



The Dry Kilns ...

OSEASON lumber is to reduce its moisture content to a percentage acceptable for further milling. Sounds simple, but the job of wringing water from a ard is fraught with enough complexities to produce many troubles and a heavy of dollars if improperly managed.

No single phase of lumber manufacture is more important to production of a th quality product nor less understood generally.

Moisture in wood tends to distribute itself equally by flowing from spots of h moisture content to those of low content. To effect a flow of moisture from mece of wood this uniform condition must be upset. This is accomplished by

oving some of the moisture from the face by circulating air of proper temperature and humidity around the piece. Soon as evaporation from the surface mences, a "moisture gradient" has been to be directly a movement of moisture occur from the surface than in the interior, and thereby a movement of moisture occur from the interior toward the face. It amounts to syphoning out the term of the proper relationships between humidity, air temperature and air cirbation.

HUMIDITY ALL-IMPORTANT

Due of the reasons for moisture in the mlated air of a dry kiln is well illusted by comparison with an ordinary floor which will absorb water much more cently if damp than if dry. Another on is that too much heat and not enough

(Continued on page four)

A Prayer for Peace

(This simple prayer was found in the black steel ballot box in which United Nations Security Council will place its secret ballots.)

"May I, who have had the privilege of fabricating this ballot box, cast the first vote?

"May God be with every member of the United Nations Organization, and thru your noble efforts bring lasting peace to us all—all over the world,"— Paul Antonio.

Fire is FOREST ENEMY NUMBER ONE! Each year forest fires destroy property worth from 30 to 45 million dollars. In bad years the loss has been more than 100 million dollars, not including the loss of human lives, cattle and wildlife.

Above-Loaded kiln truck at Clearwater. Note that lumber is so piled as to form a tapered flue up through center of load. This is necessary when air is circulated upward from center vents in kiln floor and diffused out through the different courses, or layers, of lumber as with the Northwest Blower kilns. It is an efficient method of drying . . . but . . . the loaded truck at left, Rutledge, has no flue and holds about fifteen hundred more feet of lumber than does the load at upper right. Cross-circulation kilns (Rutledge has ten) require no flue in the loads, thereby increasing each kiln charge some ten thousand feet (the kilns are 96 feet long). The advantages are obvious.

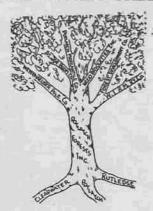
Lumber Shortage

All of us who work in the industry are being frequently asked, not always in a very gentle way, why the lumber shortage exists. Those of us in this company might answer by saying that there is no shortage, but that demand has gone out of bounds. In spite of our return to the five day week, our own company is producing at a rate of 100 million more per year than in peacetime. This, of course, fails to answer the basic question for the industry as a whole.

One important misconception is that substantial shipments of lumber are going to the Export trade. This is not true. Except for tidewater mills, of which of course there are none in the Western Pine area, which have no rail shipping facilities or very limited ones, no lumber is being exported in any considerable volume except on orders of the Army and Navy. Unfriendly critics of the Government will make wild accusations that lumber exports are responsible in an important degree for the lumber shortage at home. This criticism is not warranted by the facts.

In the domestic market the lumber demand represents the release of a pent-up flood of new construction which has been (Continued on page eight)

THE FAMILY TREE



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

. Leo Bodine Editor ... Correspondents Mabel Kelley Potlatch Charles Epling Clearwater Plant Carl Pease .



A request of the American public for funds with which to combat cancer has been asked by American Cancer Society. To judge the need, and measure the wisdom of giving to this organization requires thought of only one of the many in-stances where cancer makes itself felt.

Although not generally known, cancer is a disease of childhood as well as of old age. It afflicts more than twice as many children as die of infantile paralysis. CANCER KILLS CHILDREN AT A RATE WHICH IS TWO AND ONE-HALF TIMES THAT OF INFANTILE PARALYSIS!

Cancer of the eye in children may occur at birth or in early childhood. Cancer of the bone may occur even in infants, involving legs and arms most often but other sections as well. Cancer of the kidney may occur in childhood, generally during the first three

Cancer has proven to be one of the toughest assignments given American scientists, but these men can lick the problem by co-ordinated effort. The public will be asked to give its full support to the Society's 12 million dollar drive for funds. The lives of thousands of children and adults can be made more secure from the ravages of this scourge with the help of American dollars.

Best Exec

The best executive is the man who has sense enough to pick good men to do what he wants done, and self-restraint enough to keep from meddling with them while they



Long experienced cat-skinner Shorty Doyle, Clearwater woods, is this month's n tion for "Man of the Month."

Doyle was one of the two men who first operated tractors for P.F.I. in the Clearwater woods, back in 1928. He has been at it ever since and there is something of the artist in his manner of nursing the absolute utmost out of a sputtering, back-firing, fume vomiting

To horse lovers and those who choose to remember horse skidding days as "the good old days," Doyle must seem half devil, because certainly his skill with a cat and that of other good cat operators has spelled permanent banishment of horse logging.

Doyle prefers, and uses, a choker of smaller size than do most other cat drivers. His chokers are only 36", but careful attention to skidding and application of all the tricks of the trade (of which Doyle has a complete and enviable knowledge) enables him to skid more logs per choker life than probably does any other cat driver in the woods.

Prior to work in the Clearwater Doyle drove tractor for the Bonners Ferry Lumber Company, hauling logs with an old Holt.

Doyle is married and lives in Pierce, Idaho. Like many another logger and citizen of the U.S.A. he is without an automobile at present, having sold his old one for a fancy figure some months past. He is no longer a youngster in point of years, but it is unlikely any number of years will ever dim the bright alertness of his eyes. Sixty years have treated him well and lightly.

Potlatch School Recognized

To School Superintendent Bernard Hopwood, Potlatch, came advice from the ex-ecutive committee of the Northwest Association of Secondary and Higher Schools following its annual meeting in Boise that— "The Executive Committee extends its congratulations to you in your success in the maintenance of the standards of the North-west Association. Your report was very completely and neatly prepared."

From the diary of a female voyager: Monday: "Was flattered to be at cap-tain's table."

Tuesday-"Spent morning on bridge. Captain seems to like me."

Wednesday: "Captain's proposals unbe-

coming to officer and gentleman."

Thursday: "Captain threatens to sink ship if I do not agree to his proposal." Friday: "I have saved a thousand lives."

When a man says, "I run things at my house," he means the washing machine, the lawn mower, and the furnace.

There are four acres of forest growing lands for every individual in the United States.

A young lawyer attended the funeral of a millionaire. A friend arrived at the service

and took a seat beside him. He whispered, "How far has the service gone?"

The lawyer nodded toward the clergyman in the pulpit and whispered back: "Just opened the defense."

Dean Jeffers to Conference

Dr. D. S. Jeffers, dean of Idaho's School of Forestry, attended a nation-wide conference of scientists and technologists in forest products research at Madison, Wisconsin, March 18 to 20. One of the main purposes of the three-day meeting was to examine what science and technology can do to improve wood products and reduce wastes.

The Family Tree has asked exclusive coverage of the meeting of Dean Jeffers, but does not really expect it. How-so-ever, no word at all and off the mailing list he goes.

om Pvt. Rex R. Benson, ndsberg, Germany

in Ft. Lewis, Washington, on the fourth innary. From there went to Fort Jack-South Carolina, then to Camp Kelmer, Jersey, for two days, then to New and to sea on the U.S.S. Sea Purpoise took me and 2700 other boys to Letter, France. We were in LeHarve for days then traveled to Namur, Belgium, we we stayed for six days, then came

andsberg, incidentally, is where Adolph te his so-called famous autobiography in prison. I arrived here the eighteenth february and stayed for three days beteing sent to Fertzing, Germany, where honor guard for eighteen days. Have been getting around.

om a Classmate of k Billings, Teitsin, China

Vesterday afternoon went to a Chinese bling. It was held in modern style (they might) at the Banker's Club. The chief mess was Mr. Si-Qui-Ling, finance mingrifor Hapei Province, which is our since. I wrapped my present in red paper when I arrived walked down a long of people, about 250, to a red dias. At ed table and behind it, believe it or not, a red altar affair with the Chinese meters for marriage in red Neon lights. The father, Mr. Chang, stood on the dias. wed low, but only once, then was ush-to the bridegroom's rooms. There were his classmates and we talked (one or two ke English) and then all went together platoon formation back to the dias. There lowed very, very low and slowly, three ns to the altar affair and then three times Mr. Chang. He returned the bows and withdrew again. The poor bride and



Do you know how to call a doctor?

If it's illness, the doctor wants to know as and symptoms as accurately as you atell him, how long they have lasted; the tient's temperature

tent's temperature. In case of an accident, describe the in-17; what you've done; the victim's aprent condition.

In any case, you will help by keeping calm.
With the help of your intelligent description, the doctor can offer suggestions, decide urgently he's needed, and foresee what upment he will need.

groom get no recognition and neither does the bride's family or the groom's mother. It's all obeissance to the bridegroom's father,

A red and gold ten-man band played "Pomp and Circumstance" very brassily and the groom entered in his western (modern) morning clothes. Everyone threw birdseed and confetti at this point in the proceedings, and began chattering all around the room. Dignity collapsed completely. Some of the magnificent appearing old Mandarins looked slightly askance I thought from under their little black hats and wonderful black silk robes. The bride wore a beautiful western wedding gown and a diamond headpiece and necklace. She had one matron of honor only and all her girl friends, in the old Chinese tradition, held red silk and even fur muffs over her face. She looked to be beautiful when her face was finally un-covered, but despite the modern ceremony, never once raised her eyes. The Chinese words of the ceremony went over my head. As soon as they were wed I was forced, against my wishes but as the only white man present, to step before the dias and make a short speech. I mumbled something or other. It was quite an experience.

Camp Inspection Via Air

Camp watchman "Silent Joe" Clukey may have no love for airplanes, but it was an airplane that recently got him out of a bad situation.

Silent Joe, scheduled to come in to Headquarters around the first of the year, had not been heard from as of early February. Worried, Superintendent Howard Bradbury hit upon the idea of an aerial survey of the camps (Clukey is responsible for 11-14-W-J) after failing to find anyone agreeable to making the trip via snowshoes.

The inspection took less than an hour and a half and the report that came from it was complete to even minor details.

Of Camp 11 Aviator Abe Boller (Orofino) stated building roofs had not been shoveled and that Watchman Clukey came to the door of one of the cabins but that tracks going toward Camp W indicated he had earlier started out for that camp and had returned to 11. This meant he was either sick and unable to travel or that the going was too tough and had compelled his return to Camp 11.

Of Camp 14 it was reported that snow had slid off one side of the cookhouse roof but remained on the other side and that early attention would be necessary to prevent twisting of the roof. Appearances at the other camps were likewise noted.

Result of the aerial survey was to send Joe Clark from Lamp T to Camp 11 to check on Clukey, who was discovered to be sick and nearly out of food. Three men were sent to shovel snow from building roofs and so bad was snowshoeing that two days were needed to travel nineteen miles. The snow was exceptionally light and dry, and deep enough that snowshoe and man would sink to knee depth.

The most important thing about any job is the SAFETY of the man who works there.



H. Z. WHITE, Research Engineer for P.F.I.

Lumber Seasoning

by H. Z. WHITE, P.F.J. Research Engineer

Wood is one of the most useful products provided by nature for man, and as far back into history as one cares to go, reference can be found to the use of wood. Experience quickly taught man that improvements could be made in wood by modifying certain of its characteristics. The most obvious characteristic that lent itself to modification was the removal of water.

Man observed that this modification took place in the natural course of seasonal changes and it became apparent to him that he could influence the speed and degree of this modification by the introduction of artinicially changed conditions. These artificial changes, as of the present time, fall into three basic classes and are called methods of drying. They are, (1) kiln drying; (2) chemical drying; and (3) high frequency electrical drying. A reasonable assumption is that a fourth method may be added later involving the use of atomic energy.

KILN DRYING

Kiln drying is the commonly accepted method of drying lumber in present day practice. Essentially it produces rapid removal of water by subjecting the wood to controlled conditions of temperature, humidity, and air circulation. A great deal has been done in the past decade and a half in the improvement of kiln design and operation, but much remains to be accomplished in the development of new kiln drying principles, new type kilns, and new methods of kiln drying various types of wood products.

CHEMICAL DRYING

The use of chemicals in the seasoning of lumber is a comparatively recent development. Progress seems to be directed along two distinct lines. The first of these follows the theory of applying various chemicals to the lumber when green, to aid in subsequent kiln drying. Perhaps the most widely used chemical for this purpose is urea, a white, odorless, crystalline solid which resembles table sugar in appearance and is produced synthetically by reacting ammonia and carbon dioxide at high pressures. When applied to lumber, urea penetrates the surface zone of the green lumber by diffusion, maintaining the outer zone in a relatively moist and swollen condition while the inside dries. Introduction of urea into the water at the

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The Dry Kilns

(Continued from page one)

humidity will surely result in checks, cup and case hardening of the lumber's outer surface. Actually, during the drying process it is frequently necessary to add moisture by opening water valves and spraying the loads of lumber with water. This act may seem a bit silly on first consideration when the end result desired is removal of water. However, the seeming paradox is explained by the fact that a too fast removal of surface water brings shrinkage and hardening of the outside of the piece before water from the inside has been syphoned out. This in turn creates stresses and strains that later manifest themselves in cup split and checks.

In the other direction, too much moisture when drying White Pine will produce brown stain, and a less than adequate circulation of air will leave wet spots in an otherwise dry load of lumber.

Neglect of the correct balance of humidity, heat and air circulation spells improper seasoning, unsatisfactory lumber, degrade, and an outright loss of dollars. To minimize the chance of such a happening complicated control mechanisms stand guard over each kiln. The indicating gauges of the control show operators at a glance exactly how the kiln is functioning and a removable chart records a complete account of humidity and temperature during the entire drying period, whether it be only a few, or several, days in length.

Dry Kiln Department ... Clearwater

By Phi. Reinmuth, Foreman

Clearwater has both an old and a new battery of kilns but they are almost identical and the slight age difference hardly justifies the distinction drawn by the titles "old" and "new." The old battery was constructed in 1927-28 and the new battery in 1929. In all we have seventy kilns, each large enough to accommodate a 96-foot charge, plus a sample kiln that will handle a twenty-foot load, the floor of which is mounted on scales. Except for kilns one and two, which are cross-circulation, all kilns are of the Northwest Blower type.

The capacity of Clearwater's seventy kilns is approximately three million board feet. In addition there will generally be about a million and a half feet of stock in green storage awaiting drying, plus a like footage in dry storage awaiting the unstacker. This adds to around six million board feet of lumber that is in one stage or another of seasoning all the time. Normally our monthly production will run between twenty and twenty-two million feet.

SORTS-DRYING TIME

Stock at Cleawater is sorted according to heart, sap, watercore, select, millrun, common, vertical grain, mixed, etc. Stacking is made separately of these segregations as well as by thickness and species, Drying time will range from 72 hours for Idaho White pine 4/4 to 432 hours for Idaho White Pine 10/4 match plank. Common lumber is dried to 12%, selects to 8%. Special orders, where end use by customer finds these percentages unacceptable, are dried to percent specified.

PERSONNEL-MAINTENANCE

There are 22 people employed in the kiln department at Clearwater. Operation is on a 24-hour per day, seven day per week basis with shifts so staggered that no employee works in excess of forty hours per week but someone is always on duty.

There are several classes of maintenance work . . . Instrument and clock repair; building of kiln doors; sand blasting of iron door frames so they can be re-used; and the keeping in repair of kilns trucks of which Clearwater has some 2650. The trucks are made of steel, have iron wheels, axles and bearings that must be cleaned and greased periodically. The heat in the kiln makes it imperative that the grease be watched carefully and frequently checked.

In addition to the other items which demand maintenance there are 75 motors and fans to keep up, miles of steam pipe, water pipe, air pipe, spray valves, water valves, air vents, etc. Maintenance on these items is achieved cooperatively with the electric shop, pipe shop and machine shop.

Three transfer cars that move stock into the kilns from the stacker and out of the kilns to the unstacker likewise demand maintenance.

CHEMICALS USED

To kill fungus and growths responsible for blue stain, all match plank is dipped in a solution of Dowacide or Permatox,

It has also been discovered through experimentation here that when old stock is cut into match plank, brown stain can be greatly reduced by dipping the lumber into a solution of borax and water. A carefully kept check revealed that whereas untreated match stock had 8.39% rejects, the borax treated stock ran only 1.12% rejects.

POSSIBLE CHANGES

Some interesting experiments have been carried out recently, such as square chimneys in loads and unit stacking. In a test of regular size tapered chimneys as compared to narrow square chimneys, little difference was discovered.

At present we are attempting to convert kiln No. 5 into a cross-circulation kiln, using the same two-blower type fans and coils. It seems reasonable to believe that this experiment will be successful and that Above — Clearwater kiln foreman Phil

Above — Clearwater kiln foreman Phil Reinmuth and veteran kiln man Henry Steffelback. An experienced kiln man like Steffelback can tell how dry lumber is by one quick swipe of the handle of his pocketknife down the side of a load.



Above—Barney Staley, head millright for Clearwater, also subs as a jeweler . . . at least he's an expert clock repairman and keeps kiln instruments at Clearwater and Potlatch in good working order.

Below—John Carter driving nails into a nearly completed kiln door, Clearwater. Doors are made of 4/4 resawn cedar with tar paper in center. Angle iron protects outer edges and an iron primer paint is used as a protective coating. With reasonable care a new door will last for nine years.



Below-Six million feet of lumber are in one stage or another of the seasoning process at Clearwater at all times.





Above-Lyle Williams, Rutledge kiln forehas a look at the instruments which ntrol kiln No. 2 at the Coeur d'Alene ant. The clock with its inking needles pens) that writes a complete record of drying period on a removable chart is med a psychrometer. This is the instrunt (among others) that jeweler-millright mey Staley keeps in repair.

Below-Looks like a fugitive deep-sea per, but it's only Clearwater kiln employee hs Silleman at work with a sand blasts outfit which is used to clean the angle m removed from old kiln doors in preparain for use on a new door. An airline into helmet creates sufficient pressure to ep sand from entering and affords opernecessary sand-free air to breathe.



Below-Home from the war, former Navy ter Leonard (Butch) Harringer cuts all slice from two-foot samples taken m kiln loads after drying. The slice is ien from center of sample and is then wed in a drying oven where all moisture removed. Weighing before and after trip drying oven on scales at Harringer's right reveal moisture in lumber and gives against efficiency of seasoning pro-



conversion can be made at a minimum of

If the experiment works out as hoped, kiln capacity can be increased from 42,000 feet per kiln to 52,000 feet, or ten thousand feet per charge. Based on an average of 275 charges per month this would increase kiln capacity by 3,750,000 board feet per month and would provide a comfortable cushion against periods of heavy cut.

Rutledge Kilns

By Lyle Williams, Foreman ..

Ten of the latest type Moore Cross-Circulation Dry Kilns give Rutledge more than ample drying capacity and have enabled us to take on some lumber seasoning for other concerns. Two of our kilns are completely automatic, the others nearly so, although all kilns must be given careful supervision.

With cross-circulation kilns it is possible to stack lumber edge to edge and to thus increase the size load as compared to loads stacked with a tapering flue. Air is circulated in one direction for a pre-determined period of time then is reversed and circulated in the opposite direction. Good instruments enable us to regulate temperature and relative humidity very closely and to complete a good job of seasoning in a minimum period of time.

Temperature and humidity is recorded in the usual manner by wet and dry bulbs in the kilns and the travel of ether vapor along connecting tubing between bulbs and instrument. Kiln temperature as between dry and wet bulbs causes the circulation of ether necessary to functioning of the instrument which records humidity and temperature on a removable chart within the instrument case. This piece of equipment is termed a psychrometer, or recording thermometer.

The lumber which we have dried in addition to our own cut has provided some interesting experiences. This lumber is

unloaded in the mill yard from the box car in which it arrives and is carefully kept apart from other lumber.

Dry Kilns-Potlatch

Editor's note . . . A story of the Potlatch kilns was needed to make this issue but Fore-man George Stillwell was home recuperating from surgery. Tree correspondent Miss Mable Kelley here provides some interesting notes.

When the Potlatch plant was constructed and began producing lumber in 1906, five progressive dry kilns were installed. These were not quite finished when the first lumber was cut and some lumber was sent to Palouse for drying.

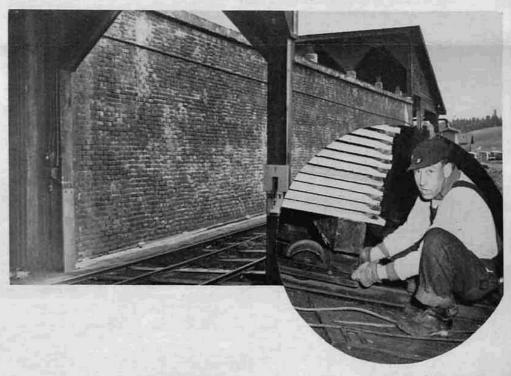
The term "progressive" derives from the practice of pushing a load of lumber into one end of a kiln and letting it remain there until successive introduction of other loads pushes it through the length of the kiln and out the other end. There were plenty of uncertainties in this method of drying, particularly with early day instruments and considerable trouble was experienced with stain, checking and cup. 4/4 lumber required from four to six days to dry. In the first five kilns there were three tracks each.

John Hagen looked after kiln operation until 1911 when John Mosdahl took over

under a contract arrangement. In 1912 G. D. Stillwell was transferred from Elk River to Potlatch and was placed in charge of the kilns. In 1916 Stillwell went to Coeur d'Alene and Charlie Waldrop succeeded him, was in turn succeeded by Carson Severein and finally by Ludwig Swanson who was foreman at the time the Northwest Blower kilns were installed, a section on either side of the progressive kilns,

Mr. Stillwell returned to Elk River from Coeur d'Alene in 1924 and was again transferred to Potlatch in the spring of 1931 to take charge of kiln drying. He has been in Potlatch since that time. Four of the old progressive kilns are still in operation, along with 24 Northwest Blower kilns.

Below-The long brick wall of the west end kiln at Potlatch and in circle-Sunday kiln operator Ted Zimmerschied, Potlatch, gives the photographer a confidential (and colorful) account of a derailment of a kiln truck enroute from transfer to kiln-it was necessary to jack-up the load and replace the truck under the load before proceeding.





Above—Unit stacking on kiln trucks has been tried at Clearwater to determine if it is possible to satisfactorily season lumber so piled. Clearwater kiln foreman Phil Reinmuth thinks it may work okey.

Lumber Seasoning

(Continued from page three)

surface zone in green lumber results in a lowering of vapor pressure and produces a vapor pressure gradient as between treated exterior and untreated interior of the piece. This causes the water in the lumber to flow from the zone of highest pressure to the zone of lowest pressure as in ordinary drying, except that the surface zone remains in a moist, swollen state, and dries slowly enough to prevent surface checking.

The second line of progress with chemical seasoning involves the use of chemicals which in themselves are drying agents and actually absorb the water from the wood. This is termed solvent seasoning. Briefly it involves the removal of water, resins, oils, etc., from wood by the use of certain chemical agents, plus recovery of the agent and the available by-products through a fractionating process similar to the separtion of crude oil into its component parts. Considerable work remains to be done along both lines of procedure in chemical drying.

HIGH FREQUENCY DRYING

High frequency electrical drying is the most recent development in the drying of lumber. It consists of placing the wood to be dried in an electrostatic field between two electrodes. A high frequency short wave current, capable of changing direction over ten million times a second, is applied. When the atoms in the wood are battered and distorted by this oscillation, heat is produced and the wood dries in a few minutes, but there is danger of charring the wood on the inside. This is one of the major faults of this method of drying and must be corrected. Research is being carried on by several universities, and by electrical, radio and telephone interests. High frequency drying is now used to some extent in the setting of glues in manufacturing plywood and it is likely that time will bring the refinements necessary to wider use of this means of drying wood.

ATOMIC ENERGY

Anything that could be said today about the future of any industrial process would not be complete without a prediction that atomic energy may someday be used in that process. The prediction is therefore made with relation to drying lumber. Just how this can be done is beyond ordinary conception at the present time, but the ingenuity of American enterprise can be counted upon to bring forth a method.

Plant News

Clearwater News

Dris Holman has been transferred from foremanship of the rough storage to assistant foreman of the planing mill under Ray O'Connor. Dris has worked for the company since 1934 and has experience in box factory, planer, loading dock and shipping office. His first experience as a foreman came as night foreman for the planer in 1942

Carl Ripplinger has been transferred to yard foreman from a like position in charge of the dressed shed and Bud O'Shaughnessy was promoted from foreman of the replant to become foreman of the dressed shed. Ripplinger has had experience as a lumber grader and prior to becoming foreman of the dressed shed was foreman of the replant. He has been with the P.F.I. since July, 1929.

A special (Easter) pitch tournament was started on April 3rd. There are sixty entries from the day shift, twenty-eight from the 9-10 shift and ten from the 10-11 shift. The games are played each day with one point awarded for winning of one game, three points for two games, four points for three games. Contest will end Friday, April 19th.

The foreman's council started digging of a basement for the new home of their Scout troop on March 21st. Chairman of the committee in charge is Charlie Cummerford, who hopes to complete the project by June 1st. There's a weary droop to some of the foremen of a Monday morning, probably the result of too much cabin construction on Sunday.

The bowling tournament nears the finish with the Gypo's out front. The team includes Bill Knopes, Elven Olson, Jim Sibert, Pete Nelson and Wally White. Sub is Fred Nelson. Leading team in the women's league is the Punks with team members Jesse Carlson, Faith Erickson, Frances Muscat, Frances Spooner and Doris O'Shaughnessy.

The first evidence of a new cafeteria can be noted on the north side of the present smoke hall. It is the changing of the power lines and removal of a horseshoe court which had not quite been completed.

The Clearwater plant now has its 168th veteran back on the job-Frank Speno.

Cleo Williams, who recently sent word from Japan that he had encountered a load of lumber over there with a grade slip on it that bore his name is home and will be back at P.F.I. sometime soon.

The forest land of this country is half again as big as is the land on which field crops are grown.

Woods News

Bovill

During the month our warehouse foreman, Chet Yangel, drove to Orofino with some supplies which were to be dropped by plane to the watchman at Camp 40 (snowed in). Chet took advantage of this opportunit, to take an hour and a half airplane ride.

The supplies were packaged in fifty pound packages and were dropped by two planes. This is not an untried experience as supplies were dropped from a plane to fire fighters on the Gold Creek fire last fall. The pilots were willing to bet there would not be one broken egg in the crate they dropped into camp 40.

Many servicemen have come in and applied for their old jobs back, among them several cat drivers and a scaler.

John Vaughn, warehouse bookkeeper, was called to Duluth, Minn., last month by the death of his mother.

Several fellows around here are getting very anxious for bird hunting season. There is a nice large Chinese pheasant which feeds just outside the warehouse nearly every day. Chet Yangel's trigger finger is itchy as can be. We are hoping the Chink rooster doesn't disappear before hunting season opens.

The Latah County Chamber of Commerce will hold a meeting on April 17th at the Camp 42 cookhouse.

Illness has forced Barbara Wood to resign her job as parts department clerk. Fred Cunningham has succeeded her.

Camp 43-Deep Creek

Some of our loaders have become very eloquent speakers on the subject of mud... last summer it was dust.

"Shamrock," known as John Barry to payroll clerks, and to thousands as "ten dollars and costs," has taken a few days off to visit friends in Spokane. Should anyone wish to contact him during his leave of absence he can probably be found around the city courthouse.

Mrs. Beulah Glaser requests that her name be printed in *The Family Tree.*—(From the ed—Happy to oblige, but why!)

Camp 45—Badger Meadow

Along with every other camp we have had March trouble. During February two dozers and the patrol were busy keeping roads free of snow. After the snow had stopped piling up, it began to rain. As the snow settled the mud increased and the roads began to break up, especially in the woods.

In order to skid, corduroy had to be placed in many main roads, A large number of men were needed for this purpose. Trucking was continued until the tracks had to be pushed back to the Osgood and then towed out again. On March 21st skidding and trucking crews were laid off for two or three weeks until road conditions improve.

Only men employed at camp now are twelve gangs of saws and the regular camp crew . . . cookhouse, bull cook, filer and overhead.

Camp 42-Bovill

rept for sawing, we suspended operaon March 25th due to weather. It have some new knotty pine table tops

dining room . . . very nice.
ring the month Violet Shostrom said
as also did Hank Freytag—they are
undecided about what they are going to
that is, whether she will continue to

Headquarters

eorge Thiessen made a trip into Headners in March to visit ex-servicemen are now with the company and to call tion to special training for better ions they can get through the G.I. Bill of

le Camas Prairie has discontinued the engine on the Headquarters logger, to curtailed production in the camps.

a snow—she go, but there's plenty yet. Independent found fault with the capunder Frank Baney's picture in the mary Family Tree. We think he rates fan of the Year" title.

essell Bishop has resigned from manent of the Headquarters Drug Com-He is to participate in a towing conton Priest Lake, also looks forward all the hunting and fishing which the amding country affords.

Camp 55—Lower Alder Creek

the tussle between Old Man Winter and mg. At present Spring is doing very with much of the snow gone and lots

wke Corbett seems to feel pretty lucky riding the jammer down a twenty-foot ankment without a scratch. However, are you cannot load many logs from that

Camp 57—Breakfast Creek

lid you been at Camp 57 in March you lid have noticed—

to days of sunshine.

for

376

Im Lashell busy answering letters from Lonely Hearts Matrimonial Bureau, isster Agnes McWortle of Pine Ridge, ressee, will settle for nothing short of me marriage.)

mis Potter conplaining about the \$2
me of shoe leather he wore off during
the resions cost \$50.00.

His ordinary

orge Rauch beaming all over because trips to the landing.

two recurred to the Bill Coon eggless, had less, testeless variety.)

the www up to the top of the A frame on the

d Nelson setting traps. His only catch the cookhouse crew's pet cat and it

is now rumored the cook carries a cleaver in his hip pocket. Red has inquired about an insurance policy that has complete coverage against everything.

Howard Johnson spending a bit more time than usual in Spokane. He is reputed to be working on a plan that will enable him to direct the saw crews by remote control.

Camp 58-McComas Meadow

The mud has caused our truck haul to stop until better weather. The crew has dropped about fifty men. Snow is gone, but we're having too much rain.

The carpenters are adding a few new shacks . . . we need more room since the bunks were cut down.

Joe Quinn reports seeing five elk on the truck road a few days past,

Camp 59-Meadow Creek

We have a good sized crew and everyone is busy. Snow is going fast—look out for the mud.

Camp 54-Washington Creek

Our sawyers aren't exactly unhappy about the snow disappearing—we have twenty gangs at the moment.

Spring must me definitely close at hand. Joe LaMotte's pet deer is frisking around more than somewhat. She is a very versatile animal and after eating literally hundreds of cigarettes has now started chewing to-bacco and is learning how to spit.

Nigger, the black cat, after inspecting various sites for a prospective maternity home, finally selected a nice box of clean clothes in the girls' "dorm" and hatched out three cute kittens—Nuff said!

The loader, after being "un-snafued" is doing a fine job. Mac Barnes is all smiles.

Mrs. Broadders, our baker, has left camp. She did a nice job here and took with her the best wishes of the entire camp.

Clerk George Heafford took a three-weeks leave of absence and returned with a new set of teeth . . . now charges 25c per bite. Stanley McKinley took over during his absence.

We're looking forward to electric lights.

There was an old man walking down the street. Noticing a small boy sitting down on the curb crying, he asked: "Little boy, why are you crying?"

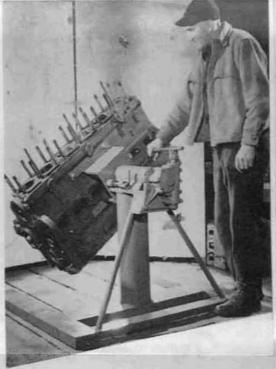
"Because I can't do what the big boys can do."

So the old man sat down and cried with him.

Some women throw themselves away but most of them take careful aim.



TESTS RECENTLY MADE ON A LARGE WESTERN TIREE FARM MAY POINT THE WAY TO INCREASING TIMBER SUPPLIES BY KILLING INSECTS WHICH KILL TREES. DDT, SPRAYED ON A FOREST FROM THE AIR, DESTROYED 4,300,000 TREE-DEVOURING INSECTS PER ACRE!



OLE HEMLY, truck shop foreman, Headquarters.

Engine Stand

A very necessary help to the repair of the Cummins engines that power P.F.I.'s large Peterbilt trucks, and some of the loaders, is a stand to which the motor can be attached following removal for repair, and which will permit easy access to top, bottom, sides and at least one end. Ordinary engine stands or tables that

Ordinary engine stands or tables that might be used interfere a great deal with the mechanic's freedom of access to parts that must first be assembled, and later reassembled. With this problem in mind, Henry Hemly, Headquarters truck shop foreman, turned his hand to designing a suitable engine stand and has come up with one that has many noteworthy features.

An old steering gear was utilized to give leverage necessary to easy turning of the engine which can be mounted on the stand by removing the fuel pump and simply bolting the motor onto an adapter bracket while it is held in position by an overhead crane. The stand is so arranged that the engine under repair can be revolved around a horizontal axis to make either the top or the bottom accessible as desired. A stop has been built to lock the engine in any sought position. The stand is an ingenious and useful piece of equipment. Like other high grade shop tools of this type it will do much toward increasing shop efficiency.

TO SPECIALIZE

Many units of logging equipment are of the same, or similar, make and model. In repair shops this means that much equipment will be repaired in a similar manner, that parts will be interchangeable, etc. It also means that specialization in a particular part of the repair procedure can be expected to produce a faster and better complete overhauling. For instance, one department may work entirely on the overhaul and rebuilding of engines, another on gear cases, a third on body repair, etc.

For the reason that such specialization will necessitate development of many tools suited to performance of the separate parts of a repair job, the Hemly Engine Stand deserves particular mention.



Tree Farming.

There may have been those who though it a passing fancy, or just a whim of the moment, that caused Rutledge Unit Manager C. O. Graue to plant a miniature tree farm within the Rutledge mill grounds a few years past. But, last month Mr. Graue had plenty of evidence to justify his tree farm and to prove a point that needs proving—"TREES GROW AND UNDER FAVORABLE CONDITIONS, PROTECTED FROM FIRE AND DIS-EASE, RENEW THEMSELVES WITH ASTONISHING SPEED.'

Above is picture that was taken in November of 1943. Plainly visible in the background is a sign which reads "TREES LIKE THESE WILL FURNISH LUMBER AND GIVE EMPLOYMENT FOR FUTURE YEARS. DO YOUR PART IN HELPING PROTECT THE FORESTS OF TOMORROW.'

Below is a picture of the Rutledge Tree Farm taken in late March, 1946. Only a top corner of the sign can be seen and Mr. Graue is almost lost in the forest of his creating. Multiply the growth plainly visible (as between these two pictures) by all the trees on all the acres of all the tree farms in the U. S. and the enormous lumber and wood producing capacity of these millions of acres takes meaning.

Manager Graue is a firm believer in visual education and considers a good picture to be the equivalent of thousands of words and much easier to grasp. The Rutledge Tree Farm was created for just that reason . . . to furnish a picture of how trees grow. The correctness of Mr. Graue's thinking is plainly evident on this page.

The first business of America was started by colonists in Jamestown, Virginia. It was the exporting of timber to England in the year 1608.

One-third of the U. S. is forest land. In area it is fifteen times the size of the state of New York, about nine time the size of Idaho.

The driver who throws his beam back up in anger when the oncoming driver doesn't dim his lights may be cutting off his nose to spite his face!

Poles to St. Joseph's

A flag pole and ten other poles for the playground at the St. Joseph's Children Home (Slickpoo) were recently delivered by P.F.L., gratis.

During the month word was received that Orvle C. Hamilton, formerly a P.F.I. employee at Camp 36, died in Belgium on November 10, 1945, of cerebral concussion. No word incident to cause of death beyond the brief description was received by relatives who thought him in good health and had received letters dated up to three days before death.



(Continued from page one) -

Lumber Shortage

held back for more than fifteen years. The dam burst when the war veterans returned home to their wives and families determined to live in houses separate from their in-laws, which is a per-fectly natural desire. Other forms of ordinary construction held back by the war have added to this demand for lumber. This is especially true in the amusement field and in the travel field. There is a tremendous demand for garages, service stations, tourist cabins, etc. We as heavy lumber producers are caught in the nutcracker, the jaws of which are the demand for house lumber and the demand for lumber other than that used in house construction. To help us in this predicament the Government has directed us to see that 40 per cent of our lumber is sold for veterans' house construction. Out of the remaining 60 per cent in our own case, we must supply our box factory; moulding departments; provide all lumber needed for construction and repair on plants and in the woods; supply our old established match plank customers; take care of our old retail customers who have been with us for years, in good times and bad; and our old time railroad and industrial customers. We are trying to do a fair and equitable job in deciding who gets lumber from us and when they get it and how much they get. It is impossible to do this job and keep everybody pleased. You can understand that the ramification and detail are endless, and impossible to discuss in limited space. But one general statement we can make-The local communities are by no means suffering in proportion to our customers as a whole, and particularly, any employee needing lumber for his own personal, legitimate construction or repair is going to get it.

C. L. BILLINGS. General Manager.

