

UNITED STATES DEPARTMENT OF LABOR

W. N. DOAK, Secretary

BUREAU OF LABOR STATISTICS

ETHELBERT STEWART, Commissioner

BULLETIN OF THE UNITED STATES
BUREAU OF LABOR STATISTICS

..... No. 560

WAGES AND HOURS OF LABOR SERIES

**WAGES AND HOURS OF LABOR
IN THE LUMBER INDUSTRY IN
THE UNITED STATES : 1930**



MARCH, 1932

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GOVERNMENT PRINTING OFFICE
WASHINGTON : 1932

FOR SALE BY THE SUPERINTENDENT OF DOCUMENTS, WASHINGTON, D. C.

CONTENTS

	Page
Sawmills:	
Introduction and summary.....	1
Average hours and earnings, 1928 and 1930, by States.....	5
Average and classified earnings per hour, 1910 to 1930.....	6
Regular or customary hours of operation per week and per day.....	10
Changes in full-time hours per week.....	15
Changes in wage rates since June 1, 1928.....	15
Overtime and Sunday and holiday work, 1930.....	18
Bonus systems.....	19
Index numbers of employment and of pay rolls, 1923 to 1930.....	20
Lumber produced in the United States in 1927.....	21
Importance of the lumber industry.....	23
Scope and method.....	24
Occupations.....	25
General tables—	
TABLE A.—Average number of days on which employees worked in one week, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1930, by occupation and State.....	27
TABLE B.—Average and classified earnings per hour in eight specified occupations, 1930, by State.....	37
TABLE C.—Average and classified full-time hours per week in eight specified occupations, 1930, by State.....	42
Logging camps:	
Wages and hours in logging camps in 1930.....	45
General table—	
TABLE D.—Number of employees, full-time hours per week, and rates of wages in logging camps, 1930, by State and occupation.....	47
APPENDIX A.—Sawmill occupational terms and definitions.....	69
APPENDIX B.—Glossary of occupational terms used in logging operations..	79

APPENDIXES

APPENDIX A.—SAWMILL TERMS WITH DEFINITIONS, AND CLASSIFICATIONS BY BUREAU OF LABOR STATISTICS

Sawmill term	Definition	Classified by bureau as—
Automobile mechanics.....	Repair auto trucks used around the sawmill.....	Other employees.
Barnmen.....	Include horse tenders, team tenders, and stablemen. They feed and care for mules and horses used in the lumber yard.	Do.
Belt men.....	Adjust or repair machinery belts.....	Do.
Blacksmiths.....	Do light and medium forging and general anvil repair work on wagons, trucks, and other equipment around the sawmill; also refit and set horseshoes.	Do.
Blacksmiths' helpers.....	Look after forge fires, use the sledge as directed by blacksmiths and assist in general blacksmithing.	Do.
Block setters.....	(See Setters).....	Setters.
Boatmen.....	Use a flat boat or raft and pike pole (long light pole with a spike and hook at one end) in sorting and moving logs in the pond to the foot of the slip.	Pond men.
Boilermakers.....	Straighten buckled plates and make necessary repairs on engine boiler.	Other employees.
Boilermakers' helpers.....	Cut out bolts, rivet by hand, and do other work under direction of boilermakers.	Do.
Boilers.....	Feed slabs, edgings, etc., over saws for the purpose of cutting them into bolts or blocks of a width and thickness suitable for conversion into desired by-product.	Do.
Boiler tilters.....	Take "bolts" from behind the boiler.....	Laborers.
Bolt sawyers.....	(See Bolters).....	Other employees.
Boom men.....	Assist in unloading logs from the log train into the log pond.	Pond men.
Bottom pilers.....	Place several layers of old or poor grade lumber on the ground as a foundation for the stack when stack foundations are not permanent.	Laborers.
Buggy cutters.....	Dump lumber from trucks, buggies, dollies, wagons, etc.	Do.
Buggy loaders.....	Pile lumber onto buggies, trucks, dollies, or wagons for transfer about the mill or yard. In the lumber yard they alternate work with unstackers.	Do.
Bull-chain operators.....	(See Deckmen).....	Other employees.
Bundlers.....	Make bundles of lumber by placing together finished pieces. They may also tie the bundles with cord, wire or metal bands.	Laborers.
Bunk loaders.....	(See Buggy loaders).....	Do.
Burner men.....	Attend the burning of waste at mills where there is no stack and screen. Watch for scattering sparks, etc.	Do.
Butting sawyers.....	Operate saws which trim the ends of timbers. (See Timber trimmers, machine.)	Sawyers (small saws).
Button sawyers.....	(See Timber trimmers, machine).....	Do.
Camel-back men.....	(See Transfer men).....	Transfer men.
Cant setters.....	Transfer the cants from the line of rolls leading from the head saw usually over dead rolls onto the table in position for the gang saw. Two or more are usually required depending on the size of cants and arrangement of rolls and table. If the cants are small, they may be piled one on top of another and side by side to the full capacity of the machine.	Laborers
Car loaders.....	(See Loaders).....	Do.
Carpenters.....	Do general carpentry repair work around the sawmill and yard.	Other employees.
Carpenters' helpers.....	Assist carpenters.....	Do.
Car repairers.....	Make repairs on trucks, buggies, etc., which are used around the sawmill.	Do.

Sawmill term	Definition	Classified by bureau as—
Carrier drivers.....	The Ross carrier is used for transporting lumber to the yard, the loading dock, or other place about the mill or yard. It is a motor vehicle having a high chassis or frame so constructed that the vehicle can pass over a pile of lumber approximately 5 feet high and 4 feet wide. Two wheels of the carrier pass on each side of the lumber to be moved and the upper part of the frame passes above the lumber. The stack of lumber has been laid on two strong cross pieces of timber and when the carrier is immediately over the pile of lumber, four chains or two angle beams are let down from the machine and attached to the ends of the cross timbers under the lumber. The chains or angle beams are then drawn up by a drum arrangement and the lumber is hoisted a short distance from the ground or floor and carried to its destination by the machine. The operator of the machine is called a carrier driver or carrier operator. The operator bears the same relation to the machine that an auto-truck driver bears to the truck. Other types of carriers are also used for the same purpose.	Truckers.
Checkers.....	Estimate the quantity and verify the kinds of lumber in the various departments such as yard, dry shed, etc.	Other employees.
Do.....	(See Tallymen).....	Tallymen.
Chute feeders.....	(See Conveyormen).....	Laborers.
Clapboard sawyers.....	After the bark has been removed logs are sawed lengthwise into wedge-shaped sections radiating from a central core. The block being fastened at the ends and turned on its longitudinal axis for successive cuts. When the block has been revolved completely, it is removed from the machine, the boards are pried and split loose from the core. The finished clapboard is 48 inches long, 7 inches wide, one-half inch thick at one edge, and tapers to the other edge.	Other employees.
Clean-up men.....	(See Sweepers).....	Laborers.
Conveyor men.....	Work at or along the conveyor chains leading to the waste burner or to the hog, and keep the waste from clogging the chains.	Do.
Crane chasers.....	Attach hooks or slings to a quantity of lumber which is to be handled by crane, and signal the cranesman as to raising, lowering or moving the load, and also loosen the hooks and chains after the load has been moved.	Do.
Cranemen, log yard....	Operate the controlling devices of a boom crane used in unloading logs, and in moving or placing them near the saw carriage.	Other employees.
Cranemen, lumber yard and dock.	Operate stationary cranes used in hoisting lumber but do not move it outside the radius of the boom. (See Hoist operators)	Do.
Cranemen's helpers.....	Attach chains or slings to crane loads and may signal the cranesman as to raising, lowering or moving the load and also cast off the chains or slings after the loads have been moved.	Laborers.
Cranemen's slingers.....	(See Cranemen's helpers).....	Do.
Crane operators, locomotive.	Transport loaded bunks of lumber from one department of the mill to another, such as from green chain to kiln or from yard to planing mill, shipping dock, etc., and deposit in a pile without further work of unloading or piling.	Trucks.
Cut-off saw tailers.....	(See Off-bearers, planing mill).....	Laborers.
Cut-off sawyers.....	(See Sawyers, small saws).....	Sawyers (small saws).
Cut-up sawyers.....	do.....	Do.
Deck men.....	Work on the log deck where they operate, by the use of levers, the bull chain which pulls logs up the incline from the log pond. They may also operate mechanical kicker or a bull wheel and cable for turning or rolling logs to the incline of the deck, or use a cant hook or peavy for this purpose, and also at some mills may remove rocks or stones embedded in the bark of logs, using a pick or an axe in doing this work.	Other employees.
Deck sawyers.....	Saw long, crooked, or knotty logs into lengths more convenient for the head saw to handle.	Do.
Derrick men, log yard..	Operate the controlling devices of a derrick or boom crane used in unloading logs and moving or placing them in position near the saw carriage.	Do.
Dimension cutters.....	Examine logs on the log deck and designate the product into which they shall be cut.	Do.

Sawmill term	Definition	Classified by bureau as—
Dock men.....	Load lumber into vessels for shipment.	Laborers.
Doggers.....	Operate levers which force the dogs, which hold the log in place on the carriage, into the log and release them when signaled by the sawyers. On some carriages there is only one dogger and on others two, one at each end, particularly when long logs are being cut. On the more improved carriages, this work is performed by the setter in addition to his regular duties, there being no doggers.	Doggers.
Drag sawyers.....	Operate a power-driven cross-cut saw which cuts long or crooked logs into two or more lengths.	Other employees.
Dry-kiln men.....	Watch the temperature of the kilns and direct the placing and removing of bunks, or cars of lumber. Foremen direct this work in some plants.	Do.
Edger line-up men.....	(See Edgermen's helpers)	Laborers.
Edgerman, after head saw.	Adjust by means of levers, the pressure feed and the saws of the edger to the proper width for cutting each board or timber, straighten edges, remove part having bark, and feed boards or timbers into the edger. They may also operate the transfer chain or stop block in mills in which there are no transfer men.	Edger men.
Edgermen, pony, after head saw.	Operate a small edger after head saw. (See Edgermen)	Do.
Edgermen, yard.	(See Sawyers, small saws)	Sawyers (small saws).
Edgermen, planing mill.	do.	Do.
Edgermen's helpers.....	Assist the edgermen in placing boards or timbers on the edger table and in lining them up for feeding into the edger.	Laborers.
Edger spotters.....	(See Edgermen's helpers)	Do.
Edger tailers.....	Work behind the edger, keeping the boards or other product going straight on the rolls and also disposing of the strips or edgings by loading them onto the waste conveyor chains leading to the slasher. (See Edger tailers)	Edger tailers.
Edging catchers.....	(See Edger tailers)	Do.
Electricians.....	Repair defects or make necessary changes in the wiring for lights or ignition about the plant.	Other employees.
Electricians' helpers.....	Work under supervision of electricians	Do.
End matchers.....	Feed pieces of hardwood flooring which have already been through the planer into a machine which cuts the tongue at one end and a groove at the other.	Do.
Extra men.....	Experienced men who do miscellaneous work about the sawmill. They are usually qualified to perform work in several occupations and take the places of employees temporarily absent.	Do.
Feeders' helpers.....	Place boards or other product on or near feeding table, and when necessary steady or support ends of long pieces.	Laborers.
Filers' helpers.....	Assist filers in caring for the saws.	Other employees.
Fire-protection men.....	Make the rounds of the plant day or night to guard against fires and trespassers and look after water barrels, hydrants, extinguishers, hose, or other fire-fighting equipment.	Do.
Flatmen.....	Pick flat strips from the edger waste.	Laborers.
Foremen, working.....	Work as well as supervise.	Other employees.
Gang oilers.....	Oil the gang-saw machinery when this is not part of the regular work of other oilers.	Do.
Gang-saw helpers.....	Assist in placing the cants in position for sawing.	Laborers.
Gang-saw tailers.....	Work behind the gang saw, keeping the product and waste moving as they come from the saws. They may also do the work of transfer men in mills if there are no regular transfer men.	Off-bearers, (gang or re-saw).
Gang sawyers.....	(See Sawyers, gang)	Sawyers, gang.
Graders.....	Work at sorting chain just outside the saw mill, at the dry kiln, or at convenient places in the sheds, yards, planing mill, timber dock, or other place where they examine the lumber to determine the quality and mark the grade on each board or timber with chalk or pencil.	Graders.
Graders, lath.....	(See Lath graders)	Other employees.
Graders, molding.....	Examine molding for defects in molding-machine work rather than for quality of stock.	Do.
Graders' helpers.....	Turn boards for graders whenever inspection of both sides is necessary.	Laborers.
Grinders, knife.....	Grind knives of the hog machine.	Other employees.
Hog feeders.....	(See Hog men)	Laborers.
Hog grinders.....	(See Grinders, knives)	Other employees.
Hog men.....	Feed hog machine which grinds waste material of sawmill for use as fuel in furnaces. It is necessary to feed the waste evenly into the hopper, and to keep any waste from entering that would choke the machine.	Laborers.

Sawmill term	Definition	Classified by bureau as—
Hoisters, log pond.....	Operate a donkey engine used in raising sunken logs and towing them to the slip, raising large logs so that they will start up the slip, and in releasing logs that have become jammed in the pond.	Pondmen.
Hoist operators.....	Use a stationary crane or gin pole in hoisting logs or lumber within the radius of the boom.	Other employees.
Hookers.....	(See Tong men)	Yardmen, logs.
Horse feeders.....	(See Barn men)	Other employees.
Horse tenders.....	Do.	Do.
Inspectors.....	(See Graders)	Graders.
Inspectors, logs.....	(See Dimension cutters)	Other employees.
Inspectors, lumber.....	Examine lumber that has already been graded to correct faults in previous grading, and to regrade lumber that has gone off grade while in stacks or bins.	Do.
Jackers, planing mill.....	Assist machine feeders in handling lumber.....	Laborers.
Jackers, yard.....	(See Tipplers)	Stackers, hand.
Jitney brakemen.....	Operate brakes which control speed of jitneys.	Other employees.
Jitney drivers.....	Operate trucks or tractors used in hauling lumber loaded on buggies, bunks, trucks, etc., about the plant, from green chain to kiln or stacking yard, and from stacking yard to sheds, shipping dock, planing mill, etc.	Truckers.
Jump sawyers.....	Operate movable saws placed between head saws and edgers to cut long lumber into shorter lengths. They also at times perform the work of timber trimmers.	Sawyers (small saws).
Kiln men.....	(See Dry kiln men)	Other employees.
Kiln pullers.....	Assist in placing lumber in, and removing it from dry kilns.	Laborers.
Kiln testers.....	(See Dry kiln men)	Other employees.
Knee bolters.....	Use a special saw in splitting bolts or blocks. Very dangerous work.	Do.
Knee bolters' helpers.....	Work under the direction of knee bolters.....	Laborers.
Knife grinders.....	(See Grinders, knives)	Other employees.
Laborers.....	Perform general unskilled work in the various departments of the establishment. Include bolter tallers, bottom pilers, buggy cutters, buggy loaders, bundlers, bunk loaders, burner man, cant setters, car loaders, clean-up men, conveyor man, crane chasers, cranemen's helpers, cranemen slingers, cut-off saw tallers, dock men, edger's line-up men, edger man's helpers, edger spotters, feeder's helpers, flatmen, gang-saw helpers, graders' helpers, hog feeders, hog men, jackers (planing mill), kiln pullers, knee bolters' helpers, lath pilers, lath stackers, lath tallers, lath tiers, lath pullers, loaders, log unloaders, lumber cutters, lumber handlers, lumber pilers (sheds), lumber straighteners, machine feeder's helpers, monorail helpers, monorail hookers, monorail slingers, off-bearers (planing or lath mill), off-bearers (small saws), pickers, pilers (shed), planer tallers, pluggers, pullers (kiln), pullers (planing or lath mill), rackers (planing mill), resawyers' helpers, rip-saw tallers, saw tallers (small saws), send-in men, set-in men (planing mill), shedmen, slab pickers, slasher men's helpers, soda dip men, soda vat men, stack coverers, stackers (laths), stack walkers, stick hustlers, stick men, stock pickers, swamper, sweepers, tallers (cut-off saw), tallers (rip saw), tiers, timber sizer's helpers, timber trimmer's helpers, trimmer tallers, truck brakemen, truck cutters, unstackers, vat man, wood handlers, and yardmen.	Laborers.
Lath feeders.....	Feed bolts to saws which reduce them to proper thickness for lath. The term "lath" is not infrequently applied to any narrow by-product, and is not always confined to building lath.	Sawyers (small saws).
Lath graders.....	Separate lath into quality or grades.	Other employees.
Lath pilers.....	Pile or stack bundles of laths in the yard or sheds of the plant.	Laborers.
Lath pullers.....	Receive and pile the product as it comes from lath machine.	Do.
Lath sawyers.....	(See Lath feeders)	Sawyers (small saws).
Lath sorters.....	(See Lath graders)	Other employees.
Lath stackers.....	(See Lath pilers)	Laborers.
Lath tallers.....	(See Lath pullers)	Do.
Lath tiers.....	Tie lath in bundles.	Do.
Lever men, log deck.....	(See Deck men)	Other employees.
Lever men, sorting table.....	(See Transfer men)	Transfer men.
Loaders.....	Assist in loading lumber for shipment.....	Laborers.

Sawmill term	Definition	Classified by bureau as—
Locomotive crane operators	(See Crane operators, locomotive)	Truckers.
Log handlers	Use cant hooks or peavies in rolling or moving logs on the skidway leading directly to the saw carriage.	Yard men, log.
Log riders	Get on floating logs and, by means of a pike pole, push or pull logs to the desired location. They frequently move from log to log to get a more advantageous position, or may work from a platform or boat.	Pond men.
Log unloaders	Assist in unloading logs from log train to the log pond using peavies or cant hooks, and also chop off side stakes which hold logs on cars. This permits the logs to roll from the cars.	Laborers.
Log washers	Direct a stream of water, at high pressure, against the log as it is pulled up the slip, thus removing the accumulation of dirt, gravel and any stones that may be imbedded in the bark of the log.	Yard men, log.
Lumber cutters	(See Buggy cutters)	Laborers.
Lumber handlers	(See Loaders)	Do.
Lumber pilers, sheds	The terms "piler" and "lumber piler" are applied also to the storing of lumber in the sheds where the boards are placed one on top of the other without the cross strips between the layers.	Do.
Lumber pilers, yard or kiln stacking	(See Stackers, hand)	Stackers, hand.
Lumber straighteners	Keep boards or other product straight on rolls.	Laborers.
Machine feeders, planing	Feed the lumber into surfacers, tonguers and groovers, molders, side matchers, or other planing machines.	Machine feeders, planing.
Machine feeders' helpers	(See Feeders' helpers)	Laborers.
Machine men	Set up, adjust and condition planing mill machines.	Other employees.
Machine setters	Set up and adjust machines which are to be operated by other workmen.	Do.
Machinists	Skilled and experienced employees who make new parts, repair, adjust, or set machines or tools to be operated by other workmen.	Do.
Machinists' helpers	Work under supervision of machinists.	Do.
Matchers, side	Feed lumber into machine which planes the edges and other surfaces.	Machine feeders, planing.
Mechanics, automobile	Repair auto trucks used around the saw mill.	Other employees.
Mechanics, garage	(See Mechanics, automobile)	Do.
Millwrights	Experienced power-transmission men who repair, move, set-up, and align machinery, shafting, etc., under unfavorable conditions.	Millwrights.
Millwrights' helpers	Work under supervision of millwrights.	Other employees.
Molder men	Set up and sometimes operate molding machines in the planing mill.	Do.
Monorail helpers	Attach hooks or slings to and loosen them from lumber handled by the monorail system.	Laborers.
Monorail bookers	(See Monorail helpers)	Do.
Monorail operators	Transport loaded bunks of lumber from one department of the mill to another, as from green chain to kiln yard, or yard to planing mill shed, shipping dock, etc., and deposit them in pile without further work of unloading or piling.	Truckers.
Monorail slingers	(See Monorail helpers)	Laborers.
Motormen	Attend the starting and stopping of electric motors as needed for power.	Other employees.
Mule drivers, lumber	Transfer lumber to yard, sheds, kiln, planing mill or other place about the sawmill and plant.	Truckers.
Mule drivers, trash	Haul sweepings, refuse such as sawdust or other waste materials from mill to trash pile.	Other employees.
Mule feeders	(See Barn men)	Do.
Mule tenders	do.	Do.
Off-bearers, gang saw	(See Gang tailers)	Off-bearers (gang or resaw).
Off-bearers, planing, shingla, or latb mill	Handle the product from planers, saws, etc., sometimes loading it on buggies, trucks, dollies, conveyors, etc., or placing it in near-by piles.	Laborers.
Off-bearers, resaw	Work behind the gang saw or the resaw handling the product as it comes from the saws.	Off-bearers (gang or resaw).
Off-bearers, small saw	Stand at the rear of a rip saw or other similar machine and receive the product and place it in piles or on trucks, etc.	Laborers.
Others	Keep the oil and grease cups on all machines filled, oil bearings which are not supplied with automatic lubricators, and examine all bearings at regular intervals to see that they do not become heated.	Other employees.

Sawmill term	Definition	Classified by bureau as—
Other employees.....	This group includes wage earners in all occupations other than those in the important occupations in the industry including "laborers," because there was not a sufficient number in any one occupation in the group to warrant segregation. The occupations are as follows: Automobile mechanics, barn man, balfmen, blacksmiths, blacksmiths' helpers, boilermakers, boilermakers' helpers, bolters, bolt sawyers, bull-chain operators, carpenters, carpenters' helpers, car repairers, checkers, clapboard sawyers, cranemen (log yard), cranemen (lumber yard and dock), deckmen, deck sawyers, derrick men (log yard), dimension cutters, drag sawyers, dry kiln men, electricians, electricians' helpers, and matchers, extra men, filers' helpers, fire-protection men, foremen (working), gang oilers, graders (lath), (molding), hog grinders (knives), hog grinders, hoist operators, horse feeders, horse tenders, inspectors (lumber), inspectors (logs), jitney brakemen, kiln men, kiln testers, knife grinders, knee bolters, lath graders, lath sorters, lever men on the log deck, machine men, machine setters, machinists, machinists' helpers, mechanics (automobile), mechanics (garage), millwrights' helpers, motor men, molder men, mule drivers (trash), mule feeders, mule tenders, oilers, pipe fitters, pipe-fitters' helpers, pole sawyers, repairers (automobile), repairers (general), repairers' helpers, rock sawyers, sawyers (wood), saw filers' helpers, sawyers (drag), sawyers supervisory foremen (resaw), scalers, set-up men, set-up men's helpers, shingle sawyers, sorters (lath), spare man, stablemen, stackers (machine), stampers, stencilers, stick boys, strip boys, teamsters (trash), team tenders, temperature men, timber trimmers (hand), truck repairers, utility men, water boys, welders, welders' helpers, wheelwrights, wheelwrights' helpers, and wood sawyers.	Other employees.
Pickers.....	Pick from conveyor chains or piles of discarded lumber, edgings, strips, and such other pieces as may be used for by-product.	Laborers.
Pilers, sheds.....	(See Lumber pilers, sheds).....	Do.
Pilers, yard or kiln stacking.....	(See Stackers, hand).....	Stackers, hand.
Pipe fitters.....	Repair and make any necessary changes in steam supply pipes about the sawmill and yard.	Other employees.
Pipe-fitters' helpers.....	Cut pipe and threads, keep the pipe fitter supplied with materials, and work under his general supervision.	Do.
Planers.....	Feed lumber into planer machines.....	Machine feeders, planing.
Planer tailers.....	Receive and pile the product on trucks, etc., as it comes from machines.	Laborers.
Pluggers.....	Place boards in position on table for cut-off sawyer.....	Do.
Pole sawyers.....	Trim the ends of poles or posts with power or hand-saw.	Other employees.
Pond man.....	(Include boat men, boom men, hoisters, log riders, sinker men, slip men). Release the logs in the pond, sort and move them to the foot of the slip or chute, and start them on the chain which carries them to the log deck of the sawmill. They stand on a board walk barely above the surface of the pond, on a small flatboat or raft, or even on the floating logs themselves, which requires considerable agility. For hand moving and sorting a pike pole is used. The pike pole consists of a long light pole with a hook and a spike inserted in one end. For the purpose of raising sunken logs a rowboat or small raft may be used. Sometimes a donkey engine is stationed at the foot of the slip and is used for raising "sinkers," towing them to the foot of the slip and raising large logs so they may be started up the slip, and for releasing logs that have become jammed in the pond.	Pond man.
Pullers, kiln.....	(See Kiln pullers).....	Laborers.
Pullers, planing or lath mill.....	(See Planer tailers).....	Do.
Pullers, sorting chains.....	(See Sorters).....	Sorters.
Rackers.....	Stack lumber on end, crossing each piece over another at an angle.	Stackers, hand.
Rackers, planing mill.....	Place finished lumber in racks convenient for tying, and may also tie bundles.	Laborers.
Re-edgers, small saws.....	(See Sawyers, small saws).....	Sawyers (small saws).

Sawmill term	Definition	Classified by bureau as—
Repairers, automobile	(See <i>Mechanics, automobile</i>)	Other employees.
Repairers, general	(See <i>Machinists</i>)	Do.
Repairers' helpers	Assist mechanics, machinists, and repairers in making repairs.	Do.
Resaw feeders, after head saw	Feed slabs or plank into resaws under direction of resaw foreman, when several resaws are being operated under his supervision.	Sawyers (resaw).
Resaw tailers	(See <i>Off-bearers, resaw</i>)	Off-bearers (gang or resaw).
Resawyers, after head saw	(See <i>Sawyers, resaw</i>)	Sawyers, resaw.
Resawyers, planing	(See <i>Sawyers, small saws</i>)	Sawyers (small saws).
Resawyers, yard	do	Do.
Resawyers' helpers	Assist the resawyer or resaw feeder in placing product to be resawed on the resaw table.	Laborers.
Ripsaw tailers	(See <i>Off-bearers, planing mill</i>)	Do.
Rip sawyers	(See <i>Sawyers, small saws</i>)	Sawyers (small saws).
Rock sawyers	Operate circular saws against the upper side of the log and just in front of and in line with the head saw. The purpose of this saw is to remove tough bark, stones, etc., from the log in line with the cut and prevent damage to the head saw. In some mills the rock saw is operated by the head sawyer. It is not used in all mills.	Other employees.
Roller-bed operators	(See <i>Transfermen</i>)	Transfermen.
Roller men	do	Do.
Ross carrier drivers	(See <i>Carrier drivers</i>)	Truckers.
Saw-filers' helpers	Work under supervision of saw filer.	Other employees.
Saw tailers, head saw	Work near the head saws. As the slabs drop onto the live rolls, they turn them with the bark side up so that they will move smoothly on the rolls; also start all product straight on the rolls. A short hook is used to turn and guide the product.	Saw tailers on head saws.
Saw tailers, small saws	Receive and pile the product on trucks, etc., as it comes from saws.	Laborers.
Sawyers, drag	Operate a power-driven crosscut saw in cutting long or crooked logs into two lengths.	Other employees.
Sawyers, gang	Regulate the speed of the machine, and adjust the pressure rolls and the feed rolls which force the cants toward the cutting edges of the saws. This is done by means of levers.	Sawyers, gang.
Sawyers, head, band	By means of levers, release the check which holds the logs on the dock, thus permitting one log at a time as needed to roll onto the carriage. By other levers, they control the nigger and grab arm and the forward and backward movement of the carriage. The position is one of great responsibility as they must think and act quickly and must judge logs closely to obtain the most lumber of quality from each log. They signal to setters and doggers as to the movement of the log and carriage and also direct setters as to the thickness of cut to be taken from the log each time.	Sawyers, head, band.
Sawyers, head, circular	(See <i>Sawyers, head, band</i> .) The only difference between the two sawyers is that one operates a band and the other a circular saw.	Sawyers, head, circular.
Sawyers, resaw	Operate horizontal band, vertical band, or circular resaws. The work consists of feeding slabs from which boards are to be cut or plank to be reduced in thickness, through rollers designed to hold them in position until sawed. Helpers usually assist in placing the slab or plank on the resaw table.	Sawyers, resaw.
Sawyers, resaw supervisory foremen	When several resaws are used at one mill, one resawyer may be responsible for all of them and does some feeding. He is, therefore, a working foreman.	Other employees.
Sawyers, small saws	Feed pieces of lumber to small resaws, rip saws, cut-off saws, cut-up saws, knot saws, trimmer saws, swing saws, jump saws, tie or timber trimmers, splitting saws, small edgers, lath saws, slasher saws, etc.	Sawyers (small saws).
Sawyers, splitting	(See <i>Sawyers, small saws</i>)	Do.
Sawyers, swing	do	Do.
Sawyers, wood	Saw refuse lumber into small pieces to be sold as fuel.	Other employees.
Scalers	Work on the log deck. They measure each log to arrive at an estimate of the log scale in number of board feet in it before it is sawed into lumber and keep a record of the estimates as well as the number of logs sawed each day.	Do.
Send-in men	Load dollies or buggies in the dry shed or dry yard for transfer to the planing mill.	Laborers.
Set-in men, planing mill	Roll loaded dollies or mill buggies from the platform to machines and take empties away.	Do.

Sawmill term	Definition	Classified by bureau as--
Setters.....	Operate levers which move the log sidewise toward the saw to the width of each cut indicated by sawyers. A ratchet device having a dial and indicator insures accuracy and uniformity of thickness of the cut. When there is only 1 dogger on the carriage the work of the setter is more difficult than when there are 2 doggers, and when there are no doggers the work of the setter is still more difficult and requires very close attention.	Setters.
Set-up men.....	(See Machine setters).....	Other employees.
Set-up men's helpers.....	Work under direction of machine setters.....	Do.
Shed men.....	Store lumber in sheds where boards are placed one on top another without cross strips between them for ventilation.	Laborers.
Shingle sawyers.....	Operate saw which cuts blocks into shingles.....	Other employees.
Sinker men.....	Use a flat boat or raft in log pond in raising sunken logs. A donkey engine is sometimes used in raising the logs and also in towing them to the foot of the slip.	Pond men.
Skidway men.....	(See Yardmen, log).....	Yardmen, log.
Slab pickers.....	(See Pickers).....	Laborers.
Slasher men.....	Attend the slasher saw which cuts slabs, edgings, and other refuse materials from the mill into 4-foot lengths either for by-products or fuel.	Sawyers (small saws).
Slasher men's helpers.....	Assist the slasher men in keeping the material moving evenly over the chains.	Laborers.
Slip men.....	(See Pond men).....	Pond men.
Soda-dip men.....	(See Soda-vat men).....	Laborers.
Soda-vat men.....	Put lumber into a vat or tank of soda solution to prevent discoloring.	Do.
Sorters.....	Take lumber from the sorter chains (green or dry) and place it in separate piles on trucks (buggies or dollies) or some other transportation agency for transfer to the yard, dry kiln, planing mill or snipping platform. Each piece of lumber is sorted in accordance with the marks placed on it by the grader. Each sorter is usually responsible for one or two grades only, other sorters being assigned other grades.	Sorters.
Sorters, lath.....	(See Lath graders).....	Other employees.
Spare men.....	(See Extra men).....	Do.
Splitting sawyers.....	(See Sawyers, small saws).....	Sawyers (small saws).
Stablemen.....	(See Barn men).....	Other employees.
Stack coverers.....	Cover the top of lumber stacks with old or low-grade lumber for protection from the effects of sun and rain.	Laborers.
Stackers, hand.....	The boards are placed on foundations in layers with cross strips for ventilation between each layer. This process is continued until the stack reaches the desired height. The foundations for outdoor or yard stacks are usually permanent and are constructed with an incline, so that the top of the stack will shed water. These layers of lumber are so stacked as to give these piles the proper pitch as well as overhang to insure stability. They also stack lumber for the dry kiln on cars or bunks with strips between each layer for circulation of heat. Lumber for dry kilns may be stacked at the sorter or transferred to or near the kiln before stacking. These men usually work in pairs.	Stackers, hand.
Stackers, lath.....	Stack bundles of laths in lumberyards or sheds.....	Laborers.
Stackers, machine.....	Stacks are built up by machines in a similar manner to those built by hand with cross strips for ventilation between successive layers of boards. The mechanical stacker carries the boards over a transfer chain and drops them into a perpendicular groove the width of the thickness of the board. When the groove is filled the machine is stopped, strips are laid, and the layer of boards is pushed over by means of a lever to make room for another layer of boards. This process is repeated until the stack is completed.	Other employees.
Stack walkers.....	Cover stacks with low-grade lumber for protection from sun and rain and also assist unstackers in handling boards from stacks to buggy loaders.	Laborers.
Stampers.....	Use stamp and pad in printing names and addresses on the boards or other product.	Other employees.
Stencilers.....	Use paint, brush, and stencil in printing addresses on shipments of sawmill products.	Do.
Stick boys.....	(See Stick men).....	Do.

Sawmill term	Definition	Classified by bureau as—
Stick hustlers.....	Gather and deliver sticks for stackers.....	Laborers.
Stick man.....	Gather strips that have been thrown out by unstackers and distribute them where new stacks are being made.	Do.
Stock pickers.....	(See Pickers).....	Do.
Straighteners, lumber.....	(See Lumber straighteners).....	Do.
Strip boys.....	Hand strips to stackers who place them between each layer of lumber as it is stacked.	Other employees.
Strip catchers.....	(See Edger tallers).....	Edger tallers.
Surfacers.....	Feed lumber into machine which planes the surface.....	Machine feeders, planing.
Swampers.....	Work at or near log deck where they cut off with an ax any limbs that have been left on logs. They may also cut long or crooked logs into two pieces.	Laborers.
Sweepers.....	Sweep and remove sawdust, bark, and other refuse from about machines and the sawmill floor.	Do.
Swing men.....	Place logs in position near the slip to be drawn later to the log deck.	Pond men.
Swing sawyers.....	(See Sawyers, small saws).....	Sawyers (small saws).
Tallers, cut-off saw.....	(See Off-bearers, planing mill).....	Laborers.
Tallers, gang or resaw.....	(See Off-bearers, gang or resaw).....	Off-bearers (gang or resaw).
Tallers, head saw.....	(See Saw tallers, head saw).....	Saw tallers, head saw.
Tallers, rip saw.....	(See Off-bearers, planing mill).....	Laborers.
Tally men.....	Make a record of the grade and scale as indicated by graders, or of the quantity of lumber going to a specified department, as from kiln to dry shed, from dry shed to planing mill or shipping dock, etc.	Tally men.
Teamsters, lumber.....	Transfer lumber to yard, sheds, planing mill, or other place about the sawmill plant.	Truckers.
Teamsters, trash.....	Haul sweepings, refuse, sawdust, or other similar materials to the trash pile.	Other employees.
Team tenders.....	(See Barn men).....	Do.
Temperature men.....	(See Dry-kiln men).....	Do.
Tiers.....	Tie pieces of lumber together into bundles, using strong cord, wire, or flat metal bands.	Laborers.
Tie trimmers.....	Operate a small circular saw to trim the ends of timbers which are to be used for railroad ties.	Sawyers (small saws).
Timber sizers.....	Feed timbers through heavy duty planing machines. The machines may be on the timber dock, ramp, wharf, loading dock, or in the yard.	Machine feeders, planing.
Timber sizers' helpers.....	Place timbers in position for feeding through machine.	Laborers.
Timber trimmers, hand.....	Square the ends of timbers or cut them to specified lengths, using a hand crosscut saw in mills in which the timbers form a small part of total product.	Other employees.
Timber trimmers' helpers.....	Place timbers in position for timber trimmers.....	Laborers.
Timber trimmers, machine.....	Operate circular saws in squaring ends of timbers or in cutting them into shorter lengths. The saws may be in sawmill, or on timber dock or ramp.	Sawyers (small saws).
Tipplers.....	Use one end of a board as a lever and a wagon wheel or a pyramid-shaped device as a fulcrum, to tip the other end of the board up to top of the stack where it is put in place by the stacker. They alternate with stackers.	Stackers, hand.
Tong hookers.....	(See Tong men).....	Yardmen, log.
Tong man.....	Adjust tong hooks to logs which are to be pulled or snaked about the yard or skidway, and also unhook the tongs.	Tong men.
Tonguers and groovers.....	Feed lumber into a machine which cuts a tongue and groove on the edges and planes the surface of certain kinds of lumber.	Machine feeders, planing.
Tractor drivers.....	Haul loaded doilies, trucks, etc., of lumber from one department of the mill to another, such as from green chain to kiln or yard, or from yard to the planing mill, shed, shipping dock, etc.	Truckers.
Transfer men.....	Manipulate levers or electric buttons to raise or lower cross chains or stop blocks to shunt lumber from one set of rolls to another, or stop lumber at certain places along the rolls. Cross chains are also used between head saw and edger, edger and trimmer, resaw and gang saw, or between gang saw and trimmer, etc. Some mills have none, and in some mills the transfer is made by tallers, helpers, or the edger men.	Transfer men.
Trimmer helpers.....	(See Trimmer loaders).....	Trimmer loaders.
Trimmer loaders.....	Place the boards on the trimmer table or bed in position for trimming.	Do.

Sawmill term	Definition	Classified by bureau as—
Trimmer loaders, line-up men.	(See Trimmer loaders)-----	Trimmer loaders.
Trimmer loaders, spotters.	-----do-----	Do.
Trimmer operators-----	Manipulate levers which raise the proper saws through the trimmer bed for cutting each board as it is carried over the trimmer table. Many boards need only to be squared at the ends, but some may have knots or other imperfections which if not removed would adversely affect the grade of the board. By trimming out a portion of the board, two shorter boards of better grade are produced. Work behind the trimmer to dispose of the waste ends and pieces.	Trimmer operators.
Trimmer tallers-----	(See Sawyers, small saws)-----	Laborers.
Trimmers, small saws.	Couple and uncouple cars or trucks used in the transfer of lumber about the sawmill plant.	Sawyers (small saws). Laborers.
Truck brakemen-----	(See Buggy cutters)-----	Do.
Truck cutters-----	Transfer lumber to yard, sheds, kiln, planing mill, or other place about the sawmill plant.	Truckers.
Truck drivers-----	(Carrier drivers, crane operators, jitney drivers, monorail operators, mule drivers, Ross or other carrier drivers, teamsters, tractor drivers, traveling-crane operators, truck drivers.) Transfer lumber from one place to another about the sawmill plant. This work may be done by hand, animal, or mechanical power. The devices used include trucks, wagons, "buggies," dollies, carriers, jitanes, tractors, traveling cranes, and cableways, monorails, or tramway systems.	Do.
Truckers-----	Transfer lumber to yard, sheds, kiln, planing mill, or other place about the sawmill plant.	Do.
Truckers, hand-----	Repair trucks, buggies, etc., used around the sawmill.	Other employees.
Truck repairers-----	(See Gang saw tallers)-----	Off-bearers (gang and resaw). Saw tallers, head saws.
Turners-down, gang saw.	Turn slabs with the bark side up as they drop from the head saw; also start all product straight on the rolls.	Off-bearers (gang and resaw). Laborers.
Turners-down head saw.	(See Resaw taller)-----	Do.
Turners-down, resaw-----	Take the lumber from the stacks and hand it to the buggy loader. (Alternate work with the buggy loader.) Also takes lumber from the kiln bunks or cars and loads it on buggies. This work is done for the purpose of kiln drying for regrading after drying, for combining two or more piles, or for shipment.	Other employees.
Unstackers-----	(See Extra men)-----	Laborers.
Utility men-----	(See Soda vat men)-----	Other employees.
Vat men-----	Fill tanks about the plant with drinking water and carry buckets of the same to workmen.	Laborers.
Water boys-----	Join pieces of steel by heating in a forge and using borax to make them fuse, or use a hand torch, or an electric arc in joining or welding metal.	Other employees.
Welders-----	Work under the direction of welder-----	Do.
Welders' helpers-----	Repair wagon or other kinds of wheels-----	Do.
Wheelwrights-----	Work under direction of wheelwrights-----	Do.
Wheelwrights' helpers-----	Pile waste slabs or boards which are to be used as fuel or other by-products.	Laborers.
Wood handlers-----	Operate saws used in cutting refuse lumber into small pieces for fuel.	Other employees.
Wood sawyers-----	Pile waste wood, cut weeds, clean up, and do other general work about sawmill yard.	Laborers.
Yardmen-----	(Include hookers, log handlers, log washers, skidway men, tong hookers, tongmen.) When a yard instead of a pond is used, logs are rolled onto a moving car or rolls, snaked by means of a cable and drum or rolled on a skidway directly to the saw carriage, or snaked up a chute to the log deck. The man use cant hooks or peavies.	Yardman.
Yardmen, log-----		

APPENDIX B.—GLOSSARY OF OCCUPATIONAL TERMS USED IN LOGGING OPERATIONS

Air-saw man.—One who operates a saw driven by compressed air to cut logs into shorter lengths.

Azman.—One who cuts logs with an ax. Specifically, one who works at the construction of a chute or slide used in moving logs.

Baker.—One who does the baking at the camp cookhouse. In small camps the work is done by the cook.

Banker, yard.—One who piles the logs at the landing, log yard, or storage place.

Barker (peeler, spudder).—One who peels the bark from trees, the bark of which may be used for tanning purposes.

Bark filer (ringer).—One who girdles or cuts a ring around the log to mark the length for the tanbark to be removed.

Bark scaler.—One who measures the tanbark removed from the logs.

Barn boss (corral man, feeder, hostler, lot man).—One who has charge of the stables in a logging camp.

Barn man (feed mixer, horse tender, team tender, stableman, azman, ox tender).—One whose duty is to aid in feeding and caring for the teams used in logging operations.

Bell boy. (See Signalman.)

Blacksmith (shoer).—One who does general metal repair work at the camp blacksmith shop and who may shoe horses if a horseshoer is not employed for this purpose.

Blaster. (See Dynamiter.)

Blazer.—One who indicates the location of a chute or skidding road by means of blazes or marks made on trees with an ax.

Block greaser.—One who greases the skidding tackle.

Boat tender.—One who operates a supply boat between the log camp and the sawmill in sections where log canals form a part of logging operations.

Boom man.—One who binds logs together to be towed to the sawmill or releases them at the log pond of the sawmill.

Brakeman (trainman).—One who operates the brakes on the log train.

Bridge builder (carpenter, bridge; bridgeman).—A mechanic engaged in bridge construction work.

Bridgeman. (See Bridge builder.)

Brush burner (bush burner).—One who burns the brush and the branches removed from felled trees as a protection against forest fires, for greater convenience in handling logs, or to clear the land for agricultural purposes.

Brush cutter. (See Swamper.)

Brutter.—One of a crew which rolls logs down slopes too steep for teams.

Bucker (log maker, crosscutter).—One who saws felled trees into logs.

Bucker, head.—The foreman of men who saw the felled trees into logs.

Bull cook (chore boy, chore man, cleaner, clean up, flunky, janitor, lobby hog, lobby man, porter, shanty boss).—One who cleans the sleeping quarters and stable in a logging camp, cuts firewood, builds fires, and carries water.

Burner. (See Brush burner.)

Bush cutter. (See Swamper.)

Camp man. (See Improvement man.)

Canter.—One who uses the cant hook in handling logs.

Car builder.—One who builds cars used in the transportation of logs.

Car checker.—One who keeps a record of logging cars. (See Inspector.)

Car greaser.—One who supplies grease to the bearing boxes of the log cars.

Car inspector (car checker).—One who inspects and reports upon the condition of logging cars.

Car knocker. (See Car repairer.)

Car loader.—One who loads cars for transportation to the sawmill.

Carpenter. (See Improvement man.)

Carpenter, bridge. (See Bridge builder.)

Car repairer (car knocker).—One who repairs damaged cars.

Carrier, rails and ties.—A laborer placing railroad ties at points where they are to be used.

Chainer. (See Chainman.)

Chainman (chainer).—One who adjusts chains to logs preparatory to skidding.

Chainman, surveying.—One who, by the use of a chain, measures distances laid out by the surveyor.

Chain puller. (See Rider.)

Chain tender. (See Sled tender.)

Chain tender, second.—One who assists the chain tender.

Chaser. (See Sled tender.)

Choker. (See Choker man.)

Choker, head. (See Hook tender.)

Choker hooker. (See Choker man.)

Choker man (choker, choker hooker).—The member of a yarding or skidding crew who fastens the choker on the logs.

Choker, second.—One who assists the choker.

Chopper (chopper, second; cutter).—One who makes the undercut or notch to direct the felling of the tree or fells the tree when this work is done entirely with an ax.

Chopper, head.—Foreman of a chopping crew.

Chopper, second. (See Chopper.)

Chore boy. (See Bull cook.)

Chore man. (See Bull cook.)

Chunk buncher.—One who aids in clearing the skid road.

Chunk sawyer.—1. (See Wood buck); 2. One who clears the skidding way of obstructions.

Chute builder (chute peeler).—One who builds a trough of logs or timber used to transport logs down a slope.

Chute peeler.—One engaged in the work of chute building. Specifically, one who peels the logs used in the chute. (See Chute builder.)

Chute tender.—One who keeps the chute in repair.

Civil engineer helper.—One who assists the civil engineer in making profiles for the construction of logging roads and in making plans and specifications for camp buildings.

Cleaner.—One doing miscellaneous cleaning in the camp. (See Bull cook.)

Climber.—One who fastens skidding cable to trees; sometimes called squirrel man.

Commissary man (cook, camp manager, steward, warehouseman).—One who has charge of the food supply of the camp and in some instances manages the camp supply store.

Conductor.—One who has charge of the operation of the log train.

Cook.—One who prepares the food for logging employees.

Cook, first. (See Cook, head.)

Cook, head (cook, first).—One in charge of the cooking for logging employees.

Cook, second. (See Cookee.)

Cook, third. (See Cookee.)

Cookee (cookhouse employee, cookhouse man, hasher).—An assistant cook and dishwasher in a logging camp.

Cookhouse employee (cookhouse man). (See Cookee.)

Corral man. (See Barn boss.)

Counter. (See Tallyman.)

Coupler. (See Grab driver.)

Craneman.—A lever man operating a crane in grading for railroad construction or in elevating logs.

Cruiser (timber man, timber rider).—One who estimates land and timber values.

Cutter. (See Chopper.)

Cutter, piling (sawyer, piling).—One who fells the trees and cuts them into lengths for piling to be used in railroad or pond construction.

Deck builder.—One who builds the log deck or skidway at the landing or storage place.

Decker (deck man).—One who rolls logs upon a skidway or log deck.

Deck man. (See Decker.)

Dishwasher (washer).—One who washes the dishes in a logging camp.

Dogger.—One who attaches the dogs or barbs to a log to secure the skidding cable.

Donkey tender.—One who supplies fuel and water for the donkey engine.

Driver (driver, team; driver, wagon; hauler; snaker; teamster).—One who drives animals in logging operations.

- Driver, line horse.* (See Rider.)
- Driver, loading.*—One who drives a team in loading logs for transportation.
- Drum man (drum tender).*—One who operates a power-driven drum for skidding logs.
- Drum puller.*—One who returns a cable after a log has been skidded.
- Drum tender.* (See Drum man.)
- Dumper.*—The laborer who dumps the scraper used in railroad construction.
- Dynamiter (powder man, blaster).*—One who uses dynamite to remove obstructions along the line of skidding or railroad construction.
- Dynamo man.*—One in charge of the operation of a dynamo where electric light is used at the logging camp.
- Engineer.*—An operator of any one of the various types of locomotive or donkey engines used in logging.
- Engineer, crane.*—One operating a crane used in loading logs or in railway construction work.
- Engineer, head.*—One in charge of engineers.
- Extra man.*—One who is competent to take the place of employees who may be temporarily absent from their work.
- Faller (chopper, feller, sawyer).*—One who fells trees.
- Faller, second.*—The subordinate in a crew of fallers.
- Feeder.* (See Barn boss.)
- Feed mizer.*—One who prepares the feed for the animals used in logging. (See Barn boss.)
- Feller.* (See Faller.)
- Filer (fitter).*—One who files the crosscut saws used in the woods and adjusts the angle of the cutting edge to prevent binding.
- Fireman.*—The stoker of the furnace of any one of the various types of donkey or locomotive engines used in logging operations.
- Fitter.*—1. One who notches the tree for felling and after it is felled marks the log lengths into which it is to be cut; 2. One who cuts limbs from felled trees and rings and slits the bark preparatory to peeling tan bark; 3. One who adjusts the cutting teeth of saws. (See Filer.)
- Flagman.*—1. The trainman who transmits signals to the locomotive engineer; 2. (See Signalman.)
- Flunkey.*—1. An assistant usually either to the engineer of a donkey engine or to the cook in a logging camp; 2. (See Bull cook.)
- Foreman.*—The overseer of a body of workmen.
- Foreman, assistant.*—One who aids the foreman and works under his direction.
- Foreman, general.*—One who is in charge of all logging operations.
- Fuel man.*—One who prepares and supplies fuel for the various machines and for the camp. (See Wood buck.)
- Gopher.*—One who removes the earth from beneath the log at a point where the skidding cable or chain is to be passed around the log.
- Grab driver (grab setter, coupler).*—One who couples logs together end to end, by means of a short chain having in each end a dog which is driven into the log.
- Grabhooker (hooker, hook-on man).*—One who hooks the skidding or loading chain about the log and fastens it with a grabhook.
- Grab setter.* (See Grab driver.)
- Grade man.* (See Grader.)
- Grader (grade man).*—One who works at fills and cuts in railroad construction.
- Greaser (road monkey).*—One whose duty is to keep a logging road in proper condition.
- Groundman.*—One who remains on the ground and assists in the placing of telephone wires and overhead skidding cables.
- Handy man.*—One who has experience or is handy at various kinds of work.
- Harness maker (harness man).*—One who makes and repairs harness for the logging teams.
- Harness man.* (See Harness maker.)
- Hasher, cookhouse.*—A general helper in the cookhouse. (See Cookee.)
- Hauler.* (See Driver.)
- Hauling crew.*—A body of men who use teams to assemble logs at a skidway or landing; sometimes applied to the transportation crew of a railroad.
- Helper (assistant, second, third).*—One who aids in work of any kind under the direction of another employee.
- Hoister.* (See Loader.)
- Hooker.* (See Grabhooker; also Tong hooker.)
- Hook-on man.* (See Grabhooker; also Tong hooker.)

Hook tender (choker, head; yard boss; yarder boss).—The foreman of a yarding crew; specifically, one who directs the attaching of the cable to the log preparatory to skidding.

Horse tender. (See Barn man.)

Hostler. 1. (See Barn boss); 2. One who works in the roundhouse inspecting and repairing logging locomotives.

Hostler, assistant (roundhouse employee, wiper).—A helper at the roundhouse.

Improvement man (camp man; carpenter; repairer, camp).—One doing general repair work about the camp buildings.

Inspector.—One who examines property and reports on the quantity or value of the same. (See Inspector, land.)

Inspector, land.—One who examines and estimates the value of timberland.

Inspector, ties and wood.—One who grades railroad ties and measures wood.

Jackscrew man.—One who operates a jackscrew in lifting or moving heavy objects.

Jammer.—One who operates an improved form of gin mounted on a movable framework used to load logs on sleds and cars by horsepower.

Janitor.—(See Bull cook.)

Knot bumper.—(See Limber.)

Knottter. (See Limber.)

Laborer.—One doing miscellaneous unskilled work in connection with logging operations.

Landing man (rollway man).—One who arranges logs at the landing preparatory to loading for transportation.

Lever man.—One who controls the operation of a donkey engine or other mechanical device by means of a lever.

Lever man, first.—One who is in charge of other lever men.

Lamber (knot bumper, knottter).—One who cuts the limbs from felled trees.

Lineman (line setter).—One who puts the logs, blocks, and cables in place preparatory to skidding.

Lineman, telephone (telephone man).—One who constructs telephone lines and keeps them in repair.

Line puller. (See Rider.)

Line setter. (See Lineman.)

Loader man (loader).—One who loads logs on sleds, wagons, or cars, or in slides or chutes by hand or machine power.

Loader man, head.—Foreman of a loading crew.

Loader, second.—An assistant loader.

Loading crew (loading employees).—Employees at the skidway loading logs by steam or animal power.

Loading employees. (See Loading crew.)

Loading men. (See Loading crew.)

Lobby hog. (See Bull cook.)

Lobby man. (See Bull cook.)

Log buncher.—One who collects logs in one place for loading.

Log maker. (See Bucker.)

Log rigger.—One who cuts the tops from trees to which guy lines are attached in overhead skidding.

Log roller.—One who places logs in position for skidding or loading.

Logway man. (See Skidway man.)

Lot man. (See Barn boss.)

Mechanic. (See Machinist.)

Machine-shop employee. (See Machinist.)

Machine-shop man. (See Machinist.)

Machinist (machine-shop employee, machine-shop man, mechanic, repair man).—One who makes or repairs machines and is experienced in the use of metal-working tools.

Manager, cook camp.—One who is in charge of buying, preparing, and supplying food to the logging employees. (See Commissary man.)

Marker.—One who marks felled trees for cutting into log lengths.

Mucker.—One who keeps the log landing free from bark or other debris to facilitate loading the logs for transportation to the mill.

Notcher (timber, fitter, undercutter).—One who makes a notch or an undercut in a tree preparatory to felling.

Office man.—Bookkeeper, clerk, or other employee in the camp office.

Oil boy.—One who carries oil to the sawyers for use on the saws to prevent binding.

Oiler.—A workman employed to oil engines or machinery.

- Ox feeder.* (See Barn man.)
Oxman. (See Barn man.)
Ox tender. (See Barn man.)
Pack boy. (See Packer.)
Packer.—One who drives a pack animal in transporting supplies for logging operations.
Painter.—One who paints the camp buildings. (See Improvement man.)
Path cutter. (See Swamper.)
Pattern maker.—One who makes patterns for molds in the repair shop.
Peeler. (See Barker.)
Pick-up.—One who collects logs which have broken away from a raft or boom.
Pile driver.—One engaged in the work of driving piles for foundations, or to inclose an area of water in which to store logs.
Piler.—One who assembles logs along the line of skidding or piles them at the log landing.
Pipe fitter.—One who cuts, fits, and installs iron pipes for steam or water.
Pipeman.—One who lays water pipe.
Poler (road poler).—One engaged in building corduroy roads over which logs are to be skidded.
Porter. (See Bull cook.)
Porter, warehouse.—A laborer about the warehouse or commissary.
Pulp piler.—One who piles pulp wood.
Pumper. (See Pump man.)
Pump man (pumper, water pumper).—One who takes care of a pump and its operation.
Rafter (raftman).—A workman engaged in assembling logs for shipment by water.
Raffman. (See Rafter.)
Repair man. (See Machinist.)
Repair man, log equipment.—One making general repairs to logging equipment. (See Machinist.)
Repair man, trestle.—A mechanic engaged in repair work on trestles.
Repairer, camp.—One who repairs camp buildings. (See Improvement man.)
Rider (chain puller; driver, line horse; line puller; mule rider; rigging puller; skinner; slack man).—One who rides a horse or mule used to draw the skidding chains back to the skidding area after a log is delivered at the landing.
Rider, mule. (See Rider.)
Rigger (rigging man, rigger man, log rigger).—One who is skilled in the work of installing skidding apparatus.
Rigger, first (rigger, head).—A foreman rigger.
Rigger, head. (See Rigger, first.)
Rigger man. (See Rigger.)
Rigger, second.—An assistant to the rigger.
Rigging man. (See Rigger.)
Rigging puller. (See Rider.)
Rigging puller, head.—One who has charge of the work of returning the rigging device and cables to the skidding area. (See Rider.)
Rigging slinger.—1. A member of a yarding crew whose chief duty is to place chokers or grabs on logs. 2. One who attaches the rigging to trees in steam skidding. (See Rigger.)
Right-of-way man.—One who works at clearing bushes and trees preparatory to building log roads.
Ringer. (See Bark fitter.)
Road builders (road men).—That portion of the crew of a logging camp who cut out logging roads and keep them in repair.
Road cutter.—One who clears away brush and trees for a skid road or path. (See Swamper.)
Roader splitter.—One who splits wood for the roader engine used in skidding. (See Wood buck.)
Roadman. (See Road builder.)
Roadmaster.—One who is in charge of the maintenance of logging roads.
Road monkey. (See Greaser.)
Road poler. (See Poler.)
Rodman.—One who carries a surveyor's leveling rod.
Rollway man. (See Landing man.)
Rops man.—One who returns the cable and tongs after each delivery of the logs at the landing. (See Rider.)
Roper. (See Tong hooker.)

- Roundhouse employee.* (See Hostler, assistant.)
- Roustabout.*—A common laborer.
- Run back.*—One who hooks the tongs to the log in the operation of loading the same on logging cars.
- Run cutter.* (See Swamper.)
- Sand burner.* (See Sand drier.)
- Sand drier (sand burner).*—One who dries sand for use in the sand box of a locomotive.
- Sand hauler.*—One who hauls sand for use in the sand box of a logging locomotive.
- Sawyer.*—One who uses a crosscut saw in felling trees or cutting logs. (See Faller.)
- Sawyer, head.*—The foreman of a sawing crew.
- Sawyer, piling.* (See Cutter, piling.)
- Scaler (log scaler).*—One who determines the volume of logs.
- Scavenger.*—One who gathers and removes dirt from the streets and vaults about camp buildings.
- Scraper man.*—The man who holds the scarper used in grading while it is being loaded.
- Section hand (section man).*—A laborer in railroad maintenance.
- Section man.* (See Section hand.)
- Setter, piling.*—One who is engaged in setting pilings for the pile driver. (See Pile driver.)
- Shoer.*—One whose work is that of shoeing horses for use in logging operations. (See Blacksmith.)
- Shovel man.*—One who holds a hand scraper or who operates a power grader in the work of grading for railroad construction. (See Lever man.)
- Signalman (flagman, bell boy, whistle boy, whistle punk).*—One who transmits orders from the foreman of a yarding crew to the engineer of the yarding donkey in skidding and yarding operations.
- Skid adzer.*—One who uses an adz to fit timbers in constructing log chutes or other skidding devices.
- Skidder.* (See Skidder man.)
- Skidder crew (skidding employees).*—The entire body of men who work in connection with the skidding machine.
- Skidder man.*—1. One who skids logs; 2. One who operates a donkey engine, usually from a railroad track, which skids logs by means of a cable; 3. The foreman of a crew which constructs skid roads.
- Skidding employees.* (See Skidder crew.)
- Skid-road man.*—One who works at the construction and maintenance of skid roads.
- Skid sawyer.*—One who saws skids over which logs are to be moved.
- Skidway man (logway man).*—One who works at the log skidway where logs are stored preparatory to moving to the sawmill.
- Skinner.* (See Rider.)
- Slack man.*—1. One who prevents the cable from becoming slack, and thus allowing skidding chains to fall from the logs; 2. (See Rider.)
- Sled tender (chain tender, chaser, trailer, zoogler).*—1. One who assists in loading and unloading logs or skidding with a dray; 2. A member of the hauling crew who accompanies the turn of logs to the landing, unhooks the grabs, and sees that they are returned to the skidding area.
- Slip driver.*—One who drives the animals attached to a scoop used in grading for railway construction.
- Slip dumper.*—One who dumps the earth from the scoop used in grading for railway construction.
- Slip filler.* (See Slip man.)
- Slip man (slip filler).*—One who operates the scoop used in grading for railway construction.
- Smitter.*—One who keeps the logs moving straight on the skids when loading is done by animal power.
- Snaker.*—One who draws logs to the skidding path or to the landing by means of animal power. (See Driver.)
- Sniper.*—One who noses or rounds off the ends of logs, so they will skid more easily.
- Snubber.*—One who checks, usually by means of a snub line, the speed of logging sleds or logs on steep slopes.
- Spike peddler.*—One who delivers spikes to the spikers or places them at points on the railroad where they are to be used.

Spiker.—One who drives the spikes which hold the rails to the crossties of a logging railroad.

Splicer.—One who mends the skidding cables.

Spool runner. (See Spool wright.)

Spool tender.—One who operates the spool of a donkey engine in loading logs. The work consists in placing several turns or wraps of the logging cable around the spool when it is desired to make a pull.

Spool wright.—One who hews or adzes out a place on stumps or logs along a skid road on which to place a spool for the purpose of guiding the main skidding line.

Spudder. (See Barker.)

Stableman. (See Barn man.)

Stake cutter.—One who prepares the stakes to hold the logs on logging cars.

Staker (staker, right of way).—One who sets stakes to indicate the limits of the right of way.

Staker, right of way. (See Staker.)

Stave-block loader.—One who loads blocks from which staves are to be manufactured at the sawmill.

Stave-block roller.—One who rolls and stacks stave blocks preparatory to loading.

Stave-block splitter.—One who splits stave blocks for greater convenience in handling at the sawmill.

Steam-shovel man.—The lever man who operates a steam shovel. (See Lever man.)

Steel man.—A laborer in the steel crew in railroad construction.

Steward. (See Commissary man.)

Straw boss.—A subforeman in a logging camp, sometimes called the head push.

Stripper.—A laborer engaged in the construction of roads for steam skidding.

Stull hewer.—One who hews stulls or timbers which are used in mines.

Stumper.—One who removes stumps from the skid road or landing place.

Supply-house man.—One who is in charge of the tools used in logging operations.

Swamper (brush cutter; bush cutter; path cutter; road cutter; swamper, second).—One who clears ground or underbrush, fallen trees, and other obstructions preparatory to constructing a logging road.

Swamper, buck.—The foreman of a stumping crew.

Swamper, head. (See Swamper, buck.)

Swamper, second. (See Swamper.)

Switchman.—The trainman who has charge of the switches in railroad operation.

Tail down.—One who rolls the logs on the skids to a point where they can be reached by the loading crew.

Tallyman (counter).—One who records or tallies the measurements of logs as they are called off by the scaler.

Teamster. (See Driver.)

Teamster, loading.—The driver of a loading team at the yard or landing. (See Driver.)

Team tender. (See Barn man.)

Telephone man. (See Lineman, telephone.)

Tie distributor.—A laborer engaged in placing ties along the right of way of the railroad.

Timber filler.—(See Notcher.)

Timber hewer.—One who shapes timbers with an ax for log chutes or landings.

Timberman. (See Cruiser.)

Timber rider. (See Cruiser.)

Timekeeper.—One who keeps a record of the time worked by the logging employees.

Toggle knocker.—A yardman who detaches the tackle chains when the logs are unloaded.

Toggler.—One who fastens chains over the logs loaded for transportation to hold them in place during transit.

Tommie.—One who adjusts the block through which the cable runs where an angle is made in skidding.

Tonger. (See Tong hooker.)

Tong hooker (hooker, hook-on man, tong man, tong setter, roper).—One who sets the tongs on the log preparatory to either skidding or loading.

Tong hooker, second.—One who assists the tong hooker.

Tong man. (See Tong hooker.)

Tong puller. (See Rider.)

Tong setter. (See Tong hooker.)

- Tong shaker.*—One who detaches the tongs from the log after it is delivered.
- Top loader.*—That member of a loading crew, sometimes called a sky hooker, who stands on the top of a load and places the logs as they are sent up.
- Topman, jammer.*—One who places the logs on a skidding sled when the loading is done by means of a jammer or horse loader.
- Topper.*—One who cuts the tops from felled trees.
- Track dresser.*—A laborer engaged in ballasting a railroad track.
- Trackman.*—A laborer on the maintenance of way.
- Trackmaster.* The foreman of a crew repairing logging roads. (See Roadmaster.)
- Trackwalker.*—A watchman who examines the railroad tracks to locate defects which might result in wrecks.
- Trail cutter.* (See Swamper.)
- Trailer.* (See Sled tender.)
- Train loader.*—One who loads logs on logging cars for railroad transportation.
- Trainman.* (See Brakeman.)
- Train master.*—One who directs the movements of logging trains.
- Transfer crew (transfer men).*—A body of men transferring logs from narrow-gage to standard-gage cars.
- Transfer man.* (See Transfer crew.)
- Tripper, ditcher.* (See Lever man.)
- Undercutter.*—A skilled woodman who chops the undercut in trees so that they will fall in the proper direction. (See Notcher.)
- Unloader (unloader, landing; yardman).*—One who unloads logs either at the log pond or yard of the sawmill or at the landing where logs are stored preparatory to being transported to the sawmill.
- Unloader, coal.*—One who unloads cars of coal for use at the camps.
- Unloader, landing.* (See Unloader.)
- Wagon crew (wagons, wagon men).*—The entire body of men working in connection with skidding wagons. (See Driver.)
- Wagoner.* (See Driver.)
- Wagon man.* (See Driver.)
- Waiter.*—A male employee who places food on the table at the logging camps.
- Waitress.*—A female employee who places the food on the table at the logging camps.
- Warehouseman.*—One who is in charge of supplies at a camp warehouse. (See Commissary man.)
- Washer.* (See Dishwasher.)
- Watchman.*—One who guards logging equipment.
- Watchman, bridge.*—One who guards bridges used in logging operations.
- Watchman, tower.*—A signal man at a railroad crossing.
- Water boy.* (See Water buck.)
- Water buck (water boy).*—One who carries water.
- Water hauler.*—One who transports water when the source of supply is at a distance from the camp.
- Water pumper.* (See Pump man.)
- Water slinger.*—One who throws water on the skid roads to make them slippery and to prevent wear.
- Whistle boy.* (See Signalman.)
- Whistle punk.* (See Signalman.)
- Winch man.*—One who operates a winch or small drum used in loading logs.
- Wiper.* (See Hostler, assistant.)
- Wood boy.* (See Wood buck.)
- Wood buck (chunk sawyer, roader splitter, yarder splitter, wood boy, wood chopper, wood cutter, wood getter, wood man, fuel man).*—One who cuts and carries wood for use at the camp or in donkey engines.
- Woodchopper.* (See Wood buck.)
- Wood cutter.* (See Wood buck.)
- Wood getter.* (See Wood buck.)
- Wood hauler.*—One who transports wood by team for camp use.
- Wood loader.*—One who loads wood for transportation, either for camp or for commercial use.
- Woodman.* (See Wood buck.)
- Yard boss.* (See Hook tender.)
- Yarder boss.* (See Hook tender.)
- Yarder splitter.* (See Wood buck.)
- Yardman.* (See Unloader.)
- Zoogler.* (See Sled tender.)

LIST OF BULLETINS OF THE BUREAU OF LABOR STATISTICS

The following is a list of all bulletins of the Bureau of Labor Statistics published since July, 1912, except that in the case of bulletins giving the results of periodic surveys of the bureau only the latest bulletin on any one subject is here listed.

A complete list of the reports and bulletins issued prior to July, 1912, as well as the bulletins published since that date, will be furnished on application. Bulletins marked thus () are out of print.*

Conciliation and arbitration (including strikes and lockouts).

- *No. 124. Conciliation and arbitration in the building trades of Greater New York. [1913.]
- *No. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. [1913.]
- No. 139. Michigan copper district strike. [1914.]
- *No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]
- *No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]
- *No. 191. Collective bargaining in the anthracite-coal industry. [1916.]
- *No. 198. Collective agreements in the men's clothing industry. [1916.]
- No. 239. Operation of the industrial disputes investigation act of Canada. [1918.]
- No. 265. Joint industrial councils in Great Britain. [1919.]
- No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
- No. 287. National War Labor Board: History of its formation, activities, etc. [1921.]
- *No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]
- No. 341. Trade agreement in the silk-ribbon industry of New York City. [1923.]
- No. 402. Collective bargaining by actors. [1926.]
- No. 468. Trade agreements, 1927.
- No. 481. Joint industrial control in the book and job printing industry. [1926.]

Cooperation.

- No. 312. Consumers' cooperative societies in the United States in 1920.
- No. 314. Cooperative credit societies (credit unions) in America and in foreign countries. [1922.]
- No. 437. Cooperative movement in the United States in 1925 (other than agricultural).
- No. 531. Consumers', credit, and productive cooperative societies, 1929.

Employment and unemployment.

- *No. 100. Statistics of unemployment and the work of employment offices in the United States. [1913.]
- *No. 172. Unemployment in New York City, N. Y. [1915.]
- *No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
- *No. 195. Unemployment in the United States. [1916.]
- *No. 196. Proceedings of Employment Managers' Conference held at Minneapolis, Minn., January 19 and 20, 1916.
- *No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
- *No. 206. The British system of labor exchanges. [1916.]
- *No. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- *No. 235. Employment system of the Lake Carriers' Association. [1918.]
- *No. 241. Public employment offices in the United States. [1918.]
- *No. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9-11, 1918.
- *No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
- No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.
- No. 520. Social and economic character of unemployment in Philadelphia, April, 1920.
- No. 542. Report of the advisory committee on employment statistics.
- No. 544. Unemployment-benefit plans in the United States and unemployment insurance in foreign countries. [1931.]
- No. 553. Fluctuation in employment in Ohio in 1914 to 1920. (In press.)
- No. 555. Social and economic character of unemployment in Philadelphia, April, 1930.

Foreign labor laws.

- *No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]
- No. 494. Labor legislation of Uruguay. [1929.]
- No. 510. Labor legislation of Argentina. [1930.]
- No. 529. Workman's compensation legislation of the Latin American countries. [1930.]
- No. 549. Labor legislation of Venezuela. [1931.]
- No. 554. Labor legislation of Paraguay. [1931.]
- No. 559. Labor legislation of Ecuador. [1931.]

Housing.

- *No. 158. Government aid to home owning and housing of working people in foreign countries. [1914.]
- No. 263. Housing by employers in the United States. [1920.]
- No. 295. Building operations in representative cities in 1920.
- No. 545. Building permits in the principal cities of the United States in [1921 to] 1930.

Industrial accidents and hygiene.

- *No. 104. Lead poisoning in potteries, tile works, and porcelain-enamelled sanitary ware factories. [1912.]
- No. 120. Hygiene of the painters' trade. [1918.]
- *No. 127. Dangers to workers from dusts and fumes, and methods of protection. [1918.]
- *No. 141. Lead poisoning in the smelting and refining of lead. [1914.]
- *No. 157. Industrial accident statistics. [1915.]
- *No. 165. Lead poisoning in the manufacture of storage batteries. [1914.]
- *No. 179. Industrial poisons used in the rubber industry. [1915.]
- No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
- *No. 201. Report of the committee on statistics and compensation insurance costs of the International Association of Industrial Accident Boards and Commissions. [1916.]
- *No. 209. Hygiene of the printing trades. [1917.]
- *No. 219. Industrial poisons used or produced in the manufacture of explosives. [1917.]
- No. 221. Hours, fatigue, and health in British munition factories. [1917.]
- No. 230. Industrial efficiency and fatigue in British munition factories. [1917.]
- *No. 231. Mortality from respiratory diseases in dusty trades (inorganic dusts). [1918.]
- *No. 234. The safety movement in the iron and steel industry, 1907 to 1917.
- No. 236. Effects of the air hammer on the hands of stonecutters. [1918.]
- No. 249. Industrial health and efficiency. Final report of British Health of Munition Workers' Committee. [1919.]
- *No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
- No. 256. Accidents and accident prevention in machine building. [1919.]
- No. 267. Anthrax as an occupational disease. [1920.]
- No. 276. Standardisation of industrial accident statistics. [1920.]
- *No. 280. Industrial poisoning in making coal-tar dyes and dye intermediates. [1921.]
- *No. 291. Carbon monoxide poisoning. [1921.]
- No. 293. The problem of dust phthisis in the granite-stone industry. [1922.]
- No. 298. Causes and prevention of accidents in the iron and steel industry, 1910-1919.
- No. 306. Occupation hazards and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. [1922.]
- No. 392. Survey of hygienic conditions in the printing trades. [1926.]
- No. 405. Phosphorus necrosis in the manufacture of fireworks and in the preparation of phosphorus. [1926.]
- No. 427. Health survey of the printing trades, 1922 to 1925.
- No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C., July 14-16, 1926.
- No. 460. A new test for industrial lead poisoning. [1928.]
- No. 466. Settlement for accidents to American seamen. [1928.]
- No. 488. Deaths from lead poisoning, 1925-1927.
- No. 490. Statistics of industrial accidents in the United States to the end of 1927.
- No. 507. Causes of death, by occupation. [1929.]

Industrial relations and labor conditions.

- No. 237. Industrial unrest in Great Britain. [1917.]
- No. 340. Chinese migrations, with special reference to labor conditions. [1923.]
- No. 349. Industrial relations in the West Coast lumber industry. [1923.]
- No. 361. Labor relations in the Fairmont (W. Va.) bituminous-coal field. [1924.]
- No. 380. Postwar labor conditions in Germany. [1925.]
- No. 383. Works council movement in Germany. [1925.]
- No. 384. Labor conditions in the shoe industry in Massachusetts, 1920-1924.
- No. 399. Labor relations in the lace and lace-curtain industries in the United States. [1925.]
- No. 534. Labor conditions in the Territory of Hawaii, 1929-1930.
- No. 553. Labor conditions of women and children in Japan. [1931.]

Labor laws of the United States (including decisions of courts relating to labor).

- No. 211. Labor laws and their administration in the Pacific States. [1917.]
- No. 220. Wage-payment legislation in the United States. [1917.]
- No. 265. Minimum wage laws of the United States: Construction and operation. [1921.]
- No. 321. Labor laws that have been declared unconstitutional. [1922.]
- No. 322. Kansas Court of Industrial Relations. [1923.]
- No. 343. Laws providing for bureaus of labor statistics, etc. [1923.]
- No. 370. Labor laws of the United States with decisions of courts relating thereto. [1925.]
- No. 408. Laws relating to payment of wages. [1926.]
- No. 548. Decisions of courts and opinions affecting labor, 1929-30.
- No. 552. Labor legislation, 1930.

Proceedings of annual conventions of the Association of Governmental Officials in Industry of the United States and Canada. (Name changed in 1928 from Association of Governmental Labor Officials of the United States and Canada.)

- *No. 266. Seventh, Seattle, Wash., July 12-15, 1920.
- No. 307. Eighth, New Orleans, La., May 2-6, 1921.
- *No. 323. Ninth, Harrisburg, Pa., May 22-26, 1922.
- *No. 352. Tenth, Richmond, Va., May 1-4, 1923.
- *No. 389. Eleventh, Chicago, Ill., May 19-23, 1924.
- *No. 411. Twelfth, Salt Lake City, Utah, August 13-15, 1925.
- *No. 429. Thirteenth, Columbus, Ohio, June 7-10, 1926.
- *No. 455. Fourteenth, Paterson, N. J., May 31 to June 3, 1927
- *No. 480. Fifteenth, New Orleans, La., May 21-24, 1928.
- No. 508. Sixteenth, Toronto, Canada, June 4-7, 1929.
- No. 530. Seventeenth, Louisville, Ky., May 20-23, 1930.

Proceedings of annual meetings of the International Association of Industrial Accident Boards and Commissioners.

- No. 210. Third, Columbus, Ohio, April 25-28, 1916.
- No. 248. Fourth, Boston, Mass., August 21-25, 1917.
- No. 264. Fifth, Madison, Wis., September 24-27, 1918.
- *No. 273. Sixth, Toronto, Canada, September 23-26, 1919.
- No. 281. Seventh, San Francisco, Calif., September 20-24, 1920.
- No. 304. Eighth, Chicago, Ill., September 19-23, 1921.
- No. 333. Ninth, Baltimore, Md., October 9-13, 1922.
- *No. 359. Tenth, St. Paul, Minn., September 24-26, 1923.
- No. 385. Eleventh, Halifax, Nova Scotia, August 26-28, 1924.
- No. 395. Index to proceedings, 1914-1924.
- No. 406. Twelfth, Salt Lake City, Utah, August 17-20, 1925.
- No. 432. Thirteenth, Hartford, Conn., September 14-17, 1926.
- *No. 456. Fourteenth, Atlanta, Ga., September 27-29, 1927.
- No. 485. Fifteenth, Paterson, N. J., September 11-14, 1928.
- No. 511. Sixteenth, Buffalo, N. Y., October 8-11, 1929.
- No. 536. Seventeenth, Wilmington, Del., September 23-26, 1930.

Proceedings of annual meetings of the International Association of Public Employment Services.

- No. 192. First, Chicago, December 19 and 20, 1913; second, Indianapolis, September 24 and 25, 1914; third, Detroit, July 1 and 2, 1915.
- *No. 220. Fourth, Buffalo, N. Y., July 20 and 21, 1916.
- No. 311. Ninth, Buffalo, N. Y., September 7-9, 1921.
- No. 337. Tenth, Washington, D. C., September 11-13, 1922.
- No. 355. Eleventh, Toronto, Canada, September 4-7, 1923.
- No. 403. Twelfth, Chicago, Ill., May 19-23, 1924.
- No. 414. Thirteenth, Rochester, N. Y., September 15-17, 1925.
- No. 478. Fifteenth, Detroit, Mich., October 25-28, 1927.
- No. 501. Sixteenth, Cleveland, Ohio, September 18-21, 1928.
- No. 538. Seventh, Philadelphia, September 24-27, 1929; Eighteenth, Toronto, Canada, September 9-12, 1930.

Productivity of labor.

- No. 355. Productivity costs in the common-brick industry. [1924.]
- No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
- No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry [1926.]
- *No. 412. Wages, hours, and productivity in the pottery industry, 1925.
- No. 441. Productivity of labor in the glass industry. [1927.]
- No. 474. Productivity of labor in merchant blast furnaces. [1928.]
- No. 475. Productivity of labor in newspaper printing. [1929.]
- No. 530. Labor productivity in cargo handling and longshore labor conditions. [1932.]

Retail prices and cost of living.

- *No. 121. Sugar prices, from refiner to consumer. [1913.]
- *No. 130. Wheat and flour prices, from farmer to consumer. [1913.]
- *No. 164. Butter prices, from producer to consumer. [1914.]
- No. 170. Foreign food prices as affected by the war. [1915.]
- No. 357. Cost of living in the United States. [1924.]
- No. 369. The use of cost-of-living figures in wage adjustments. [1925.]
- No. 495. Retail prices, 1890 to 1923.

Safety codes.

- No. 336. Safety code for the protection of industrial workers in foundries.
- No. 350. Rules for governing the approval of headlighting devices for motor vehicles.
- *No. 351. Safety code for the construction, care, and use of ladders.
- No. 375. Safety code for laundry machinery and operations.
- No. 382. Code of lighting school buildings.
- No. 410. Safety code for paper and pulp mills.
- *No. 430. Safety code for power presses and foot and hand presses.
- No. 433. Safety codes for the prevention of dust explosions.
- No. 447. Safety code for rubber mills and calendars.
- No. 451. Safety code for forging and hot-metal stamping.
- No. 463. Safety code for mechanical power-transmission apparatus—first revision.
- No. 509. Textile safety codes.
- No. 512. Code for identification of gas-mask canisters.
- No. 519. Safety code for woodworking plants, as revised, 1930.
- No. 527. Safety code for the use, care, and protection of abrasive wheels.
- No. 556. Code of lighting: Factories, mills, and other work places. Revision of 1930.

Vocational and workers' education.

- *No. 158. Short-unit courses for wage earners, and a factory school experiment. [1915.]
- *No. 162. Vocational education survey of Richmond, Va. [1915.]
- *No. 199. Vocational education survey of Minneapolis, Minn. [1917.]
- No. 271. Adult working-class education in Great Britain and the United States. [1920.]
- No. 459. Apprenticeship in building construction. [1923.]

Wages and hours of labor.

- *No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City. [1914.]
- *No. 147. Wages and regularity of employment in the cloak, suit, and skirt industry. [1914.]
- No. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- No. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- *No. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
- No. 204. Street-railway employment in the United States. [1917.]
- No. 218. Wages and hours of labor in the iron and steel industry, 1907 to 1915: With a glossary of occupations.
- No. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- No. 265. Industrial survey in selected industries in the United States, 1919.
- No. 297. Wages and hours of labor in the petroleum industry, 1920.
- No. 356. Productivity costs in the common-brick industry. [1924.]
- No. 358. Wages and hours of labor in the automobile-tire industry, 1922.
- No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
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- No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry. [1926.]
- *No. 412. Wages, hours, and productivity in the pottery industry, 1925.
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- No. 497. Wages and hours of labor in the lumber industry in the United States, 1923.
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- No. 499. History of wages in the United States from colonial times to 1923.
- No. 502. Wages and hours of labor in the motor-vehicle industry, 1923.
- No. 503. Wages and hours of labor in the men's clothing industry, 1911 to 1923.
- No. 504. Wages and hours of labor in the hosiery and underwear industries, 1907 to 1923.
- No. 512. Wages and hours of labor in the iron and steel industry, 1929.
- No. 514. Pennsylvania Railroad wage data. From Report of Joint Fact Finding Committee in wage negotiations in 1927.
- No. 516. Hours and earnings in bituminous-coal mining, 1929.
- No. 522. Wages and hours of labor in foundries and machine shops, 1929.

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- No. 523. Hours and earnings in the manufacture of airplanes and aircraft engines, 1929.
- No. 525. Wages and hours of labor in the Portland cement industry, 1929.
- No. 526. Wages and hours of labor in the furniture industry, 1910 to 1929.
- No. 532. Wages and hours of labor in the cigarette manufacturing industry, 1930.
- No. 533. Wages and hours of labor in woolen and worsted goods manufacturing, 1910 to 1930.
- No. 534. Labor conditions in the Territory of Hawaii, 1929-1930.
- No. 535. Wages and hours of labor in the slaughtering and meat-packing industry, 1929.
- No. 537. Wages and hours of labor in the dyeing and finishing of textiles, 1930.
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- No. 540. Union scales of wages and hours of labor, May 15, 1930.
- No. 546. Wages and hours in rayon and other synthetic textile manufacturing, 1930.
- No. 547. Wages and hours in cane sugar refining industry, 1930.
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- *No. 123. Employers' welfare work. [1913.]
- No. 222. Welfare work in British munitions factories. [1917.]
- *No. 250. Welfare work for employees in industrial establishments in the United States. [1919.]
- No. 458. Health and recreation activities in industrial establishments, 1926.

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- *No. 264. Index numbers of wholesale prices in the United States and foreign countries. [1921.]
- No. 453. Revised index numbers of wholesale prices, 1923 to July, 1927.
- No. 493. Wholesale prices, 1913 to 1928.
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- No. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. [1913.]
- *No. 117. Prohibition of night work of young persons. [1913.]
- *No. 118. Ten-hour maximum working-day for women and young persons. [1913.]
- No. 119. Working hours of women in the pea canneries of Wisconsin. [1913.]
- *No. 122. Employment of women in power laundries in Milwaukee. [1913.]
- *No. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. [1914.]
- *No. 167. Minimum-wage legislation in the United States and foreign countries. [1915.]
- *No. 175. Summary of the report on condition of woman and child wage earners in the United States. [1915.]
- *No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
- *No. 180. The boot and shoe industry in Massachusetts as a vocation for women. [1915.]
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- No. 193. Dressmaking as a trade for women in Massachusetts. [1916.]
- No. 216. Industrial experience of trade-school girls in Massachusetts. [1917.]
- *No. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. [1918.]
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- *No. 102. British national insurance act, 1911.
- No. 103. Sickness and accident insurance law in Switzerland. [1912.]
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- No. 477. Public-service retirement systems, United States and Europe. [1929.]
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