

East. The freight rate of \$1.50 per 100 pounds on pork from Chicago serves as a protection to the Coast packers.

Great Field for Beef Packers.

Portland offers an inviting field for the establishment of a large packing house, independent of the Chicago beef trust, for it has all the territory from the Rocky Mountains to the Pacific Coast and from the California line northward as a market. The Chicago trust does not ship fresh beef west of Salt Lake and Ogden and, as the existing packing houses in this territory cannot supply the demand, the bulk of the butchering for all the towns west of Salt Lake is done by local butchers. Each of these men only slaughters from five to 20 head a day for his local market, so that it is impossible for them to save the by-products, in which all the profit of the big packers consists. They make an aggregate of \$9 out of the blood, hair, bones, horns, cartilage, intestines, lights, liver, entrails and tail, of every 1000-pound animal. A man who slaughters several thousand head a day and saves all the by-products can afford to sell his meat at cost and still make a large profit out of them. The result is that the Pacific Coast people have to pay much higher prices for their meat than they would pay if there were several large packing houses conducted on the most economical lines and supplying the whole field.

Aid to Stock Industry.

The stockmen of the Pacific Northwest would also be great gainers, for they would get good prices in consequence of the active demand and the competition between rival packers. As conditions now are, they can not ship their fat cattle, sheep and hogs East on account of the excessive freight rate, and the result is that stock cannot be raised in Oregon because there is no corn. They ignore the fact that conditions are as favorable in Western Oregon as in England, where the best beef in the world is made without a pound of corn. Western Oregon and large sections of Eastern Oregon can fatten stock of hay, alfalfa, barley and many kinds of grass and clover, and this is the greatest wheat and barley country in the world. Farmers in Western Oregon do not raise beef cattle and hogs in greater quantity because they have not a large enough market. More packing houses would furnish the market and the farmers would raise the stock to supply it. The conditions are pronounced by cattlemen better than in Fort Worth, Texas, where the beef trust has recently erected two plants at a cost of about a million dollars each. A large plant in or near Portland could make beef extract, sausages and corned beef out of cattle which were not suited for marketing fresh. It could then buy a trainload of all classes of animals and pay for them according to grade. A plant which would gradually build up a business large enough to slaughter a thousand head and 2000 hogs a day would put in circulation about \$75,000 a day, would save the by-products, would build up a trade with the farmers as far east as Salt Lake, south to the California line and north into the Puget Sound country and Alaska, where the trade is now held by Seattle firms. It would also build up an export trade with the Orient, which for salt beef has declined from 1,200,000 pounds, worth \$24,000, in the fiscal year 1901, to 15,000 pounds, worth only \$225 in the fiscal year 1902. It would transform sailing ships into refrigerating ships and export at small cost to the Orient.

GOODS MADE OF LEATHER.

Harness and Saddlery Field Filled. Beginning of Shoe Factories.

HARNESS and saddles are the first home product of Oregon leather to be turned out on a large scale, and the business has reached such dimensions that there are about 12 large manufacturers, besides five large wholesale houses. The production increased from \$88,617 in 1900 to \$2,000,000 in 1903. The manufacturers have pretty well covered the field of the Pacific Northwest, though that field is growing steadily. They have also shipped their goods east as far as Nebraska, and have opened an Oriental trade, having made sales both in Vladivostok and Port Arthur.

Oregon manufacturers readily give the preference to Oregon leather, but it is in such demand in the East that they have to use much California leather. This preference is not merely due to cheapness or to quality, for they declare with emphasis that Western oak-tanned leather cannot be beat. There is as good an opening for the manufacture of boots and shoes in Oregon as there was for saddlery, and a good beginning has been made in this line. There are two small factories in the state, one at Portland, the other at Oregon City, which draw their supply for sole leather from California. So far, the manufacturers north of San Francisco have confined their attention to the heavy lines of goods, such as loggers' and miners' boots and shoes, for which the demand is growing rapidly. The shoe market in Tacoma factory is now beginning to turn out a finer line of men's dress shoes. So far, however, no women's and children's shoes are made on the Coast north of San Francisco, so that there is unlimited scope for the shoe industry.

Requirements for Shoe Factory.

The first requirement to the success of the shoe industry in the Coast area is ample capital to engage in it on a large scale, for a small factory for the production of the higher classes of goods is foredoomed to failure; an ample supply of reliable skilled labor; the specializing of the industry; and thorough practical knowledge of the business on the part of the employer. The necessity for large capital is due to the use of machinery in the making of every part of a pair of shoes. These machines are in a constant state of evolution, so that they often go out of date in five years. The margin of profit is also so small that the necessary expense can only be practiced by buying material on a large scale in order to shade the price. Thus eyelets are cheaper in lots of 1,000,000 than in lots of hundreds of thousands, and a still further saving can be made by buying 5,000,000, but only a man with large capital and a large factory can buy and consume on this scale. The necessity for abundant skilled labor is also due to the exclusive use of machinery. In order to earn interest on its cost, and a profit besides, this must be worked to its maximum capacity. Only a man trained for years in the operation of one machine exclusively can do this. There are 110 different processes in the making of a pair of shoes. For each of these there is a different machine, operated by a man trained to do nothing else. In order to keep up its output, a factory must have all its machines in full operation. If the operator of one machine drops out, his place must be immediately filled or much of the machinery stops, and loss begins, instead of profit. In New England there is an abundant supply of skilled labor in every line, for that section produces 50 per cent of the shoes used in the United States, and a great proportion of all those used in the whole world. Thus a man's place can be easily filled there. San Francisco has a number of shoe factories, and a supply of workmen could be drawn from there at the outset. But the necessity of sending thither for a new man every time one turns up missing will be an initial difficulty, for crude labor cannot be used when the product of labor trained up through seven or eight generations.

Small Economy the Thing.

The specializing of the industry has gone even further, for entire factories are devoted to the production of a certain brand of shoes, at the rate of 8000 or 10,000 pairs a day. The same practice must be

CALIFORNIA AT THE FAIR.

Disposed to Make Full Exhibit by Transfer From St. Louis.

To the Editor: Your representative has asked me for a brief outline of the work of the California St. Louis World's Fair Commission, and, incidentally, my opinion as to California's prospective representation at the Lewis and Clark Centennial Exposition, to be held at Portland in 1905.

Our work in preparing material for a creditable display of the different California products, industrial features, educational progress, etc., for presentation at the St. Louis World's Fair is progressing very satisfactorily. Indeed, the field work is practically completed, and we are now assured of ample material for a full and satisfactory display of all this state's productive and commercial interests. Our strongest features will necessarily be confined to the departments of agriculture, horticulture, mining, forestry and education, with a fair representation in the departments of liberal arts, fine arts, manufactures, machinery and social economy.

It is early to say how extensively this state will participate in the Lewis and Clark Centennial Exposition, and yet I believe the disposition of most Californians favors a liberal display. The last Legislature made a preliminary appropriation of \$50,000. I understand, toward the expense of the California exhibit at the Lewis and Clark Exposition. The act under which the St. Louis World's Fair Commissioners are operating provides they shall report to the Governor one month before the close of the said St. Louis World's Fair on the material that at that time may be considered available for display at the Lewis and Clark Exposition. The extensive preparations being made for St. Louis will insure liberal quantities of creditable display material for use at Portland, and it seems to me that the State of California at a nominal expense can thus make a very creditable showing the following year at the Exposition to be held in your city. Up to this time no commissioners have been appointed to represent California at the Lewis and Clark Exposition, and hence it is presumptuous on my part to assume to enter into any details as to California's probable action in the premises. I can only assume from the act of the Legislature already referred to, and the general temper of our people, that when the time comes this state will make such a showing at Portland as will do itself credit, be a credit to your Exposition, and serve as a further demonstration of the very friendly and cordial feeling which does exist and should ever be maintained between neighbors.

J. A. FILCHER,
Commissioner to Louisiana Purchase Exposition.

San Francisco, Dec. 22.

adopted on the Pacific Coast to insure successful competition. A market must also be found for the waste, for at some factories the margin of profit is so small that it may all be said to be derived from the sale of the waste scraps of material.

A beginning has been made in Portland and the industry is already expanding in a small way. Rough, heavy goods are made in a factory where much of the work is done by hand, and where "all-round" men are employed; that is, men who can make more than one part of a shoe. This factory is doing so well that machinery is still to be installed to do all the work. Still there is lack of enough men in the labor market to supply each machine with a skilled operative. That means that the men will each go from one machine to another, that means slower work than if each worked at one machine exclusively. But the labor will be trained, the presence on the Coast of abundant leather of the best quality for all kinds of shoes is a strong point in favor of the planting of the industry in Oregon, and it is not unreasonable to predict that the generation now young will all be shod with Oregon shoes when it reaches manhood and womanhood.

TANNING OREGON HIDES.

Good Beginning Made and Tanneries Are Enlarging Capacity.

THE next great step to be taken in the development of the manufacture of animal products in Oregon is the extension of the tanning industry. There are three tanneries in Portland and one at Eugene, which had an aggregate product in 1903 of \$300,000, but almost all the beef hides from the state's packeries, as well as those in Idaho, Washington and British Columbia, are shipped to the tanneries in California. From sheepskins the wool is pulled and they are dried, at which stage they are known as slats. Of these between 300,000 and 400,000 are shipped to California and Eastern tanneries every year; the wool going to Boston. Large quantities of slats also go to China and Japan, where they are used to make fancy embossed leather. In this country they are made into fine leather for shoe tops and gloves. Hogskins are not made into leather anywhere except at one place in Texas, where a special process is used and the climate is peculiarly favorable.

"There is room for more," is the candid statement of those already in the tannery industry in Oregon. The tanneries use oak bark, which is shipped from the Ughah Mountains and Humboldt County, California, being brought around the coast on steamers to Portland and thence up the Willamette River on barges to the tanneries, which are at Fulton and Sellwood. One tannery at Eugene uses hemlock bark to make tannin, as the hemlock bark in Oregon is in that section is much better than of the lowlands along the Columbia and Willamette, which is poor in tannin. Nevertheless, the impending exhaustion of the Eastern supply of hemlock bark will bring that of the great hemlock forests of the Pacific Coast into the market and may, in a few years,

make Oregon the tanning country of the United States.

As regards the supply of bark, Oregon is on an equal terms with California, for Humboldt County is about equidistant from Portland and San Francisco, the only drawback being the wet climate in winter. This makes it necessary to artificially dry the hides after they come out of the tanning vats, while in California nature does this work. Nevertheless, Oregon tanners compete with California, Wisconsin and Massachusetts in the manufacture of harness leather, legging and calfskins. They supply all the local harness manufacturers and much of their product is shipped East by Portland dealers. The leather of the Pacific Coast is found to wear better in harness than that of the Eastern States and therefore has the preference in Western factories as well as in many of those in the East. The only limit to the consumption of Oregon leather on the Coast is the small supply, which is not nearly equal to the capacity of the harness factories. The latter take all they can get, for they are gradually living down the delusion that the farther away a thing is made the better it is.

The next step in the development of the industry in Oregon is the enlarged production of sole leather. At present the bulk of that consumed in the state comes from California, though Oregon can make as good a quality. One local tannery is already devoted to making chrome leather for boots and shoes and another will go into this branch of the business this year. They can then use the hides from the local packing-houses, which are spoiled for harness leather by being branded, but can well be used for sole leather. Then, too, the tanning of sheepskins can be taken up, that being a separate process which will require more room. The tanners already established have no fear of losing any of their trade by the opening of new tanneries, for it is not a question of competition but of supplying the market. The Northwest is developing so fast that the market is expanding faster than its industries grow to supply it.

MAKERS OF FURNITURE.

They Will Increase Output Rapidly and Have Unlimited Market.

FURNITURE made in Oregon of Oregon wood will before many years be found in most of the homes of Oregon and adjoining states. What progress has been made in this direction is evident from the fact that the value of the product increased from \$27,633 in 1900, to about \$1,000,000 in 1903. There are three factories, all in Portland, which manufacture what are called case goods, that is, such articles as sideboards, desks, bureaus; two in Portland which make upholstered goods; two, also in Portland, which make woven wire spring mattresses; one in Portland which makes kitchen furniture; one each in Portland and Albany which make chairs; one at Eugene which makes all kinds of furniture, and one at Corvallis which makes organs and builds carriages. The chair

factory in Portland, although only established about a year ago, has already found it necessary to move into a larger building erected expressly for it, and one of the companies manufacturing case goods has doubled its capital stock for the purpose of enlarging its present factory and adding an upholstery plant. The stockholders of the latter company are also organizing a separate company with \$50,000 capital for the manufacture of chairs.

It will be seen from the above that the state already makes almost every kind of furniture. These include woven wire beds of all but the highest grade; in the line of upholstered woods, cheap and medium grades of couches and parlor suits, but no finer leather couches or better grades of parlor furniture and no easy chairs; mattresses of all kinds; a small line of cheap chairs, but nothing in the medium and better grades; in the way of bedroom furniture a good line of cheap and medium line of case goods made in ash, maple and oak; and a large general line of kitchen furniture. There is one firm at Grant's Pass which makes fine needle fibre, of which it makes mattresses and pillows, utilizing all the by-products extracted from the needles in the process of manufacture.

Have the Field and Material.

While the industry is thus well established, there is unlimited room for expansion. The state has a wide field, all to itself practically, in the whole country west of the Rocky Mountains and in Alaska, in all of which it has the advantage over the East in respect to freight rates. The present factories sell their goods all through this territory, as far south as Santa Cruz and as far east as Salt Lake, and only lack of capacity prevents them from supplying Montana. Some shipments have gone as far east as Colorado. Portland has the supply of maple, ash and oak lumber within a radius of 150 miles, while Grand Rapids, the great furniture center of the East, has to bring its material from Ohio and as far south as Georgia, an average haul of probably 1000 miles.

The furniture industry naturally lends itself to specialization of the various lines, and must expand along that line, in order to become one of the staple industries of the Coast. There should be factories added to others, of which there are about 200 carloads a year are shipped in from the East, although about half of them could be made in Oregon. There is room for five or six factories as large as the two now in the state, employing 300 or 400 men. Other articles which could be made are roll-top desks and office furniture of medium grade, library cases, combination bookcases, china cabinets, all of which are shipped in under a very high freight rate; library, center and extension tables, which are shipped from the East in hundreds of carloads, and which would furnish trade for a special factory; funeral caskets, the Pacific Coast business in which is now monopolized by one man, who has factories in Portland, San Francisco and Tacoma; upholstered goods, the finer grades of which are made on frames shipped from the East. An iron bed factory could do a thriving trade, for the beds are simple castings, and all that would be needed in addition to an ordinary foundry are burnishers for the brass work and other light machines. While there is not much demand for ice-chests and refrigerators west of the Cascades, there is plenty of room for their sale in Eastern Oregon, Eastern Washington and Idaho. Oregon produces all the wood needed for their manufacture, and the stave and charcoal lines could be shipped to Portland as well as to any other manufacturing center.

Oregon and Foreign Wood.

The material exists in this state in abundance and variety. There are fir and spruce for kitchen furniture, and maple, ash and oak for other kinds. The good old myrtle trees of Coos County are being grubbed up and cut into veneer, which is used on the better grades, for which it is well adapted. Oregon is well located for the importation of mahogany and other hardwoods from Central and South America and Australia. Whenever the Government adopts laws by which American lumbermen can operate in the forests of the Philippines, the boundless supply of hardwood which those islands can produce should come to Portland to be manufactured into the finest grades of furniture. The scarcity of cargo coming across the Pacific to the United States would make lumber welcome to the shipowners, for it would make good ballast, and would pay fair freight on the bargain. The quality of Philippine mahogany has already been tested, for several residents of Portland have chairs made of that wood, and they will compare with any ever seen. The great handicap to which furniture manufacturers in Oregon have subjected themselves is the production of cheap grades all of one kind, in which there is the keenest competition from the East. Instead of building up a reputation for a better class of product and for varieties peculiarly their own, they have realized this during the last two years, and are making better goods in more variety, and the wisdom of the change is shown by the fact, as one manufacturer expressed it, that there is no limit to the market. Oak desks have been of such high quality that when an Eastern salesman was shown one of them side by side with an Eastern desk, he picked out the Portland desk as having been made in the East. Yet when Portland merchants have had orders for large numbers of desks to be shipped to Siberia, they have had to buy them in the East.

There is a foreign market awaiting a well-developed furniture industry. Hawaii and the Philippines are open already, and, as the American colony in

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these islands grows, the market will grow.

The difference in wages between Grand Rapids and Portland furniture makers is but slight and is more than offset by the difference in freight rates. Thus the Pacific Coast has its field practically to itself and can proceed to occupy it without fear of competition. The extension of the industry will bring an abundant supply of skilled labor of every kind. Oregon brains can direct it as well as those of Michigan, and ample capital will do the rest.

IRON AND BRASS WORK.

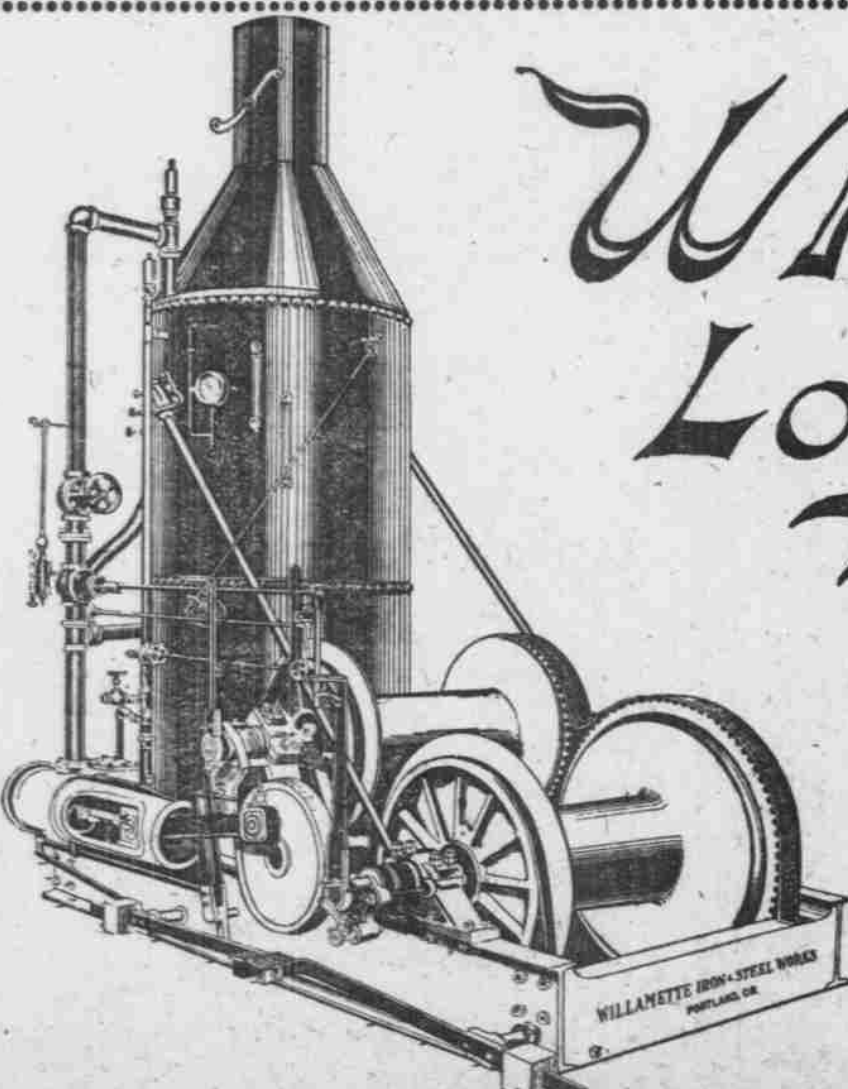
Oregon Foundry and Machine Men Make Great Progress.

IRON and brass work of almost all kinds particularly in the shape of machinery, has become one of the staple products of the Pacific Coast in general and of Oregon in particular. How the industry has thrived in Oregon is shown by the fact that the production of foundry work and

machinery increased from \$15,925 in 1900, according to the Government census, to \$1,700,000, according to the annual report of the Manufacturers' Association of Portland, and that of brass work from \$27,633 in 1900 to \$17,000 in 1903. There have been added in 1903 in Portland alone two iron foundries, three brass foundries and one steel casting plant.

The iron manufacturers have been kept busy all through the year. There has been a brisk demand for logging and sawmill machinery, a great many small mills having been started throughout the Coast region. Substantial additions have also been made to the steamboat equipment by the establishment of a number of extensive enterprises in the way of coasting steamers and tugboat lines. The construction of the dry dock and dredges by the Port of Portland Commission has caused a number of contracts to be placed with the local machine shops. While there has been plenty of work for all, the entrance into the field of a number of small engineering concerns has made competition close and resulted in the more general division of the work. The isolation of the Pacific Coast by the great distances from the iron man-

ufacturing centers of the East and the facility with which material can be imported in consequence of the direct commercial intercourse with Europe has stimulated the development of the industry in this section and is fast tending to make it independent of the East in all stages of the manufacture except the smelting of raw iron. Pig iron can be imported from England, Scotland and Belgium at low freight rates as ballast in the ships which come here to take wheat back to Liverpool. Much pig iron is also brought from Alabama, the difference in freight rates by rail between the raw and finished product giving the Coast a decided advantage. Thus the rate on Alabama pig is \$9 a ton, while that on stove castings from St. Louis is \$20 to \$25 a ton. Coke is brought also across the ocean, the difference in cost of that made in Washington and British Columbia not being enough to compensate for its inferior quality. The Oregon foundrymen have been placing themselves in a position to take the full benefit of their advantage by adding extensively to their equipment and thus bringing themselves much nearer to the standard of Eastern shops. This has enabled them to compete



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