

# THE FAMILY TREE

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Number 1

## Company Employees Invent Devices For Plant Improvements

It has been said that the average American workman uses his head more than he does his hands.

This proves true in the plants and woods operations of Potlatch Forests, Inc., and there have been, from time to time, many inventions and gadgets perfected by employees.



George Wright

During the last few months two of these inventions and gadget perfections have been worked out and their inventors have had the satisfaction of seeing a new low point in economy reached through their applications.

This refers to a tooling device originated by George Wright, master mechanic in the Clearwater plant, and to a log wash device arranged by Kenneth Ross, foreman of the pipe fitters. It can be added that both men are quite modest about their work, but here are the facts:

In the filing room of any big saw-mill, where saws are filed, or sharpened automatically, these saws must also be "set," that is, the points of the teeth must be swaged, or shaped so that the blade itself will travel easily through the log. Hence, the teeth, at their point of contact, are wider than the blade.

This is precision work and a tool called a hand swage shaper has been in use many years. This tool has two small pieces of hard steel called side dies, that fit into the shaper jaw. One might liken them to the molars in a man's mouth, and while they do not grind as molars do, they press equally,

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## USING YOUR HEAD

There are so many advantages to be obtained by the so-called "burning of midnight oil" method of self-improvement, that they hardly bear repeating here. Every once in awhile we hear of an employee who has pulled himself up to a good paying job, just because he believed in that old axiom.

Sometimes the very act of self-improvement reacts to the advantage of others with whom we are working. I refer to the inventions and devices that have been developed in our plants by workmen who sought to help the other fellow too. In this issue of *The Family Tree*, as in others in the past, there is a story of two of our people who used their heads. There will be similar stories in the years ahead. Will one of them be about you?

C. L. BILLINGS,  
General Manager.

## Old Dredge 'Clara' Doing Her Bit Again

The old dredge "Clara," toasted in story if not in song, is doing her bit again for the Clearwater plant.

Nosing into the silt and gravel under the log slip, the dredge is drawing off refuse accumulated there over the period of a year or two of log washings. Silt, sand and gravel are forced into the intakes, whipped through an electrically driven impeller, and go bumping their metallic way through a 10-inch pipeline to spill over the dike 1,800 feet away. Cedar logs are the pontoons to buoy up the queue-like floating line.

There's no fuss, no snorting about it, the old dredge "Clara" just doing her stuff. Built in 1926 by the Clearwater Timber company for all-river steamboat and pile-driver services, she was converted to a dredge and sold to the Washington Water Power company in 1934.



Kenneth Ross

## Company Yards Go Streamlined; New Lift Trucks Bought

Lumber yards of the company at Lewiston, Potlatch and Coeur d'Alene are undergoing a streamlining the like of which has never been seen in these communities before.

New organization of the ground where sorts are piled, consists of placing crushed rock on the surface, building roads for lift trucks, and the installation of lift trucks to handle and pile the lumber that is seasoned in the open air.

In Coeur d'Alene, Clarence Graue, manager of the Rutledge unit, has installed a lift truck which is similar to devices of this kind used in Pres-tologs storage, but which, however, pick up whole units of sorted boards and transfer them from cars loaded at the green chain, to the yard, setting the sorts on top of each other in the one operation. Piles of lumber now are four sorts high.

### Roads of Crushed Rock

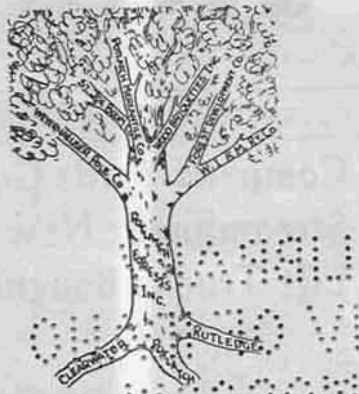
To accommodate the lift truck, crushed rock roadways were built between the lines of piles in an area 400 feet long and about 120 feet wide. Under the piles, which are 20 feet wide, a plank roadway of 3x12's was placed for the wheels of the lift truck to run on. These planks have guard sills of 8x8's on each side which serve to aid the truck operator in steering a straight course to the pile.

Green lumber is piled four units high, dry lumber three and four. Lath is also being piled in this manner for open air seasoning.

Similar "face lifting" in the yards is being done in Lewiston at the Clearwater plant, where a rock crusher has been at work for some time preparing surfacing material to cover the entire area of the yard necessary to accommodate the normal yard inventory. As one section is cleared out by shipping, the crushed rock is placed over the surface of the ground and the lumber

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THE FAMILY TREE



Published by Potlatch Forests, Inc.—Once Monthly for Free Distribution to Employees.

Editor ..... Sid C. Jenkins

Correspondents

John Aram ..... Clearwater  
 Jack Eaton ..... Rutledge  
 Mabel Kelley ..... Potlatch  
 Carl Pease ..... Headquarters  
 Chet Yangel ..... Bovill

*"He has a right to criticize who has a heart to help."*

Down the Editor's Alley

With no thought whatever of trying to "kid" Bill Armstrong—or anyone else for that matter—Ye Editor rises to remark that Bill is doing some excellent reportorial work for *The Family Tree*.

Now if some of you other fellows would take the mighty pen in hand, maybe we'd get someplace.

Don't worry about the spelling, don't worry about "how to write." Don't figure that because you never have done it you never can. How in h— do you think the rest of us got started?

I wonder how many people read this tripe?

Well, Bill Armstrong is getting a start and he's doing right well by himself. Which may mean someday he'll be an editor and won't have anything else to do.

And anyway, where's that letter about what's troubling you?

The First 100 Years

THE FAMILY TREE with this issue enters upon its fourth year as a "house organ" of Potlatch Forests, Inc., and in that fourth year will record some of the history of lumber industry of North Idaho, which will in April 1940, reach its 100th milestone.

Plans for a centennial observance of the date have been discussed. Further announcements, and stories of the pioneering lumberjacks of this region, may be expected in these columns in subsequent issues.

It was 100 years ago, come next April, that the Rev. Henry Spalding, who crossed the plains with Marcus Whitman, set up what is believed to have been the first sawmill in the land of the Nez Perce. A crude, water-driven wheel operated mill, according to some historians, the plant was built on the banks of Lapwai creek about 15 miles from the site of the present city of Lewiston.

The next heard of sawmills in the Inland Empire was along in the early 60's. One version of the story is that much of the lumber used in the city of Walla Walla, Washington, was made in a plant near the little town of Asotin, shipped down the Snake and Columbia rivers. How true this is, one must rely upon the memories of old-timers, for there is little in the written record to go by. It is known that as early as 1862, there were one or two mills in the Pierce-Orofino creek area.

There was a sawmill in 1827 at Fort Vancouver, Washington, and although this is recognized historically, it will be the purpose of the northern Idaho centennial observance, to celebrate the 100th anniversary in the industry in this section only.

Woods Safety Code Taken Up By Council

Adoption of a tentative safety code for the woods operations was action taken at the last meeting of the Clearwater woods Foremen's Council, held at Headquarters about mid-October. The code was presented by Paul Black, safety engineer, who has been in the woods operations this summer, helping loggers to cut down lost time accidents.

Mr. Rettig attended the session, with George McKinnon, chairman, presiding. Since Clarence Haeg has been transferred to the general offices in Lewiston, "Doc" Street, first aid man, was unanimously chosen secretary of the council.

Featured action of the meeting was to appoint Mr. Black as sanitary inspector for the camps.

SALES PREDICTIONS

Phil Pratt says—

"The sales department is contemplating hiring a football prognosticator to give estimated shipping dates on orders containing Sterling.

"We can visualize telegrams going out to central zone about as follows: 'We predict shipment of this order about week of June 21, but production of Sterling has shown

some weak spots, especially in 5/4x12 which may delay until Thanksgiving. On the other hand, an upset could easily happen here if a trainload of second growth should happen to get rolled off near the log slip and delay. We would be too greatly surprised if car goes out before you get this wire."

Otherwise, says Phil, orders are normal and there seems to be enough on hand to keep the plants going the way they are another month.

Spokane Group Visits Potlatch and Likes It

Spokane, Washington's, "Good Will" delegation of the fall visited Potlatch during October. Intending to remain in town 15 minutes just to say "Howdy," 27 members of the group stayed long enough to say "Good Night" too.

Met in Palouse by Walter Gamble, George Anderson and E. G. Ferguson, the Spokaneites, were escorted to Potlatch, presented with wood postcards, had their pictures taken on the porch of the PAAC, went through the sawmill and Pres-to-logs plant, and they were given the entertainment royal at the American Legion log house.

It was way past supper time when they finally arrived in Moscow, the destination for the night. Those 15 minutes certainly stretched out a bit.

## Shipping Accidents Mar Safety Record For Other Workers

Tom Sherry, safety supervisor at the Clearwater unit plant, is indignant. It's all because, he says, the shipping department has had too many accidents. Says Tom:

"As we glance back over our accident experiences at the Clearwater unit for 1939, a distinct line of demarcation is shown between manufacture and shipping operations. The records of these two groups look like the records of two entirely un-related plants.

"In manufacture just two accidents have occurred during the year. This was the severe puncture wound sustained by a maintenance man early in July, and a recent sliver infection in the sawmill. In shipping for the same period ten accidents have been chalked up.

Here is the score:

Planer .....	4 accidents
Dress sheds .....	2 accidents
Stackers .....	2 accidents
Replant .....	1 accident
Bag transportation .....	1 accident
Maintenance .....	1 accident
Sawmill .....	1 accident

"All other departments have a clear record for the year.

"Plenty of bright spots can be found on both sides of the plant. The box factory is approaching the two-year mark without accidents, as are the rough storage, loading docks, graders, stacker, plant offices, Pres-to-log operations, and machine shop.

"The sawmill department led the parade with the most man hours elapsed with no time lost, this record extending over an eighteen-month period, until an infection caught them.

"In the 'two-year class' fall the filing room, pipe fitters, watchman, electricians, power house, kilns, rebutt and four saws, and the lath mill. These departments are in the 'safety royalty class' on our plant.

"Will 'shipping' start shipping more safety and less sorrow?"

### Foremen Hold Meeting

The Clearwater Foremen's Council held its second meeting of the year on October 25.

Plans for appointing the 1939 Christmas party committee were taken up. Mr. Leuschel and Mr. Pratt discussed current business activity.

## Potlatch Employee Forced To Leave Bride In Italy, Hopes To See Her By Christmas

Joe Gallinaro, employee of the company at Potlatch, hopes to see his bride by Christmas.

She is in Italy, where Joe had to leave her, much against his and her will, but—it's all on account of the war.

Joe returned from a visit to his native land and his family late in September, after having been in the "old country" since early in 1937. His prolonged stay was somewhat enforced by the demise of a brother, and the necessity of aiding his people, and while he does not say, it must have been partly because of pretty Marie Vadelago, now Mrs. Gallinaro, whom he married in January 1938.

Coincidentally, the bride is a sister of John Battista Vadelago, a resident of Potlatch.

Joe Gallinaro came to the United States from Italy in 1920 and five years later secured employment with the company at Potlatch. He visited Italy in 1931 and 1932, and returned to that country in 1937 to get married. The honeymoon was taken in Venice, city of canals, gondolas and music.

### Trip Home Interesting

The Potlatch man had many stories to tell of his adventures, and the life



Mr. and Mrs. Joe Gallinaro

in Italy under Mussolini, whom he thinks has done a lot of good for his countrymen.

His passport, as an American citizen, was good for two years. When war broke out between Poland and Germany, the American consul advised him to leave. Italian shipping lines were closed. From Italy he went through Switzerland to France and tried to obtain passage on an American boat. The waiting list of prospective passengers was so big he was advised by American and Italian officials to LeHavre to return to Italy and take a ship from there.

Joe finally got passage on the Conte di Savoia, sailed September 15 and

landed in New York the morning of September 23.

It was a sad trip for the Potlatch man, however, because American regulations are that to bring a bride back from overseas, one must own property in the United States, which he did not. After returning to his job at Potlatch, he secured an affidavit from Potlatch Forests, Inc., that he is employed and now hopes this will pave the way for Mrs. Gallinaro to join him. He also plans to buy a small tract and make his home permanently in or near Potlatch.

## Potlatch Woods

### Camp 32

This camp now has a crew of 225 men, as the men at Camp 34 have finished logging operations and moved all the equipment in to Camp 32. The last few days have not been favorable for hauling due to the rains, but now that it has cleared up, trucking should start in good shape.

Homestead creek camp closed for this season and all of John Ankers' trucks have been sent here. At present there are ten company owned trucks.

Besides the logging here, there are cedar poles being made also. At this writing there has been 11,000 poles made. This camp may run until around the first of the year.

### Camp 36

Camp 33 has finished and all of the buildings have been moved into this camp. Everything is all set up and ready for logging operations in the spring. Roads are still being built here, and brush is being piled on the right-of-way. There are now 15 miles of truck roads built.

### Camp 37

Camp construction is now completed in Camp 37 and the men boast one of the finest outfits ever built in this section. Small bunkhouses, sidewalks, and a first class bathhouse and cookhouse are really a sight for anyone.

## Clearwater Woods

### Camp 23

New Camp 23 is now among the subscribers of *The Family Tree*.

Sawyers started falling the first trees in the latter part of September, while skidding by team and "cat" began October 11. The crew is under the direction of Morey Thompson with Ted Carman as sawboss. There are about 80 men in the outfit.

Quarters for the camp are at Headquarters, where the men live and do their boarding at Marsh's restaurant. They are hauled to and from camp by truck. Each work day a hot dinner is sent out to Camp 23.

Operations extend from the Clearwater Timber Protective association headquarters to the mouth of Calhoun creek, and thence up that creek. It is called an ideal winter logging chance as the ground is clean, not steep, and mostly of short hauls to the company railroads.

Cars from Camp 25, which has been shut down for the season, were expected to be moved late in the month, and to be set up for living quarters and offices on Calhoun creek by Joe Wheeler, recently foreman at Camp 25. Howard Johnson, who clerked at 25, will be the clerk at new Camp 23.

### Camp 25

Camp 25 officially closed its 1939 logging season on Thursday, October 19, after running since May 12, when the first right-of-way crews came in. In that time 32,982 logs which scaled 10,937,140 feet, for a log run of 3,016 per thousand, were loaded out by Pete Brown and his crew. In the woods, 35,953 logs, scaling 14,623,480 feet, were cut, indicating that the percent-

age of rot in the old growth timber is not as much as was expected.

At the time the camp closed, the sawyers were cutting down in the forks of Silver creek, in timber which Jack Mann, saw-boss, declared to be the best in the country. This is further brought out when it was figured that the gangs averaged \$8.02 per man per day for the past two months.

On September 22, the kitchen was taken over by Chester Chilton and crew. Chet came up from Orofino and put out the "chuck" second to none.

### Camp 14

Despite heavy rains that fell the latter part of September, this camp loaded well over three million feet of logs. Another D-7 "cat" was put to work with a Carco arch for hauling, following the completion of Knight Brothers' contract job.

There were few accidents in the woods last month, and none of a serious nature.

Wilbur Coon, a new cook here, was welcomed by the men.

### Camp N

This camp is still under construction, all buildings being erected on skids. Bunkhouses are built 18'x32' and will accommodate eight men each.

At present there are 95 men in camp and work is progressing under the supervision of E. J. Gaffney, foreman, and Earl Ritzheimer, saw-boss.

When completed Camp N will have room for 150 men.

There are now eight teams skidding and eight gangs of saws. The daily production average is around 50 thousand, or a little better than six thousand per team.

### Camp O

After a prolonged summer operation, all the Camp O timber has been sent

down the flume to Doyle pond. The timber cut out exceptionally well, yielding close to 11½ million board feet this summer.

There was a comparatively small "rear" on the lower end of the flume, so the job was contracted out to a team who finished it in three days. The last long was flumed at exactly 10 a. m. Saturday, October 14.

Paul Knight has a small crew of men at camp now, preparing the bunkhouses and cookhouses for winter occupation. Paul plans to start making cedar as soon as the bark will shed and will then "hole-in" for the winter and flume the poles next spring on the snow water.

### Camp T

Camp T's nimrods are not having the best of luck.

Severt Olson, out hunting one day recently, scared up an elk that ran toward another hunter. The latter, feelingly, shot it.

Rains have halted truck operations. Hauling is continued with "cats" and drag aprons.

### Camp P

Most of the sawyers of this camp have been transferred to other camps or are taking it easy in town, as the report is made.

Camp P is expected to finish skidding by November 15. At present 12 "cats" and 16 teams are working, and are hard pressed to keep the scale above 100,000 feet per day.

E. M. Barnes is now "pushing" camp, with Chris Reid running the skidway construction crew.

## Six Huge Logs Sawed Into Lumber At Mill

Six of the biggest logs seen in the Clearwater pond for many a day—this year too—were cut into lumber during October. The six scaled approximately 12,000 board feet at the slip.

Cut at Camp T during the summer, the huge pieces were too large to flume. They were loaded on a truck and hauled to Camp 25, where they were transferred to the railroad cars and brought to Lewiston.

Butt logs of the six, there were five of them, had so much swell at the lower end that it was necessary to carve them down with a hand axe so they would go through the band saw rigs at the mill.



Here are five of the six big logs brought down from Camp T and which had to be hewed off at the swell-ends so they could go through a band saw rig.

## Free Public Library Keeps 3,000 Books Going At Potlatch

In October, 1915, through the efforts of Reverend N. M. Fiske, then pastor of the Union Church, the Potlatch Free Public Library and Reading Room was organized. The books from the Union church library formed the nucleus of the new library and funds for periodicals and book shelves were raised by personal subscriptions. Members of the Christian Endeavor acted as librarians for the first eight months.

The first board of directors was appointed by Reverend Fisk and Reverend Father Morris, at that time pastor of St. Mary's church at Potlatch. Since that time vacancies on the board have been filled by vote of the remaining members.

Through donations by the Women's Union and funds raised by food sales, plays and other entertainments, the new venture became an established institution in a few months' time.

### Mrs. Humiston Chairman

Mrs. W. D. Humiston was the first chairman of the library board and served in that capacity until her departure from Potlatch in 1931. It was largely through her efforts that the library continued as a growing institution and an inestimable asset to the community during the world war days and on through the years up until the time the Humistons took up their residence in New York.

At the end of a successful year, the Potlatch Lumber company began contributing \$10 each month. The late F. S. Bell, of Winona, Minnesota, a stockholder of the company, learned of the struggling little institution in Potlatch and sent a check for \$100 and a commitment of books from his personal library. These were followed by other donations and other books.

A few years later a group of musicians from St. Paul, with Mrs. Charles A. Weyerhaeuser, wife of the president of Potlatch Lumber company as featured soloist, gave a concert in Potlatch as a library benefit. More than \$1,000 was realized from this—and it really put the library on its feet.

### PFI Keeps It Going

Potlatch Forests, Inc., now donates the building and the lights for the library and has increased the cash monthly donation to cover the salary of the librarian.



Mrs. Jessie Metcalf, Potlatch Librarian, at the Shelves

The library board has been responsible for the books and periodicals, as well as furniture and equipment and keeps up the insurance.

To make a long story short, the Potlatch Free Public Library has grown since 1915 from 400 books and a very few periodicals to around 3,000 books and subscriptions to three daily newspapers, and 22 magazines, 5 for children and 17 for adults.

Aside from the first eight months in the life of the library, Mrs. Jessie Metcalf has served as librarian.

On the shelves may be found many reference books, complete sets of the works of Kipling, Dickens, Shakespeare, and other classics, and the Pulitzer prize books are always available.

It was gratifying to the board during the past summer that high school students and local young people from the universities, who spent their summer here, found on the shelves many books on their required reading lists.

Through the suggestion of the present chairman, Mrs. J. J. O'Connell, a special effort was made the past summer to provide suitable reading material for the children during vacations. This made an instant appeal and many new patrons took advantage of this reading matter during the summer.

### 900 Books Per Month

Special effort has also been made to supply suitable literature for the men during the winter months when

the operations in the Potlatch are on a slow bell.

According to the the librarian's report, an average of 900 books are issued per month.

During the past summer Potlatch received a visit from Mr. Laird Bell of Chicago, a stockholder of Potlatch Forests, Inc., and son of the late Mr. F. S. Bell. He evinced an interest in the library and after his return home sent a check for \$25 as a contribution and assured the board that he stood ready to match any amount that might be raised locally for library use.

Through the generosity of the people in Potlatch, the financial interest taken by Potlatch Forests, Inc., and Mr. Bell, the future of the Potlatch Free Public Library looks brighter now than for many years.

The present board consists of Mrs. J. J. O'Connell, chairman; Mrs. W. E. Hearn, vice-chairman; Mrs. Victor Runberg, secretary and treasurer; Mrs. W. B. Wakeman and Mrs. Roland Johnson.

### Burls Make Ash Trays

What may be another new industry developed through white pine utilization, was seen in Coeur d'Alene recently when carvings of Sam Dehnert of that city were shown.

Mr. Dehnert has hunted out several white pine burls which he is turning into ash trays and small bowls, the wood taking a high polish and showing strings of bark in the whorls.

## Lay Instructors In First Aid Complete Red Cross Studies

The lay instructors' first aid course was completed last month by ten advanced first aiders of the Clearwater plant.

Dr. A. Floyd Gardner, first aid field representative of the American Red Cross, conducted the classes for three evenings in September and Dr. McQueen of the local health unit was in charge of the final meeting which was held October 16.

Applicants completing requirements received special first aid cards and the blue instructor cards certifying that they are qualified in the American Red Cross first aid service, and are authorized to conduct junior, standard, and advanced first aid courses in the Lewiston chapter. Men receiving these cards were, Wm. A. Green, Reynold J. Peterson, Lonnie Ropp, Lloyd Shangle, John S. Shepherd, Thomas Sherry, Don M. Wowa, Russell Ward Tousley, Hugh E. Wetmore and Charles Epling. LeRoy Wirick is still to be examined by Dr. McQueen as he was unable to attend the final class held by Dr. Gardner.

These men have added new leadership to the plant first aid and safety program.

### New Course Started

The standard first aid course for volunteer Clearwater employees was organized October 23. This was the first of a series of courses in first aid planned for this fall and winter. The class will meet for two hours, one night a week, for the next ten weeks, accord-

ing to Charles Epling, first aid instructor.

The 14 men attending the class are, Ed Wagner, Wm. Lundy, Max Halsey, Ellis Weber, Vernon St. Marie, Lawrence Stevenson, Donald Case, W. L. Weakley, Allen Cress, John F. Green, Theodore A. Oylear, Steve Summers, Bertil F. Bohman and John Kole.

## Here's More About Employee Inventors

(Continued from page one)

both sides of the hardened steel tooth and give the tooth its certain fan-like shape.

The problem presented at the Clearwater plant was the grinding and shaping of these side dies so they would be equal to the 1/1,000 of an inch. The method in use was to remove the side dies from the shaper bolt them to a plate which was shaped at the desired angle, and hold, by hand, the coupled assembly against an emery wheel.

In time the plate became ground by the emery wheel and lost its true angle on one side or the other. Then the side dies were ground unevenly.

George Wright and Josh Lillard, foremen of the filing room, had talked this over many times and one day George, in conversation with a representative of the Armstrong Manufacturing company (makers of filing room tools and machinery) presented some of his ideas. He knew that the side dies should be held against the emery wheel by a piece of machinery that would move in all directions and could be placed at an angle, and remain there, instead of putting the side dies

against the wheel in the unsatisfactory plate by hand.

### Device Proves Practical

George suggested this change in methods, but before going any further with it, talked it over with Jack Frisch, superintendent of manufacture at the Clearwater plant. He drew a rough sketch of his plan and gave it to the Armstrong representative, having decided that to attempt to develop the device here would be expensive and also that any royalties he might expect from the sale of such a piece of machinery would be so small as to be inconsequential.

A practical invention, George's device now is in several filing rooms in the Pacific Northwest, and needless to say, one of the most useful in the Clearwater filing room.

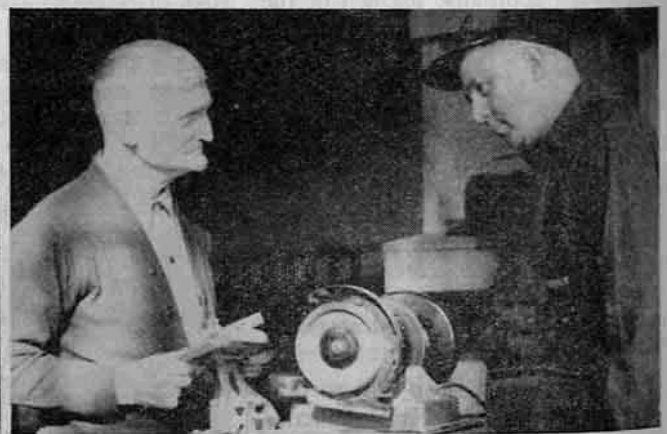
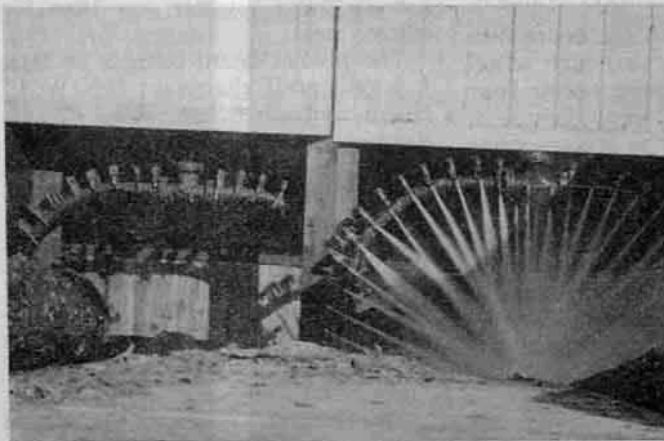
To Kenneth Ross goes the credit for the new log wash system, although the chief pipe fitter says that Jack Frisch deserves the laurels—"The pipe fitters just did the work," he says.

It is difficult to determine just what effect dirty logs may have on lumber manufacturing costs, but most sawmill men know that logs covered with a mixture of sand, gravel and clay will cause considerable trouble and expense in several stages of the manufacturing process.

First, says Ken, there is the lost time to consider. Due to the abrasive action of this mixture on the saws it is necessary to shut rigs down more often (band saws here are taken out for sharpening every four hours).

Second, it is necessary to grind the saws oftener and the saw cost as well as the filing cost goes up.

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On the left is the new log wash perfected by Ken Ross and his gang of pipe fitters, showing one side shut off while the other pours 1,000 gallons a minute on logs coming through the slip. The photo on the right is of George Wright and Josh Lillard, with Mr. Wright's invention for shaping "shaper jaws" at the emery wheel. He is holding the device.

## Here's More About Employee Inventors

(Continued from page six)

And third, this mixture of sand and gravel, being mixed with the fuel, is carried to boiler furnaces and refuse burners, where it forms clinkers on the grates, causing added expense for cleaning and replacing grates.

It is apparent from this that the cleaner the logs are, the lower the hidden costs of lumber manufacture. So we have the log wash on the slip, where the timbers come into the mill from the pond.

### Washer Held Solution

Mr. Frisch has been interested in this subject for many years and intense about cutting the manufacturing costs. He became convinced that the most logical solution was some kind of a washer that would thoroughly wash the logs before they were taken into the mill. As a result of this interest, the pipe fitters headed by Ken Ross, built several experimental washers in which different types and arrangements of nozzles were used to direct strong streams of water against the logs as they passed up the slip.

It soon became evident that a large number of streams would have to be spaced uniformly around the circumference of the log in order that the entire surface would be washed. A wash of this size would be expensive to construct and would require a large volume of water, but Mr. Frisch felt that the savings which would be realized would more than pay for its installation.

It was in 1935 that what is believed to be one of the first, if not the first efficient log wash, was built at the Clearwater plant. At least, so it is said, it was the most efficient that had ever been constructed. That's where the pipe fitters fit into the picture.

This wash is situated on the slip, part way up from the pond and its structural shape resembles an inverted "U" with the supply pipe connected to the top center. The sides are bent from four-inch pipe attached to a six-inch supply connection. Nozzle connections are welded into the back of the four-inch pipe at regular intervals and each nozzle is connected to an elbow to allow individual adjustment for each stream. The main part of the wash has 12 one-inch nozzles with one-quarter inch discharge openings, while a separate line with eight special flat nozzles

runs under the slip and washes the under side of the logs.

### Plenty of Water Used

This wash uses approximately 1,400 gallons of water per minute, started through an eight-inch supply line at a nozzle pressure of 130 pounds per square inch.

That's the history of the Clearwater log wash. A problem was presented when long logs were sent to the mill last summer. There are two slips, one for short logs, and for long logs. The latter are cut into short lengths by a large cut-off saw just inside the mill and the end of the slip. At the time the log wash was first installed, and in fact until last summer, the majority of the logs were short lengths. The long-log slip was used so seldom that it was felt one wash on the chain would suffice.

But when the long logs came in larger numbers, until almost half of the logs that came in were double-length, they had to be taken into the mill without being washed. Thus, the old problem again reared its stubborn physiogomy. Jack Frisch called upon his pipe fitters to put an end to that.

An estimate on the cost of the log wash was easily made, but while the service pumps originally installed in the boiler room had provided ample water for one log wash, it was out of the question to expect them to deliver enough for two, each one requiring 1,400 gallons of water per minute.

After some study it became apparent that the problem had two solutions. Either a new pump could be installed to supply water for the second wash, or as only one slip is in operation at a time, both washes could be installed on one line with a series of valves to shift the water from one wash to the other, as needed.

If a new pump were installed, the pump and necessary piping would cost approximately \$3,000, if the pump were placed near the log wash; or \$3,500 if the pump were installed in the boiler room. As the wash itself would cost \$300, the total cost of this installation would come to approximately \$3,300 or \$3,800, depending on where the pump would be located. This cost seemed excessive.

The possibility of using valves was then considered. The conventional style of gate, or globe valve would be impractical since too much time would be required to open and close them. It was decided to recommend some type of quick opening valve which

would operate easily against the pressure used on the log wash.

After discussing the matter at some length with members of the pipe crew and other maintenance men, it was decided that a lubricated plug valve manufactured by the Merco Nordstrom Valve company would be satisfactory.

### Cost Figures Tumble

It was estimated that this installation would cost approximately \$425. This included the cost of the new log wash (for long logs) which was \$300. After considering the two estimates, Mr. Frisch approved the one using the valves recommended, and Ken Ross and his men were told to go ahead.

The installation was completed on October 7.

Both washers were connected to the same supply line and each was equipped with a Nordstrom 6" lubricated plug valve. The handles of these valves were connected through links with a common handle which extended 54 feet to a position directly in front of the log slip feederman.

Ken Ross heaved a big sigh of relief when the water was turned on and it was found that the 54-foot handle would actually operate the valves. Valve handles were set so that one valve was open when the other was closed. In this way the water was never shut entirely off by these quick acting valves, and it eliminated any sudden surge which would be present if the water were shut off all at once.

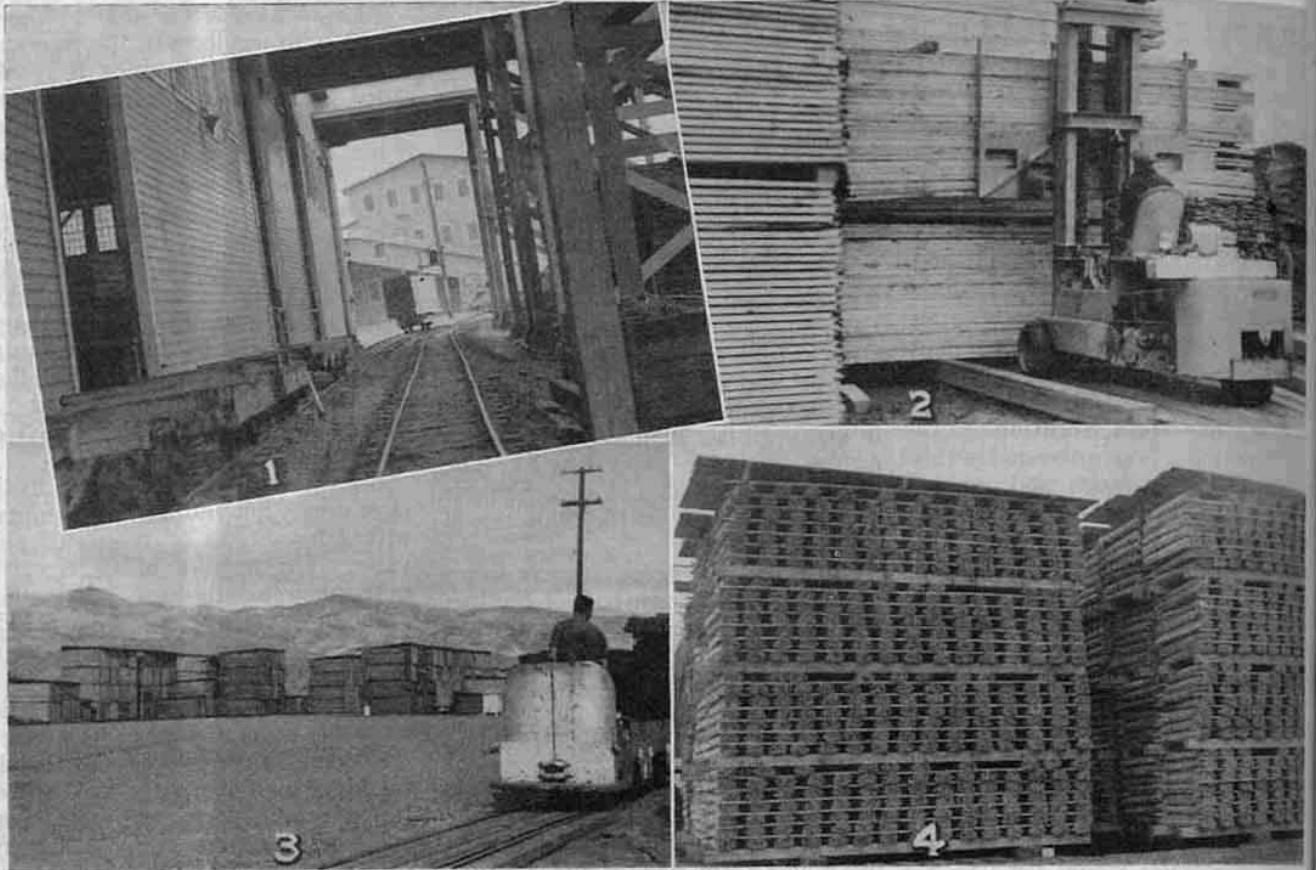
The long handle to the valves is located where the feederman can easily grasp it and change the water from one wash to the other as he requires it on one slip or the other. The net result is that the plant now has two super modern log washers that operate on the same amount of water used by the one original wash.

"While being justly proud of our present log wash system, the pipe fitters do not wish to claim all the credit for its development, because Mr. Frisch as well as members of the saw-mill, pond, and boiler room crews have all contributed ideas," said Mr. Ross. "The pipe fitters take this occasion to express their appreciation to Mr. Frisch for the confidence he has shown in their ability to design and construct this modern log wash."

### Hot Pond Decked In

Carl Harris, Clearwater pond foreman, reports the 1939 decking in of the hot pond with 6,000,000 feet of logs, the most successful of any year.

## Extensive Changes Streamline Potlatch Forests' Lumber Yards



1: Addition of track near unstacker to facilitate monorail loadings. 2: Lift truck in operation piling units in Rutledge yard. 3: Facing Clearwater unit yard with crushed rock. 4: Lath piled in yard at Coeur d'Alene.

### Here's More About Streamlined Yards

(Continued from page one)

piled there, while another area is vacated and the process repeated.

A lift truck will be placed in operation here, to take over the work that was done for several years by a lumber piler invented by R. T. (Bob) Bowling. Mr. Leuschel pointed out that at the time the piler was first brought into the picture, the change in methods of piling lumber presented a great economy and that the Bowling device served to reduce costs of hand piling to a most satisfactory point.

The new lift truck will be more mobile and will increase the efficiency of the yard operations considerably. Its principal point of advantage is that it can be wheeled over to the transfer cars on the narrow gauge railway lines, pick up its load and transport it to the pile, placing it on the pile all in one operation.

Additional yard locomotive rail

track has been built at the north end of the unstacker building, and also at the north side of the rough dry sheds, the latter tracks entering the rough dry sheds and going through them from a doorway constructed about halfway the length of the buildings.

A double track has supplemented the former system of rollways. It is expected that the new system will provide facilities for moving 20 to 25 carloads of lumber at a time. Formerly the monorail system was used exclusively and only one load at a time could be moved.

At the unstacker considerable delay had always been experienced by the necessity for monorail operators to proceed out of the building and switch onto the main line, thus running through switching points in going both out and in to the unstacker.

With the new track laid at the north end of the unstacker, between the entrance ways and the switching points, the monorail operator may now load up several cars without going as far as the switching points, thus leaving the main

line open and free for other monorail cars to travel under.

First steps in the streamlining of the yard at Potlatch were under way during the month, with a donkey engine puffing down on the river bank to present the first sight of one of the machines in operation around Potlatch for many years.

The "donkey" is furnishing power for a dragline to haul sand and gravel out of the river bed. The sand and gravel is in turn being hauled to the yard and spread with a bulldozer on the area cleared of lumber. When the job is done, Potlatch yards will have the same kind of treatment as that of the Clearwater yard.

In the meantime an effort is being made to secure a rock crusher to break little ones out of bigger ones, to furnish a better surface job.

Lift trucks have been ordered and delivery was expected momentarily, although at last reports Rutledge yard was the only one to have a lift truck on the grounds.