

A PHOTOGRAPH TAKEN ON THE N. E. $\frac{1}{4}$, N. W. $\frac{1}{4}$, SEC. 19, T. 14 S., R. 11 W., ALONG SPUR 4 OF THE LOGGING RAILROAD OF THE MAN-
S CAMP 1. VIEW INCLUDES ABOUT SIXTY TREES RANGING: SITKA SPRUCE 3 TO 5 FEET, DOUGLAS FIR 2 TO 5 FEET, AND
THE STAND AVERAGES 150,000 FEET TO THE ACRE

\$160,000. This was in July, 1885, four years after Mr. Polhemus had begun work on his brush mattresses and stone ballast for upper works.

Congress remained silent to the plea of the bay that year and only \$2,587.49 was expended. On August 5, 1886, however, \$75,000 was appropriated and the work was begun anew. The port and its feeder, the railroad built into the valley, had begun to show results. From July 1, 1885, to December 31, of the same year 5,130 tons of wheat found its way to market over the Yaquina bar.

It was not until August 11, 1888, that Congress made another appropriation—this time for \$150,000. In 1888 it was decided to raise the South Jetty to full high water without extending it to seaward and to construct a mid-tide jetty on the north side of the entrance of Yaquina Bay.

But we may not hurry too rapidly through the years of 1887 and 1888 without chronicling two incidents which had a great influence on the port and its commercial development. These incidents were two wrecks, around which floats a veil of mystery and about which strange stories are still told.

TWO VESSELS WRECKED—TURNING POINT OF PLAN REACHED

For several years the steamer "Yaquina City" had entered the port to carry out her capacity cargo of grain. On December 5, 1887, at 3:15 in the afternoon, after she had crossed out, her steering gear broke and she drifted onto the south beach, where the passengers were taken safely ashore. A six-line item in the "Morning Oregonian," of Portland, announced the disaster and said the vessel was resting easily and would likely be pulled off the following day. But a heavy

gale arose and on December 11 the "Yaquina City" broke in two and was a total loss.

The investigation of the loss of the "Yaquina City" was held early in 1888, when it was found that "witnesses had disappeared," and the board determined that the "causes were accidental" and held "the master blameless."

The "Yaquina City" was replaced by the steamer "Yaquina Bay," a vessel of similar size. She made her first trip into Yaquina Bay in December, 1888, arriving there on the eighth. When she was well over the bar, the vessel grounded upon the sands against the South Jetty. The water about her was perfectly calm and the passengers walked ashore on a gang plank from the vessel to the jetty. On December 22 all hope of saving her was abandoned. An investigation of the wreck of the "Yaquina Bay" was held in October, 1889, and the license of William Kelly, Jr., her master, was revoked on



THE ABOVE VIEW REPRESENTS A SPAR TREE AT SIDE 3, CAMP 1, LOOKING DOWN RAILROAD OF MANARY LOGGING CO., THE VIEW SHOWING THE BOOM LOADER SWUNG ACROSS TRACK; LOCOMOTIVE NEAR IT

charges of gross carelessness.

The contention has never been made that the bar of Yaquina Bay was not susceptible to maximum development. The loss of the two steamers, as narrated above, was never

attributed to the inadequacy of the channel.

The first official reference in the records of the War Department to these occurrences is contained in a report of the special board of engineers at Portland, made in 1899, in



SIDE VIEW OF A BIG SITKA SPRUCE LOG CONTAINING 10,000 FEET, AFTER BEING DROPPED BY THE "MALLORY" BOOM ON BUNKS AT MANARY LOGGING CO. CAMP 1 OPERATIONS, BOOM STILL OVER CAR AND CREW READY TO RELEASE THE CHOKER LINES

which the following statements are made:

"The Oregon Pacific Railroad owned, in 1887, a steamer called the "Yaquina City," of about 1200 net tons capacity, drawing between thirteen and fourteen feet net, which, it is reported, had even then no difficulty in crossing the bar with a full load. However, in crossing the bar outward bound in December, 1887, she broke one of her rudder chains and then drifted helplessly to the South Beach, about half mile south of the jetty, where she was a total wreck and may



"FALLERS" AT WORK ON FOUR-FOOT DIAMETER SITKA SPRUCE WITH THE "UNDERCUT" FINISHED

YET be seen, by any one in interest.

"In 1888 the railroad company built or bought a second steamer, the 'Yaquina Bay,' of about 1200 net tons capacity, drawing 15 feet. At the time of her first entrance into the bay she was grounded some distance out into the channel on the shoal near the south end of the jetty, by some mistake of the pilot and after some days went to pieces and was completely wrecked."

Then follows this significant and all important statement: "NEITHER OF THESE WRECKS CAN BE ATTRIBUTED TO ANY FAULT OF THE HARBOR ENTRANCE OR TO INSUFFICIENT DEPTH OVER THE BAR, BUT RATHER TO CARELESSNESS AND OTHER CAUSES."



IN THIS VIEW THE "FALLERS" ARE SHOWN ON SAME TREE AS ABOVE FOLLOWING THE "UNDERCUT"

Whatever the causes which contributed to the loss of the two steamships, these two wrecks were vital blows to the plan which had been carried so far successfully. Men with money grew faint-hearted and cash no longer came at the call of the spectacular Col. Hogg. The stupendous size of the undertaking demanded new capital, without which it languished; and within a short time the creditors grew restive, the company's affairs became involved in litigation and in

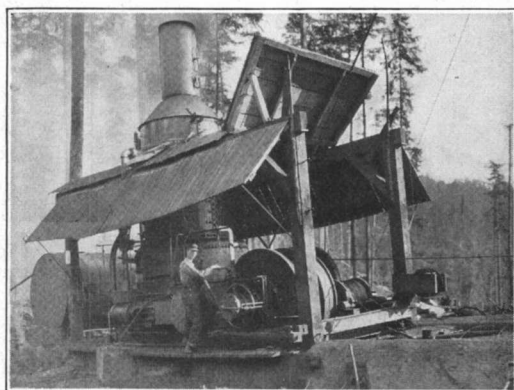


"WILLAMETTE" 12x14 YARDER AND 12x13 LOADER, SIDE 3, SPUR 4, MANARY LOGGING CO.

1892 a receiver was appointed for the Oregon Pacific Railroad and all its subsidiary companies.

In 1894, A. B. Hammond, of San Francisco, purchased the properties for \$100,000, which had cost up to that time about \$13,000,000. Labor claims against the company were settled for nine cents on the dollar; other creditors received nothing. Mr. Hammond, in the purchase of the property, had agreed to operate the road, which he did until 1907, when E. H. Harriman purchased it for the Southern Pacific interests.

Economic influences also had entered to turn the port of Yaquina from its ascendancy to the decline which followed the failure.



"WILLAMETTE" 13x14 HIGH-SPEED YARDER ON SIDE 2, SPUR 4, CAMP 1, MANARY LOGGING CO.

The Willamette valley had ceased to grow wheat exclusively and had turned its attention to diversified farming. The Southern Pacific had completed its line into California and crops moved by rail. The dream of a great port at Yaquina Bay faded—for the time being—except in the hearts and the minds of those who had loved it and worked for it and had been a part of it in those days when its destiny, as such, seemed assured.

It is interesting at this point to review briefly the work which had been accomplished. In 1880 Mr. Polhemus had found seven or eight feet of water on the bar, admitting only small vessels.

In 1888 vessels drawing thirteen to fifteen



"WILLAMETTE" 11x13 LOADER ON DIFFICULT TASK AT SPUR 4, CAMP 1, OF THE MANARY LOGGING CO.

feet were crossing the bar in safety. This condition had been secured in six years, during which time Congress had made appropriations aggregating only \$235,000, as cited above.

Probably no harbor development under the jurisdiction of the War Department had shown as good results for the expenditure of so little money as did Yaquina Bay at the close of the fiscal year, June 30, 1888.

THE FIRST "ZENITH" OF THE HARBOR'S IMPORTANCE

In August, 1888, an appropriation of \$150,000 was made and the following year nearly \$100,000 of this was expended in furthering the project. On June 18, 1890, Mr. Polhemus submitted his last report on Yaquina Bay as assistant engineer in charge—a position which he had filled so capably for eleven years—and he was succeeded by Gwynn A. Lyell, who had charge of the expenditure of an additional appropriation of \$165,000, made on September 19, 1890.

In his first report Mr. Lyell presents a

of the bar. From June 4, 1880, to the end of 1894, the following appropriations for the improvement of Yaquina Bay were made:

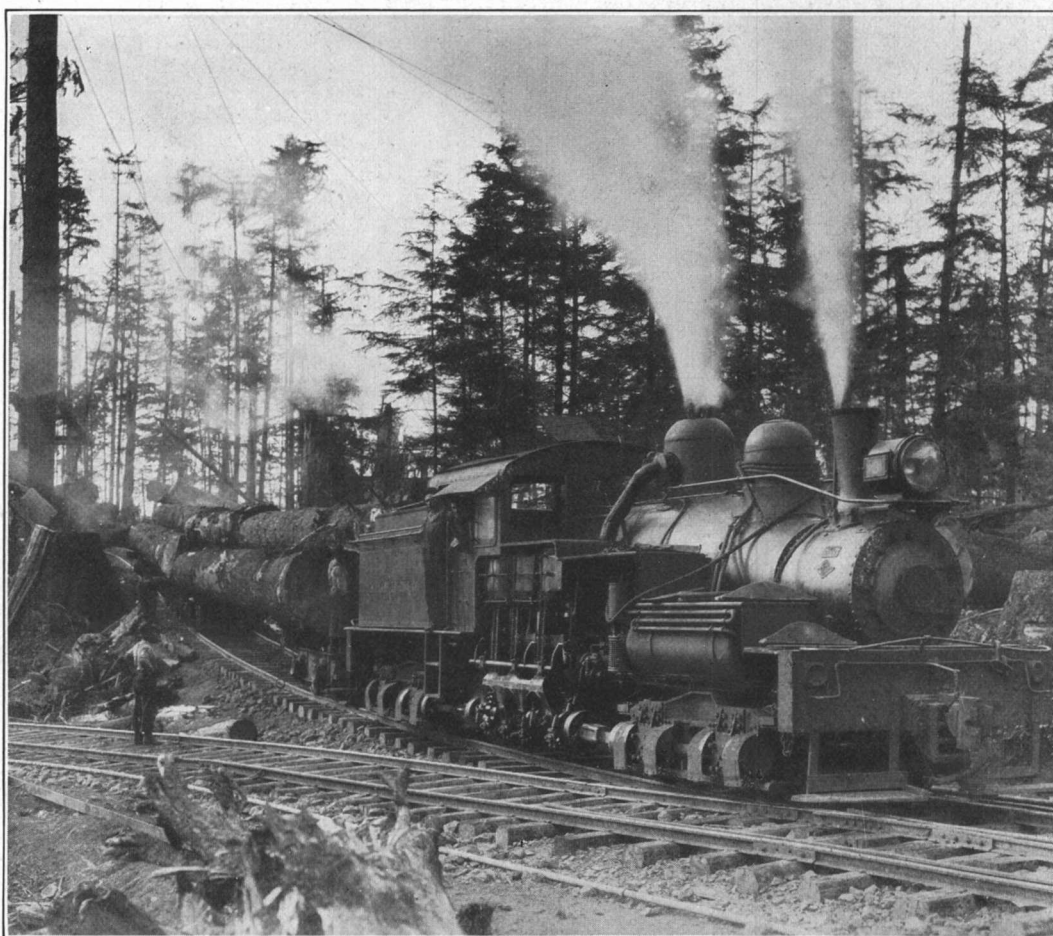
June 14, 1880	\$ 40,000
March 3, 1881	10,000
August 2, 1882	60,000
July 5, 1884	50,000
August 1, 1886	75,000
August 11, 1888	150,000
September 19, 1890	165,000
July 13, 1892	85,000
August 17, 1894	50,000

Total\$685,000

There remained of the above money, in July, 1895, a balance available of \$12,852.27.

A NEW PLAN ADOPTED BY THE CONGRESS FOR FUTURE WORK

Under the authority of the Sundry Civil act, approved March 2, 1895, a board of engineers, consisting of Lieut. Col. Amos Stickney, Maj. James C. Post and Maj. C. B. Sears, met at Yaquina Bay on May 11 of that year



THE ABOVE VIEW SHOWS SHAY ENGINE NO. 3 PULLING OUT TWO CARS OF LOGS—A VERY GOOD VIEW OF THAT POWERFUL EQUIPMENT OPERATED AT CAMP 1 OF THE MANARY LOGGING CO.

tabulation of incoming and outgoing boats, together with the tonnage carried, which shows that the port reached its first zenith that year, from which time its first and last decline began.

In 1888, 144 ships arrived and departed from Yaquina Bay, where seven years before only eight had crossed the bar. Shipments of grain from the Willamette valley had reached their high peak in 1900. THAT year the gross tonnage crossing the bar was 40,074 tons.

In August, 1891, the north jetty was extended 840 feet. On July 13, 1892, Congress appropriated \$85,000 with which to continue work. A survey made in September and October, 1892, showed a minimum depth of fourteen feet of water on the bar.

For two years Congress made no appropriation for Yaquina Bay; but on August 17, 1894, \$50,000 was made available. During that year the steamer "Homer," drawing 17 feet of water, crossed the bar sixteen times, in and out and the steamer "Farralon," drawing 18½ feet, made fifty-two crossings

under instructions to consider further improvement of the bay. A copy of its report was transmitted to the House of Representatives through the War Department, December 9, 1895; and on June 3, 1896, Congress appropriated \$25,000 for continuing the improvement and provided that contracts might be entered into for the completion of the work recommended by the board, which work was specified as follows:

Main jetty, 4100 feet long.....	\$ 738,000
Seven groins, 100 feet long.....	70,000
Inside spur, 800 feet long.....	60,000
Removal of detached rocks.....	24,000
Contingencies, 15 percent.....	133,000

Total\$1,025,000

The Sundry Civil act, above referred to, provided that the total liabilities incurred in the improvement of Yaquina Bay should not exceed \$1,000,000, "exclusive of the amount herein and heretofore appropriated."

On July 1, 1897, an unexpended balance of all the money appropriated, \$24,986.04, re-

mained on hand and it was estimated that \$500,000 could profitably be expended in the succeeding two fiscal years, ending June 30,



A GREAT GROUP OF SITKA SPRUCE
The Above View of Sitka Spruce Trees Shows a not Unusual Group which Rise Straight and Parallel to 100 Feet Without a limb. These trees are situated on the N. E. $\frac{1}{4}$, N. W. $\frac{1}{4}$, Sec. 19, T. 14 S., R. 11 W., near Spur 4, Camp 1, Lincoln County, Oregon.

1899. Congress took no action in this matter; but on March 3, 1899, \$5,000 was appropriated for an examination of Yaquina Bay by a board of three engineers, which consisted of Col. Samuel M. Mansfield, Capt. Harry Taylor and Capt. William W. Harts. On April 20, 1899, the board visited Yaquina Bay and on April 22 held a public meeting at Newport, Oreg., following which it returned to Portland, where another meeting was held, when it was deemed essential that a new survey of Yaquina Bay should be made in order that the necessary data be obtained to prepare the report called for by the Act of March 3, 1899. This survey was authorized May 17, 1899. It was begun in June of that year and completed and a report filed November 14, 1899.

In this report, the board tabulated the commerce of Yaquina Bay for eighteen years, from 1882 to 1899, inclusive, to which we have added three years, inclusive of 1902:

The Recorded Year	Tons of Commerce	Depth at Mean High Water
1882	1,830 tons	14-17
1883	1,359 "	17
1884	4,995 "	19
1885	9,951 "	18
1886	6,249 "	20
1887	24,694 "	18
1888	23,431 "	21
1889	32,921 "	18-19
1890	40,074 "	18-19
1891	27,540 "	18
1892	27,111 "	17-22
1893	24,767 "	21
1894	23,345 "	19-21
1895	24,589 "	19-21
1896	17,883 "	22
1897	15,364 "
1898	10,380 "	22
1899	5,990 "	19
1900	691 "	18
1901	576 "	17-19
1902	1,152 "	18-19

The board also reported on the destruction of the steamers "Yaquina City" in 1887 and the "Yaquina Bay" in 1888, previously referred to, in which neither of the wrecks was attributed to any fault of the harbor entrance. The board further stated that when the project was formulated it was expected that the work would obtain a depth of 17 feet at high water, but the results found were somewhat in excess of that depth.

The board concluded, however, "THAT THE COMMERCE OF YAQUINA BAY DOES NOT RENDER IT ADVISABLE TO PROSECUTE THE WORK AS AUTHORIZED BY THE RIVER AND HARBOR ACT OF 1896 * * * AND THAT THIS HARBOR IS UNWORTHY OF FURTHER IMPROVEMENT AT THE PRESENT TIME * * *"

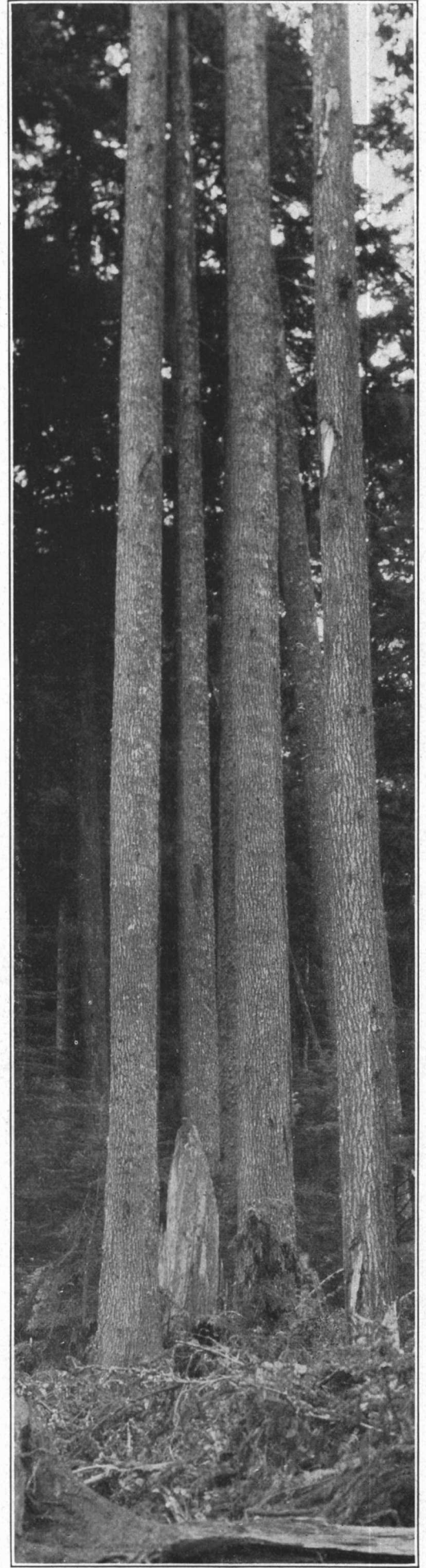
The \$20,000 which was available was to be expended, the report directed, in blasting out the points of several rocks at the entrance of the harbor, which was done in 1902.

Following the blasting out of the rocks, ten years of inactivity followed, which were in striking contrast to the activity of the preceding decade. A larger mill than had theretofore been on the bay was erected at Toledo and some of its output found its way to the California market in coasting schooners but no regular line of steamers made Yaquina Bay a port of call. Because of these irregular shipments, commerce became erratic, reaching as high as 8,000 to 10,000 tons in some years and dwindling to practically nothing in others.

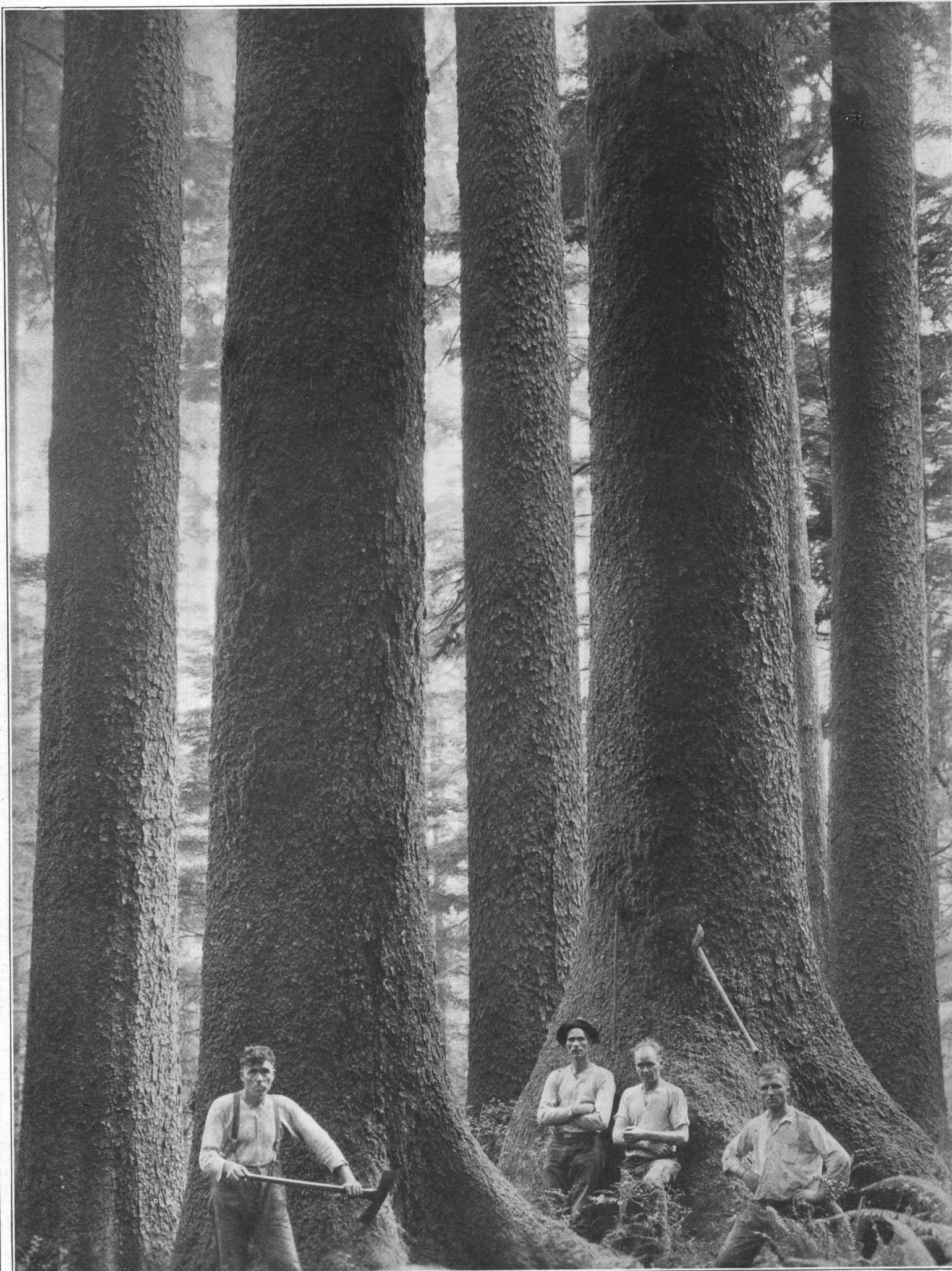
TWO PORT DISTRICTS ARE ORGANIZED FOR SELF HELP

On March 4, 1915, Congress authorized a preliminary examination of the entire project and Yaquina Bay AGAIN began to receive attention from the War Department. But in the hearts of the people who lived around Yaquina Bay an ever-present longing and determination urged some action by which they hoped their dream might be realized; and, taking advantage of the Oregon state law, which allowed the formation of port districts in which taxes might be levied and bonds issued against the property within the district to be used for port improvements,

shortly after its passage in 1909, Yaquina Bay organized itself into two port districts, the Port of Toledo and the Port of Newport.



MEDIUM-SIZED WESTERN HEMLOCK
The above Photograph—Unusual in that it Shows Remarkable Heights for a Near-By Picture—Shows a Small Group of Western Hemlock, 60 Feet to the First Limb, with 30-inch Douglas Fir on the Right. Situated on N. W. $\frac{1}{4}$, N. W. $\frac{1}{4}$, Sec. 19, T. 14 S., R. 11 W., near Spur 4.



SHOWING TYPICAL SITKA SPRUCE TREES AND A FEW WESTERN HEMLOCKS—LINCOLN COUNTY, OREGON
 The above View of Timber taken near Spur 4, Camp 1, of the Manary Logging Co., Subsidiary to the Pacific Spruce Corporation, Shows a fine Group of Typical Sitka Spruce Trees interspersed with a few Western Hemlock Trees—The Sitka Spruce Trees shown in the Group, which are 4 to 5 feet in Diameter, will yield 50,000 feet of lumber as they are clear, sound and 80 feet to Limbs.

The purpose of the former was for the improvement of the river below Toledo and of the latter for the lower bay. They pledged unity of action in work on improving the harbor entrance; but the money expended would have been better placed if it all had been devoted to the Yaquina River—following the Coos Bay policy.

On February 27, 1917, Col. Frederick V. Abbot, of the Corps of Engineers, submitted a report of the preliminary examination made by Arthur Williams, which concluded with the recommendation: "THAT THE LOCALITY WAS WORTHY OF AT LEAST MAKING A HYDROGRAPHIC AND BORING SURVEY TO DETERMINE DEFINITELY THE CONDITION OF THE BAR."

This report was endorsed by Col. Abbot, and on July 27, 1916, the survey was ordered. The result of this survey revealed that an expenditure of \$836,000 would be sufficient to secure a depth on the bar of 20 feet at mean low water. These figures were amended in 1920 to meet increased labor costs.

This project was adopted in 1919 and

June 30, 1920, the port commissions had expended jointly \$594,165, for which credit was given by the United States and they then gave the government \$165,000 additional, in cash, to make up their one-half of the amended cost of the project, \$1,518,430.

Work Taken Over By Government

The work was taken over by the government February 1, 1921, to complete the project, when \$145,000 more was made available. The south jetty work was finished September 7, 1921, a total length of 5,948 feet, at a total cost of \$678,042.86, of which amount the government had contributed \$91,077.86 and private interests \$586,995. The 800-foot spur to the south jetty was built at a cost of \$33,504.92, all government funds. During the same year work on the north jetty was continued, on which \$139,824.44 had been expended, \$107,396.37 being government funds and \$32,428.07 contributed.

The condition at the end of the fiscal year, June 30, 1921, shows the following facts relative to the project under consideration:

net amount of \$373,305.27, with Congress still in arrears \$214,225, its share of the balance of the 50-50 agreement.

In April, 1923, a further allotment of \$319,000 was made, leaving \$75,225 still to be appropriated by the government, an amount which has been included in the Rivers and Harbors bill before the present Congress in 1924.

A NEW ERA DAWNING FOR YAQUINA BAY

But a new era has dawned for Yaquina Bay. No longer does she lie in the doldrums, but her sails are filled with the trade winds of prosperity and she is AGAIN being borne onward irresistibly toward that goal which the finger of destiny pointed out to her so many years ago.

Great changes have been effected in ocean transportation since Congress, in 1880, appropriated \$40,000 for the initial improvement of the harbor. No longer do the 300- to 500-ton sailing vessels suffice as lumber carriers on the Pacific coast. The industry



SHAY LOCOMOTIVE NO. 3 AND FOUR CARS OF LONG "SITKA SPRUCE" LOGS ON A TRESTLE OF THE MANARY LOGGING CO., JUST BELOW OPERATIONS AT SIDES 2 AND 3, CAMP 1. THIS ILLUSTRATES SOME OF THE ENGINEERING PROBLEMS OF LINCOLN COUNTY LOGGERS AND SHOWS 50,000 FEET OF LOGS

\$100,000 was then appropriated. It called for two high-tide rubblestone jetties at the entrance, 1,000 feet apart; the north jetty to be 3,700 feet long, the south one 5,800 feet, with an 800-foot spur, 2,500 feet from its then sea end and for the removal of the rocks from the outer reef, to secure 20 feet of water at mean low tide.

The project also called for a channel in the bay 200 feet wide and 18 feet deep from the terminus of the railroad at Yaquina City to the bar, a distance of $4\frac{1}{2}$ miles. The cost of this project, revised in 1920, to meet increased costs, was \$1,518,430.

By a permit of the Secretary of War, under date of August 11, 1917, the two port commissions entered into a contract to the extent of \$405,351.50, to construct the south jetty according to the above project. Bonds were issued from time to time and the work begun. At the end of the fiscal year,

Estimated cost, 1920, for completion of project	\$1,518,430
Donated by private interests to government	\$759,215
Appropriated by the government	245,000
Balance yet to be appropriated by United States	514,225
	<hr/> \$1,518,430

At this time, June 30, 1921, there remained a total unexpended balance in both funds of \$344,524.10, and on June 30, 1922, Congress allotted \$300,000 with which to continue the work, making a total of \$644,524.10. Up to June 30, 1922, \$203,072.43 was expended, leaving a balance of \$441,451.67 available, less \$68,146.40 in outstanding liabilities and uncompleted contracts, a

today demands 3,000 to 10,000-ton vessels, huge steam freighters, carrying 1,500,000 to 4,000,000 feet and drawing seventeen to twenty-four feet of water.

The work which was begun by J. S. Polhemus that day back in August, 1880, when he erected that crude tide gauge on the old dock at Newport, had been done well and its results are of permanent quality, for the Pacific Spruce Corporation's steamer "Robert Johnson" loaded to capacity, passes in and out of Yaquina bay drawing seventeen to eighteen feet of water.

Other vessels, of LARGER size, are ready to enter and MUST enter Yaquina Bay, if the products of that timbered section are to be marketed economically—vessels flying the flags of foreign nations and carrying DOUBLE the cargo of the "Robert Johnson." Before these vessels may enter the port, a greater depth of water must be secured at

the harbor entrance; and before such ships can enter the harbor, Yaquina Bay will not enjoy the benefits to be derived from the development of her great timber resources.

The present needs of the harbor should be met and those of its future provided for in the adoption of a project by the government which will insure its MAXIMUM IMPROVEMENT.

Before such project can be adopted, or even determined, a survey will be necessary to ascertain the potential possibilities of the port's tonnage during the years to come, now that this tonnage is assured; what obstacles must be overcome to secure this maximum development and what methods shall be pursued.

Already the port of Toledo and the port of Newport have memorialized Congress asking that such survey be made and already members of Congress, who have familiarized themselves with its possibilities of development, its present and future needs, have pledged their support.

Statistics compiled for 1922 and 1923 show that the tonnage over the bar rose to a greater volume in THOSE two years than the port enjoyed during the zenith of its TRANSIENT glory, thirty-four years ago.

The dawning of this new day of commercial activity finds Yaquina Bay standing expectantly on the western rim of the continent, where she was crudely fashioned by the irresistible forces of nature, waiting for the help that has fashioned OTHER harbors of LESS possibilities, into ports of importance—which help can ALONE aid her in attaining that eminence for which her natural advantages have fitted her and which her potential tonnage demands shall BE here, by right of service to mankind. Let Yaquina Harbor be MAN-made!

IMPROVEMENT OF THE YAQUINA RIVER

With the development of the operations of the Pacific Spruce Corporation at Toledo, came a use of the Yaquina River from Toledo to its mouth which has placed that river among those of first importance of the small rivers of the Pacific coast; and, now, as one of these, there should be no hesitancy in adopting a project which will make it adequate to the demands the newly developed industry places upon it.

Since 1897 there have been five preliminary examinations made by the Board of Engineers of the Yaquina River, with a view of securing better navigation conditions; but, with the exception of one of these reports, they have received unfavorable recommendations each time because the engineers could not justify the expenditure of the money necessary, with the available tonnage.

The first examination made of Yaquina River, which also embraced Big Elk River, its main branch, was made by Capt. W. L. Fisk, of the Corps of Engineers, in 1897. The report on this examination was unfavorable.

Five years later, in 1902, Capt. W. C. Langfitt made another examination for the Corps of Engineers, but also submitted an unfavorable report.

This was followed by another examination, made in 1909, by Maj. J. F. McIndoe, but with an unfavorable report. In all these reports the reason given was that the potential or available tonnage did not justify the expenditure of the money.

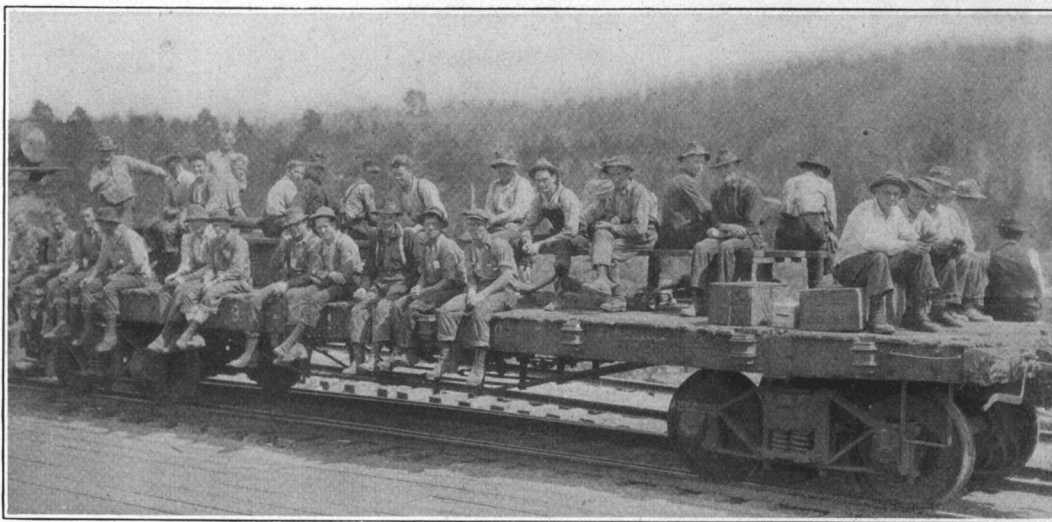
In that same year, however, 1909, the state law was passed which permitted the organization of port districts, which had the power to levy taxes and issue bonds against the district for the improvement of ports within the district.

In May, 1910, the port of Toledo was organized and the first meeting of the commissioners held.

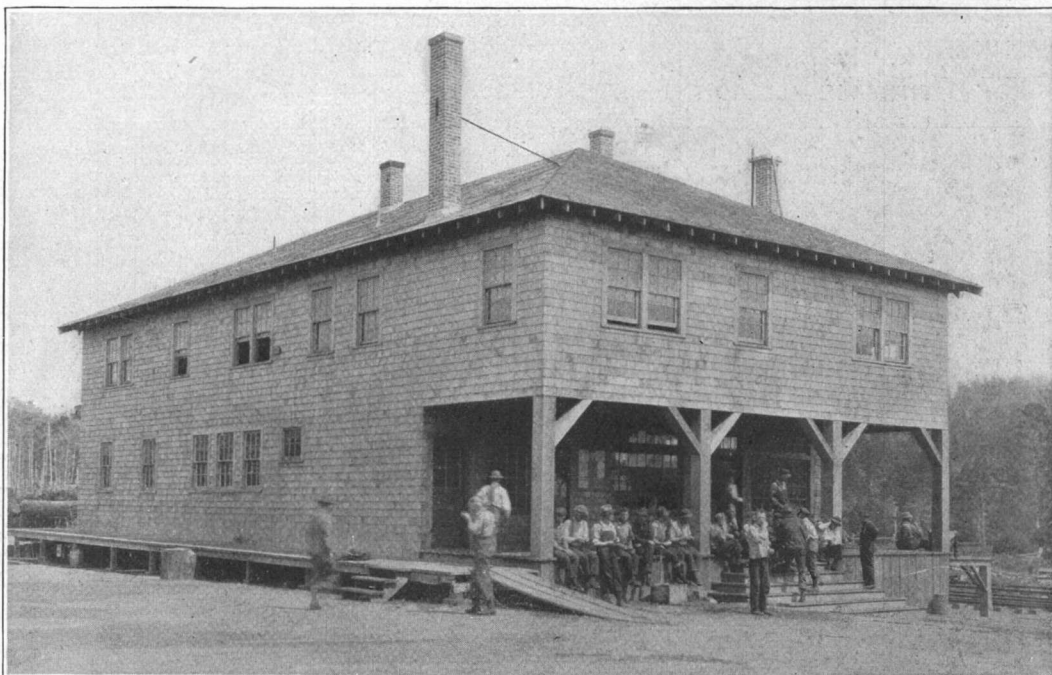
At the very first meeting the question of improving the river from Toledo to Oysterville, the western line of the port district, was discussed, for this had been the impulse which led to the organization of the port district and it now became the goal which the district strived to attain.

Port of Toledo Starts Work

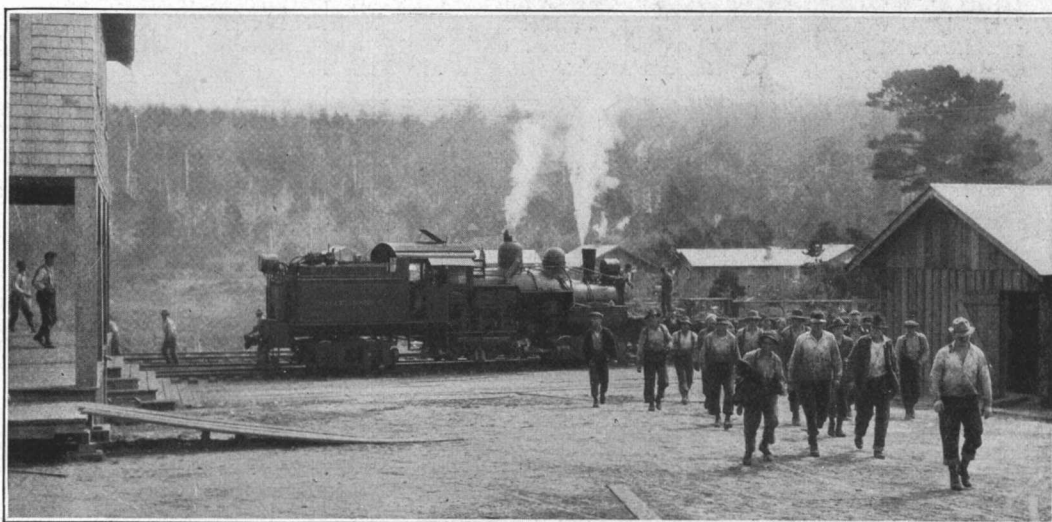
Three examinations had been made by the engineers of the War Department and three



THIS VIEW SHOWS THE CREW OF SIDES 2 AND 3 AT CAMP 1, MANARY LOGGING COMPANY AND THE STYLE IN WHICH THEY RIDE TO AND FROM THE WOODS MORNING AND EVENING



THIS PICTURE SHOWS THE OFFICE HOME OF THE MANARY LOGGING COMPANY AT CAMP 1 CONTAINING OFFICE, POST OFFICE AND STORE; ALSO SLEEPING ROOMS FOR SPECIAL EMPLOYEES AND VISITORS



THE ABOVE PICTURE IS A VIEW AT HEADQUARTERS CAMP 1 OF THE MANARY LOGGING COMPANY, SHOWING THE MEN AS THEY ARRIVE AT THE CAMP BY TRAIN AS PER TOP VIEW

unfavorable reports had been turned in to the department, but the Toledo Port Commission KNEW what it desired and in 1910 issued bonds for \$50,000 and began work on deepening the channel between Toledo and Oysterville.

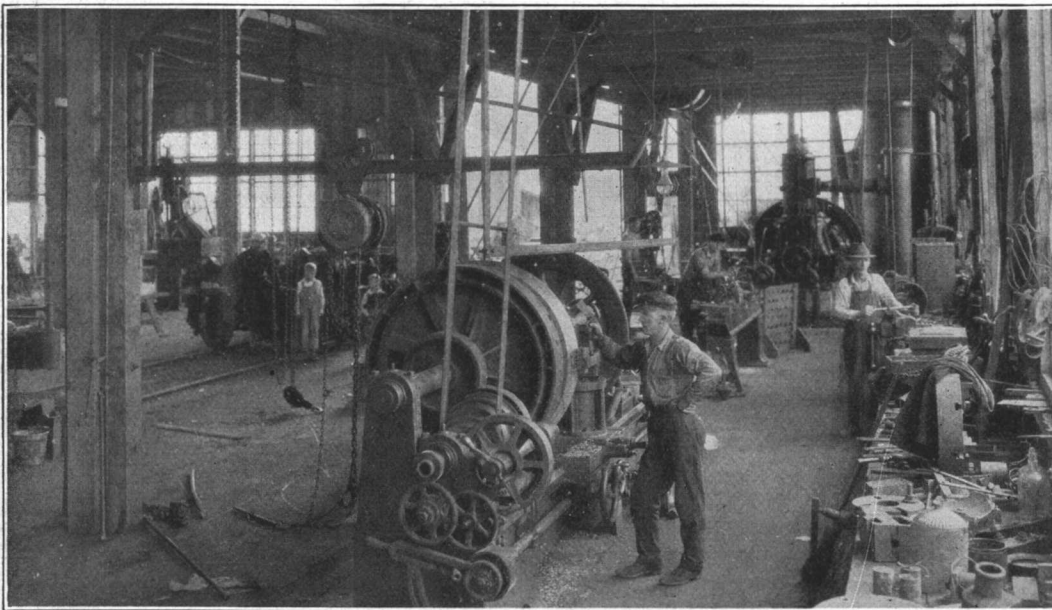
The condition of the river at this time was the same as nature had fashioned it. Its

source was in the Coast Range and it flowed in a westerly direction for about fifty miles, emptying into Yaquina Bay, and draining about 270 square miles, with a low-water discharge of about 150 feet per second. The winter freshets raised the water about fifteen feet above low-water mark.

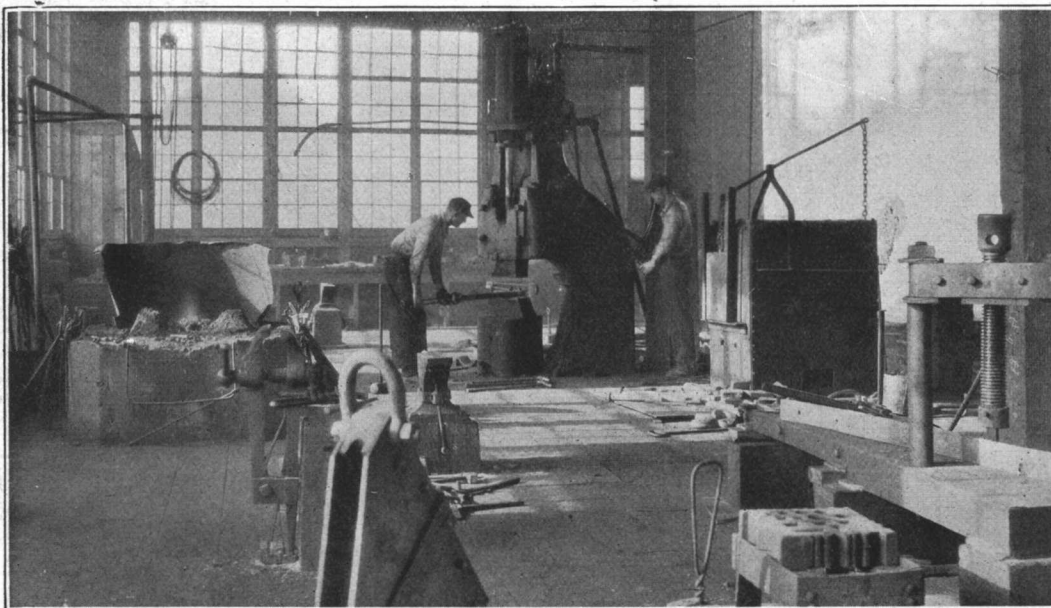
Where it emptied into Yaquina Bay it was



IN THE ABOVE VIEW THE OBSERVER SEES THE LOCOMOTIVE SHED, THE WATER-TANK AND THE MACHINE SHOP OF THE MANARY LOGGING CO.'S HEADQUARTERS CAMP 1, SITUATED IN THE SOUTHERN END OF LINCOLN COUNTY, OREGON. THIS VIEW ALSO INDICATES THE "SPUR TO THE Y" AT CAMP 1



THIS VIEW SHOWS THE INTERIOR OF THE MACHINE SHOP OF THE MANARY LOGGING CO. AT HEADQUARTERS CAMP 1, TAKEN FROM THE NORTHWEST CORNER—THE EQUIPMENT IS UNUSUALLY COMPLETE IN THIS MACHINE SHOP, ENABLING THE LOGGING COMPANY TO MAKE ALL KINDS OF REPAIRS AND ALSO TO RE-BUILD MANY OF ITS MACHINES



THE ABOVE VIEW REPRESENTS THE BLACKSMITH SHOP LOCATED IN A CORNER OF THE MACHINE SHOP OF THE MANARY LOGGING COMPANY AT HEADQUARTERS CAMP 1, SHOWING FORGE AND MANY OTHERS OF THE VERY SUPERIOR FACILITIES WHICH MAKE THIS SHOP QUITE COMPLETE

about 2,000 feet wide and at Elk City, about eighteen miles from its mouth, it was 150 feet wide. The tidal flow extended about four miles above Elk City, but the river was only two or three feet deep at low tide and admitted only the shallowest boats. Below Elk City and above Toledo the shoals were two or three feet deep and the narrowest parts of the river less than 100 feet wide.

Below Toledo to Oysterville, a distance of six and a half miles, the river varied in width from 800 to 1,200 feet, except at the first bend below Depot Slough at Toledo, where it was but 400 feet wide.

Between these two points, Toledo and Oysterville, there were five bars where the water was less than 6 feet deep, the rest of the river showing depths up to 20 feet. The following tabulation shows the location and depths of water of these bars at that time:

The Bars By Number	Distance Below Toledo Miles	Length of Bar Miles	Depth at Low Water Feet
First Bar	At	$\frac{1}{2}$	3
Second Bar	$1\frac{1}{4}$	$\frac{1}{8}$	5
Third Bar	2	$\frac{1}{8}$	4
Fourth Bar	$3\frac{1}{2}$	$\frac{1}{8}$	5
Fifth Bar	$5\frac{1}{2}$	$\frac{1}{4}$	4

From Oysterville to Yaquina City, the terminus of the railroad and the head of ocean navigation at that time, a distance of $2\frac{1}{2}$ miles, a minimum depth of twelve feet of water prevailed. Yaquina City is situated one-half mile from the head of the bay, which is one mile wide and three miles long.

There was a sawmill at Toledo from which it was desired to load vessels in the coastwise lumber trade. Some shipments had been made in small vessels and need of improved conditions was acutely felt. It was these things that the Toledo Port Commission faced when it came into existence in 1910.

War Department Gives Permit

A permit was secured from the War Department and the work undertaken. The first action of the commission was to purchase 600 feet of water front at Toledo for a public dock and to buy a clamshell dredge of one and a half yards capacity.

With the balance of the money the commission then built training dikes along the Yaquina River at various points and operated the clamshell dredge on the shoals. In October, 1911, the money it had secured from the sale of the bonds was exhausted. Another examination was made by the War Department, which had been authorized by Congress in the Rivers and Harbors act of February 27, 1911. The work was done by James E. Kelley, with J. S. Polhemus, assistant engineer, in charge. This survey extended from Toledo to Oysterville.

This survey did not indicate that any difficulty would be encountered in securing a channel fifty feet wide and 200 feet wide on the turns, with a minimum depth at low tide of ten feet, at a cost of \$72,000. Of this amount the port of Toledo had already expended 60 percent, about \$44,000, and the government gave the port credit for this amount and appropriated \$28,000 to complete the project as outlined and begun.

This project was adopted by Congress March 4, 1913, on the condition that the Port of Toledo would allow its dredge to remain available for the government in the continuation of the work. The act also provided for an annual maintenance fund of \$3,000. The port of Toledo gave \$3,000 and the government gave \$13,900.31 for maintenance, making a total of \$88,900.31 expended on the improvement under the project. The following table shows the expenditure of the money:

	Port Funds	U. S. Funds	Total
New Work	\$43,200.00	\$28,800.00	\$72,000.00
Maintenance	3,000.00	13,931.31	16,931.31
Total	\$46,200.00	\$42,731.31	\$88,931.31

This project was completed December 31, 1914; and in April, 1919, the channel was restored to project dimensions. At this time the controlling depth of water from Toledo to the mouth of the river was ten feet in a normal channel 100 feet wide and 200 feet wide on the curves.

On March 2, 1919, Congress authorized an-

other preliminary examination and survey of Yaquina River from Toledo to Yaquina City, which was made in April of that year, 1919, and the report was submitted July 21, 1919, by Col. Geo. A. Zinn, of the Corps of Engineers, who recommended that a survey be made.

Later in the year Lieut.-Col. C. Keller, of the Corps of Engineers, also endorsed the findings of the preliminary examination and recommended a survey. In this endorsement it was requested that information be secured as to why the mills and other industries were being established at Toledo rather than on deep water at or below Yaquina City and asked that separate estimates be made for dredging in the main river and in Depot Slough. The cost of lighterage was also requested and the feasibility of the use of motor trucks to carry the lumber from the mills to deep water was to be given consideration in the survey.

This survey was made in March and April, 1920, and transmitted to the Chief of Engineers of the United States Army by Col. J. B. Cavanaugh, of the Corps of Engineers, on November 5, 1920, with an unfavorable recommendation.

On November 21, 1921, Secretary of War John W. Weeks transmitted the various letters and documents to the House of Representatives, but Congress did not include the project in the Rivers and Harbors bill.

What the Local Interests Desired

The local interests desired, at the time the survey was requested, a sixteen-foot channel, at low water, from Toledo to Yaquina City, 200 feet wide and 250 feet wide on the curves. The estimates of the engineers placed the cost of this improvement at \$542,000 and reported adversely on the project on the ground that the commerce of the river did not warrant that expenditure of money by the federal government.

It is interesting to note that by the time the reports of the engineers, together with their adverse recommendations, had passed through the various offices necessary, the reports and recommendations of the engineers, as made in 1919 and 1920, did not tell Congress anything about the changed conditions which existed at the time that body failed to act on this much needed improvement.

During the time these various reports had been wending their way through the different offices, the United States Spruce Production Corporation had disposed of all its holdings at Toledo and of its railroad and timber south of Yaquina Bay to the Pacific Spruce Corporation. The purchasers had completed the mill at Toledo and it was ready to operate. The logging road was ready to deliver logs at the south log dump; additional holdings had been secured to the north and the industrial activity had developed on the waters of Yaquina Bay and Yaquina River, which had only been hinted at as POSSIBLE when the engineers filed their report, two years before.

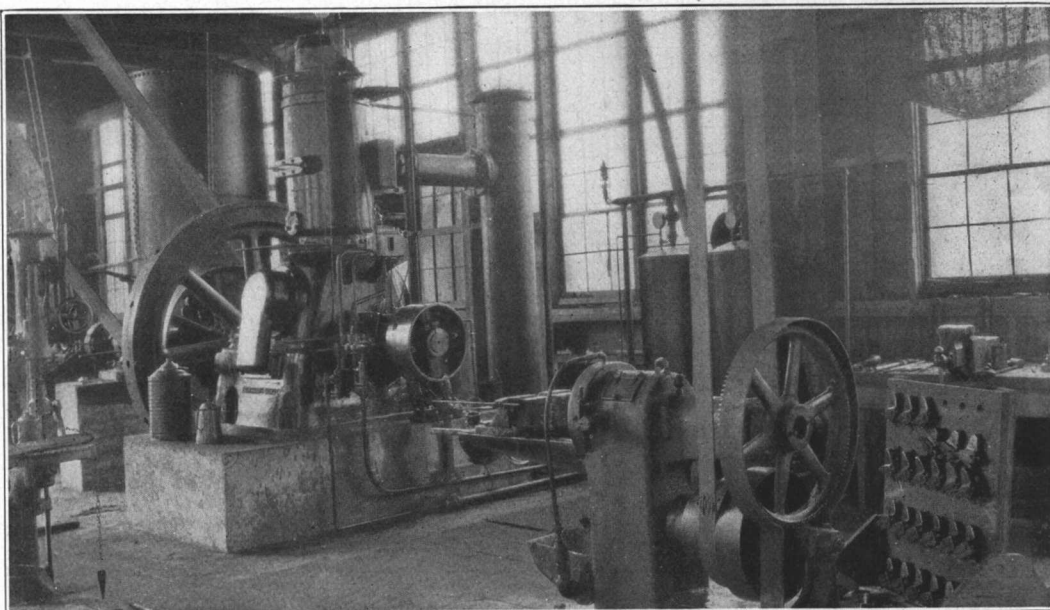
Within a year from the time the project had failed to be included in the Rivers and Harbors bill by Congress, the Pacific Spruce Corporation had purchased the steamship "Robert Johnson" and throughout the last nine months of 1923, she was plying in the Yaquina Bay-California lumber trade, carrying 1,500,000 feet each trip, twice a month and was loading her cargo at Newport, nine miles from the mill, at an added cost.

The engineers, therefore, had ANSWERED the question as to WHY the mills should load at Toledo, instead of at some place near or below Yaquina City on deep water, fully and comprehensively; one of these reasons being the lack of fresh water at any point on deep water, one of the prime essentials in the creation of the steam power of any manufacturing plant.

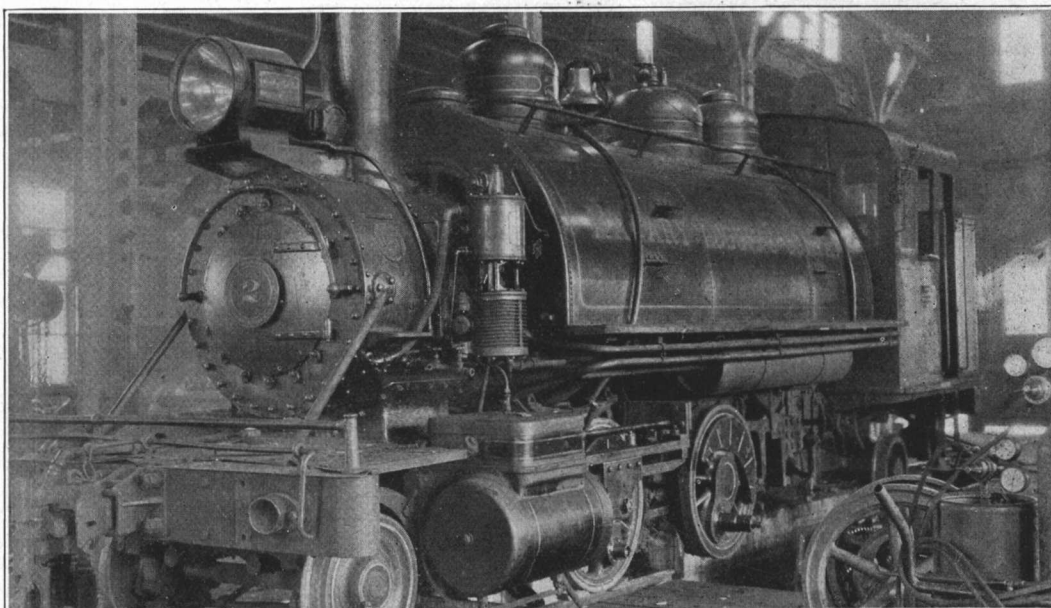
THE NEED OF A NEW SURVEY

The need of a new survey of the entire Yaquina bar, bay and river is now apparent to those who are in touch with the development there and it is probable that the PRESENT Congress will provide for such survey.

The tremendous increase in tonnage on the river, across the bay and over the bar is shown in the appended report submitted to the War Department, covering traffic on those



THE ABOVE VIEW SHOWS THE FAIRBANKS-MORSE VERTICAL OIL ENGINE, 50-H.P., 267 REVOLUTIONS PER MINUTE, WHICH OPERATES THE MACHINE SHOP OF THE MANARY LOGGING COMPANY AT HEADQUARTERS CAMP 1 AT SOUTH-BEACH, OREGON, AND OPERATES THE ELECTRIC LIGHT PLANT AT NIGHT



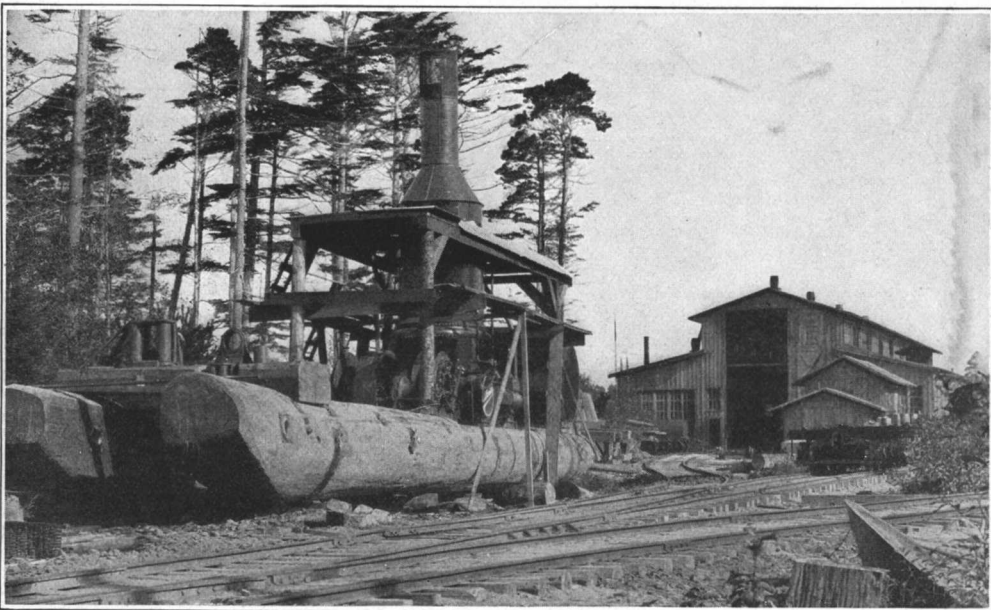
THE ABOVE VIEW REPRESENTS THE BALDWIN LOCOMOTIVE WORKS 65-TON SADDLE TANK LOCOMOTIVE NO. 2 DISMANTLED FOR OVERHAULING AND PLACED OVER THE LOCOMOTIVE PIT IN THE MACHINE SHOP OF THE MANARY LOGGING COMPANY AT HEADQUARTERS CAMP 1



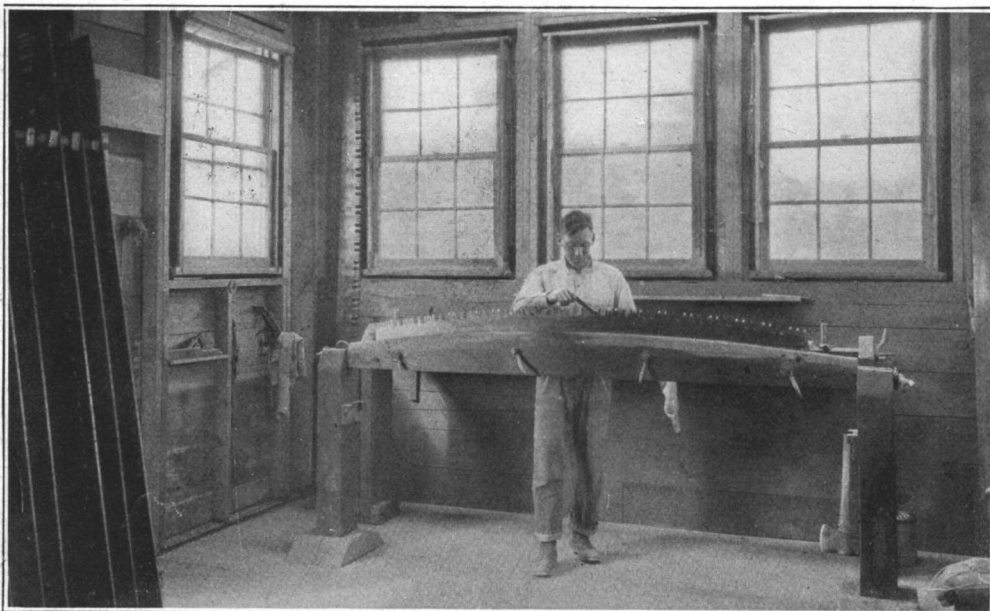
THE ABOVE VIEW SHOWS THE WIRE ROPE ROOM IN THE MACHINE SHOP OF THE MANARY LOGGING CO. AT HEADQUARTERS CAMP 1, SOUTHBEACH, OREGON, EXHIBITING VARIOUS STYLES OF WIRE ROPE PACKAGES AND STOCKS OF 1-INCH, 1½-INCH, 2-INCH AND ¾-INCH ROPE



THE SECTION FOREMAN AND CREW ON THEIR SPEEDER WITH OTHER WORKMEN FROM THE WOODS, ON THE RAILWAY OF THE MANARY LOGGING CO., WITH ERIE CATERPILLAR STEAM SHOVEL IN BACKGROUND. THIS SCENE IS ON SPUR 1 HEADQUARTERS CAMP 1



THE ABOVE VIEW REPRESENTS THE MACHINE SHOP OF THE MANARY LOGGING COMPANY IN THE BACKGROUND, AND IN THE FOREGROUND THE WIL-LAMETTE IRON & STEEL WORKS 10x11 CHUNKING DONKEY ENGINE. THIS MACHINE SET UP, READY TO FILL THE EMERGENCY OF A BREAKDOWN



THE ABOVE VIEW SHOWS THE FILING ROOM AT HEADQUARTERS CAMP 1, MANARY LOGGING CO., SOUTHBEACH, OREGON, WHERE THE FILER CARES FOR SIMONDS SAWS WITH DISSTON FILES

waters five months in 1923. Since that time the Pacific Spruce Corporation has been running one and one-half shifts daily—about doubling its output and therefore its outgoing tonnage, and employing 800 men.

The Ports of Toledo and of Newport memorialized Congress November 5, 1923, in the appended resolution, to which the report referred to above is affixed as Exhibit "A":

MEMORIAL TO CONGRESS BY PORT COMMISSIONS

Newport, Oregon, Nov. 5, 1923.

To Our Honorable Members In Congress:

"Whereas—The jetty work at the entrance to Yaquina Harbor, now under construction, will be completed early in the spring of 1924 and when completed will be 400 feet shorter than the south jetty; and because of this, the current (which is almost continual) from the harbor, forms a sand bar which is dangerous to navigation; and

"Whereas—The continuation of the north jetty, now under construction, to a point in equal distance to the south jetty, 400 feet, would, in the ports' opinion, do away with said sand bar; and

"Whereas—The equipment now on the



AN INDUSTRIAL WORKS GENERAL PURPOSE LOCOMOTIVE CRANE MOUNTED ON STEEL FLAT CAR—A VERY USEFUL TOOL

ground, costing approximately \$40,000, is adequate to do said work, thus saving the government this expense; and

"Whereas—The situation imperatively demands further improvement of the harbor to assure the safety of water craft moving in and out of same; and

"Whereas—The above work is warranted by the tonnage coming and going from the port as given in 'Exhibit A'; and

"Whereas—We are informed that quite a sum of money will be left to the ports' credit when the present project is completed, which sum the ports will gladly donate to the government for the purpose of constructing the aforementioned 400 feet, or further, as the engineers deem advisable; therefore, be it

"Resolved—That we, the members of the Port Commissions, sitting in regular session, do hereby request our worthy members in Congress to present to that body our prayer that the United States engineers be authorized and ordered to make a new survey at once of the entrance to Yaquina harbor and that the necessary funds be appropriated for such survey and the continued construction of the north jetty to at least 400 feet west and as