew, but was retained for emergency use until 1936 when the McCullough bridge was opened to traffic.

A fifty-seven foot Diesel tugboat for the Gardiner Lumber Company left the yard in 1923, and in 1925 forty men

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[1]Coos Bay Harbor, January 6, 1928.

were employed on two large dump barges for use in deepening Los Angeles harbor. A sixty-five foot tugboat for the Arrow Tug and Barge Company of Astoria was launched on July 11, 1925. After installation of a 200 horsepower Diesel engine, the Arrow No. 3 was turned over to her owners who presented the builders with a loving cup inscribed: "Presented to Kruse and Banks in appreciation of their efforts and workmanship on our tug Arrow No. 3, Arrow Tug and Barge Company, Astoria, Oregon."[1]

A sadder occurence was the fatal injury of Bertram F. Hemingway, an employee, after a barge launching on July 21, 1925. In more than forty years of shipbuilding, this was the only fatal accident at the Kruse and Banks shipyard,[2] a safety record which few other companies could match. Safety engineering was a yet unborn science during much of the time that Kruse and Banks operated, but skill and common sense made it practically unnecessary for this Company.

Late in 1925 a bid was submitted for the construction of a ship for the Bureau of Fisheries, Department of Commerce. Early in January, 1926, Banks was notified that his firm's bid had been accepted, and soon afterward work was started

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[1]Coos Bay Harbor, July 17, 1925.

[2]Coos Bay Times, July 23, 1925, and in conversation with Fred Kruse.

on the tender Brant, 100 feet in length and powered by a 225 horsepower Union Diesel engine. When the Brant was launched on June 3, the Harbor considered her "without a doubt the finest and best built small craft ever turned out by these well-known builders."[1] This opinion apparently was shared by the Bureau of Fisheries which put her at the use of President Hoover when he visited Alaska.[2]

In November, 1926, the fifty foot gasoline launch Vulcan was completed and departed for service on the Smith river. A few months later a contract for another Bureau of Fisheries vessel was received, and the seventy-three foot Teal left the ways on July 23, 1927. Both the Brant and the Teal were employed on fishery patrol duties in Alaskan waters.

During this time Kruse and Banks supplemented the shipbuilding and repairing business by supplying sashes and doors to homebuilders as well as doing cabinet work of all kinds. In addition to this terrestrial activity, a fifty foot tugboat for the McKenna Lumber Company was built in 1929, as were barges for the Coos Bay Lumber Company and the Mountain States Power Company.

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[1] Coos Bay Harbor, June 4, 1926.

[2] Coos Bay Harbor, June 10, 1929.

In March, 1929, Kruse and Banks once more was featured on the front page of the Harbor, this time as the result of a fire which broke out in the boiler-room at the shipyard and damaged boilers, fixtures, and building to the extent of about $7,000, half of which was covered by insurance.[1] Much more serious was another fire July 30, 1933. Starting in the plant of the Western Battery and Separator Company, next to the shipyard, the blaze not only destroyed that plant, but also burned a major portion of the shipyard and all of the buildings of the Mountain States Power Company except the concrete powerhouse. For Kruse and Banks, the greater part of its $100,000 loss was in tools and equipment which had been accumulated during its quarter century of existence. The management thanked the North Bend and Marshfield Fire Departments for their efforts to check the fire, adding a check to each as a more substantial evidence of gratitude, and announced that one slip would be rebuilt immediately to take care of repair work and small craft orders.[2]

Since 1932 Coos Bay had been a base of operations for a fleet of purse seiners which followed the pilchard run

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[1] Coos Bay Harbor, March 22, 1929.

[2] Coos Bay Times, July 31, 1933.

from southern California waters. Feeling that his firm could well compete in the building of these fishing boats and expecting the industry to assume increased importance, Banks stated in April, 1936, that the Company was to construct a purse seiner seventy-nine feet in length. The Sea Giant was launched in July, 1936, and headed south soon after to fish out of Monterey under the command of John Graddis, part owner with Banks.

Shortly after the decision to start building purse seiners had been made, Kruse and Banks suffered a heavy loss when its founder and vice president, K. V. Kruse, died on April 13 at the age of eighty-two years. Preceding his wife in death by six weeks, Kruse was succeeded as vice president of the Kruse and Banks Shipbuilding Company by his son, Fred Kruse.

In November, 1936, the forty-two foot Diesel tugboat Lumberkid was completed for the Coos Bay Lumber Company, and early in 1937 a second purse seiner was laid down. Slightly smaller than the Sea Giant, the Three Star incorporated some of the lessons learned from her predecessor and was much more lavishly outfitted, including in her equipment such aids to navigation as a radio direction finder and a fathometer. While still on the ways she was sold to Masaaki Kuwabara who desired that she be launched

under the Japanese flag. Balked in this wish by the builders, her owner contented himself by seeing that half of the flags displayed on the halyard from bow to stern for the launching bore the Rising Sun emblem.[1] It is not surprising that the Three Star was later seized by the United States Government on the ground that she was improperly registered to an alien firm. Converted for use as a coastal mine-sweeper, the Three Star absolved herself of any blame for her Japanese ownership by fighting in the Pacific as the USS Pintail (AMc-17).[2] The Three Star was returned to civilian hands after World War II and is currently fishing out of Astoria.

On September 2, 1937, the keel was laid for a third purse seiner. Fred Kruse stated that the vessel was being built on speculation with surplus material at hand being utilized in her construction. Other work at hand was given a priority with only spare time being put in on the new fishing boat.[3] The Mineo Brothers, finally completed in 1939, was sold to Frank Mineo of San Francisco and joined her older sister, the Sea Giant, in fishing out of Monterey.

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[1]In conversation with Keith V. Kruse.

[2]James C. Fahey, The Ships and Aircraft of the United States Fleet (New York, 1942), 19.

[3]Coos Bay Harbor, September 2, 1937.

By this time the pilchard industry was only a memory to Coos Bay, for the little fish had sought other waters, and no more purse seiners were built.

The end of 1939 marked the conclusion of one of the worst periods the shipbuilding industry of the country has ever known. Many another of the small shipyards building only wooden vessels had been forced to close because of the lack of business, but the reputation of doing only the best work on its ships and matching this craftsmanship on the lowliest barge had made it possible for the Kruse and Banks Shipbuilding Company to remain in operation. During this time the payroll at the shipyard had fluctuated between a high of eighty-five men and a low of twelve, and in the decade ending in 1939 not a single sea-going vessel larger than a fishing boat was launched on Coos Bay.

CHAPTER VII

WARSHIPS AND THE END OF AN INDUSTRY

The decade which opened in 1940 witnessed the rise of the shipbuilding activity of the United States to a height surpassing even that reached during World War I.[1] Unfortunately, another world conflict was required to revive the industry from the slump of the preceding decades. Once again the national trend was reflected on Coos Bay, but on a much smaller scale than that evoked by the crisis of 1917. The Maritime Commission building program, counterpart of the earlier Emergency Fleet Corporation program, included only steel ships, so Coos Bay's contribution was made up entirely of small wooden ships for the armed forces. The lack of activity between wars had seriously curtailed the supply of men with any experience in shipbuilding, and the fires of previous years had destroyed portions of the Kruse and Banks shipyard which were never completely rebuilt. The small size of the wooden ships built during World War II made it possible for many of the smaller shipyards to take

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[1]Fassett, Shipbuilding Business in the U. S., I, 57.

part in the building program in 1941, whereas only a few of the West Coast yards had been able to build the large cargo ships desired in 1917.[1] Thus Coos Bay was relatively less important to the wartime shipbuilding industry in 1941 than it had been in 1917.

The appropriations of 1940 which had provided for the rapid expansion of the Navy to two-ocean proportions made the future seem hopeful for large and small shipyards alike. Kruse and Banks submitted bids quite early, but it was not until the middle of March, 1941, that Senators Charles McNary and Rufus Holman wired from Washington that on March 20 the Navy Department would announce the awarding of a contract to the Company for the construction of four minesweepers complete with Diesel engines and equipment.[2]

These minesweepers (YMS) were part of a large class intended for use along the coasts of the United States but actually used in every theater of operations in which the Navy took part. They were built of wood to lessen the danger of magnetic mines. Displacing 207 tons, the little ships were 136 feet long, had an extreme beam of twenty-four feet, and drew six feet of water. Twin General Motors

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[1]Fassett, Shipbuilding Business in the U. S., I, 138-142.

[2]Coos Bay Harbor, March 20, 1941.

Diesels drove them at a top speed of thirteen knots. Three officers and fifty men were generally assigned to each. Their armament, mainly defensive in nature, included a three inch fifty caliber anti-aircraft gun, two twenty millimeter machine guns, and two depth charge projectors for use against submarines.[1] In addition to the secret minesweeping gear carried, they were equipped with radar and sonar detection apparatus. Cost of the minesweepers was $332,000 each.

Plans and specifications for the ships were slow in arriving, but preliminary work was carried on so that everything was in readiness when the blueprints were received by Kruse and Banks. No sawmill carriage in the vicinity could handle the 110 foot timbers that formed the keels of the new ships, so the old employees exhibited a long unused skill with broad axe and adze to square the keels before they were run through the planer.[2] The YMS 121 and 123 were laid down on May 15, with the supervisor of Navy shipbuilding in Oregon, Commander C. L. Hibbard, and other officials present at the ceremony.

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[1]Francis E. McMurtrie, ed., Jane's Fighting Ships, 1946-47 (New York, 1947), 378.

[2]Coos Bay Harbor, May 15, 1941.

The plans called for the use of bent oak frames, a type of construction unfamiliar to most of the wooden shipyards on the West Coast, and some delay was experienced on this account. The feeling of many of the builders toward the new ships was expressed by the owner of the Petrich Shipbuilding Corporation of Tacoma, whose yard Fred Kruse visited in 1941. Pointing to the ways whereon a minesweeper was under construction, the old shipbuilder growled: "And look at that god damned thing. We sure didn't know what we were letting ourselves in for when we bid on that contract. I wish it would be gone tomorrow morning, just like a bad dream."[1] Such an easy solution to the problem was not possible, of course, and only much ingenuity and hard work removed this and other obstacles.

Launching of the vessels presented more difficulty, for they were built on ways intended for steam schooners, much heavier ships than the minesweepers. Also, the Navy desired carefully scheduled launchings, something entirely new to the steam schooner builders who were concerned only with getting the ships into the water approximately at the time of the flood tide. The careful calculations which entered into the launching of a large steel vessel were

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[1]In conversation with Fred Kruse.

unknown to the older science of wooden shipbuilding. This problem, too, was overcome and all of the North Bend-built warships were launched nearly on schedule.[1]

The first of the minesweepers left the ways at 11:04 A. M., March 14, 1942, after the baptismal champagne bottle had been broken over her bow by Mrs. James Braun, wife of the Navy inspector. Twenty-six minutes later the YMS 123 joined the YMS 121 after being christened by Mrs. Fred Kruse. These were the first warships launched on Coos Bay, and it was the first double launching in the area in over eighty years of shipbuilding activity. Little ceremony marked the occasion, in keeping with the need for haste in producing warships.[2]

Outfitting of the newly launched vessels dragged considerably, due to the lack of necessary equipment. Delivery of propulsion machinery lagged far behind the production of minesweeper hulls throughout the early months of the war.[3] Assembling of the guns and their installation caused minor delays on the first ships when it became apparent that the Navy gun crews were just as unfamiliar

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[1]In conversation with Fred Kruse.

[2]Coos Bay Harbor, March 19, 1942.

[3]Samuel E. Morison, The Battle of the Atlantic, September, 1939-May, 1943, Vol. I in The History of United States Naval Operations in World War II (Boston, 1947), 230.

with the weapons as were the shipbuilders. Finally, having passed her acceptance trials easily, the YMS 121 was delivered to the Navy on July 22, over fourteen months after her keel had been laid. Lieutenent Commander Furtwangler, USNR, read his orders to the crew assembled at quarters, a bugler (sent from Seattle for the occasion) sounded "Colors," and the commission pennant fluttering at her main truck showed the USS YMS 121 a warship of the United States Navy in full commission.[1]

While the minesweeper program kept Kruse and Banks occupied, there was other shipbuilding activity in the area. The Hillstrom brothers of Marshfield had expanded a small craft repairing business into a shipbuilding company and obtained a contract for construction of three tugs for the United States Army Engineers. Two of these ships, gasoline powered craft 104 feet long and costing $121,000 each, were laid down on ways a few blocks south of the Kruse and Banks yard on July 2, 1942.[2] These tugs were much simpler in design and equipment than the minesweepers, and the first of the three, the Kalama, was launched on September 22, 1942. Fitted for surveying and rescue duties with the Corps of Engineers, she was the first of ten such vessels built for the Army by the Hillstroms.

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[1]Coos Bay Harbor, July 23, 1942.

[2]Coos Bay Times, April 23, 1942.

A second group of minesweepers was laid down at North Bend as soon as the ways were cleared by the launching of the earlier ships, the last pair of the original group, YMS 122 and 124, leaving the ways on June 2 and June 6, 1942. The later minesweepers, YMS 265-268, incorporated minor changes in design. Most important was the use of plywood in place of steel for the superstructure to remedy a tendency toward top-heaviness in the earlier boats. Their appearance was altered by the trunking of the engine exhaust uptakes into one broad stack in place of the two small stacks of YMS 121 and her sisters.[1]

While the YMS program was still under way Kruse and Banks received contracts for four rescue tugs (ATR). These were bigger ships than the little minesweepers and were powered by steam. Sawn fir frames were used in their construction so that they should have been easier for the steam schooner yards to build, but there was one drawback. The design was entirely new, and the civilian builders had to become acquainted with another phase of working with the Bureau of Ships. Every week Navy inspectors visited the yards building ATRs and recommended minor changes in the design. These had to be sent to the Bureau for approval. A few of the builders incorporated the alterations into

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[1]Fahey, Ships and Aircraft (1950), 21

their ships immediately only to find that most of the recommendations had vanished forever in the vastness of the Bureau. Fortunately, Kruse and Banks had gained enough insight into the working of the system so that no changes were accepted until final orders were received from Washington.[1]

These vessels, thought by many to be the best tugboats ever built for the Navy, had steel deckhouses and their big four cylinder triple-expansion engines were installed while they were still on the ways, so there was no difficulty about launching them. Most of them left the ways bow first because their forecastles were too high to come under the sheds over the inshore ends of the ways, and the major problem was to stop them before they grounded on the mudflats across the bay.

When the ATR 80 ran her trials, Fred Kruse was disturbed by her extreme vibration at full power. His first thought was that the cap nut holding the propeller on the shaft had not been tightened adequately so that the screw had worked loose. He told the Navy inspector that he thought she should return to the yard, and was surprised when the officer expressed satisfaction with the ship's performance. He had been present at the trial run of the first ATR

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[1]In conversation with Fred Kruse.

completed and said that she shook much more than did the ATR 80. Actually, the vibration was caused by the big four bladed propeller turning at 200 rpm in the shallow waters of the bay. On the builders' recommendation the full speed for these ships later was reduced and the vibration lessened considerably, but remained more than Kruse and Banks allowed in its steam schooners.[1]

The last vessel of the ATR contract was commissioned at North Bend on October 31, 1944. Captain L. D. Whitegrove, USN, supervisor of the Portland shipbuilding area, was in charge of the ceremonies and read a letter addressed to the Kruse and Banks Shipbuilding Company from Rear Admiral Cochrane, Chief of the Bureau of Ships:

> Despite a limited working force and other difficulties you have delivered the ATR 87 ahead of schedule. With the commissioning of this vessel you have completed your construction program for the Navy and I wish to commend and thank you for your excellent performance and cooperation. Your loyal efforts have contributed materially to the successful accomplishment of the Bureau's ATR and YMS program.[2]

The Hillstrom yard had completed the last of its ten tugs for the Army some weeks previously, so October 31, 1944, marked the end of Coos Bay shipbuilding. Kruse and Banks retained a few men to handle repair work, and the Hillstroms

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[1] In conversation with Fred Kruse.

[2] Quoted in the Coos Bay Harbor, November 2, 1944.

utilized most of their crew in their gravel and construction business.[1]

In definite contrast to the ships built on Coos Bay for the E. F. C. during World War I, only half of which ever went to sea, all of the vessels built there for the Government in World War II served with distinction during the course of that conflict. Typical was the feat of the USS ATR 81 in saving a tanker from destruction by fire in 1944.[2] After the war ended most of the wooden ships were sold out of the services, and at the present time only one of the North Bend-built vessels remains in the Navy. The USS YMS 268, with others of her class retained after the war, was reclassified as an auxiliary motor minesweeper and is now the USS Lapwing (AMS 48). Before the Korean conflict she served as a Naval Reserve training ship.[3]

Some time after the last ATR was commissioned the Kruse and Banks Shipbuilding Company received the following communication from the Navy Department:

> It is my distinct pleasure to advise you that the Navy's Certificate of Achievement has been awarded to your organization.

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[1]Coos Bay Harbor, November 9, 1944.

[2]Coos Bay Harbor, August 10, 1944.

[3]Raymond V. B. Blackman, ed., Jane's Fighting Ships, 1952-53 (1952), 421.

> This Certificate . . . signalizes the Navy's recognition of the splendid effort put forth by the men and women of your organization in support of the war production program.
>
> We hope that you will express to these men and women the Navy's sincere appreciation and thanks.
>
> Commodore S. J. Singer
> Chief, Incentive Division, USN[1]

On December 20, 1945, Robert Banks revealed that his Company had sold its shipyard site to the Weyerhaeuser Timber Company which desired to establish a sawmill in that location. Banks' statement said in part:

> This sale marks the close of 43 years of activity of the Kruse and Banks Shipbuilding Company on Coos Bay. It is entirely fitting that we close our work in building wooden ships after a proud record of war activities by making way for the new uses of wood and a new and steady payroll for the community. The Weyerhaeuser Timber Company has plans for a modern forest products conversion plant on our shipyard site and I am happy to have a part in making this development possible.[2]

Banks was announcing not only the end of a Company, but the end of an industry as well. Kruse and Banks was the last of the shipbuilding companies in the region and no new firm appeared to replace it. Since that autumn day when the USS ATR 87 stood out across the Coos Bay bar bound for the Pacific war zone, nothing larger than a fishing boat has been built in that area, and most of these small craft were

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[1]Quoted in the Coos Bay Harbor, January 17, 1946.

[2]Quoted in the Coos Bay Harbor, December 20, 1945.

launched from their owners' back yards or from a vacant waterfront lot.

Some of the small shipyards building wooden vessels have remained in business doing repair work, and yacht building has helped them along, but Coos Bay enjoys neither good yachting conditions nor many citizens wealthy enough to participate in that sport. Recently, Navy contracts for more wooden minesweepers have been available, but it is not likely that there will be many of these unless another global conflict breaks out.

Despite the well known superiority of steel ships over those built of wood for most purposes, the cheapness of wooden construction might have enabled more of the small firms specializing in wooden ships to remain in business except for one thing: the development of electric welding techniques in the shipbuilding industry. This use of welding, perfected during World War II, made possible the less costly and more rapid construction of steel ships and dealt the deathblow to most of the builders of wooden vessels.[1]

The failure of the Coos Bay yards, particularly that of Kruse and Banks, to convert to steel construction is not

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[1]In conversation with Fred Kruse.

surprising. The area possesses none of the requirements for such ships and Coos Bay is still far enough off the main transportation routes so that the expense of shipping the necessary materials in is prohibitive. Without an almost inexhaustible amount of capital on hand to meet such expenses, no small firm could compete with the large shipyards already established at Seattle, Portland, San Francisco, San Pedro, and other large coastal cities. Neither in Great Britain nor in the United States did many of the shipyards, builders, or financial interests concerned with wooden shipbuilding make the transition to steel construction,[1] and the Coos Bay builders were no exceptions.

Thus the era of shipbuilding on Coos Bay is over, and it seems very unlikely that it will be revived. An acute shipping shortage as could be caused only by a major catastrophe may give it new life some day, and, if so, it is to be hoped that the ships launched there in the future will match the proud record of the sturdy schooners, both sail and steam, built there in the past.

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[1]Fassett, Shipbuilding Business in the U. S., I, 41.

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Mrs. F. O. Johnson, Hauser, Oregon.

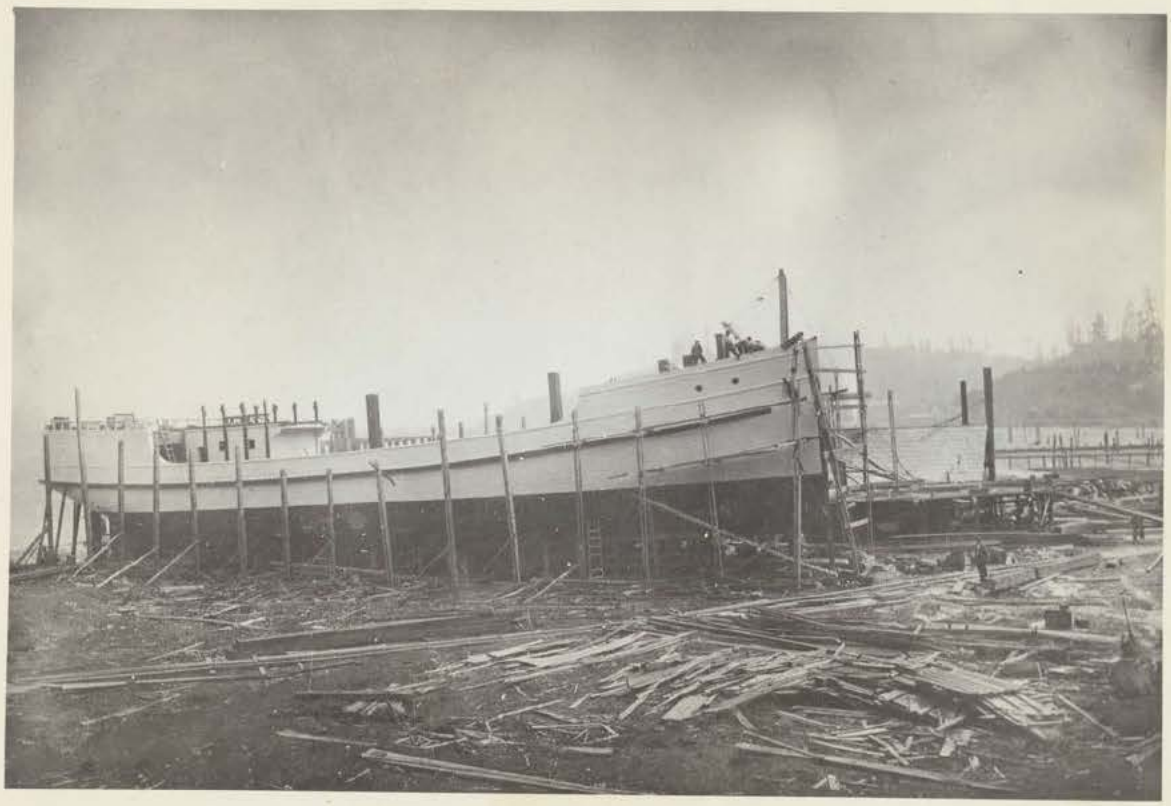
Fred Kruse, Former vice president of the Kruse and Banks Shipbuilding Company, North Bend, Oregon.

John Nielson, Bandon, Oregon.

Edgar M. Simpson, Hood, California.

Four-masted schooner Annie E. Smale. Note the deckload of lumber.

Steam schooner Casco ready for launching at Ferndale.



Casco ready for launching.

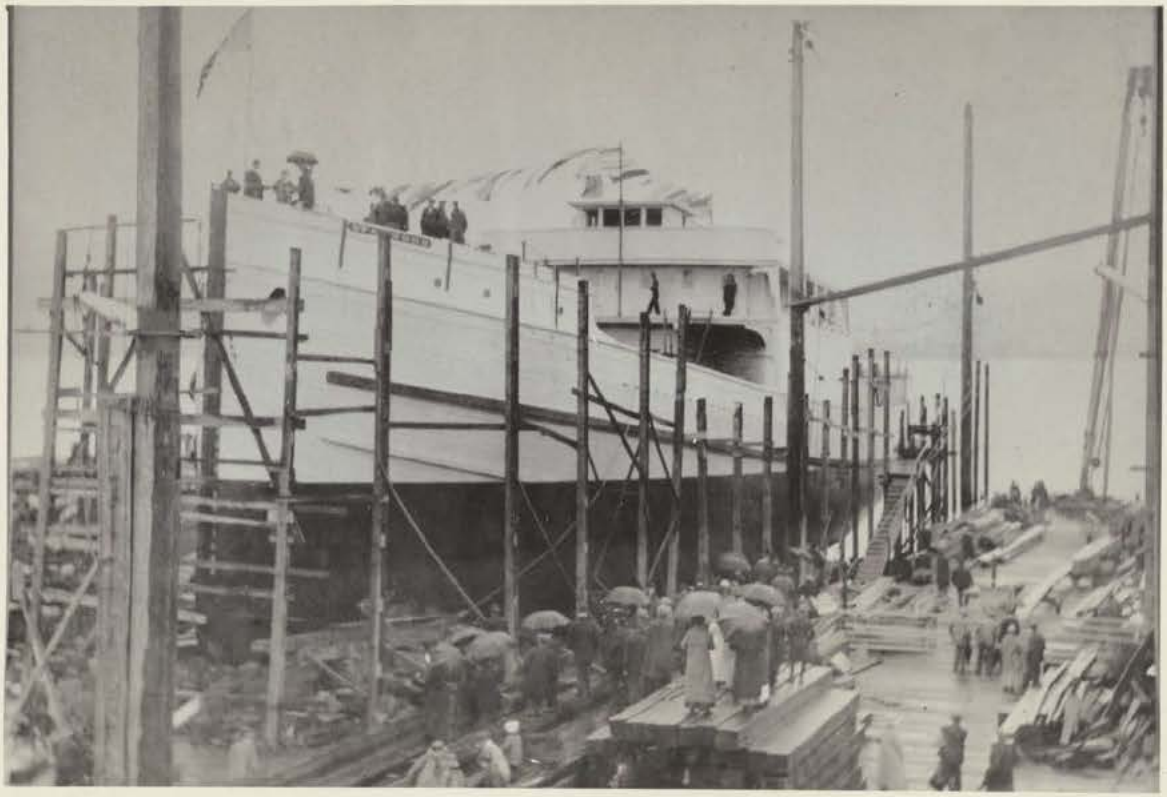
Part of the men who built the Casco.

Steam schooner R. D. Inman ready for launching at Ferndale.

Steam schooner Fifield on the ways at Porter.

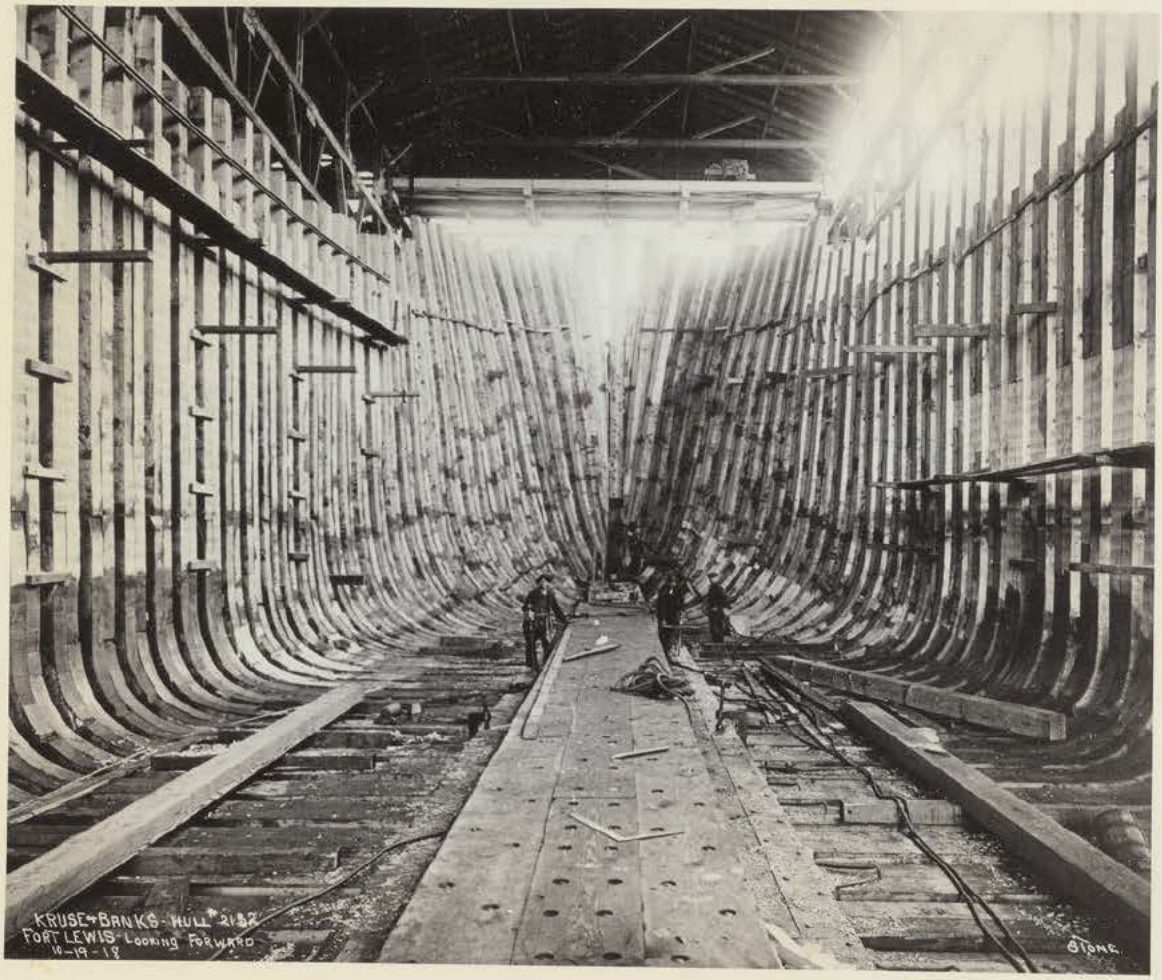
Gas schooner Wilhelmina.

Martha Buehner (ex-A. M. Simpson), a typical single-ender. She had just collided with the Southern Pacific bridge across Coos Bay when this picture was taken.



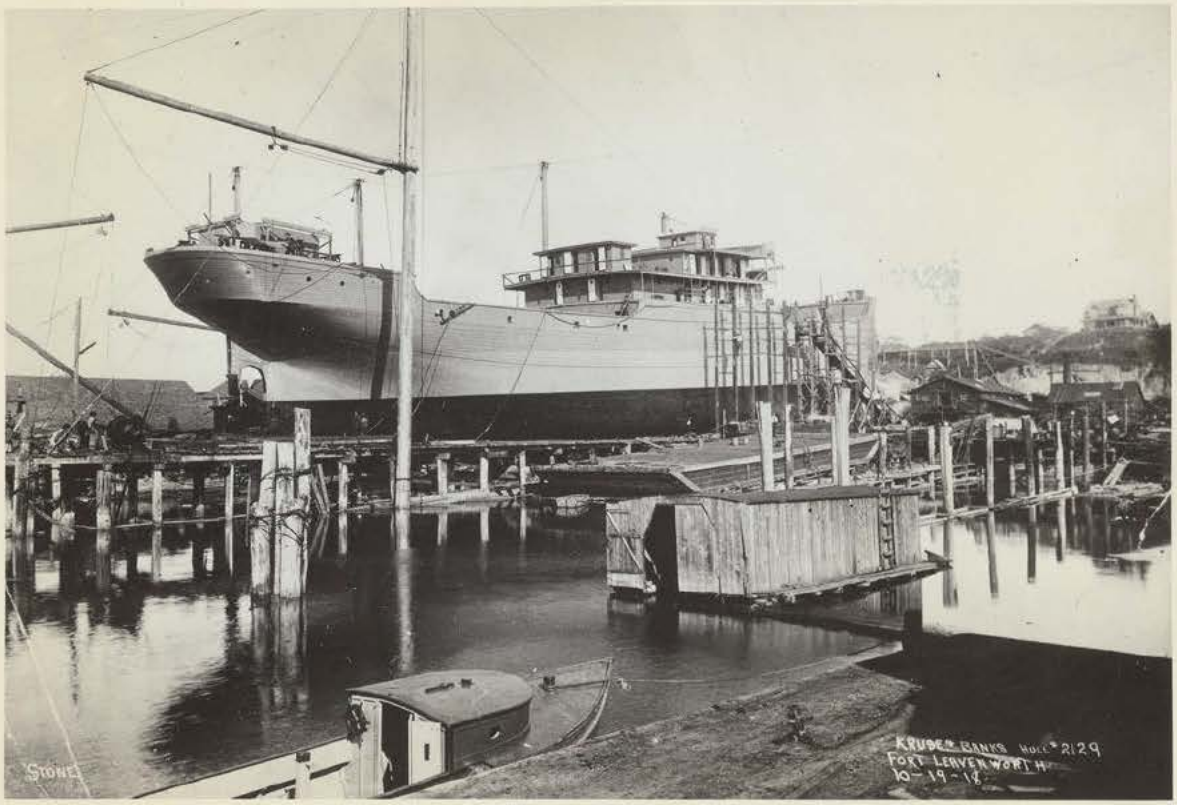
Launching the steam schooner Stanwood.

Hough type Emergency Fleet Corporation vessel Kickapoo.

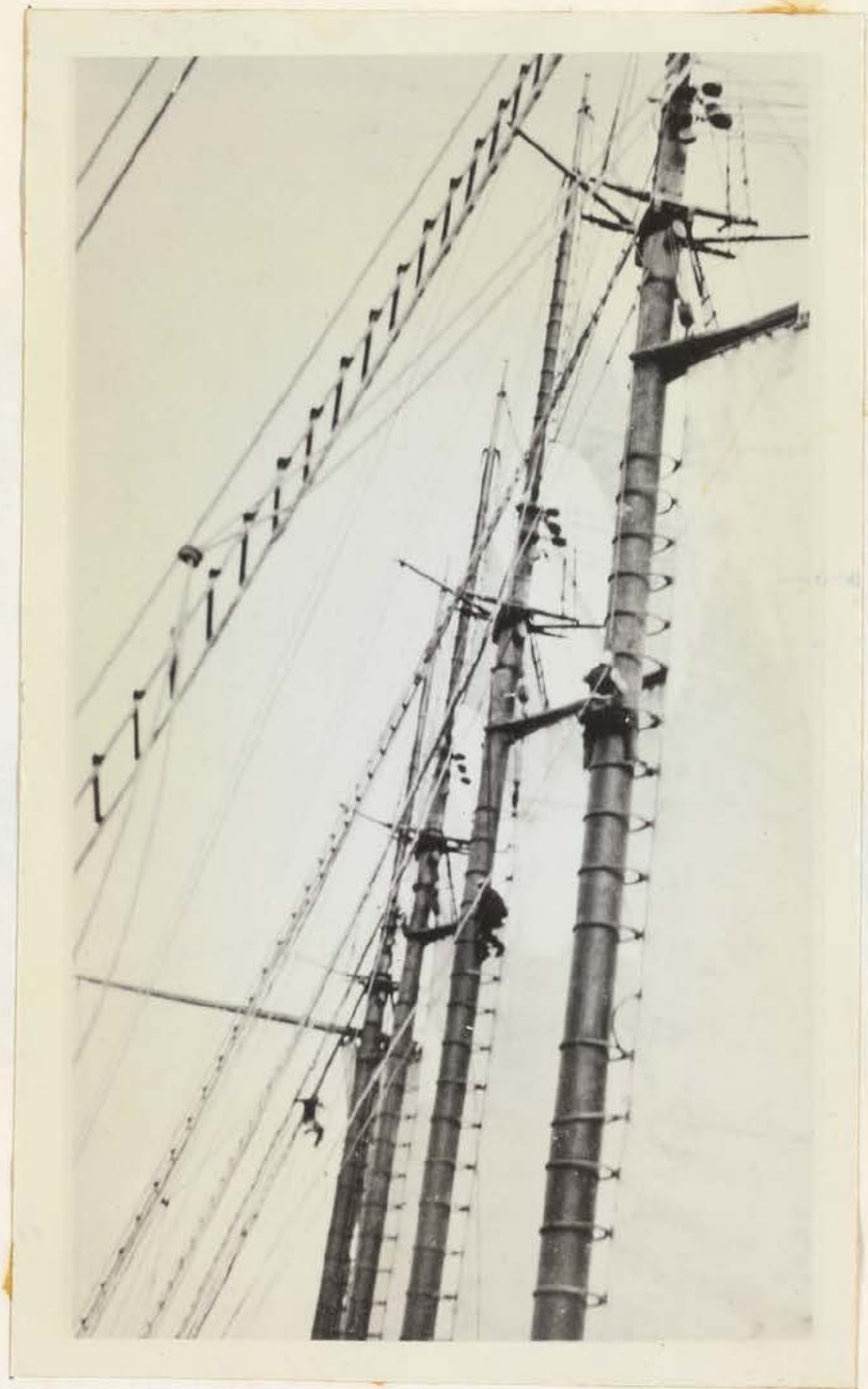


Inside of the Fort Lewis when she was in frame.

Ferris type Emergency Fleet Corporation vessel Fort Leavenworth ready for launching. Bow view.



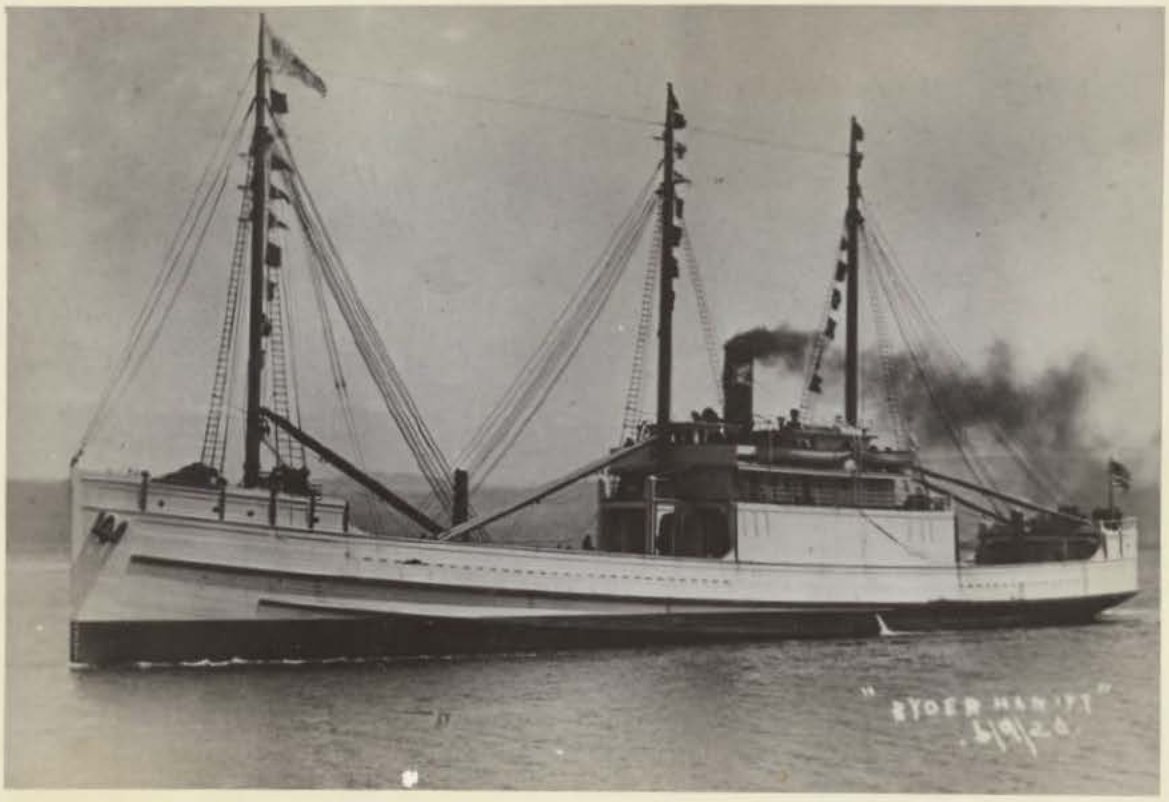
Fort Leavenworth, ~~port~~ starboard quarter view.



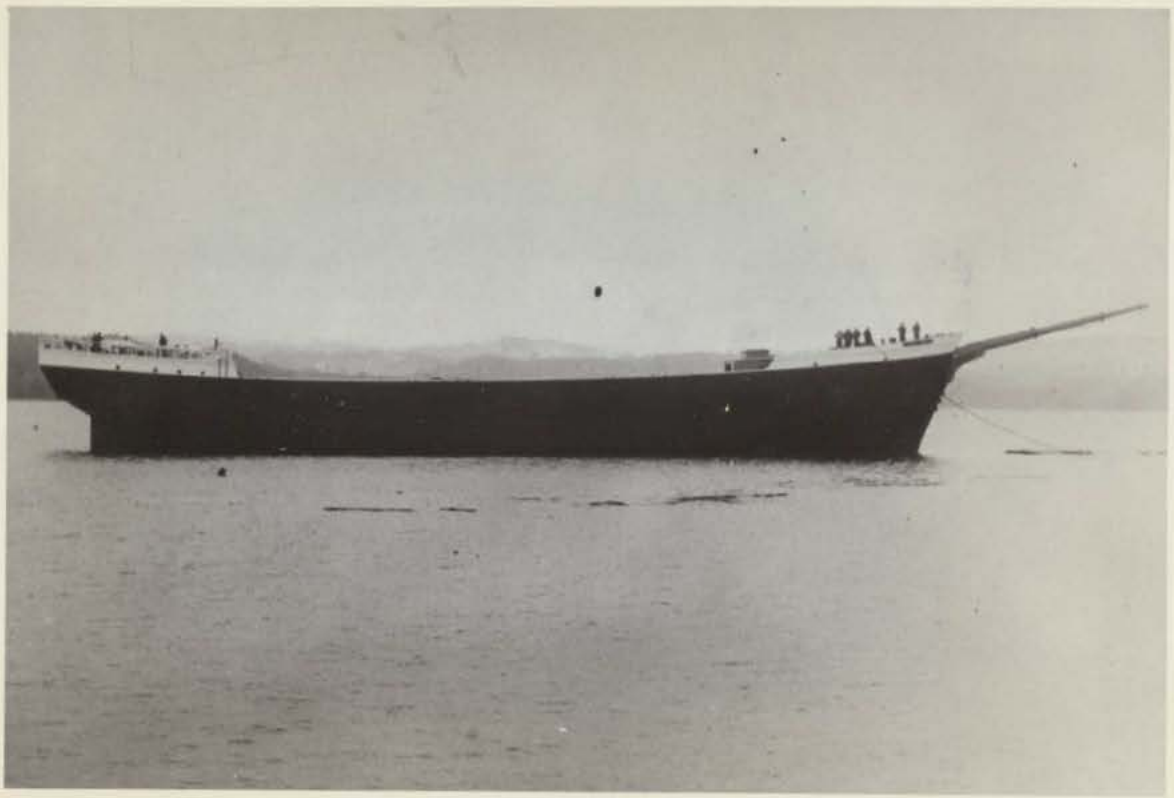
Working on the rigging of the five-masted schooner K. V. Kruse.

K. V. Kruse alongside a wharf.

Standing out under lower sails with no cargo aboard. Note the jib-headed after sail.



Steam schooner Ryder Hanify. A typical double-ender with three cargo gears.



Sailing schooner North Bend just after launching.

North Bend under sail. Note raffee and square sail set on foremast.

Typed by:

Mrs. Lois K. Robbins