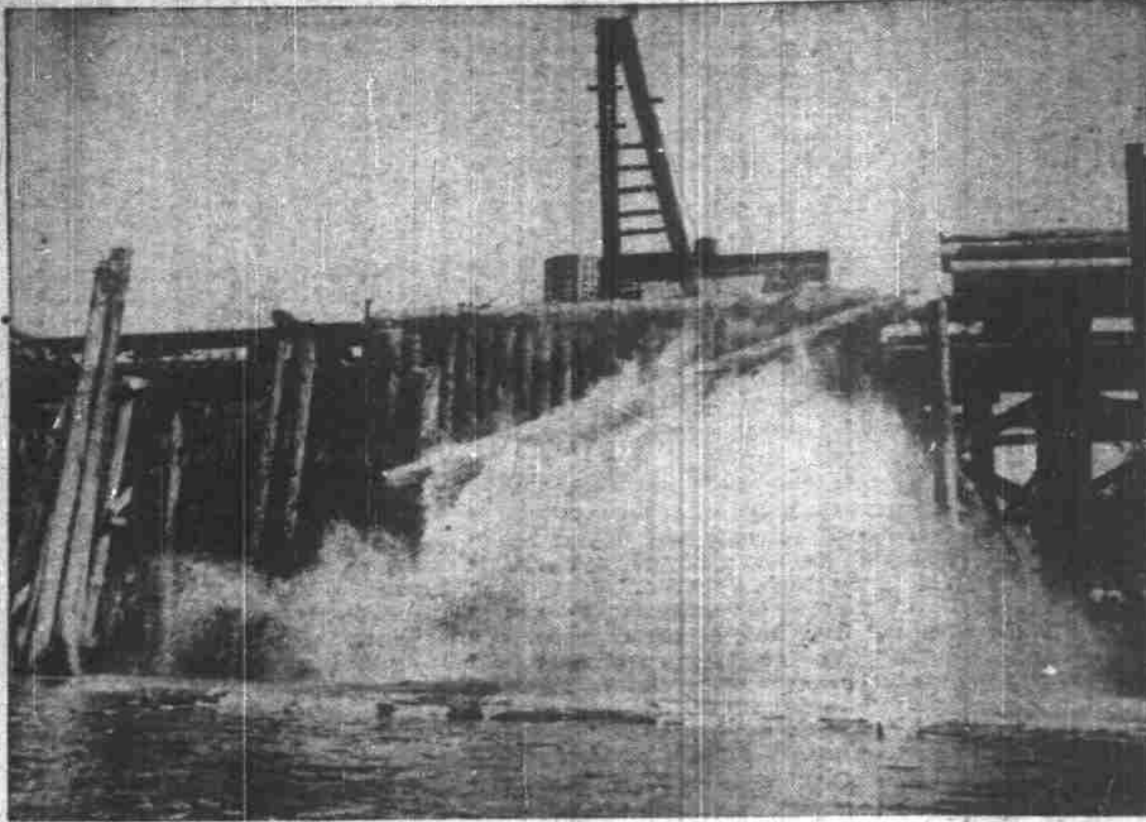


## These Logs Are Sold Down the River



**SPLASH!** And into the Willamette from the Spaulding Logging company dump at Winona goes a carload of hemlock logs. These logs, destined to be made into paper at the Oregon Pulp & Paper company mill in Salem, were brought by rail from Idanha, loading station on the North Santiam river.



**CALKED BOOTS,** pike poles and a neat sense of balance aid these watermen. They form the logs dropped from the dump into loose rafts for transportation downriver to the paper mill. The Oregon Pulp & Paper Mill uses about three and a quarter million feet of such logs monthly in making pulp.



**POWERFUL and hard working** is the paper mill's tug Mohawk which brings the logs down from Winona. Some of the logs are stored in the Willamette slough. Because the distances, they must be towed are short, logs for the paper mill are merely tied together with a single cable running from log to log. For longer tows rafts must be more secure.



**END OF THE LINE.** Here at the back door of the paper mill the hemlock logs are drawn up into the pulp plant where they are masticated into chips from which is the basis of paper is made.

## Chore Mothered This Invention

By PAUL F. EWING

PORTLAND, Ore., July 20.—(P)—A city firefighter who hated to stoke a stove has founded a new industry on sawdust.

Sawmills of the Pacific northwest used to spend thousands of dollars a year to get rid of sawdust. Now, because that fireman disliked his nightly chores, they are selling the dust for fuel.

The sawdust burner is the reason. Harry Hembree of the Portland fire department had his big idea shortly after 1900. To get out of firing a horse-drawn steam pumping fire engine, he turned to invention.

With the aid of an engineer, he built a grate and a hopper and hooked the gadget to the station's basement boiler.

Grateful firemen accustomed to spending the night in endless stoking shoveled sawdust into the hopper only once or twice a shift. It fed down to the grate, flames billowed into the boiler,

and steam pressure piled up to be piped into the pumper.

When the fire bell clanged, a hook jerked loose the pipe, a snap valve closed the boiler and the pumper raced away to the fire.

Soon all fire stations in the city used Hembree's burners. Fuel costs dropped almost to the vanishing point. Sawmills were glad to get rid of the dust.

A few venturesome firemen put burners into their homes but that was the ultimate of Hembree's idea for 15 years. Hembree, a pilot and engineer, turned to steamboating on the Willamette river and forgot sawdust burners.

Claude Tackabery, another fire department engineer, took up the idea, improved the grate and got a patent in 1923. He persuaded an apartment house manager to test the burner, free of charge.

When fuel costs declined there, other apartments followed suit. The Portland Labor temple ordered a burner with the proviso that it must cut costs 50 to 80

per cent. The temple's heating bill fell from \$367 to \$120 a month.

The square, chunky little Irishman tired of the business. He sold out and resumed his career as a fireman.

Some 85 burner manufacturers sprung up in Seattle, Tacoma and Portland after that. They placed burners consuming 400,000 tons of sawdust annually, in 20,000 homes and businesses. Sawdust water heaters followed; more than 8000 are now in use.

The result is that through the years they formerly paid to dispose of sawdust, they now are able to make a profit on it.

Burners are used principally in the Pacific northwest but a few are scattered through the east, south and mid-west—North Carolina, Virginia, South Dakota, Maine and New Hampshire.

What about Claude Tackabery? He heats his home with oil. "Now there's a nice fuel," he says. "No filling hoppers or stoking furnaces."

## Logs Are Splashing in the River

From Albany to Canby there's hardly a minute when a log or a lot of logs aren't splashing into the waters of the Willamette at log dumps along the river.

For logs moving out of Willamette valley lumber camps to the big mills in Portland and on the Columbia river, the Willamette is the main artery of traffic. In fact, nearly all its traffic, aside from pleasure boats, above the Oregon City locks, is log tows moving downstream.

The Salem, Newberg and Canby areas are the main dumping points for logs brought by trucks from the Cascades and the coast range. In and around Salem are three dumpages. One of them, the old Spaulding dumpage at Winona, is a rail dump. Here, where logs from Black Rock used to be dumped for the Spaulding mill, hemlock logs hauled by rail from Idanha on the North Santiam are "plunked" into the Willamette for a short haul to the paper mill.

Another dump just outside West Salem's city limits receives logs for the Pope & Talbot mills at St. Helens. Most of the logs come from the Rickreall country.

In Salem is the third dumping point, just below the Reid Murdoch cannery on Front street, where logs from the Santiam timber regions are dumped for formation into rafts to be towed down river.

The logs destined for lumber mills down the river are rafted up here and towed by powerful tugs to Oregon City. The tugs draw little water, because of the often shallow channel of the Willamette. Steamboats and larger tugs take the logs in tow on the other side of the locks.

Through the locks at Oregon City pass between 125 and 140 million feet of logs monthly. Approximately a fifth of this volume comes from Salem.

## Salem Leads Way to Statehood

This is the sixth and last of a series of articles dealing with the historical background of the Centennial to be observed in Salem, July 21 and August 1 to 4.

By MATILDA SIEGMUND JONES

At the time the first permanent settlement was made in what is now Salem—the vicinity of which the Indians called Chemeketa—it is recorded that in the entire Willamette valley there were but a few score of settlers.

Of these, some were French Canadians who had been in the employ of the Hudson's Bay company; others were sailors who upon landing in California from Atlantic ports, had deserted and come north; a few had crossed the Rockies either independently or with fur traders. In the Methodist mission there were about 20 men and their families.

In the fall of 1841, about 15 or 20 emigrants arrived. A party of 112, consisting of men with families, came a year later. Some located for the winter at, or near "The Mills"; others at the Oregon institute 2 1/2 miles "north by east from the Mission mills."

Year by year, this isolated settlement of hardy pioneers increased in numbers and in wealth. Many of those who came in 1842, became dissatisfied with Oregon and left for California early in 1843. A few returned later. In 1843, three years after the birth of "The Mills," there were but three dwellings in the town; but later that same year the largest emigration up to their time came across the plains. There were in all about 900 people with probably 300 wagons.

1200 Came in 1845. The number which arrived in 1844, was as large or larger, than that which came in 1843. Approximately 1200, the largest number so far, came in 1845.

The population on "Chemeketa Plains" had increased so steadily that the trustees of the Oregon institute decided to lay out a town. This was done in 1846. The survey included only the portion of Salem lying between Church street on the east and the river on the west. There was but one building within the limits of this survey. Two years after the town was surveyed the first building was put up, on the northeast corner of Commercial and Ferry streets. This building was used for a store and dwelling.

There were then but a dozen permanent dwellings, with a population of about 100.

Throng to Gold Lands. During the winter of 1848-9, business in Salem was almost suspended, due to the gold rush to California. New immigration, was diminished because a large portion had been turned toward California from near Fort Hall. The immigration which arrived late in 1849, however, was larger than any preceding one. The country which now comprises Marion, Linn, Polk and Benton counties was rapidly being coming settled and the outlook for a rapid development of the new town which had just been surveyed at Salem was encouraging.

"Salem" Named in 1850. The town had continued to be known as "The Mills" until August, 1844, when the opening

## Family Bookshelf

A recent Sunday paper carried a wise editorial entitled "How to Alleviate an Allergy" which gave sound advice on the reading of good books as an antidote to the food of depressing war news. Our public library joins the editorial writer in urging the reading of other than war books as an allergy to wartime jitters and gooseflesh.

Here are several books which will divert the most serious mind from war-torn Europe. "The Male Animal" by James Thurber, the author-illustrator, and Elliott Nugent. This comedy of campus and particularly faculty life is a Broadway play this season and it is sure to bring out laughs galore. A person's chronicle of great charm to lovers of the dance is the autobiography, "Ruth St. Denis, an Unfinished Life." The artist has already contributed much to American culture, and this story of her colorful career as a dancer successfully sets forth the reason for her great influence. Edward Davison, an English poet who has lived in the United States for 15 years and is

now an American citizen, has just issued his "Collected Poems, 1917-1939." Mr. Davison's poems strike a calm, dignified note which makes reading his work a distinct pleasure.

An inspiring personal story is told in "More Than Mere Living" by H. Thompson Rich. Realizing that they would never have more than just enough money to meet the bare necessities of life, Mr. and Mrs. Rich methodically organized their habits of life with the idea of getting the most out of life on a limited but safe income. The fact that they faced a situation squarely early in life and that they were able to successfully adjust their affairs to make a \$6000 scale of living, make this inspirational and true success story worth reading.

Two books issued this week are of great importance to Salem residents because they both deal with the electric power problem as it affects domestic users of electricity. "Power in Transition" by Ernest R. Abrams is a survey of the federal government's program of dam building; the book gives facts and figures. Because the discussion and facts are on a national scale, and because of the impending political campaign to be concerned closely with electric power production and distribution, this book is important. The final report of the hydroelectric commission of Oregon on the "Advisability of Creating the Marion County People's Utility District" is now available at the public library. Both books can be studied with profit by all local taxpayers.

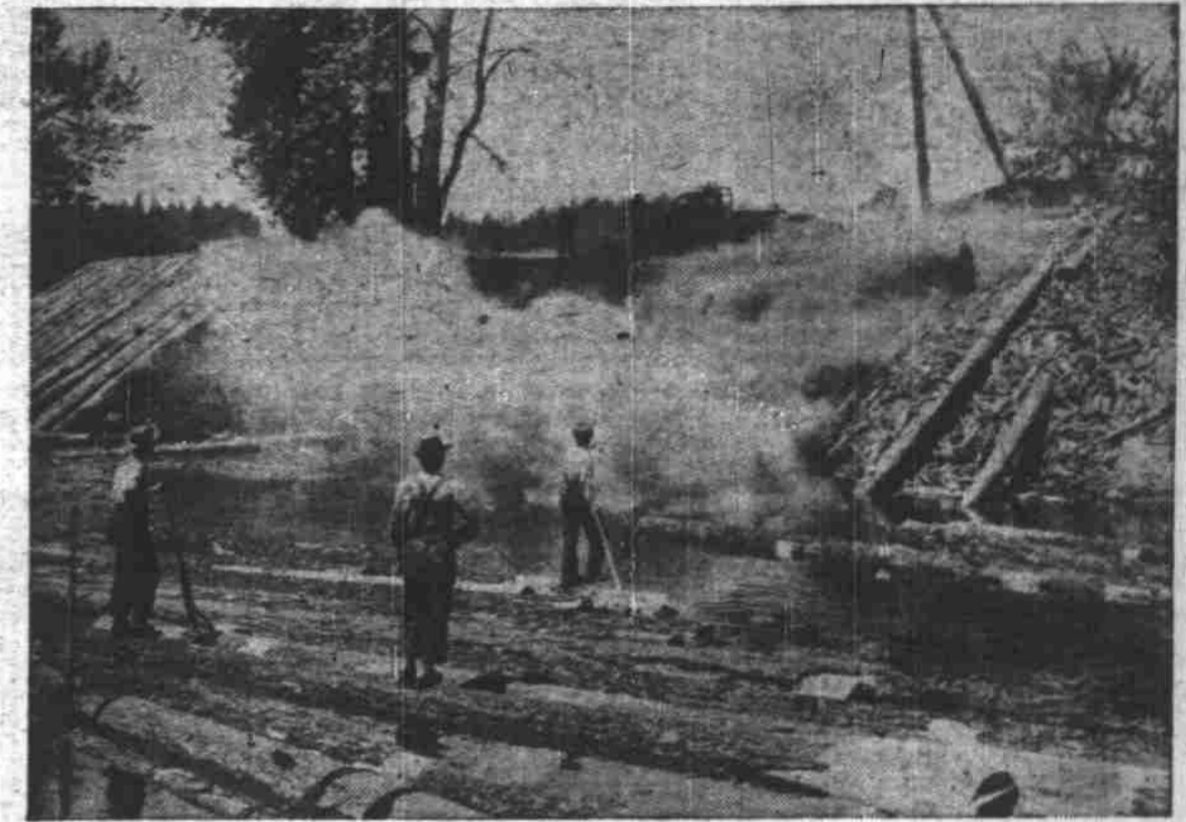
## Vacation at Coast

FOV VALLEY—Mr. and Mrs. Bert Lyons and two daughters are vacationing for a week at the coast. They will visit at Cutler City and other points before returning home. They are celebrating their 30th wedding anniversary which was July 15th.

## It Takes Lots of Logs to Make Paper



**LOOK OUT FOR LOG TRUCKS** is a warning sign you see often on highways through the timber lands. Here's one at the end of its journey, across the river just beyond West Salem, ready for its load of big logs to be tilted over onto the slide on which they will roar into the Willamette. These logs came from the Rickreall country near Dallas. Several hundred men are employed in Marion and Polk counties in trucking logs.



**CHIPS AND WATER** fly as a truckload of logs goes rolling down to water where boommen wait to add them to the log booms in which they will be towed downriver to St. Helens. There the Pope & Talbot mill will saw them into lumber. Water is now low and another log dump, at the foot of Market street in Salem, is not operating.



**FOUR MEN ON A RAFT.** It takes more time and work to prepare a boom for towing down past Portland than for a short tow to the paper mill here. These logs must be secured both crosswise and lengthwise. Permanent forms, held in place by beams stretched from bank to bank, make shaping the booms easier.



**READY TO GO** are these logs and are being allowed to drift downriver where they will be picked up by a contract tug which will haul them to the locks at Oregon City. There the long tows must be broken up into sections to go through the locks. On the other side they are picked up by larger tugs and hauled the rest of the way to their destination. Between 125 and 140 million feet of logs pass through the Oregon City locks each month.

# Bears Are Heavy on Sweets, Need Dentist Biggest Little World's Fair Is Growing

By RENNIE TAYLOR  
Associated Press Science Writer  
BERKELEY, Calif., July 20.—(P)—Bears apparently are the only American wild animal which have tooth decay, and their notorious weakness for sweets may be the reason, reported Dr. E. Raymond Hall, University of California zoologist.

Dr. Hall examined the teeth of 5617 animal species, among them the skulls of 180 bears. Eight of the bears had decayed teeth. None of the other animals had dental cavities.

Even more significant, Dr. Hall said, was the fact that to decay the skulls of 180 bears. Eight of the bears captured in their natural habitat. Their diet contained few if any sweets.

The findings coincided in many respects with those of several dental schools which have concluded that sweets, particularly the refined types, are largely responsible for tooth decay.

**RIGHT LUNG STRONGER?** SAN FRANCISCO—This right lung apparently is better able to do extra duty than the left in cases where one or the other has

been removed, say two bay area surgeons.

Since the first successful removal of a cancerous lung in 1933 by a St. Louis surgeon, Dr. Paul G. Samson of Oakland and Dr. Emilie Holman of Stanford university medical school have performed six similar operations.

Two of the six patients died, but not from the shock of the operations. In both cases the right lung was removed, and in process the air tube leading from the windpipe to the extracted organ necessarily had to be closed.

The surgeons said it seemingly was more difficult to close the tube of the right side than in cases where the left lung was removed and the left tube closed.

The ability of the left lung to do the extra work imposed upon it in such cases is less marked, they added, than that of the right lung.

**HOW TO CURE WAR** SEATTLE—There will be little real progress toward eliminating war and its causes until man learns to direct his natural desire for conquest against things rather than people, says Dr. Ralph E.

Gundlach, University of Washington psychologist.

Collaborating with three others on a book on psychology of war, Dr. Gundlach wrote that patriotic nationalism and its predilection to military conflict had become an instrument for the mass exercise of man's desire to conquer someone. The book is to be published by the society for the psychological study of social issues.

"There are things enough to dominate," he added, "such as the forces of inanimate earth, sex and air, and the conditions of ignorance, disease and hardship."

"It is futile to tinker with the techniques of internal political organization, with the national political organization. . . . We must see that our current institutions are wrong in so far as they encourage success through the dominance of man by man. Our goal must be a society where exploitation of human beings is impossible."

**SNAKE BITE FIRST AID** BERKELEY—A soft rubber object about the size of a cigar

butt has been developed by Dr. Robert K. Cutler, physician, to suck the poison from a snake bite wound or an insect sting wound before medical aid arrives.

It comprises two rubber suction cups which will cling to the skin and do their work without manual help; a small lance to open the wound sufficiently to permit drainage, and a braided linen cord for a tourniquet. When not in use the cups fit together and hold the lance and cord.

The outfit differs from other snake bite suction cups, Dr. Cutler said, in that it is much smaller and that it clings to the wound and does its own pumping. Tourniquets should be applied only lightly to snake and insect bites, Dr. Cutler added, because the main object is to prevent the lymph, not the blood, from spreading the poison. In such instances, he said, the poison usually is distributed by the lymph circulating just under the skin.

There is no point in choking off the blood flow through the veins, he reported.

ILWACO, Wash., July 20.—(P)—The little town of Ilwaco—population 900—is building the littlest World's fair on earth.

Everything in it will be miniature. The fairground covers only 35 acres, less than the square root of the size of the site of the World's fair in New York.

Exhibits are pint-size.

The first one to be completed—a model of the exploring ship, Columbia—is but three feet tall. Airplanes, locomotives and automobiles, full size in other international exhibitions, will appear here in small scale.

Factories and laboratories, gigantic at the fairs in New York and San Francisco, will shrink to midsize at Ilwaco.

International concessions likewise will be pared down. Japan, for instance, is planning a miniature sunken garden, with dwarf plants.

A troupe of midsize has been suggested, as barbers and ticket sellers.

The theme of smallness is car-

ried down to the fair headquarters, which have been set up in a one-room storefront formerly used as a meat market. It isn't even on the main street of this little fish and cranberry center.

All this should make excellent sales material for the midsize fair's goodwill ambassador, Edward Everett Horton, the film comedian, who spends many of his summers at Ilwaco.

Although Funnyman Horton will set the pace, Ilwaco world's fair is no joke. It started out as a gag Mayor Norman A. Howerton sprung at a meeting called to drum up enthusiasm for an ordinary small town fair. But after everybody stopped laughing, the mayor got serious. He went to the history books for an inspiration.

There Howerton—"Norm"—to most of southwestern Washington—found that May 11, 1942, will be the 150th anniversary of the discovery of America's second largest river, the Columbia, by Captain Robert Gray in 1792. Gray dropped anchor in Baker's

bay and planted the American flag. Baker's bay is Ilwaco's front yard.

So Ilwaco's big little show was named the Columbia River International exposition, and May 11, 1942, was set as opening day.

Howerton started hustling. He won the backing of nearby towns as Chinook, population 500; Estacada, 500; Long Beach, 700; Ocean Park, 100; Nahcotta, 500; and Oysterville, 100.

The Washington progress commission became interested. Seattle, Tacoma, Spokane and Portland fell into line. Democratic Congressman Martin F. Smith of Washington introduced a bill in congress for a \$100,000 federal appropriation.

The Oregon and Washington legislatures will come through—unless Howerton is mistaken. The show is incorporated as a non-profit organization, with Howerton as president. An expert on world's fairs has been brought from San Francisco to help plan details.

Ilwaco's airport—a mile and

a half east of town on Baker's bay—is the exposition site. It can be reached by river excursion boats and by highway. Its one great shortcoming is housing for the fair's visitors.

To fix that, Howerton plans a fleet of passenger vessels for use as floating hotels. They will anchor in Baker's bay. Guests will have launch service to the mainland, swimming just outside the port holes, and miles of beach to loll on.

**Mill at Silverton Opened This Week**

SILVERTON—Norton Cowden and Orval Miller both of Portland have leased the Holland lumber mill here and opened this week for daily run. The mill cuts 75,000 feet a day.

Cowden is the son of R. A. Cowden of Silverton and former partner in the old Silverton Lumber company.

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