

OREGON INDUSTRIES.
WHEAT. FLOUR.
LUMBER. TIMBER.
MANUFACTURING.
WATER POWER.
DAIRYING.
FISHING. LIVESTOCK.
MINING. COAL.



"300,000. PORTLAND. 1910."

OREGON INDUSTRIES.
WOOL. SHIPPING.
MACHINERY.
AGRICULTURE.
HORTICULTURE.
TRANSPORTATION.
PAPER MAKING.
WOOD PULP.

FOR BUILDING

Nature Has Lavishly Supplied Oregon With All Kinds of Materials for the Construction of the Largest Buildings—Building Stone, Cement Factories and Iron Works.

- Oregon Building Materials.
- Millions of cubic yards of building stone quarried in Oregon.
- Ingredients for cement and sites for mills, all in Oregon.
- Big, growing iron and steel works now running in Oregon.
- Brickyards whose product is going all over the west, in Oregon.
- Cement block plants opening and several operating, in Oregon.
- Market for cement, shown by value of cement imported from Europe in one year, \$659,090.

the decorative brick and finishing tiles made in Oregon; and the elevators, the sheet metal work, the plumbing and the fixtures will bear the Oregon stamp. Inside the offices the desks, the counters and the chairs as well as the vaults and safes will have been manufactured in the Beaver state.

What the Empty Ships Will Do.
Cement and its allied industries are, so far as this portion of the Pacific coast is concerned, affected by an outside circumstance. This fact alone has kept back the development of the cement industry here a score of years, although today concrete is being used in a hundred different ways, and seems susceptible of being more generally employed than any other building material. This outside circumstance is the fact that Oregon farms are forever pouring wheat into the yawning granaries of the old world, and that foreign ships bring to this coast at almost ballast freight rates scores of cargoes of cement every year. With the German, English and French cement constantly at hand and at a comparatively low cost, it is no wonder that capital has not until recently interested itself in the development of the cement making industry on the Pacific coast.

IN THE HILLS and the valleys of the great Oregon country Nature has planted the materials for the construction of its buildings. That the development of the iron working industry, the manufacture of cement, and the quarrying of stone is not advanced farther is due to the fact that the same generous Nature placed on the surface of the ground the means for the quicker development of another industry. Man has simply utilized that which first came to his hand.

The lumber industry is now approaching its height. The era of the development of those industries whose bases are found beneath the surface of the earth is just opening.

In the Oregon country there is plenty of good building stone and yet but a fraction has ever been quarried. The ingredients of cement are at hand, yet its manufacture is still only planned.

The day is not far distant when a large office building can be constructed in Portland in this manner: the foundation will have been manufactured in Oregon; the iron from which the steel frames have been formed will have been mined in Oregon hills; the frame work itself will have come from an Oregon foundry;

who, comes from the east with a full acquaintance with the cements of half a dozen states finds brands bearing new names and with which he is an entire stranger. Portland contractors in this respect are much nearer the mills of Belgium and Germany than is the cement man in New York, despite the fact that the cement in question has traveled an additional 8000 miles or so. The Kansas cement and others manufactured in the middle west and east are largely barred from this market on account of the rates by rail across the continent being higher than around South America by water.

Many Quarries Yet Unopened.
Lumber has from the very first been the natural building material in Oregon, and the quarrying of stone, though it began in pioneer days, has been hampered in its development by the lower cost and constant presence for immediate use of sawed timbers.

The largest producing quarry in the state at present is situated at Oakland, Douglas county. This stone competes with that brought in from neighboring states. That other quarries can boast of a product of a thoroughly marketable grade is shown by the appearance of the postoffice at Salem, the stone for which came from a quarry still farther south in Oregon.

Along the banks of both the upper and the lower Columbia have been found valuable deposits of sandstone and other types of rock. A quarry at St. Helens, on the lower river, supplies the greater part of the demand for stone blocks for paving purposes. It has been declared by experienced stone men who have studied the formation at other points along the river that equally good stone exists in quantities not to be measured. The mountains have not yet revealed one tenth of their secrets.

While Tenino, Wash., is outside the state it is still within the boundaries of the old "Oregon country," and here a large quarry is turning out a grade of stone which compares very favorably with building stone obtained anywhere. The east side high school is an example of the product of this quarry.

The manufacture of brick was a recognized industry at the time of Pharaoh's reign, and the making of brick began in Oregon many years ago. But the Egyptians, wise though they were in the construction of pyramids, knew not how to mix clay as do some of the brickmakers of Oregon. Overshadowed by the lumber industry, brick manufacture did not reach a high stage of development until a comparatively few years ago.

Now, however, there are such manufacturing plants in the state as that at Newberg, whose product is sent out into a wide market. Another plant at Vancouver has been helping to supply local demand for many years.

As lumber increases in cost, so does the brick industry develop, and the fact remains that but a fraction of the clay to be found in Oregon have been sufficiently experimented upon. All over the state there are brick yards which keep up with the demand upon their capacity, a demand that is growing monthly, and is accentuated more and more as the people of the state begin to realize that made-in-Oregon brick is as good as that made anywhere.

Ironworks That Are Growing.
Oregon and especially Portland is becoming a large customer of the Pittsburg steel mills, for steel is in constant demand. While the larger pieces are shipped complete from the Pennsylvania mills in most cases, the iron and steel works of the state are calling more and more for the crude material which is being worked up here into building framework, parts for bridges and the multitude of other uses ingenious man has found for steel. Every year a larger proportion of things of iron, large and small, are made in Portland. Boilers and hydraulic rams, for instance, which are made in Portland have found favor elsewhere and are enjoying a ready sale. Plates for steamers' hulls may be included in the list.

When once the basic material is on the ground, this classification, including iron, steel and cement, there are plenty of shops to fashion such things as heating apparatus, sheet metal cornices, brass work, blow pipes, etc. Furthermore, there are shops in the state doing work of the kind seldom found outside the centers of the world's manufacturing. For example, a few weeks ago the first surveyor's transit ever made west of the Mississippi river was completed by a Portland instrument maker.

In such lines of work as the manufacture of furnaces and sheet metal devices Portland artisans have established a reputation. Closely associated with the making of a building also is the manufacture of awnings, now deemed so necessary a part of a building's equipment. Portland's list of awning manufacturers is especially strong.

The making of concrete blocks is a new industry, but as the constant importation of foreign cement makes the cost fairly staple here, already several companies have been formed

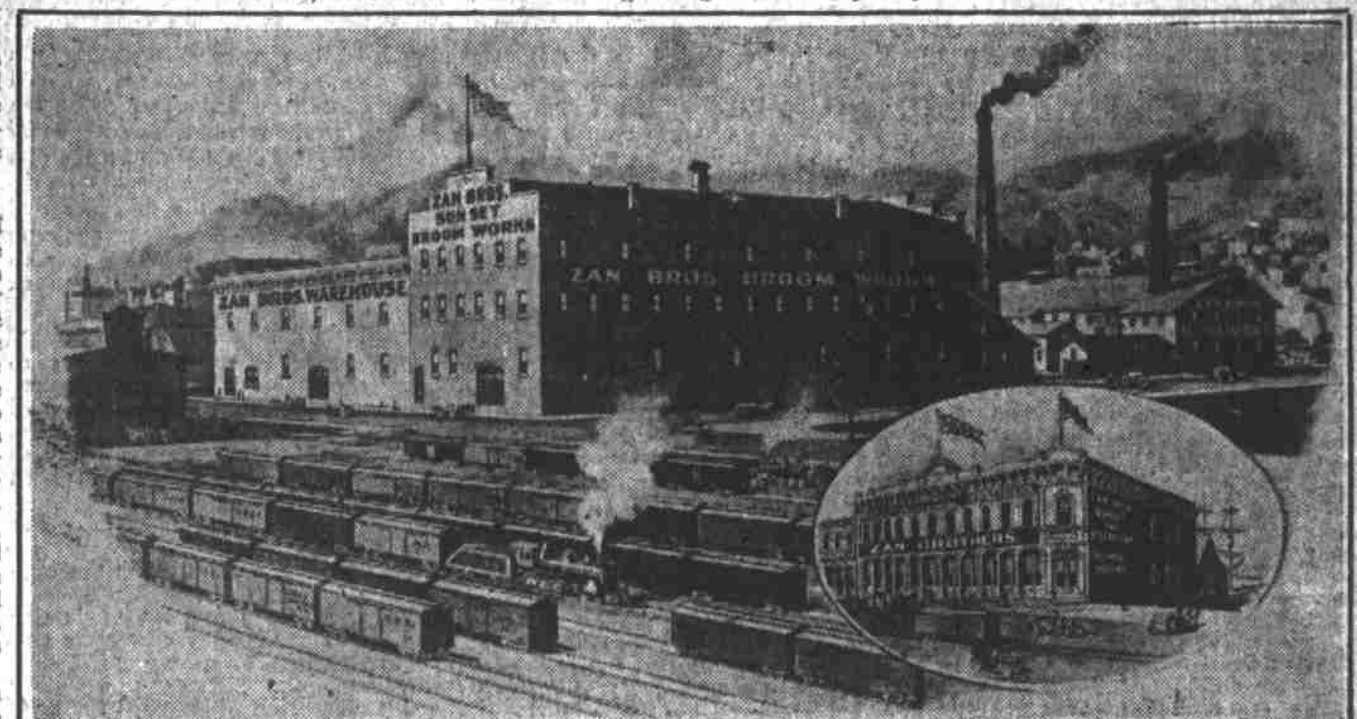
and plants established for fashioning cement into building blocks both plain and ornamental. The completion of a number of cement block buildings, more residences for the most part, has called attention to the part these blocks are to play in the invasion of cement more strongly than ever into the building material market, while the erection of great office buildings of concrete reinforced with steel rods

is becoming a familiar sight about Portland.

In Portland alone there are 53 cement contractors. To present a few more figures, there are 24 men or firms engaged in selling building material and 334 carpenter contractors. Brickmakers to the number of 24 go far toward supplying the city brick trade.

Portland is growing almost daily as

a distributing point. Eastern manufacturers are learning that a live representative in Portland can keep in touch with a large trade and do a profitable business. This will be noticed especially in scanning the advertisements in machinery and general trade publications which have a national circulation. "Pacific coast branch, Portland, Or.," is a familiar phrase.



ZAN BROS.

MANUFACTURERS OF

BROOMS AND MATCHES

AND JOBBERS OF

Wooden and Willow Ware, Washing Machines, Paper and Twines

GROCERS' SUNDRIES

OPERATING LARGEST BROOM PLANT ON THE COAST

50 and 52 Front Street, Factory 12th and Lovejoy Sts.

HARRIS ICE MACHINE WORKS

It is fitting that a city of roses, like that of Portland, which enjoys such beautiful, mild weather throughout the year, and which scarcely ever experiences frost, should have the only exclusive ice machine works in the Pacific northwest. What nature does not supply through the agency of J. Frost is made not only possible, but very easy, through the Harris Ice Machine Works. And as aqua pura is an essential ingredient in the making of ice, it is a peculiar coincidence that this ice machine plant is situated on Water street.

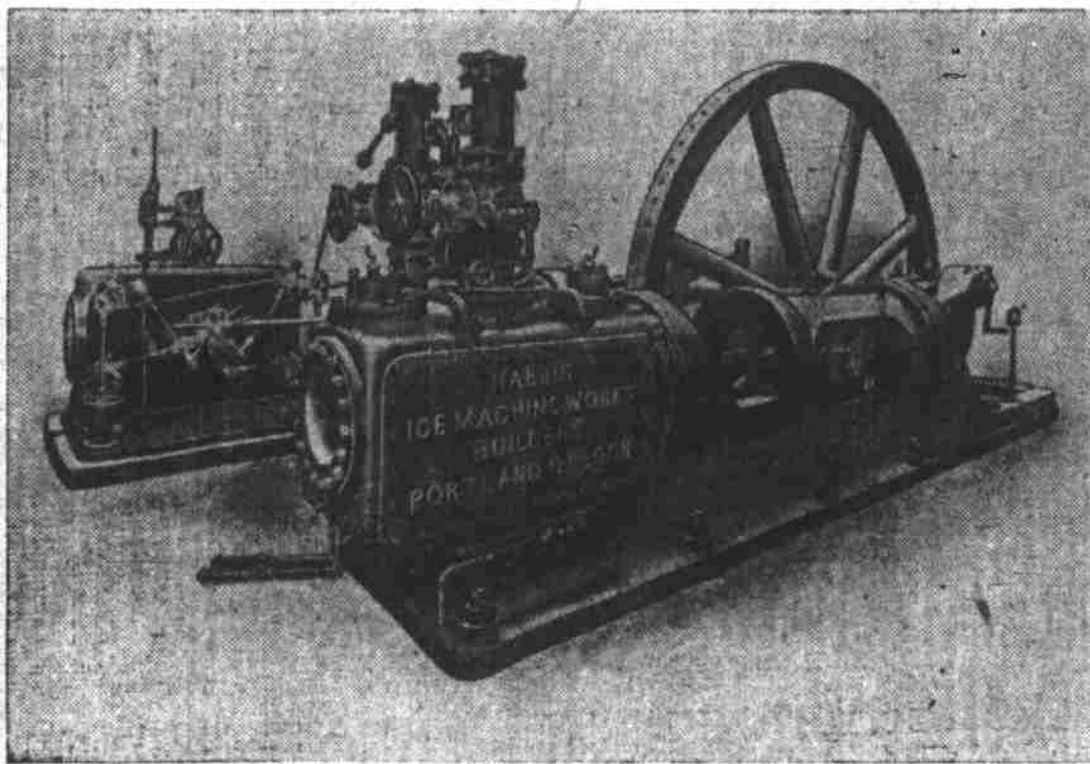
The importance of such an industry as this is appreciated most by those who would have to depend on the big eastern plants to furnish these ice machines if they didn't have such a factory on the coast.

This firm is well able to compete with the eastern ice machine works successfully, and is better able to meet with the requirements of western people.

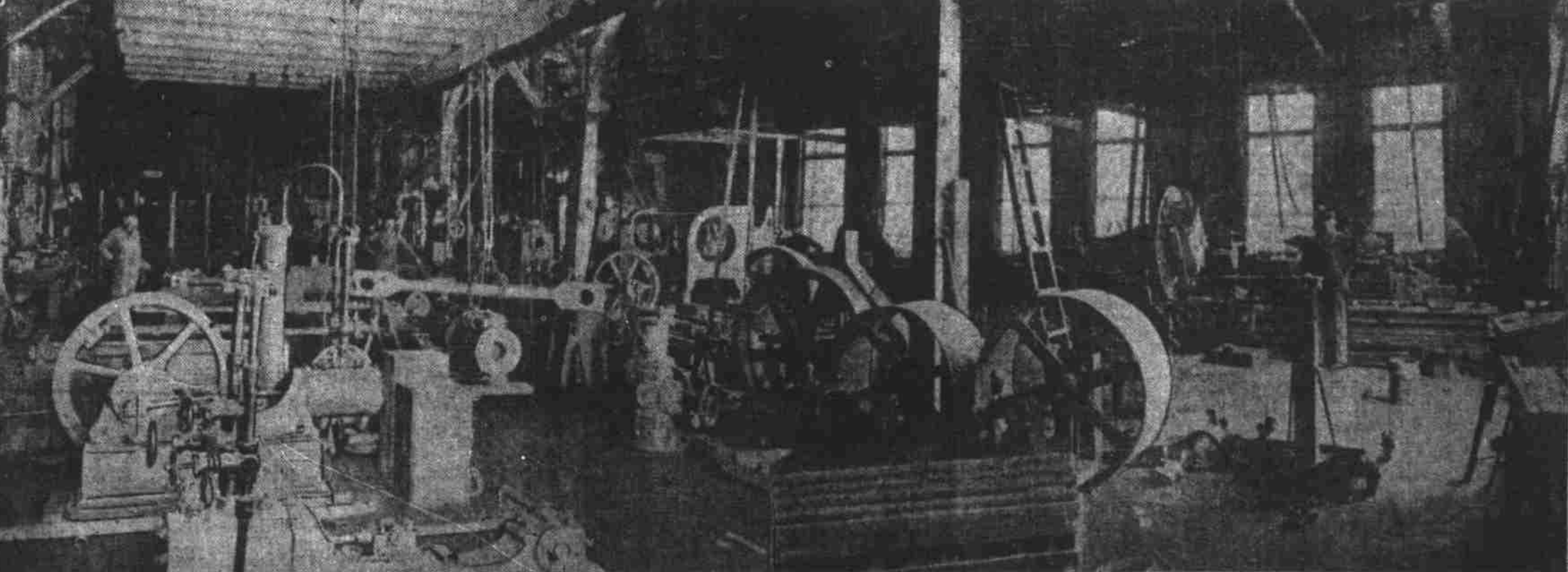
H. E. Harris, the founder of this great plant, has seen it grow and expand from a very unpretentious shop to the extensive works it is today. He saw the possibilities in the Oregon field and had great faith in Portland and was confident that he could command enough business to support a modern ice machine factory. All that was necessary was to furnish machines as good as could be secured in the east, and at a little cost. That his hopes are already realized is evident from the large patronage he is securing. The Harris Ice Machine Works is equipping cold-storage and freezing plants all



HOME OF THE HARRIS ICE MACHINE WORKS



125-TON HARRIS ICE MACHINE



GENERAL VIEW OF THE MACHINE SHOP, SHOWING ICE MACHINES IN COURSE OF CONSTRUCTION

over the Pacific slope. Such an institution is a decided advantage, as it saves much time in the delivery of the machines. It generally takes at least a month for freight to reach the coast from the east, and a month means much to a manufacturing establishment. Not only this, but in case there is anything missing, or in case of repairs, it means a great loss of valuable time and possibly thousands of dollars' worth of business.

Four years ago a two-story building was erected on a quarter block on East Water street. This was thought large enough to take care of the business for many years, but last year it was found necessary to enlarge the building, and now it is almost imperative to enlarge again. The company may have to secure more ground and erect additional buildings to enable it to cope with the anticipated increase of business which will come with the general expansion of the whole Pacific coast.

The fish industry is a very important one on the coast, and the construction of modern ice machines to meet the demand for the extensive fisheries has been solved by Mr. Harris, who has made a study of the ice machine business. The fact that the majority of the freezing plants on the coast are supplied by the Harris Ice Machine Works is pretty positive proof of the superiority of the Harris ice machines. The interior view of the factory shows the castings of the big 125-ton ice machine recently built for the Crystal Ice Company of Portland. The plant and offices of the Harris Ice Machine Works are at 124 East Water street.