

PORTLAND IS COMING LUMBER CAPITAL OF AMERICA

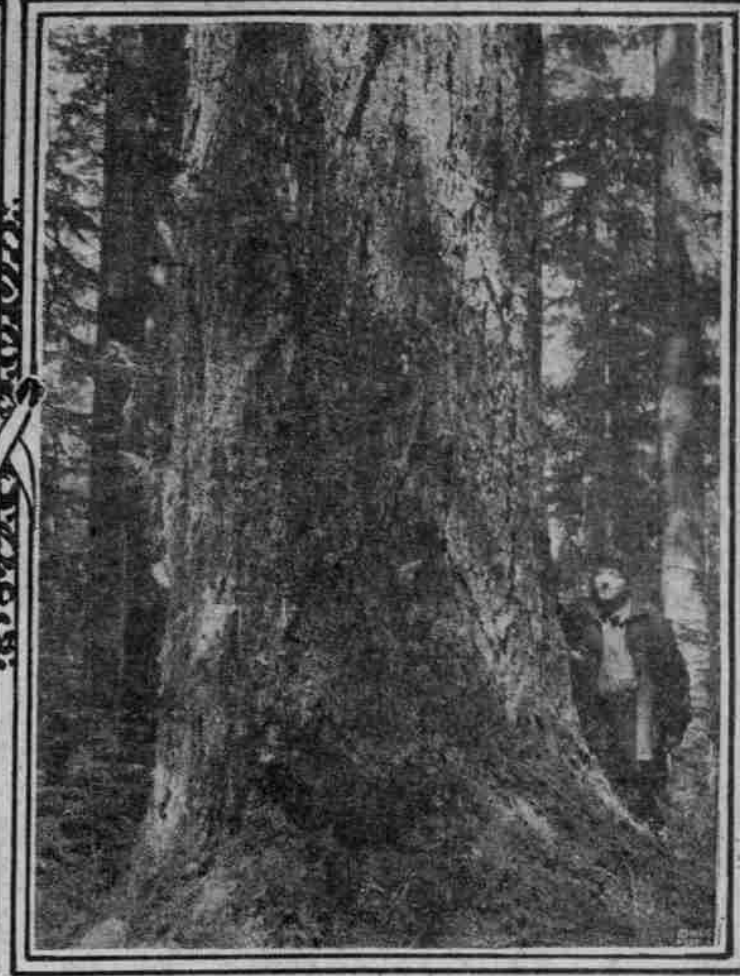
City Is Geographical Center of Greatest Area of Merchantable Timber on Continent; Largest Portion of Forest Lands of States of Oregon, Washington and Idaho Tributary to Portland



Sitka Spruce (at Left) Used for Airplane Building; Port Orford Cedar (at Right).
Photos © Weister.



Western Red Cedar, Source of Supply for More Than 5,000,000 Shingles, Annually Produced in Northwest.



Douglas Fir, Greatest of Northwest Timber. 331,000,000 Feet Surround Portland.

PORTLAND is destined soon to become the lumber capital of America. Portland is the geographical center of the greatest area of merchantable timber on the American continent, and it is bound to become the financial and commercial center for the development of these resources.

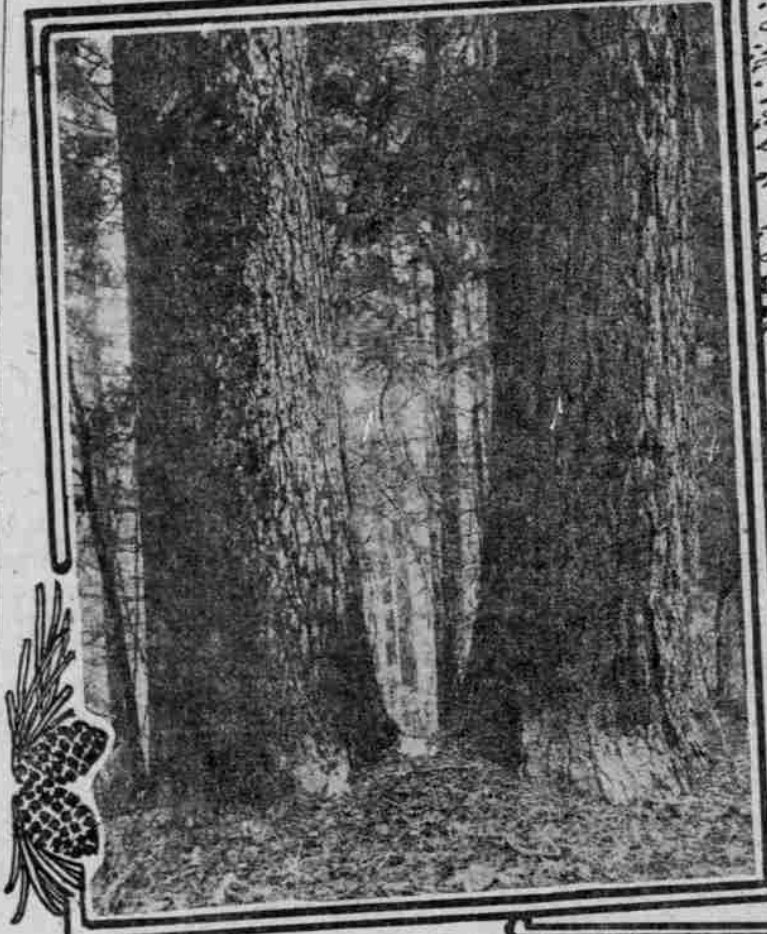
In fact Portland already is the center of the great Douglas fir and western pine industries of the Pacific northwest. Gradually, as the timber directly tributary to Portland is developed, the importance of Portland as a lumber center will grow and an ever-increasing proportion of the country's lumber business will be done through this market.

The three northwestern states of Oregon, Washington and Idaho contain, it is estimated, 818,000,000 feet of standing timber, of which approximately 500,000,000 feet is tributary to Portland. The greatest of these species, of course, is Douglas fir, of which Oregon, according to the estimate of the United States forest service, contains 255,000,000 feet, Washington 132,000,000 feet and Idaho 26,000,000 feet. Virtually all the merchantable fir in Oregon and approximately 60 per cent in Washington is tributary to Portland. The fir in Idaho is of a comparatively inferior quality, but it doubtless will be marketed through Portland as much of the lumber produced in Idaho now is sold through this market.

Western white pine is next in importance, both in the volume of available supply and in general usefulness. The forest service estimates a stand of 100,000,000 feet of this species in Oregon with 20,000,000 feet in Washington and 17,000,000 feet in Idaho. Portland is the center of the western pine industry, as much of this cut from both Washington and Idaho as well as practically all the cut from Oregon will be marketed, either directly or indirectly through Portland.

Other species important. Other important commercial species in the three states are western hemlock, 30,000,000 feet; western red cedar, 75,000,000 feet, and Sitka spruce, 15,000,000 feet. These species, as a rule, grow intermingled with Douglas fir west of the Cascade range in Oregon and Washington and the proportion of each tributary to Portland is about the same as that of Douglas fir.

In the southwestern part of the



Western Yellow Pine, 125,000,000 Feet of Which 15 Commercially Tributary to Portland.



Western Hemlock of Which Northwestern States Contain 90,000,000 Feet

state is an important supply of Port Orford cedar which is being developed for many special uses and which is marketed, in large part, through Portland.

As these timber resources are developed Portland will develop. While it is not likely that any considerable portion of this timber will be marketed into lumber within the city itself, virtually all of it will be marketed here, and the industry, to a large extent, will be centered here. Much of the ever-increasing export

trade will be handled through this port and other ports on the Columbia river. The movement in this direction is certain to grow as the timber in the northwest is cut and placed on the market.

Three or four of Portland's largest office buildings are nearly filled with lumber sales offices, lumber wholesalers and lumber brokers. The average lumberman in the east and middle west, when thinking of Douglas fir and other species of lumber

produced in the northwest, naturally thinks of Portland. But Portland is not yet the leading lumber market in the country. That honor now is divided between several southern and middle western cities, through which the great bulk of southern pine lumber is sold.

Douglas fir gains. Southern pine continues to be the dominant species in the American lumber market. This condition will continue for five and perhaps ten

years until Douglas fir gains the ascendancy. Douglas fir is being produced in greater volume every year. It is gradually gaining on southern pine. When the time arrives that Douglas fir is produced in greater volume than southern pine, then fir will predominate the market and Portland will indeed be the lumber capital of America.

While it is true that the production of southern pine is declining and will continue to decline every year for a decade or more, the decline is not

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That is only relatively true. The change is taking place surely, but so gradually that it is hard to detect it at all except when viewed over a period of a few years at a time. The southern pine mills now cut from 12,000,000,000 to 15,000,000,000 feet per year, and the best authorities agree that within the next five years the net decline of these mills will be about 3,500,000,000 feet annually, and that by the end of 1930 the annual production in the south will have diminished by an additional 3,500,000,000 feet. Thus, by the end of the next decade the south will be cutting only about 7,000,000,000 to 8,000,000,000 feet annually instead of the 12,000,000,000 to 15,000,000,000 now being produced.

Annual Consumption Large. Everyone is agreed that under normal requirements the annual consumption of lumber in the United States will continue at approximately 20,000,000,000 to 25,000,000,000 feet, including hardwoods as well as the various species of soft woods.

If the production of the nation's principal soft wood species is going to be diminished by say 7,000,000,000 feet a year, the nation will be forced to look to other sources for a similar supply of soft woods can be obtained. And that market is in the great Pacific northwest, of which Portland is the geographical, financial and commercial center.

But the excess demand upon the northwest will be even greater than is indicated by this reduction of 7,000,000,000 feet in the supply of southern pine.

The south is developing faster than any other section of the country just now, and during the next ten years, it is estimated, will increase its own annual lumber requirements by at least 1,000,000,000 feet. At the same time the production in eastern spruce, northern pine and other soft wood species in New England, Minnesota, Wisconsin and other

long-established lumber-producing districts will decline another 1,000,000,000 feet annually.

Export demand, in the past, has taken only about 8 per cent of the lumber produced in America, but this demand, during the next ten years, will increase sufficiently to require an additional 1,000,000,000 feet annually. Whether this export business comes to the northwest or not is unimportant, because it will take just that much lumber out of the country every year. If it goes out of the south, the northwest will step in and sell its lumber to those markets from which the south is forced to withdraw to fill these export needs.

Oregon Must Fill Gap.

So, with the 7,000,000,000 feet decline in southern pine production, the 1,000,000,000 feet decline in production of other soft woods, the 1,000,000,000 feet of increased requirement in the south and the 1,000,000,000 feet additional for the export trade, the country will begin to look to the Pacific coast during the next ten years for about 10,000,000,000 feet more lumber every year than is being produced right now.

This is just about equivalent to the present annual production on the entire Pacific coast, including California and British Columbia.

Of course, in meeting this increased demand, California and British Columbia will play their part, for both have tremendous resources in standing timber.

But Oregon and those parts of Washington and Idaho that are commercially tributary to Portland will contribute the greatest volume as well as the greatest proportion of this increased development, for it is in these sections where stands the best and biggest supply of merchantable timber. "Oregon is potentially the greatest lumber-producing factor on the American continent," said the report made less than a year ago by the National Lumber Manufacturers' association after a thorough survey of the timber resources of the country. "Many of the larger holdings," continues the report, "are in the hands of men with ample capital to operate them. The timber resources of Oregon are estimated to be more than 500,000,000 feet in large enough to sustain the increased production necessary for this state to carry its share of the eastern and southern deficit for many years." And the same might have been said of those portions of Washington and Idaho that market their lumber products through Portland.

GOVERNMENT ENCOURAGES FOREST USE

Nearly 170,000 Head of Cattle and Horses and 685,000 Sheep and Goats Were Permitted to Graze in 14 National Forests of State in 1920.

By E. N. Kavanagh, Assistant District Forester in Charge of Grazing.

IN THE high country of Oregon along the Cascades and in the Blue mountains winter comes early. While the valleys below are still bathed in sunshine and the leaves on the trees are just beginning to show the colors of autumn the first snows of winter can be seen on the peaks and on all the higher elevations. While the farmers in the low country are seeing to the harvesting of their hay or grain, the picking of apples or the other duties involved in the raising of crops, the stockman is back in the hills seeing to the removal of his cattle or sheep before the snow comes.

Most of the fat lambs have been sent to market, the others and their mothers have been held back to get a little more feed, if the weather will permit, and to await the time when the winter pastures or winter ranges are in shape for use. The fat cattle that are to be sold have mostly been rounded up and are in the meadows and pastures at the home ranches, if they haven't taken the last long ride to the butcher. Here and there through the glades and meadows up in the mountain bunches of stock still remain, loath to leave, and these are the ones which Mr. Cowman has to round up and bring out before winter catches them unaware.

While the stockmen are moving the last of their cattle or sheep, if the forest fires are not claiming their attention, you will find the forest ranger also riding the range. They are making their fall inspection to learn how the range has withstood the summer grazing; they are looking for areas of unused feed or places that perhaps have been grazed too closely, the purpose of their riding

being to see whether any changes in range or methods of handling stock must be made the following season. Their reports will be made to the forest supervisor, who will in turn make a more general report to the district forester of grazing conditions. The losses of stock from poisonous plants, predatory animals, or other causes, the cost of hay, and many other things that have a bearing upon the use and allotment of range to the different classes of stock on his forest.

Work Directed From Portland.

From the district office in Portland the supervisor will receive his instructions for handling grazing work during the coming season. These instructions are based on the supervisor's report of conditions and the still wider general knowledge of the district office men concerning conditions generally throughout the state or the northwest.

Along about this same time the stockman is also beginning to plan for next year, and shortly after the first of the year sends in to the forest supervisor his application for the number of stock he wishes to graze on the government's ranges. A certain date is set by the supervisor or before which time all applications must be in his office. Having given public notice of this date he then proceeds to allot the range to the applicants in accordance with their known qualifications.

An effort is made to allot the range only to those who can and have adequately cared for their stock during the winter. Many things are considered by the supervisor in connection with this work, and frequently difficult situations arise. The demand for government forest range is far in excess of the supply. It is often difficult to decide between cer-

tain applicants for range privileges. This work is, however, often times simplified by calling into consultation a representative committee, called an advisory board, of the stockmen using the particular range. In fact, in many ways the work of the forest service in handling the grazing on the national forests has been made easier through co-operation by the stockmen through their associations and advisory boards.

Many Cattle Graze.

At about this same time officers of the stock associations are busy collecting from the members assessments for the purchase in wholesale quantities of salt for the next season, for paying the expenses of hiring range riders to look after the stock during the summer, and for the other expenses of which there are many.

All of these matters are adjusted by the stockmen after a time and the supervisor notified. Each permittee must also pay a stated price per head to Uncle Samuel for grazing stock on his forest, and when this has been paid and the grazing permit finally issued by the supervisor he is free to drive his stock in on the opening date of the season for which he has applied.

Each year this procedure is repeated for the 14 forests of Oregon, on which in 1920 nearly 170,000 head of cattle and horses and over 685,000 sheep and goats were allowed to graze. These figures do not include the young stock under six months of age at the time of entering the forest, as these are not counted or charged for. If we were to include them the totals above given would be increased about 25 per cent for the cattle and horses and approximately 99 per cent for the sheep and goats. The cattle and horses on the national forests of Oregon were

owned by 2327 different owners and the sheep and goats by 10,000 more. In addition many stock were grazed without permit in small numbers on the different forests, no permits being required for milk and work stock actually in use in numbers less than ten head for each owner. Approximately one-eighth as many more cattle and nearly one-third as many more sheep as were permitted could not be provided for on account of lack of government range.

Purebred Stock Increases.

Among the permittees using the national forests of Oregon are some of the most progressive stockmen of the west. The number of purebred animals is rapidly increasing and the best possible care is taken of them both winter and summer. It is becoming a common instead of an unusual sight to find registered animals out on the forest range. There is a growing pride among the stockmen in the quality of their stock, instead of the quantity or number as in the days gone by; and even though the past two years have been a period of exceptional hardship, due to the high production costs and low selling prices for their products, there is every reason to believe progress and betterment will continue.

To many stock owners the summer time is a vacation—a vacation from worry. His stock are away in the mountains, nearly always on good feed, and while even then he may sustain grievous losses the chances are that he will not, especially if he is a cowman and belongs to an association that hires riders to look after the stock; and then, shift them from one range to another as feed conditions warrant, and generally see that they are handled to the best possible advantage. Or if he is a sheepman and has responsible employees loyal to him who have a pride in their own work, his worries are less in the summer than at any other time. The national forest ranges mean much to the stock owners of Oregon.

With continual settlement of the range country they will mean even more. Most of the permittees realize their dependence on these ranges and a feeling of personal responsibility regarding the use and condition of their allotted range is becoming general. A majority of the stockmen belong to associations which co-operate closely with the forest service in range administration. Some of these associations have spent thousands of dollars in the past few years fencing and improving the ranges. They do this because federal appropriations for this purpose are not available, even though these improvements virtually become the property of the government, due to the impracticability of removing them. A great deal of dependence is also placed by the service on the stockmen in connection with the prevention and suppression of forest fires. Many fires are put out by the stockmen or their employees which the forest officers do not get to and valuable assistance is given in the suppression of the larger fires that frequently occur in the forests.

Several million dollars' worth of beef and mutton move to market each fall from the forest ranges of Oregon. Much of this has actually been grown upon these ranges and consequently their use is a matter of grave importance not only to the forest service and to the stockmen, but to all the people of Oregon who are interested in or dependent upon one of its most stable industries, the raising of livestock.

Few people who are not personally familiar with the stock business are aware of the trials and tribulations of the stockman. The average person visualizes the stockman from the standpoint of \$20 a shoe and \$30 a suit of clothes, but in doing so grievously wrongs him, for of these amounts his share is extremely small. In spite of rain or snow, in sunshine and shadow, whether the day is long or short, the stockman stays with the game, mostly because he loves it. He is following the oldest of Biblical occupations and he furnishes many of the necessities of life.

EASTERN OREGON PINE FORESTS LARGE

Standing Timber East of Cascades Totals 90,000,000,000 Feet, Chiefly of Western White Pine—Lumber Industry Distinct From That of Coast.

By A. W. Cooper, Secretary Western Pine Manufacturers' Association.

UNDOUBTEDLY many people who live in Oregon are accustomed to thinking of the lumber industry of the state as something that is confined to the coast territory west of the Cascade mountains, and believe that fir, spruce and cedar, the prevailing woods of this region, are the only lumber products of the state. It is, of course, true that the forests of the coast belt comprise the major portion of the state's standing timber. It is equally true that there are vast stretches of forest area east of the Cascade mountains. The forests in the eastern portion of the state differ greatly in character from the coast timber, being more open and made up of different species, the bulk of the timber being pine.

To give some idea of the extent of these forests, it is estimated by the best authorities that there is over 90,000,000,000 feet of standing timber in this portion of the state, or nearly three times the present annual production of lumber in the whole country. During the past 20 years there has been developed in eastern and in central Oregon a lumber manufacturing industry separate and distinct from that of the coast. Its chief product is pine and the pine is commonly known as western white pine.

The industry has developed mainly in two localities, one centering around La Grande and Baker, and the other in central Oregon along the Deschutes river valley. In these two localities there are about 12 large and a very considerable number of smaller mills now in progress. The pine industry produces approximately 400,000,000 board feet of lumber annually, and employs upwards of 5000 men.

Among the most up to date and modern in the west, and a few of them are among the very largest in the country. The product of the mills is largely shipped east and has of recent years been taking the place of eastern white pine formerly furnished by the lake states. Lumber from eastern Oregon goes to nearly all portions of the country and a very considerable amount of it is being shipped east of Chicago and as far as the Atlantic seaboard. In fact,

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PENINSULA DISTRICT OF NORTH PORTLAND HOLDS 34 MANUFACTORIES. Pickles, ships, masts, macaroni—these just happen to top the list of products turned out by the 34 manufacturing concerns in the North Portland industrial district, 13 of which have come there since 1917. They employ over 3000 people and do a business of \$125,000,000. Among other commodities that are made on the peninsula are metal and wood pipe, sash, crank, turned meats, stoves, furniture, ready-cut houses, boxes and crates, wool, dry kilns, waxed paper, mail boxes, patent roofing, paints, all sorts of lumber, shingles, wood containers, from candy pails to giant tanks, farm appliances, road-building equipment and fertilizers.

a very appreciable amount of it goes to New England.

In addition to the lumber produced, nearly all of the large manufacturing plants operate their own box factories and re-manufacture a portion of their output into box shooks, supplying the fruit-growing districts of Oregon, Washington and Idaho with a large part of their fruit

boxes, the box industry in itself being by no means an unimportant part of the whole.

The development of lumber manufacturing on a large scale in the eastern portion of the state is of comparatively recent date, although this section is one of the oldest lumber manufacturing districts in the northwest. With the building of new railroads and an increasing demand for white pine, it began a few years ago to develop with rapidity, and it is not unlikely that the next five to ten years will see it increase to twice its present size.

Some idea of its value to the state and of its importance may be gathered from the fact that the present value of its product at the mill is in the neighborhood of \$16,000,000 a year, and that it represents a capital investment in timber and plants of something in excess of this. In several instances the industry is the life of thriving communities and upon its future growth and development principally depends the industrial development of the eastern sections of the state.

These pine manufacturing plants are truly highly developed industrial enterprises. Their huge sawmills with from one to four bandsaws, re-saws, edgers and trimmers, their live rolls to move the lumber, their modern power houses, planing mills, dry sheds, dry kilns, loading docks and their lumber yards covering many acres of land and, in some instances, with several miles of paved alleys, carry an impression of a substantial and permanent industry.

The future life of the industry may be readily gathered from the fact that at the present rate of production it would take at least 150 years to exhaust the existing standing timber in this part of the state.