

The History of Lumbering in Morrow
County, Oregon

by
Clinton Kenneth Peck

A Thesis
Presented to the Faculty
of the
School of Forestry
Oregon State College

In Partial Fulfillment
of the Requirements for the Degree
Bachelor of Science

June, 1942

Approved:

Professor of Forestry

Statement of the Purpose of Thesis

The purpose of this thesis is to discover the facts of the lumbering history of Morrow County, Oregon.

Importance of the Investigation

The investigation is important because of the increased lumbering activities which are developing within the county. In the past years lumbering filled the local needs of the agricultural and grazing industries, but now shows promise of expanding to outside markets. This industry is important to a large number of local people of Morrow County.

Review of Related Previous Studies

No previous studies have ever been made on this subject to the best of the writers knowledge, and from this point of view the investigation should be worthwhile and of interest.

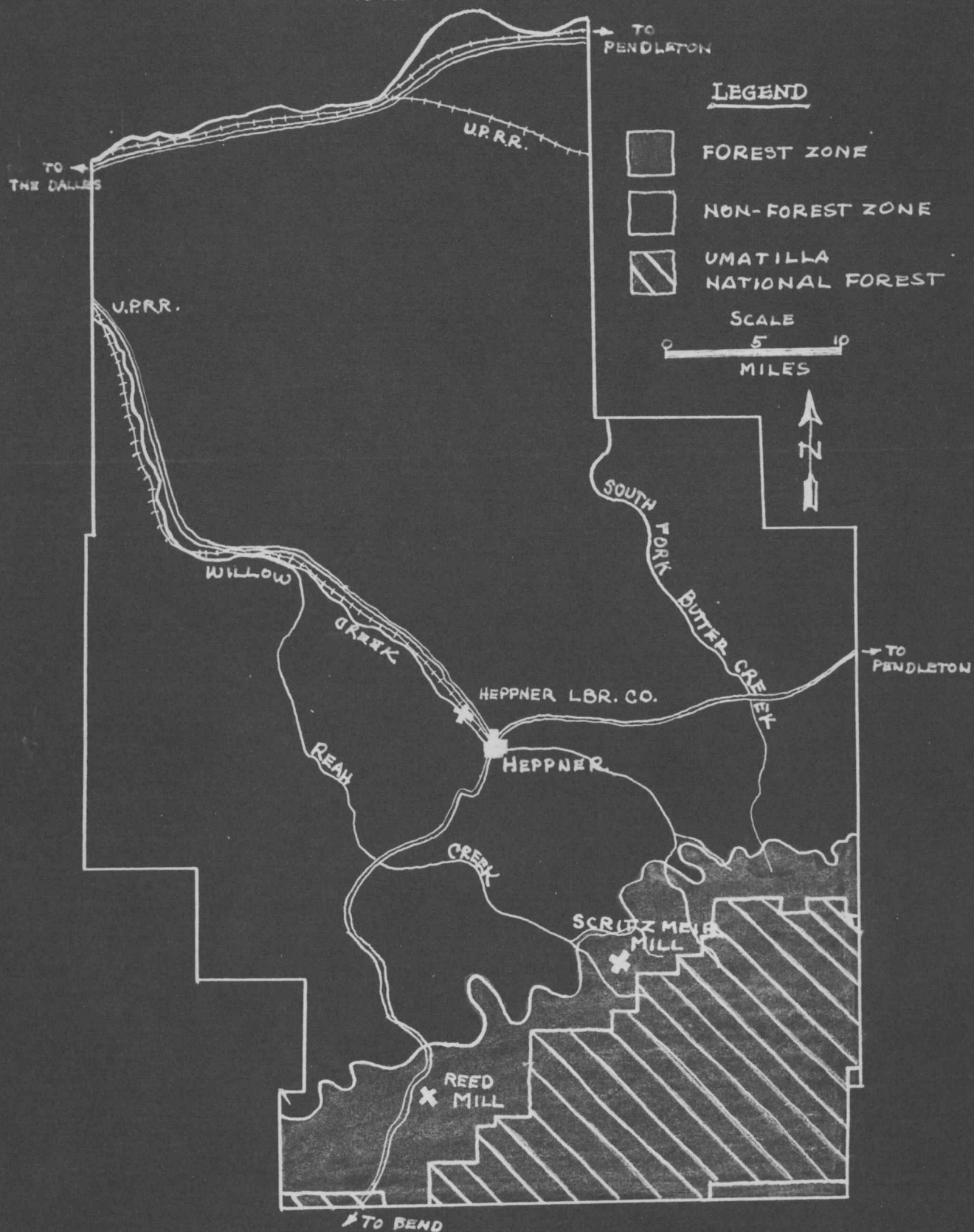
Methods of Investigation Used

1. Research work in historical volumes.
2. Interviews with authorities on early lumbering.
3. Trips to mills and logging operations to secure data, photographs, and information.

Report:

Section I Introduction and Background.

OUTLINE MAP
OF
MORROW COUNTY, OREGON
1942



Importance of County's Forest Lands

Morrow County, Oregon, consists mainly of non-forested agricultural and grazing lands with forests occupying only about one-sixth of the total land area. These forests, concentrated in the extreme southern part of the county as shown in Figure 1, contain valuable stands of saw timber and are of importance to the two main industries of agriculture and grazing as a source of wood material and summer range. The forests have been little utilized in the past except to meet the local demands of a small rural population. Since about 1937, however, utilization of the county's forests has been rapidly increasing and growing in importance from a lumber standpoint of view.

Location and Description of the County

Morrow County is located in north central Oregon, being bounded on the north by the Columbia River, on the south by Grant County, on the east by Umatilla County, and on the west by Gilliam and Wheeler Counties. Total land area is approximately 1,296,000 acres, according to the Bureau of Census.

The Forests

From the summit of the Blue Mountains the timber belt extends north about six miles and breaks abruptly into open range country with stands of Ponderosa pine

in the canyons. Stands on the slopes are of good merchantable quality.

The south slope of the county to the Grant border is similarly timbered. Altogether the forest lands constitute 210,630 acres or 16 percent of the total county area.

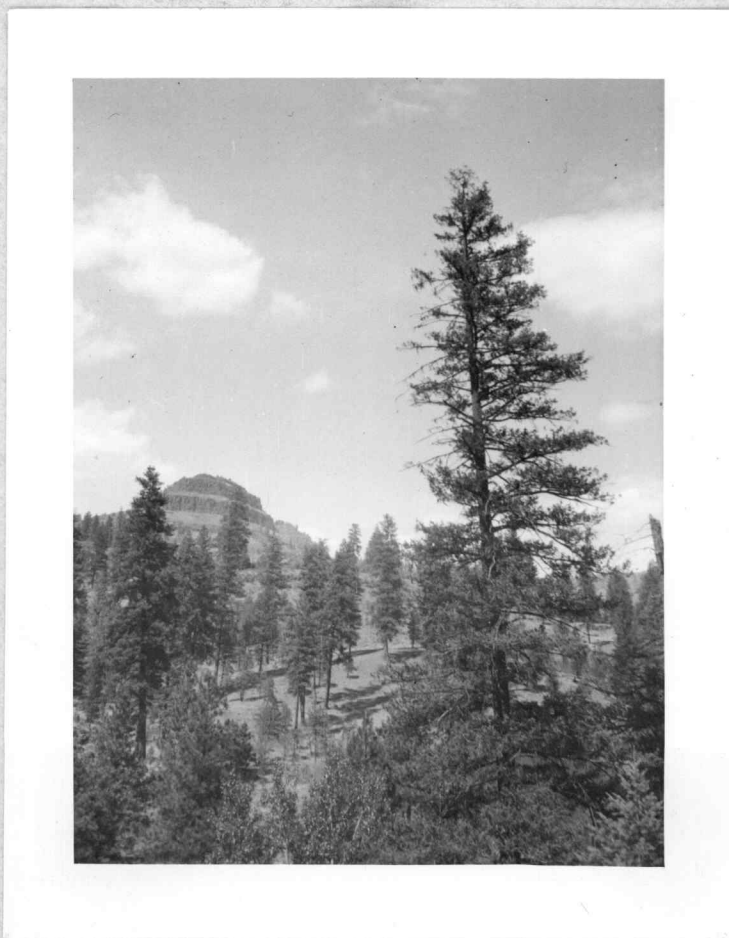


Figure 2 Typical south-slope stand of Ponderosa pine.

Saw timber stands containing 50 percent or more of Ponderosa pine of 22 inches or more DBH compose about

two-thirds of all the forest land. These pine stands are most accessible.

On more moist and cool slopes in the pine area are also found mixed stands of Douglas fir, white fir, and western larch. At higher elevations on the north slopes are found other mixed stands of lodgepole pine, Englemann spruce, and Douglas fir. These stands are the least valuable of the saw timber forests and are situated in non-accessible areas. 1/

The total volume of timber in Morrow County is 1,504, 000, M board feet of which Ponderosa pine is 80 per cent or 1,200,000 M board feet. Douglas fir is 12 per cent.

Most of the forest land is in national forest and private ownership. Private lands have 48 per cent of the total merchantable volume.

In the past years logging has been limited to small operations and only about five percent of the saw timber has been depleted. Most of the remainder is easily accessible to existing roads and is favorable for logging, especially in the north part of the timber belt.

In Morrow County the average annual cut during the ten years previous to the 1937 survey was less than half a million feet, log scale, which is considerably less than the sustained yield capacity of the land. Some of the lands cannot be considered as constituting an

independent operating unit but should be considered as a cooperative timber management plan along with the neighboring counties of Grant and Wheeler. 2/

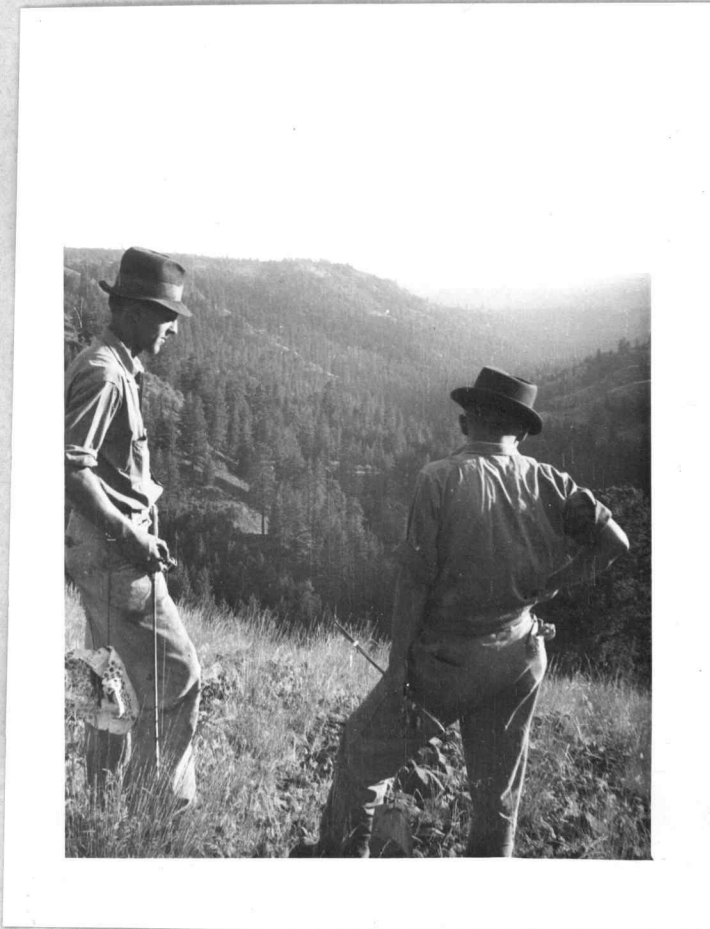


Figure 3 A north-slope mixed stand of Ponderosa pine.

Surveys of the Forests

The first timber survey notes to be made on this forest area date back to 1874 for the surveyor general of Oregon. The contractor who did the work was Alonzo

Gegnon. Later surveys occurred from time to time until the whole area had been covered by 1887. Latest timber survey to be made was completed in 1937 for the Forest Service by William E. Sankela. The report classifies the timber lands as to species, ownership, type, volume, and management possibilities. 3/



Figure 4 Potomus Ridge fire lookout, Umatilla N. F.

All federal-owned timber in Morrow County lies within the boundaries of the Umatilla National Forest.

Section II Pioneering the Lumber Industry.

Early Cutting of Timber

The first cuts on the forests were made in the "fifties and sixties" when packers, freighting in supplies to the mines in Grant County and in Idaho, built settlements at the various places along the route.

In 1869 there was only one house in Heppner, the present seat of Morrow County and district office of the south half, Umatilla National Forest, and there were not more than 25 families in the surrounding country. Most of these people lived in log cabins. Provisions and supplies were freighted in from Umatilla Landing and Fort Dalles. Freighters and traders induced J. W. Morrow to come to the present site of Heppner with a view to establishing a trading post. In 1872 several buildings were built and at least one of them was known to have been constructed of whip-sawed lumber and hewed sills.

The whip-saw was a progressive step following the building of log cabins, although lumber produced by this means was very crude and rough. This implement consisted of a steel-bladed rip saw about seven feet long, of the thickness of present-day cross-cut saws, and fitted with wooden handles. The width tapered from six to four inches at the butt end. Teeth were of the common rip-saw type.

Only the best of logs could be used from which to saw lumber. Each tree was necessarily felled on favorable ground so that the men could dig a trench below the logs in which to stand and pull the whip saw. The duty

of the other man was to guide the saw and pull it upward for the down stroke. Logs were often placed on skids and moved into position over the pits so that the laborous work was made easier.



Figure 5 Whip-saw and frow owned by Lee Cantwell.

Lumber produced by this method was crude and sold for about \$150 per M board feet as was estimated by Lee Cantwell, Heppner, Oregon, who has in his possession one of the whip-saws used.

Along with the whip-saw was found another tool called a frow (or "froe") which was used to split shakes from blocks of logs. The wood handle of the tool is at right angles to the splitting blade and was used to

control the cut when the blade was struck with a wooden mallet. This tool was probably used more widely than the saw and continued in use longer.

Trees used to make the shakes had to be of straight grain and free of knots. Most commonly used was pine, although larch was often a substitute. After the proper length of block had been cut from the log, the block was split into quarters and the cores chipped off and discarded. The frow was then struck with the mallet to make the shakes.

Practically all of the early buildings were roofed with crude shakes and many buildings so constructed are still in use as one to be found on the farm of George N. Peck, of Lexington, Oregon.

Section III Early County Sawmills.

Van Armen Mill 4/

It is a matter of record that some of the lumber that went into some of the first buildings in Heppner came from the Van Armen mill located on the head waters of Butter Creek and established in 1872 in forests of what is now Morrow County near Gurdane, Oregon. Settlers hauled rough lumber many miles to their homesteads. Little is known about the Van Armen mill, but it undoubtedly preceded the White and McLaughlin mill which operated near the same site until about 1890 when operations ceased. Using an up-and-down, single-sash saw, the White and McLaughlin mill furnished a limited amount of lumber to early settlers in the eastern part of the country.

Parker's Mill 5/

A mill located in the timber at Rock Creek in the western part of the county was erected prior to 1876 by a man named Gleason. Records show that Ben Parker bought half interest in the Gleason mill in 1876. This mill developed into one of the better known small lumbering operations of Eastern Oregon and continued to operate until destroyed by fire in 1920.

Logging consisted of felling of the timber by cross-cut saws and skidding of the logs to the mill by oxen and later on with horses.

The mill was fitted with a circular type head saw

with a capacity of around 20,000 board feet per day.

Much of the lumber was remanufactured by a steam-powered planer which turned out rustic pine siding and tongue-and-groove patterns. This lumber was marketed in Morrow County and used in many of the older buildings, many of which are still standing.

The mill out-lived its owner, was operated by his widow, later was run by Ryle and Grimes, and was burned but not rebuilt. During its existence an extensive settlement grew up around Parker's Mill composed of employees and their families. A store, school, hotel, and post office were built on the meadows near the mill. Because this settlement was the only main stop on the old freight road to the John Day Valley, Parker's Mill remained important until the Condon branch railroad was built to tap that area. In later years the site was famous as a picnic spot.

Garrigue's Mill 6/

The first lumber mill to be built in the Willow Creek basin area was started by S. P. Garrigues about the year of 1878 at a site three miles above the forks of the stream. Garrigues and his partner, Julius Keithley, operated this mill for several years and found a ready market in the fast-growing town of Heppner, fifteen miles north.

In 1885 Garrigues sold the mill to W. G. Scott who continued to operate. Logging was done by oxen; 18 were used in all. Logs were skidded down the hillsides in dirt chutes and were cold decked near the mill or stored in a log pond, supplied with ample water from the creek.



Figure 6 Driver and oxen skidding logs

The circular type mill was powered by a steam engine and employed from 15 to 18 men during the sawing season. The carriage differed from those in use today in that the logs were floated into the mill

which was built over the stream and had to be turned by hand with a hook. Lumber coming from the saw was carried out of the mill on rolls to the dry yard.



Figure 7 Garrigues' Mill which was sold to W. G. Scott

Garrigues had established a planing mill in Heppner and much of the lumber was remanufactured there and sold in the community.

The saw mill burned after Scott had operated for three years, but he rebuilt the mill and continued sawing lumber.

lumber for another two years. At this time he retired to go into the mining of coal at a site on Willow Creek a few miles above the mill.

The sawmill was sold to Luther Hamilton who operated it a short time, resold to Al Slocum, who moved the machinery to Dutch Billy on the left fork of Rhea Creek, twelve miles west. Slocum also purchased the Garrigues planing mill in Heppner which he operated in connection with the Dutch Billy sawmill. Later he sold the planing mill to James Reid and sons.

Ad Moore's Mill 7/

The Ad Moore mill was built on the Johnson Creek fork of Butter Creek, but the exact date of its start is not known. The saw rig was of circular type and driven by steam power. Cut lumber was piled on top of a hill leading into the Little Butter Creek valley. This drying yard was used as a shipping point from which teamsters with wagons drawn by horses hauled loads of about 1000 board feet per trip.

Although the timber available was of the best to be found in this area, the mill was operated only a short time because roads were poor and labor costs rose at the time of the first World War to add to expense and make continuance unprofitable.

Usable mill equipment was sold to Volle and Medlock and moved to the main fork of Rhea Creek several miles

below the Hamilton ranch and operated several years during the 1920's. Considerable lumber was cut at this mill until it burned.

Reid's Mill 8/

James Reid, who came to Morrow County from Bradley, North Dakota, became interested in opportunities in lumbering. Purchasing land on the Thorn Creek fork of Rhea Creek, he erected a sawmill moved from Mosier on the Columbia River.

Logging was done in the winter with horses and logs were cold decked for sawing in the spring and summer. From twelve to fifteen men were employed by Reid to operate the circular-type mill. Lumber was hauled by wagon to Heppner.

Reid had five boys and one of them, the oldest boy was killed at the mill. Martin and Arthur Reid two younger sons, dissolved the partnership after their father died in 1913, Martin taking the planing mill in Heppner and Arthur the Thorn Creek sawmill. In 1930 Arthur sold the sawmill to Bliss Hauffmann.

The machinery was then moved to Three Rock Flats where considerable lumber was cut, but water supply at this site was a problem, and when contracted stumpage was cut, Hauffmann moved the mill to the forks of upper Rhea Creek. This mill is now owned by

the Heppner Lumber Company and is a "feeder" operation for the main mill at Heppner.

The Lee Cantwell Mill 9/

On the upper left fork of Willow Creek, known as Caldwell Creek, Lee Cantwell, Louis Kelly and a man named Mitchell purchased Beeles' timber and set up a small, circular mill of 10,000 board feet capacity. Machinery was purchased new. Logging was done with horses by a man named Wilkins. The sawing continued until the summer of the famous Heppner Flood when work was stopped to allow the men to help in rescuing people and property. Much of the lumber stocks, stored in Heppner, were lost in the flood and the mill was not operated again by the partners.

Lee Slocum bought the machinery, finished the Beeler cutting, and moved the equipment to Willow Creek above the former Scott mill. He sold to a man named Rasmus who operated then dismantled the mill and sold the machinery.

The Boiler Camp Mill

Situated a short distance above the Lee Cantwell mill was the operation started by Ike Basey. This was a unique mill because it never cut any lumber but split poles for fences. He also ran a shingle machine

using pine logs. As far as is known is the only mill of the type ever to operate in the area. It is more important from the character of the work and the value rather than from the volume of fence stock it cut.

Mallory's Mill 10/

In Burton Valley, a fork of Rock Creek in the extreme western part of the county was located the Mallory mill, an operation employing about ten men. Logging was first done by oxen, but horses were later used for this purpose and to haul lumber to Heppner, Hardman, and Eightmile. Rough lumber, planed boards, and rustic siding were manufactured. Rustic sold for \$17.00 per 1000 board and common boards sold as low as \$9.00.

Beginning of operations was in 1890 and after the mill equipment had changed hands several times, it was finally sold to a dealer of sawmill machinery in 1940.

Herren's Mill 11/

Willard and Claude Herren and a nephew owned timber on the head waters of Willow Creek near the coal bed outcropping. Prior to 1907 the men erected a mill in this timber, buying new sawmill machinery. Ten to twelve men were used at the mill to run the circular saw and other machinery. According to records the first season's cut was about 200,000 board feet of lumber.

While at work building a road to take out the lumber the men discovered the outcropping of coal and considerable

optimism prevailed about the possibilities for a mining industry in the county. Because of the strike sawing was not resumed again in the next spring, but the coal later proved to be almost worthless.

Section IV Present Lumbering Operations.

Dormant
OLD RELIABLE BOND

The Scritzmeier Mill 12/

Lee and Harold Scritzmeier built a mill on the head waters of Rhea Creek near the Hamilton ranch in 1933 of 35,000 board feet capacity. The mill is of circular type and of good construction. From 25 to 30 men are employed in the woods and mill operation.

The first season's cut was 500,000 board feet of good quality pine lumber. Because of the depressed lumber prices from 1934 to 1937 the mill was not run. However, since 1937 operations have been comparatively steady. Bliss Hauffmann, former Three Flats mill owner, is head sawyer.

The logging is done with a Caterpillar D7 which skids the logs direct to the pond in tree lengths where a pondman cuts them into proper lengths from a floating island in the pond. Figures indicate that the tractor and Hyster arch used will economically log a distance of two miles from the mill. Beyond this radius trucks will haul the logs to the mill.

The operation is rather unique in that the timber is felled, logs sawed, and lumber transported to market within the same day. Lumber is marketed through the Heppner Lumber Company.

Waste material is burned as there is no other economical disposition available.

The Reed Lumber Company 13/

Fred Reed established a mill one mile south of Chapin creek fork on Rock Creek, two miles below the site of the famous Parker's Mill. This mill has been in operation for the past 12 years and has been successful.

The mill rig is of circular type with a capacity of 30,000 board feet per eight hours. An adequate supply of mill water is available for a pond and for steam. Fred Reed, owner, is the head sawyer.

William Greener, logging contractor to the Reed mill, used Allis-Chalmers tractors and trucks for logging. Lumber is yarded near the mill before hauling to Heppner for shipment to the Spokane White Pine Company. A small portion of the cut goes directly to local people.

Successful operation in the future is the outlook to be expected.

The Heppner Lumber Company 14/

The Heppner Lumber Company was organized in April, 1940, as an Oregon corporation. Stock is controlled by the Kraft Cheese Company and by Orvill Smith, general manager of the plant. The mill is located two miles northwest of Heppner on the O. W. R. & N. tracks.

Logging operations of the company are contracted to John Zornes whose camp is located on the site of the

former Ad Moore sawmill on Johnson Creek fork of Butter Creek in the eastern part of the county. Having built a logging road to tap the Johnson Creek timber, Zornes hauls 32 foot logs to the mill at Heppner. Logging can be carried on by truck via this road and the highway throughout the winter. The haul distance is 34 miles.

Skidding in the woods is done with a Caterpillar D7 with Hyster arch and a smaller Rd6 Caterpillar with a hydraulic bulldozer. Zornes is the only operator supplying logs to the Heppner Lumber Company.

The sawmill is equipped with a seven foot band saw, "shotgun" carriage, Eastern type edger, edgings hog, and double-end trimmer. Logs are cut to proper length in the pond with a steam-driven drag saw. A well-equipped filing room is provided for keeping saws in top condition.

Steam from boilers burning hog waste furnishes power for the mill. Electricity is secured from the Pacific Power and Light Company, but according to Smith the company is planning to add a power plant when conditions warrant such expansion.

Two Yates planers operated by electricity with a combined capacity of 75,000 Board feet per eight hours surface the output of the mill, the Scritzmeyer mill, and the Hauffmann mill.

Figure 9 Heppner Lumber
Company mill.



Figure 10 Logging truck
dumping logs at
pond.

Figure 11 Double-end trim
saw used on green
chain.

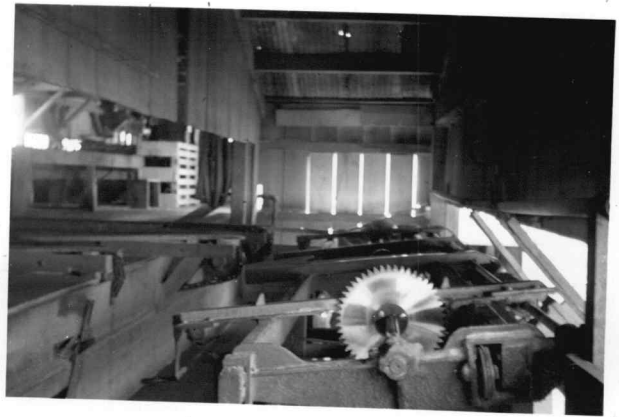
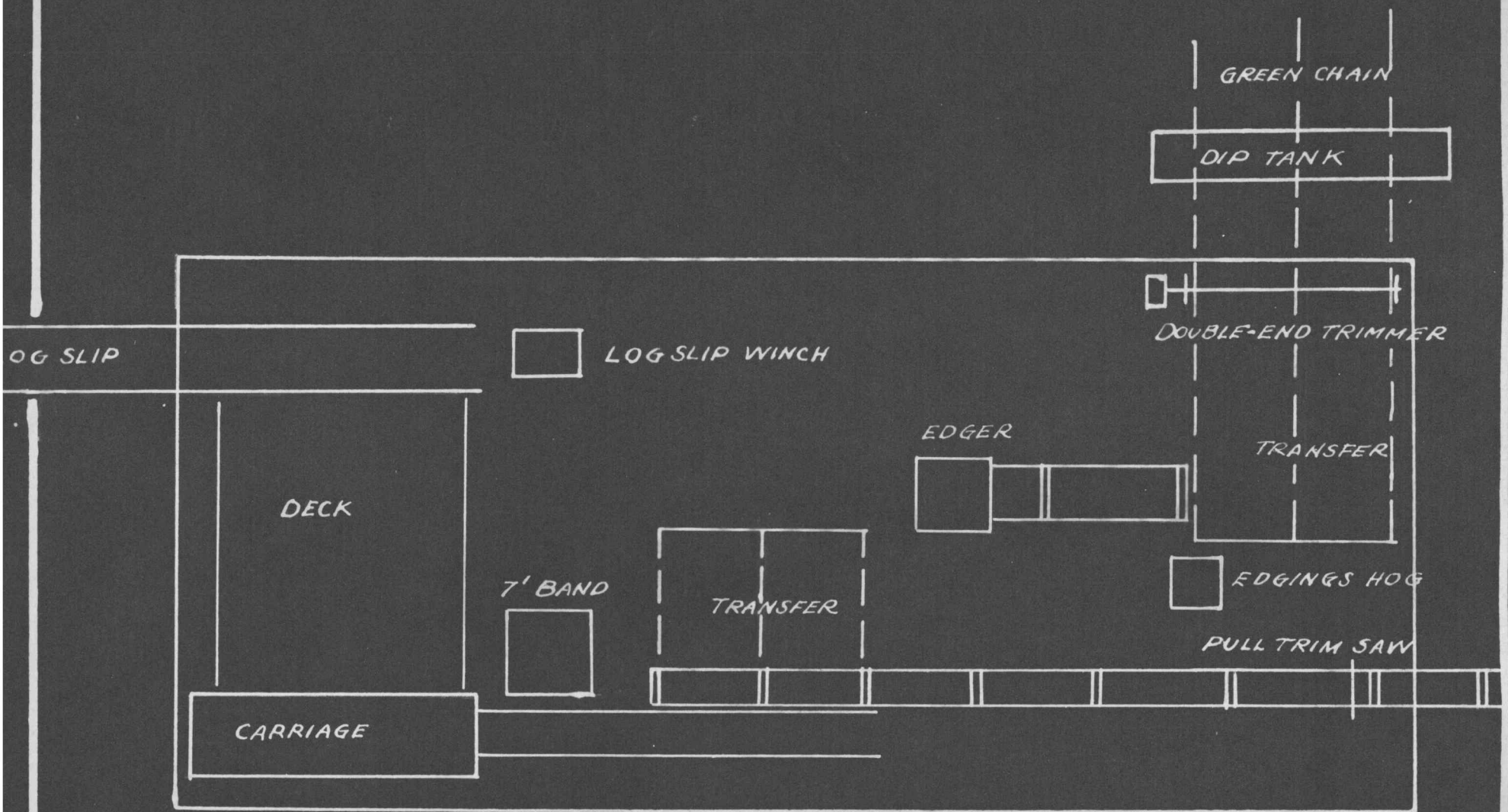


Figure 12 Planers and
planer chain.



FLOOR PLAN HEPPNER LBR. CO. MILL
CAPACITY: 45 M

Shipping docks and a storage shed are parallel to a four car side track of the railroad. At the present it is estimated that about 85 per cent of the lumber is going into defense work. Two-thirds of the cut goes to the Bridal Veil Lumber and Box Company for remanufacture into boxes for the Kraft Cheese Company. One-third is shipped to the East.

Lumber produced is air dried, but expansion plans call for call for the construction of dry kilns. At the present time lumber is stored in a drying yard until ready for the planers.

The company employs about fifty men at the mill, planer, office, and yard; forty are required in the woods. Local men compose the crews and operations are generally steady at the present time.

The disposal of waste products as sawdust and slab wood has presented no problem as local markets absorb all waste the mill cannot use. Farmers buy much slabwood.

Sufficient timber holdings are owned by the company to operate for at least ten years at the present rate of cutting. The purchase of additional timber supplemented by Forest Service sales will add to the reserve. The first purchase of stumpage was made at \$1.50 per 1000 board feet. With good logging roads it will be economically possible to haul logs from the south Heppner area to the mill.

The Kinzua Pine Mills Company 14/

The forests of Morrow County cannot be considered as an independent operating unit but must be considered along with accessible forests north of the John Day rive in Wheeler and Grant counties. At the present time a cooperative sustained yield management plan is in operation with the Forest Service and the Kinzua Pine Mills Company of Kinzua, Oregon, Wheeler County. Much of the timber supplying the mills comes from Morrow County, however, under this cooperative plan.

The Kinzua Pine Mills Company is controlled by stockholders in the East but is operated by the three Coleman brothers, J. F. Coleman, general manager, C. C. Coleman, logging superintendant, and A. B. Coleman, mills superintendant. These men were with the Biles-Coleman Lumber Company of Omak, Washington before the organization of the Kinzua Pine Mills Company.

The basic transportation scheme of the permanent logging program of the company is a privately-owned logging road of state highway specifications. Kinzua has just completed the oiling and surfacing of 11 miles of this logging road which has a usable width of 22 feet, easy curves and no adverse grade of more than $3\frac{1}{2}$ per cent. The road winds around through the western flank of the Blue Mountains and taps a body of timber in Morrow County.

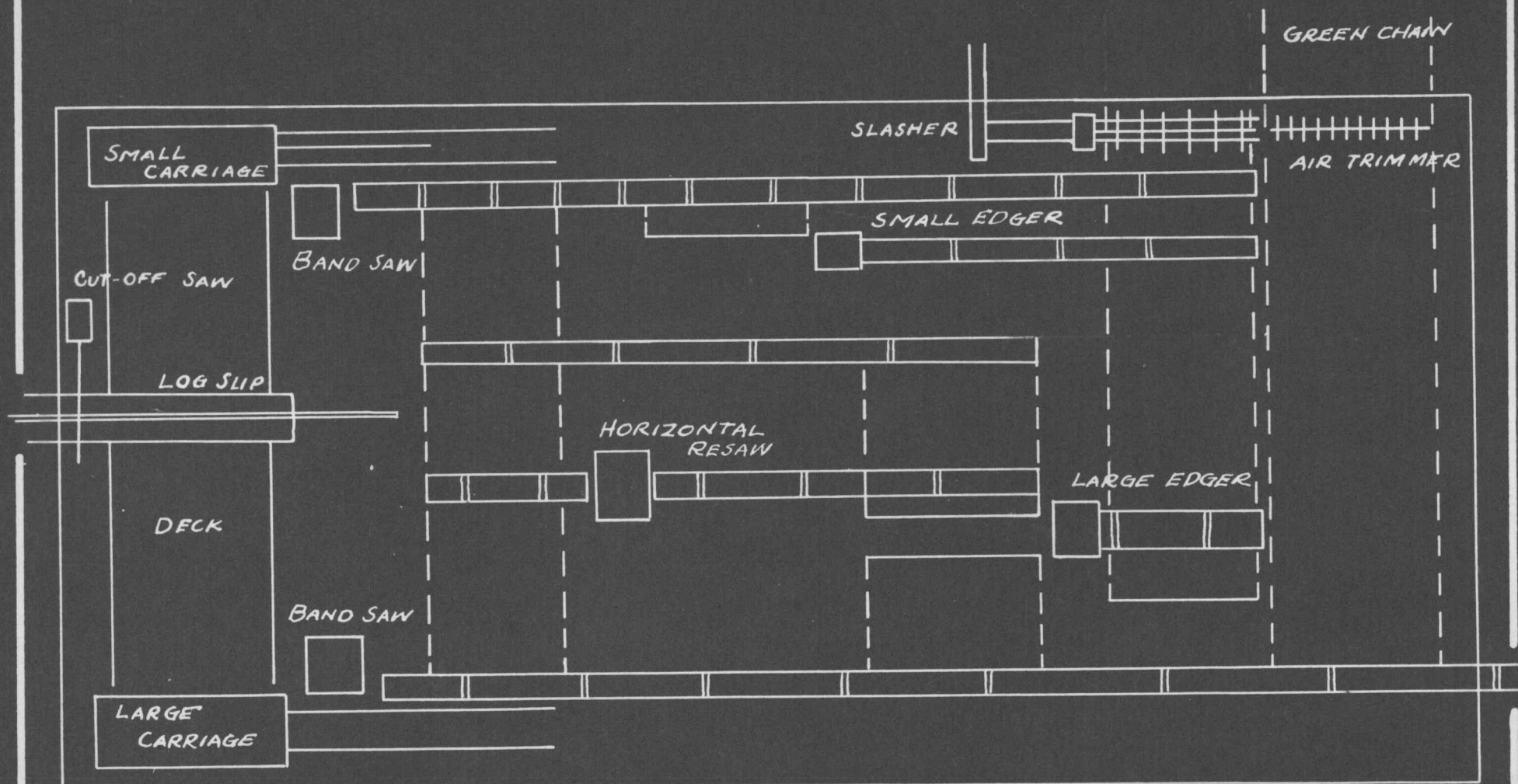
The company will use the road in connection with its 12 miles of logging railroad whose railhead is at Wineland lake which has been deepened and developed to hold logs in storage for winter use.

At this junction of road and railroad has been built a new logging camp consisting of truck barns, warehouses, nine bunkhouses, 16 four-room family dwellings, and operating offices.

Logs will come over the new truck road to the lake where they are transferred to rail cars by means of a loading rig devised by Carl C. Coleman, logging superintendent. Four Mack Diesel trucks powered with Cummins engines with double axle Gunnederson logging trailers haul loads up to 12,000 board feet.

Four Caterpillar Rd8's and a D8 with dozers and Hyster arches or skidding chokers bring the logs to the landings where they are loaded with a Northwest shovel-type loading rig.

The modern sawmill at Kinzua is equipped with fast, air-dogged, "shotgun" carriages. On one side of the mill is a large A-C band saw while the other side is equipped with a smaller, pony-type saw. A horizontal A-C band resaw, located behind the two rigs, saws valuable clear grades of lumber from the slabs. An air, automatic trimmer is used. There is also a small lath mill.



FLOOR PLAN KINZUA PINE MILL

CAPACITY: 140 M



Figure 13 Caterpillar D8 and bulldozer building logging road. Note the ease with which the machine moves the blasted rock.



Figure 14 Caterpillar 60 and grader finishing grade built with bulldozer.



Figure 15 Heisler geared locomotive steaming up for a run to the logging site.



Figure 16 Gasoline-powered jammer loading logs.



Figure 17. Battery of eight Moore Cross-Circulation dry kilns at Kinzua Pine Mills Company.

Rapid handling of green lumber from the green chain of the mill is a unique characteristic of this operation. As the chain extends downhill over a depression, the lumber is lowered directly to kiln trucks without having to be rehandled. Eight Moore Cross-Circulation dry kilns season 100,000 board feet of pine lumber per day. This takes care of the production of 38 hours per week during which the mill is in operation.

Recently added to the planing mill were two S. A. Wood planers with H-O tilting lifts. These units surface enough lumber in eight hours to keep the factory running for two shifts. Kinzua Pine Mills Company, following new trends of pine lumber manufacture, does not stock large inventories of lumber items.

The planing mill and factory turn out finished grades of lumber, glued-up stock, mouldings, window frames, box shooks, and specialty items. Most complete utilization of the log is practiced. Very little scrap material is burned; the company does not even have a burner for the sawdust is used for fuel and slab waste is sold as wood to employees and farmers.

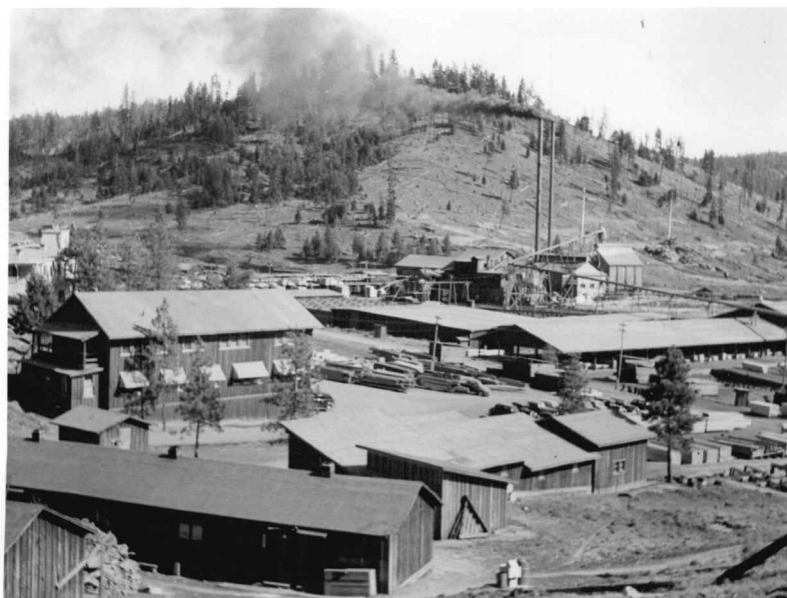


Figure 18 General offices, dry kilns, and mills.

As the outlet for the company's products is in the East a sales office is maintained in New York City. Trade promotion is also carried on from the general office at Kinzua and through the Western Pine Association of which the company is a member. Lumber products reach their market via railroad to Condon, Oregon and the O. W. R. & N. lines.

Conclusion

The lumber industry in Morrow County, Oregon has gradually developed in magnitude and importance and shows promise of a bright future.

The outlet for present timber in the county narrows to two channels: outside markets and local markets with the first named being of major importance.

The timber will probably be converted into lumber principally by four mills: the Heppner Lumber Company, the Reed Lumber Company, the Kinzua Pine Mills Company, and the Scritzmeyer mill. These present day operations will probably continue in the field for the immediate future years to come and will harvest and market the timber crops of Morrow County.

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- 7/ Ibid. 6/
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- 9/ Lee Cantwell, Heppner, Oregon
- 10/ Lotus Robinson, Hardman, Oregon
- 11/ Mrs. L. G. Herren Rumble, Heppner, Oregon
- 12/ Harold Scritzmeyer, Heppner, Oregon
- 13/ George N. Peck, Lexington, Oregon
- 14/ Orville Smith, Heppner Lumber Company, Heppner, Oregon