Farm Machinery Popular



## Plant of Oregon Capital's Largest Industry Has an Annual Payroll of \$660,000 and Employs 800 Workers Regularly

THE Salem paper mill has a payroll of \$600,000 a year." It pays

for faw materials about a million and a half dollars, about Salem paper mill; turning into three-quarters of this is for wood. Its annual sales are above the finest papers wood from the \$3,000,000 a year. As high as 600 cars a month containing raw forest tree or log or cord. naterials are received. It employs about 400 people. With the wood supply and in other ways it is directly responsible for the em- the process. The bark removed ployment of about 400 more. It uses 8000 gallons of water a minute, by a machine known as a barker. or 11,520,000 each 24 hours, and has a filtering capacity of 16,000,. It is then reduced to chips. 000 gallons a day. It runs the full 24 hours of every day in the year, excepting on the "curth of July, Christmas, labor day, Sundays top of the digester, and, when it is filled, sulphurous acid is run and the repair forces are more than busy on those days. in, a cover clamped on, and the

It has 498 electric motors, from ome horse up to 350. The total connected load is over 10,000 horse power. The lighting load is over 85 kilowatts. The steady load is over 4500 kilowatts an our, running to over 5000. Six electricians are required to keep the electric equipment in steady operation. The increase in numper of motors in the past year has een 18.

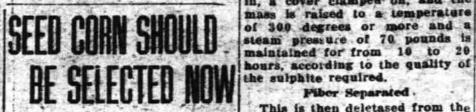
## Increasing Output

In the past four months, th output of the Salem paper milt as been increased from about 170,000 pounds a day to about 00,000 -pounds.

A new digester was added to the pulp plant, and the capacity of that part of the plant is naw high enough to- make 220,000 rest of the plant, and that figure will be reached, with better ar. The average corn grewer canrangements all though and greatr, efficiency, which will soon be attained. The whole force is to get a large supply of ears that rolls in taken to the dryers working to that end, as the pres- are ripe. Later on these ears may ent objective. This will mean be gone over a little more carefulmore raw materials, increased dily and the inferior ones discarded. fect and indirect payrolls, etc. The next step will be more new the right ears just before frost. machinery: A new paper making he will not be developing a variemachine to take the place of one ty that is best adapted for his of the old ones is on the tapis particular conditions. In addition now, for installation before long. to selecting ears that are ripe as This all means greater benefits shown by the dry condition of the the general business and husks, careful growers select ears

rowth of Salem. This mill, the property of the Oregon Pulp and Paper company, furnishes Salem with its largest payrolls for any one concern.

This mill has been in operation eight years. The first car of paper for the market was shipped rinted from paper made at this gers which provide for free cir



Proper selection of seed just be- tion of the sulphurous acid on the

experimental station. Many grow-ers have been selecting seed each year and have built up good va-

only from stalks that are stand-

ing upright. Down stalks in many

ter and Dr. M. C. Findley.

mill, J. D. Kaster. Superintendent

of the sulphite mill, E. B. Wood. Superintendent of the finishing

in the soil is wrong. The seers,

fore the first severe frost will wood separates the fiber, takes The pulp plant of the mill re-guires over 6000 cords of wood Oregou's corn trop, says E. N. cellulose is then bleached and Bressman, associate agronomat of then conveyed to the "beaters," the Oregon Agricultural college machines which refine it until it is in a fit state to go to the paper machine. This machine takes the stock in

risties of corn adapted to Oregon a liquid state and it flows onto an conditions. In variety trials at endless wire mesh cloth to which the Grogon station, the seclimated a shake is imparted so that the varicules grown here for several stock is eventually distributed , ears have outyielded any that across the face of the wire and have been introduced. This is at the same time a large part of high enough tas make 220,000 particularly true when yields are the water drops through the wire pounds of paper a day. So is the figured on a food value basis. and is goten rid of.

The sheet is transferred from not afford a large amount of time the wire to the feits and is carselecting his seed corn, and he ried between the rolls of metal of need not. The important thing is hard rubber and from these press

of Day at Big Plant

**Operated Here** 

Miracles are being performed

every hour of every day at the big

There is no end of interest in

The chips are dropped in at the

maintained for from 10 to 20

hours, according to the quality of

Fiber Separated

digester under pressure. The ac-

This is then deletased from the

the sulphite required.

These dryers are large hollow iron cylinders around which the paper travels in contact with the but if the grower does not select face of the dryers.

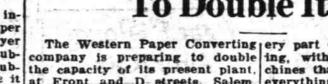
Steam is admitted to the interior of the dryers and the paper comes out at the end of the dryer run thoroughly dry and is subjected to a calandering and is subjected to a calendaring to give it a firm texture and finish.

**Farm Notes** 

**Two Big Machines** 

cases are, diseased, and some of codn diseases may be avoided by machines that make a 126 inch not selecting from them. roll, one 117 inches, and one 100 As important as selecting the inces.

corn in the field is the storing of There are 23 beaters holding it the same day it is picked. All 1000 pounds each, and equipped from the plant October 1, 1920. husks are removed so that the with 75 to 100 Lorse power mo-On that date The Statesman was sorn can dry thoroughtly on han- tors.



The plans call for a building the size of the present one, 100 by

in use.

within the next six months.

of Local Industry in Factory Itself The sulphite plant of the Salem paper mill is a factory by itself. There are many such plants in the country that make only the

sulphite.

The commencement is with the log or with cord wood. This is split and chipped up by machine ry. Then the chips go inta th digestors. There are now five of them. The product is called a "cook." First after cooking, the stock is washer, to remove the lignin and foreign mater. Pulp wood contains from 40 to 60 per cent of cellulose, the rest of its chemical properties being princgally lignin, which is waste in the making of sulphite papers. After washing, the cellulose is screened. to remove the uncoked portions

QUE PLAN

Interesting By-Product phase

Goes to B'eacher Then it is bleached. The Salem mill has one of the most modern systems of bleaching. It is called, a high density bleaching plant. It is simple to those who understand if, but intricate to those who do not.! From the bleaching plant, the cellulose goes to the beaters, part of it handled on wet ma-chines to make into lap for storing, the balance pumped direct

The real progress in fact findto the beaters: When the stock goes into the paper making machines, it is over ing in the field of use of electrici ty on the farm that has been made in the last four years forms the 9 per cent water. In fact, it is central feature of the Oregon Ag-

99 and sen tentha watre-all ricultural college experiment station exhibit at the state fair this cent. year. A quiet but steady campaign

Much Water Used of fact-finding for future use has Hence the immense amount of been carried on by the Oregon water used as explained elsecommittee on the relation of elecwhere. tricity to agriculture in co-opera

Formerly, most of the wwod tion with the experiment statn. used by the Salem paper mill was Another indication of the prowhite fir. Now about 65 per cent of it is hemlock, with less than 35 gress Oregon has made in this per cent of white fir, and a little new field is the fact that George W. Kable, project director in this spruce. work since its inception, has just

The managers of the Oregon been appointed national rural Pulp and Paper company are conelectric project director in charge stantly on the alert for new things of operations in Maryland near in the industry. They themselves Washington, D. C. originate some new things. They

Mr. Kable has been succeeded know how to put the pitch woods by F. E. Price, a graduate of the to profitable use in the making of Oregon Agricultural college, who paper, and have done it. This is has for several years been extenreserved, however, for the future impressions in eight hours, size scarcity of the other pulp woods sion specialist in soils and agrietc., etc. They are experimenting

in other lines. They are willing Mr. Kable in the meantime and er-Dispatch. will be able to continue it much Only about 100 years ago there as it has been developed thus far. With the extension

## MANY PAPER MILLS

We will have many paper mills and converting plants in Salem. This city will be a paper mill center. Why? Because we have the available raw materials and the power; water power. The fact that we have made a good start, and that we have a paper making cult here, will help.

We have a great supply of the Cascade forest re-serves, with a down grade; also that of the Coast Range, all the way to the California line—and all the privately owned supplies of the valleys between the summits of the two ranges.

And both the supply and the demand will be per-manent. The world will always need paper, and paper is made largely from cellulose, and cellulose is found in every vegetable growth that has fiber and will stand up, from the forest giant to the garden weed. As the scientists find new ways of making paper, our people will be ready for them. Our paper cult extends to ownership in the Salem plants and those at St. Helens, Vancouver, Olympia and Newberg.

Oregon and Washington are the only states where such new projects can be considered in numbers and looking to permanency, because we have the inexhaustible raw supplies and water powers.

And we will have still water in the Willamette and connections by water borne craft to all the world ports. There are six or more kinds of paper now. There will be more kinds, and the Salem district has available or can produce the raw materials for all of them.



state fair exhibit an automatic switchboard device shows at a glance the cost in cents per hour of operating various electrical driven machines. Application of electricity to positry raising has advanced far, and feed grinding.

Care should be exercised when feeding velvet beans to cattle or hogs for the first time. This southern crop is very high in digestible protein; and until the stock becomes accustomed to the beans they should be kept in the field for only a short period each day.

In fall sowing of alfalfa, farmers should remember that fields not already inoculated with the appropriate bacteria must be supplied either by use of pure cultures or by scattering over the land soll from a field known to be well inoculated. To transfer such soil, scrape away the top crust and take the soil for inoculation from the next five or six inches where nodules on the plant roots have been growing. From 200 to 500 pounds of soil to the acre should

be used.

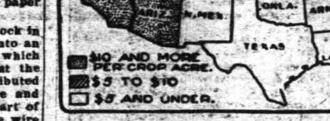
Two-dollar bills are not popular, asserts a writer, but you just cultural engineering. He has been give anybody the choice between in close contact with the work of a two and a one .- Norfolk Ledg-

	172.		
	John .		
T	C	c .	

**OIL-O-MATIC** 

X

W.



HII

s are increasing their investment per crop ac form machinery. Relative investment by regions is shown in the water but three-tenths of one per map. The "windrower" (inset), used to facilitate harvest of small grains, is a new addition to equipment. The "combine" (above) picks up and threshes the grain after it has dried in the windrows.

REGIONAL INVESTMENT IN FARM MACHINERY

The Western Paper Converting ery part of the work is interest company is preparing to double ing, with the operation of mathe capacity of its present plant, chines that seem to do about everything but think. Grows and Grows

A new Kidder three color ad-There are two paper making 240 feet, to be constructed imme- justable rotary press was installdiately west of the guarters now ed last year. It is the very latest

ning of work on the new building 36 by 48 inches. There is also a new very latest

The necessity for this has come type ruling machine, that rules to "try anything onces." about through the constant expen- both sides of the paper both ways. n of the business of the con- Many thousands of the school chil-

**Converting Company Plans To Double Its Capacity** 

The details call for the begin-

trial run of wood pulp secured from a mill using ground pulp. News print is made from ground wood pulp. The sulphite process is used exclusively by the Salem mill.

No single day has passed in all easily be made at home from dithe eight years without some improvement or plan for improveexperiment station at Corvallis, ment.

The company supplying Salem The company supplying Salem with water pumps into the city mains an average of about 4.000,-000 gallons a day. The maximum for July and August days, was this year 6,500,000 gallons. Note n the above that the Salem paper mill uses on the average about three times as much water as all Salem besides.

The Oregon Pulp and Paper The paper mill takes about a company is largely under local hird of the "peak load" of ele - management. Its oficers are: tricity used in Salem. But it goes F. W. Leadbetter, president 24 hours a day, and it therefore Dr. B. L. Steeves, vice president; ases nearly as much electrical A. S. Fleming, secretary-treasurer. power as all the rest of the city Directors, including these four combined; because the general officers, E. Barnes, W. E. Keyes, load is light at meal hours, late at night, and ot other times. George Putnam, Ambrose Cromin George Putnam, Ambrose Cronin, ganization. Wm. S. Walton, Pittock Leadbet-



O. P. Wagner. The audition contest for Salem ad vicinity, in connection with paper mill, P. J. Lamoreau: Office ply is more than offset by a defi-ne nation-wide Atwater-Kent manager, K. W. Heinlein; sales nite shortage in rye, which is an nation-wide Atwater-Kent competition, will be held next Sat. urday, October 6, it is announced by Mrs. Walter Denton, local chairman. Entries have closed with 13 young men and women preparing to compete for the onor of representing Salem at seth and Iraac Vincent. the state contest.

A large number of people in and about Salem own stock in the Ore-On account of the widespread nterest in this event, and the limted seating capacity of the YMCA gon Pulp and Paper company, both be a lighter volume of foreign obby where it will be held, it has been decided that admission will be by card only, and the invitathe preferred. tions are in the hands of the most seeds rot within a few years young folk who have entered.

Stork Pays Call

ing it may be had free.



DID YOU KNOW That the Salem paper mill, which was already one of the most up to date paper mills in the world, has been largely rebuilt during the past two years, with the process still going on; that it has been a highly successful institution from the start; that it has added greatly to the industrial activity and prosperity of Salem and the Salem district. that it has grouped and the and the Salem district; that it has grown constantly both in capacity and value of output; that it will con-

culation of air. The ordinary bin- seven cutters, five trimmers and cern, which has been going on dren growers are using, is satisfactory, four rewinders. There are three ever since the opening day. This this paper in penmanship exercises pulp paper, ground pulp paper. A wire hanger made from electric- super calendar stacks for finish-welded hog-tight fencing is the ing glassines, and one book stack the sales have trebled over the the trade in large quantities. One first year. Oregon experiment station. This paper.

At this time last year, 60 people All the paper mill buildings are rections obtainable free from the well constructed; modern, hand- force of 100, and every square some and large with about 300 foot of available space is occufeet frontage on South Commer- pied by the machinery and equipcial street, corner of Trade, and ment and the workers. There extending back, over 1000 feet, must be more room provided for to the Willamette river: some of expansion, and more machinery,

hem being four stories high and and a larger force, for the growth is constant and promises to conover, and the towers running up o 100 feet high. tinue indefinitely. The plant is

operated day and night. **Expensive Lines** 

. This is the only plant west he Mississippi making benbon. bakery and all kinds of crimp cups. During the past year an-When Secretary Jardine( in a

statement at Chicago, told Ameri- other exclusive line has been takcan farmers to hold their wheat en on, in the making of foil wrapfor better prices, he expressed the pers-for ice cream and candy, and deliberate view of the department another, in cellophane containers. a transparent paper made only by pansion that will eventually take of the lignin than other processes, of agriculture as a scientific orthe Dupont people; a patented place. manufacture something after arti-

He has assurance from his staff ficial silk. Glassine bags are of economists that the wheat marturned out in various styles. Food Superintendent of the paper, ket is going to strengthen. wrappers of all kinds are made. Adding machine and cash register In visualizing wheat prices for

rolls are turned out in great quanthe United States, it has been extities. plained, it is necessary to take. into account both the domestic and world supply. This year the

General superintendent of the very small increase in world sup-Ders manager, A. B. Galloway; head of important food grain in Europe.

of the art department. That end of the plant, in which the photo county clerks. engraving is also done, is a most interesting place, and in fact evmaker; Mrs. Ipha Knor, Miss N. F. Southerland and Mrs. Bessie Zobel. Wood department, G. Hall-chasing power, which implies in-

creased consumption of wheat. Newer Members Thus, with Europeans using Of Chamber to more of their own grain, there will the common or criginal stock and stocks in competition with domes Be Made Known weather of Portland, who seeks tic wheat in American markets. Too, there will be a better outlet

Introduction of the new mem congregational district as the bers who have been signed up pendent candidate. There also is pending in the The general supposition that abroad for American wheat. In that light the fact that the since the opening of the present when plowed under, will not per-ish during the period of any nor-mal crop rotation. Of 107 species

At Fair Grounds of seds baried in pots of soil at to observers of the situation. The old members who signed them various plowing depths. 69 species to observers of the situation. The stork paid a visit to the grew after being buried for 10 Another factor which experts up will be the introducers. The consider, in anticipating better new members will be guests at prices, is the fact that a very large this luncheon.

In Salem Expect

Both in this country and in Europe. educational campaigns are under way to stimulate con-**To Leave Places** sumer demand for wheat. There

Organists employed in local is ever a natural expansion in the amount of wheat consumed, due to increased population. In the United States it is estimated at

to increased population. In the inconnection with a walkout of in connection with a walkout of local stage hands more than 10 days ago. It was said that the or-ganists are not in favor of the strike, but are forced to leave their iobs because of agreements their jebs because of agreements with two international union orit could a month or more ago Wheat on the farm already is in

were employed. There is now a car loads of this paper in a single order.

Room For Vast Growth The president of the Western aper Converting company is C. F. Beyerl; vice president, Lloyd Riches; secretary, Joseph Prudhomme; treasurer, Thos. A. Roberts. The sales office of the company

has been transferred to San Francisco. It is in charge of Lloyd making. er grades of wood stock in paper Riches, and the increased volume. The fifth kind of wood pulp

of business is originating in considerable measure in the south chemical pulp. It is only parpaper, the newest kind, is a semiand southwest, though the whole tially cooked, and then treated in country is represented in the trade

a "rod" mill. It is already being territory. The doubling of the size off the plant and of the forces employed high yields in tons of paper, comwill not set any limit to the ex- pared in making it. It uses more There will be other doublings. largely or partially waste.

Earliness of maturity in pullets s important to the selection of best breeders the second year. To develop a good laying strain, no-tice should be taken of the time pullets start laying in the fall and the fowls marked with colored celluloid leg bands.

The ballot for the general elec-Hairy vetch is a valuable plant tion in November has been comfor soil improvement in most of pleted by the secretary of state the area north of the Ohio river preparatory to certification to the and east of teh hundredth meri-The ballot is subject to only available for winter green-manursuch changes as may be ordered ing in most of this section. It by the courts in connection with often is sown with rye.

appeals involving the privilege of securing recognition at the Nov-

ember election. One case now on Antiques & Cabinet Work appeal was filed by Harvey Stark-Genuine Antiques or Copies a Specialty, "If we can't buy the to make the race for representaantique you want, we can copy

VENT ANTIQUE SHOP Phone 1476J. 2860 State St

Oakland

Pontiac

Sales and Service

VICK BROS.

High Street at Trade

And exchange it for hard wheat

YOUR NEW WHEAT

BRING IN

from the ballot the so-called Dunne bill, which would reduce Keep Your Moniey in Overen - Buy Measurants Hade at Sales, Overen GAFTTAL MOSTUMENTAL WORKS L. C. Jenes & Co., Proprietors All Einds of Manumental Work Pactory and Office: 2210 S. Camil, Opposite L O. O. F. Cometary, Box 21 Phone 650 Balass, Oregon by approximately 50 per cent the notor vehicle licenses in Oregon. This action was brought by the state, upon relation of District Attorney Carson of Marion coun-

ty, to prevent the secretary of state from placing the Dunne bill on the ballet. The lower court held that was without authority to have the Dune bill eliminated from the ballot. The epinion fo the low-er court was appealed to the su-preme court for final determina-

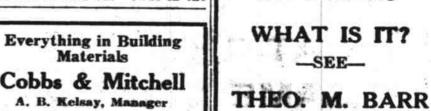
An interesting feature of the ballot is the number of indepen-dent groups which have nominat-ad candidates. The democratic residential ticket was nominated

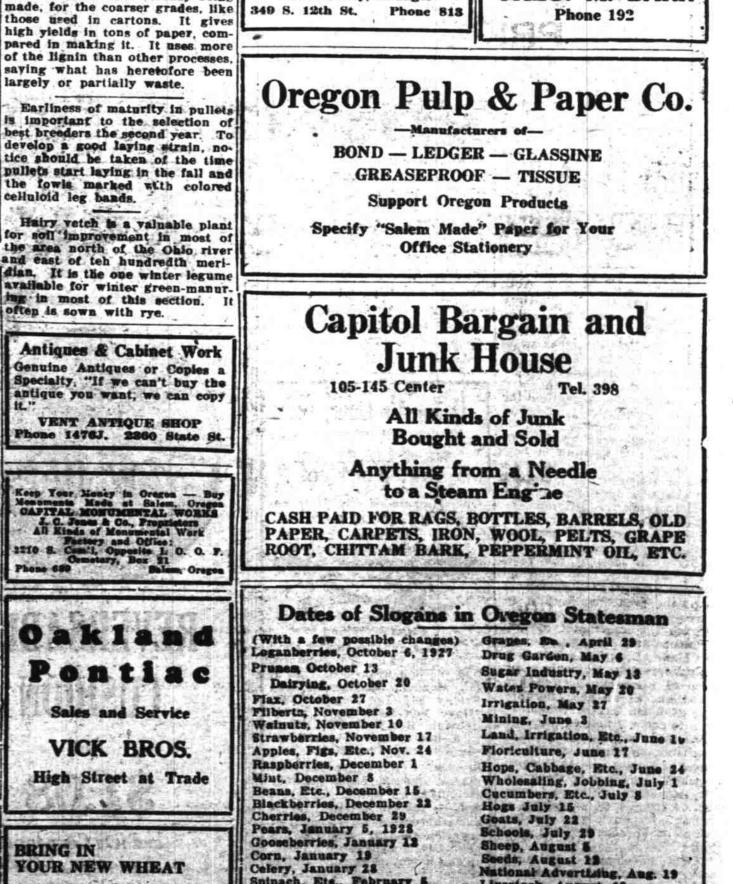
n full by the progressives, and theaters will walk out today as consequently goes on the ballot the result of a "road call," issued inder the combined heading.

> W. W. ROSEBRAUGH COMPANT Lagufagturers Warm Air Furnaces, Fruit Dry ing Stoves, Smoke Stacks, Tanks, Steel and Foundry Work, Welding a Specialty.

of the coast states are using from linen rags. Then came wood lines through the country districts the question of the economic use of electric power in addition to its use for home lighting and minor household conveniences, has been coast city recently bought several First, sulphite paper, second the pressing. Very little machinery soda wood pulp process: then the suited to rural electrical use had been developed. kraft papers, using sawmill waste, knew what operations were prac etc., and making a coarse paper.

tical with electric power and Now comes a fifth kind of wood which were too expensive. nulp naper. It has been brought Much of this information has out in the past three years, by the now been arrived at either here or United States forest products labin other states where similar work oratories, which are constantly has been carried on. Thus in the working for the conservation of wods; seeking ways to use low-





Livestock, August 16

