

UNITED STATES DEPARTMENT OF LABOR

DESCRIPTIONS OF OCCUPATIONS

LOGGING CAMPS AND SAWMILLS

PREPARED FOR THE
UNITED STATES EMPLOYMENT SERVICE
BY THE
UNITED STATES BUREAU OF LABOR STATISTICS



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INDEX

A

	Page
Air-saw man	11
Axman or staker	11
Axman, surveying crew	11

B

Baker, camp or small bakery	11
Baker's helper	12
Banker, yard	12
Barker or bark peeler	12
Bark scaler	12
Barn boss	13
Barn man	13
Bed sawyer. (<i>See</i> Cutter, dimension.)	
Blacksmith, general repair work and horseshoeing	13
Blacksmith's helper	13
Blaster	14
Blazer	14
Boat tender	14
Bolter	14
Boom man, logging	14
Boom man, sawmill. (<i>See</i> Pond man.)	
Bridge builder. (<i>See</i> Carpenter, bridge, logging camp.)	
Bucker. (<i>See</i> Bucker, head.)	
Bucker, head	14

C

Camel-back man	15
Canter. (<i>See</i> Loader and logger.)	
Capstan or drum and cable man	15
Carpenter, bridge, logging camp	15
Carriage man. (<i>See</i> Dogger; <i>also</i> Setter.)	
Chainman (surveyor's assistant)	15
Choker man. (<i>See</i> Loader and logger.)	
Chopper	16
Chopper, head	16
Chute builder. (<i>See</i> Carpenter, bridge, logging camp.)	
Civil engineer	16
Civil engineer's helper	16
Climber	17
Commissary man	17
Cook, camp	17
Cook, chief, camp	17

	Page
Cookee, camp	17
Corral man. (<i>See</i> Barn boss.)	
Counter. (<i>See</i> Tallyman.)	
Crane operator, boom crane	17
Cruiser	18
Cut-off man. (<i>See</i> Trimmer, timber.)	
Cutter, dimension	18
Cutter, logging. (<i>See</i> Chopper.)	
Cutter, piling	18

D

Deck builder	18
Deck man	19
Dimensions mill man	19
Dogger	19
Donkey engineer. (<i>See</i> Hoister, logging camp.)	
Drum man. (<i>See</i> Capstan or drum and cable man.)	
Dry yard foreman	19

E

Edgerman	19
Edgerman's helper	20
Extra man	20

F

Faller	20
Faller, second. (<i>See</i> Faller.)	
Feed mixer. (<i>See</i> Barn boss.)	
Feller. (<i>See</i> Faller.)	
Filer, logging camp	20
Filer, sawmill	20
Filer's helper, sawmill	20
Flagman. (<i>See</i> Rodman.)	
Flume tender	20
Foreman, general, logging camp	21
Foreman. (<i>See also</i> Barn boss; Bucker, head; Chopper, head; Cook, chief, camp; Dry yard foreman; Loader man, head; Rigger, first, logging camp; Sawyer, head; Skidder, foreman; Swamper, buck.)	

G

Girdler	21
Grader, lumber	21
Grader's helper	21
Green yard foreman. (<i>See</i> Dry yard foreman.)	

H

Handy man, logging. (<i>See</i> Repair man, general machine repair.)	
--	--

	Page
Harness repair man	21
Hasher, cookhouse. (<i>See</i> Cookee.)	
Hoister, logging camp	22
Hooker. (<i>See</i> Tong hooker.)	

I

Inspector, land. (<i>See</i> Cruiser.)	
Inspector, loading	22
Inspector, ties and wood	22

J

Jump-saw man. (*See* Trimmer, timber.)

K

Knot bumper. (*See* Limber.)

L

Laborer, logging camp and sawmill	22
Landing man. (<i>See</i> Banker, yard.)	
Lever man, log deck. (<i>See</i> Deck man.)	
Lever man, logging. (<i>See</i> Capstan or drum and cable man.)	
Lever man, sawmill	23
Limber	23
Lineman. (<i>See</i> Rigger, logging camp.)	
Liner, edger. (<i>See</i> Edgerman's helper.)	
Line-up man. (<i>See</i> Resawyer's helper; Edgerman's helper.)	
Live roll man. (<i>See</i> Transfer man.)	
Loader and logger	24
Loader man, head	24
Log rigger. (<i>See</i> Rigger.)	

M

Machinist. (<i>See</i> Repair man, general machine repair.)	
Machinist's helper	24
Marker (in the woods)	24
Millwright, sawmill	24
Millwright's helper. (<i>See</i> Millwright, sawmill.)	

O

Off bearer. (<i>See</i> Laborer, logging camp and sawmill.)	
Ox tender. (<i>See</i> Barn man.)	

P

Packer	25
Pick-up	25
Pile-driver operator	25
Piler. (<i>See</i> Stacker.)	
Pipe fitter, outside	25
Pond man	26

R

	Page
Repair man, general machine repair.....	26
Repair man, trestle. (<i>See</i> Carpenter, bridge, logging camp.)	
Resawyer.....	26
Resawyer's helper.....	26
Rigger, first, logging camp.....	26
Rigger, logging camp.....	26
Roadmaster.....	26
Rodman (surveyor's assistant).....	27
Roll-on man. (<i>See</i> Deck man.)	
Rollway man. (<i>See</i> Banker, yard.)	
Roper. (<i>See</i> Tong hooker.)	

S

Sawyer, clapboard.....	27
Sawyer, gang.....	27
Sawyer, head, logging.....	27
Sawyer, head, sawmill.....	27
Sawyer, piling. (<i>See</i> Cutter, piling.)	
Sawyer, rock.....	28
Sawyer. (<i>See also</i> Faller.)	
Scaler, logging.....	28
Scaler, sawmill.....	28
Setter (on saw carriage).....	28
Sizer, timber.....	28
Skid adzer.....	29
Skidder, foreman.....	29
Skidder man. (<i>See</i> Capstan or drum and cable man.)	
Skidway man. (<i>See</i> Banker, yard.)	
Slip man. (<i>See</i> Laborer, logging camp and sawmill.)	
Snubber.....	29
Sorter.....	29
Spudder. (<i>See</i> Barker.)	
Stableman. (<i>See</i> Barn man.)	
Stacker.....	29
Staker. (<i>See</i> Axman.)	
Stave-block splitter.....	29
Steward. (<i>See</i> Commissary man.)	
Stull hewer. (<i>See</i> Timber hewer.)	
Surveyor, general.....	30
Swamper, buck.....	30

T

Tallyman, logging.....	30
Tallyman, sawmill.....	30
Teamster, logging camp.....	30
Timber hewer.....	31
Timberman. (<i>See</i> Cruiser.)	
Timber sizer. (<i>See</i> Trimmer, timber.)	
Timekeeper, logging camp.....	31
Toggler.....	31

	Page
Tong hooker	31
Top man, jammer. (<i>See</i> Loader and logger.)	
Train loader. (<i>See</i> Loader and logger.)	
Transfer man	31
Trestle builder. (<i>See</i> Carpenter, bridge, logging camp.)	
Trimmer, timber	31

W

Wagoner	32
Warehouse man. (<i>See</i> Commissary man.)	
Winch man. (<i>See</i> Crane operator, boom crane.)	
Wood hauler. (<i>See</i> Teamster.)	
Woods superintendent	32

CODE WORDS

Code word	Page	Code word	Page	Code word	Page
Actor	11	Dice	18	Rash	26
Ahead	11	Did	19	Reap	26
Aid	11	Diet	19	Rear	26
Bane	11	Dig	19	Rebel	26
Banty	12	Dike	19	Rebus	26
Bar	12	Evade	19	Refit	26
Barb	13	Eye	20	Siege	30
Barege	14	Every	20	Spar	27
Bark	12	Flood	20	Spare	27
Barn	12	Floor	20	Spark	27
Bars	13	Flora	20	Spat	27
Base	14	Flour	20	Speak	28
Basic	14	Flow	20	Spear	28
Basil	14	Fluff	21	Speck	28
Basso	14	Glim	21	Spell	28
Baste	14	Glint	21	Spend	28
Begin	13	Globe	21	Spice	29
Being	13	Haunt	21	Spied	29
Check	15	Hoist	22	Spike	29
Chef	17	Inner	22	Spill	29
Court	18	Inset	22	Spin	29
Crag	16	Let	22	Spine	29
Cream	16	Lever	23	Spire	30
Crown	15	Limb	23	Trail	30
Cruel	15	Load	24	Train	30
Cruet	15	Loaf	24	Trait	30
Crush	16	Mixer	24	Tram	31
Cry	16	Mock	24	Trap	31
Cub	17	Model	24	Trash	31
Cull	17	Patch	25	Tray	31
Cult	17	Pave	25	Tread	31
Curb	17	Pour	25	Treat	31
Cure	17	Pout	25	Wend	32
Curl	18	Prank	26	West	32
Curry	18	Rand	27		

DESCRIPTIONS OF OCCUPATIONS: LOGGING CAMPS AND SAWMILLS

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INTRODUCTORY STATEMENT

These descriptions of occupations are based on investigations, including private interviews and correspondence, extending over practically the entire United States.

The outstanding fact developed by these investigations is that there are few standard or generally accepted occupational names or definitions. It has been necessary, therefore, for the Bureau of Labor Statistics to define certain occupational terms and classifications and to assume the acceptance of these definitions by those using the descriptions. The bureau is fully aware of the fact that some important occupations have probably been omitted and that in some cases subdivisions may have been carried too far. These faults can be corrected only by means of suggestions and criticisms arising from the use of the descriptions in filling positions.

The users of these descriptions are urged to send to the Bureau of Labor Statistics all suggestions and criticisms as they arise, so that eventually there may be developed a national standard of occupational descriptions.

Acknowledgment

The Bureau of Labor Statistics wishes to thank all those who have contributed to the compilation of these descriptions. So many individuals and representatives of various organizations have been consulted that it is impossible to make special mention of such services.

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ERRATA.

Code word "Basic" (pp. 8 and 14) should be "Basify."

Code word "Court" (pp. 8 and 18) should be "Course."

PREFATORY STATEMENT

IMPORTANT

The objects of these descriptions are to furnish definitions of the various occupations, so that specifications for help may be made uniform, and to furnish a means by which the prospective employee may be informed as to the nature of the work he will be expected to do.

Each occupation has been described under the most generally accepted title. The descriptions have been carefully prepared with the view of stating clearly and briefly what each occupation requires in the way of performance and qualifications, so that a foreman or employment manager can readily specify the help wanted and can pick the worker best fitted to fill the position.

Without such standard definitions advertisements and appeals from the various Government departments or from a central employment agency would lose their effectiveness, especially when the recruiting is Nation-wide.

The statement of actual requirements under the heading of "schooling" does not have reference to those already working, but should be interpreted to mean that no one should enter the specified position at the present time without having the equivalent of the stated schooling. "Common school" signifies the completion of the common-school course.

Directions for Using Descriptions and Code Words

INDEX: In order to find any given occupational description use the index.

CODE WORDS: Each description has a code word which, when communicated to any person who has access to these descriptions of occupations, will enable him to ascertain exactly what is called for by referring to the description indicated by the code word. (See Code words.)

If an employee is wanted who has training sufficient to do work in any two or more occupations described, the code words of these descriptions should be combined to indicate the combination of qualifications; for example: The code word designating a BARN BOSS and a BARN MAN (see page 13), would be BARB-BARS.

LOGGING CAMPS AND SAWMILLS

AIR-SAW MAN

AHEAD

Kindred Occupations: Drum man; Engineer; Lever man; Sawyer.

Description: The air-saw man operates a saw driven by compressed air to cut logs into shorter lengths. The speed of the saw is controlled by means of levers. The saw is moved to a new position for each cut. The operator works usually under the direction of a saw boss or marker, who designates the cuts.

Qualifications: The air-saw man should be familiar with the machine, for purposes of minor repair, with the cutting capacity of the saw, and with methods of blocking or supporting the ends of the log to prevent binding the saw. He is generally one who has worked in a saw gang and is thus familiar with the different kinds of timber, and knows the condition the saw must be in to cut them. He should be able to withstand extremes of climate and weather and hard physical labor.

AXMAN OR STAKER

AID

Kindred Occupations: Chopper; Cutter; Skidway man.

Description: The term axman is applied specifically in certain logging sections to one who hews the inner faces of timbers forming a chute or slide for moving logs. The work is particular because any irregularities on the face of the slide will cause logs to jump. It is customary to hew to a chalk line with a felling ax and then smooth the face with a broadax. The work is usually in charge of a skidding foreman or chute foreman.

Qualifications: The axman or staker must have had actual experience in handling logs in the woods. The ability to handle an ax and to hew to a line can be acquired only by performance. Men usually work as brush cutters, wood cutters, road makers, and limb or knot cutters before qualifying as axmen. They should be able to withstand extremes of climate and weather and hard physical labor.

AXMAN, SURVEYING CREW

ACTOR

Kindred Occupation: Woodchopper.

Description: The duties of the axman in a surveying crew are to clear the ground of weeds, brush, or trees, in order that the transit man may obtain a clear sight along a desired course. The axman also drives the stakes for the rodman and frequently assists in carrying instruments or camp outfits in changing camp locations.

Qualifications: The axman must have ability to handle an ax and hatchet, and have physical strength and endurance in walking, and especially be able to stand outside exposure.

Schooling: Common school.

BAKER, CAMP OR SMALL BAKERY

BANE

Description: The duties of the baker in a camp or small bakery are to bake bread and pastries under the conditions usually found where one man or one man and an assistant do all the work.

Qualifications: The baker must be thoroughly competent, able to make straight dough and sponges and also to use potato ferment for yeast making; must be able to maintain the proper fires in the baker's oven, run either by coal, coke, or wood; should be able to mix all kinds of cake batters and prepare baking powder and raised biscuits. Should be capable of directing one or two assistants; should also be able to order materials necessary in the proper amounts and to prepare and make a statement of the materials and costs. He should appreciate cleanliness and understand the fundamentals of camp sanitation. He should have had experience as a baker's assistant.

Schooling: Common school.

BAKER'S HELPER

BANTY

Description: The duties of the baker's helper or assistant are to help the first or chief baker in doing the work and the conduct of a bakery.

Qualifications: The baker's helper should be neat in appearance and habits; should have a desire to become a baker and be willing to work under the direction of the baker or the chief cook.

Schooling: Common school.

BANKER, YARD

BAR

Kindred Occupations: Hooker; Loader; Skidway man; Tong man.

Description: After the logs are cut they are skidded to a point accessible by railroad or other transportation agency. The yard banker has charge of the work of piling these logs preparatory to loading. The work is usually done by power, either animal or donkey engine, but sometimes the logs are rolled upon skids by hand power. In either case it is necessary to know how to handle heavy logs with a minimum of time and effort, to arrange them for convenience in loading, and to secure them in the pile. The work is in charge of a landing or yard foreman.

Qualifications: Experience in handling logs is necessary in order to make the most efficient use of hand or other power in stacking logs at the log yard or landing. He should be able to withstand extremes of climate and weather and hard physical labor, and should be dexterous.

BARKER OR BARK PEELER

BARK

Kindred Occupations: Bark fitter; Chopper; Cutter; Sniper; Swamper.

Description: Where logs of large size are skidded on dry ground the bark on the lower side is frequently removed to reduce friction. Other logs have the bark removed for tanning purposes. The work of removing the bark may be done by one of the swamping crew or by a barker. Either a broadax or a "spud" or peeler may be used. The barker usually works with a bark fitter or ringer, who girdles or cuts a ring around the log at regular intervals, then makes a longitudinal cut, after which the barker pries off the bark.

Qualifications: Barking for tanning purposes is usually done by members of the felling crew. Rapid work can be done only after considerable experience, but the work does not require a large amount of skill. The barker should have dexterity and a strong physique and be able to withstand extremes of weather and climate and hard physical labor.

BARK SCALER

BARN

Kindred Occupations: Bark fitter; Chopper; Cutter; Ringer; Scaler.

Description: The bark scaler measures the tan bark after it is removed from the logs. The bark is usually corded much the same as wood before measuring.

Qualifications: A member of the cutting crew usually does the work of bark scaling during the bark season.

BARN BOSS**BARB**

Kindred Occupations: Stableman; Teamster.

Description: The barn boss has charge of the stables in a logging camp. It is his duty to determine what supplies are needed for the stables and to supervise the work of the barn men.

Qualifications: The barn boss should have had experience in feeding and caring for horses, mules, or oxen, but the work is not peculiar to logging operations. He should be able to take care of sick and disabled animals.

BARN MAN**BARS**

Kindred Occupations: Hostler; Teamster.

Description: A barn man feeds, waters, cleans, and harnesses the team. He works under the immediate direction of the barn boss. Unless a harness man is employed the barn man keeps the harnesses in repair.

Qualifications: The work is unskilled but implies some knowledge of the care of animals and proper rations.

BED SAWYER. (*See Cutter, dimension.*)

BLACKSMITH, GENERAL REPAIR WORK AND HORSESHOEING**BEGIN**

Description: The duties of the blacksmith and horseshoer are to make new parts and to do repair work for carriages, wagons, and general machinery. He must also be qualified to do resetting and fitting of horseshoes, such as a man might do if employed around a mine, in a construction crew, or as a country blacksmith.

Qualifications: The blacksmith and horseshoer must be able to do bending, drawing, upsetting, welding and forming, and all light carriage and machine repairs; must be able to work with coal and coke fires, or with oil or gas, with hand or power blast; must be familiar with the various grades of iron and steel, including tool steel; should be able to order stock and calculate sizes. He should dress, harden, and temper all ordinary tools. He should be able to dress picks and pinch bars; should be able to make and repair crowbars, tongs, and special tools. He must be able to forge a new horseshoe or to punch and fit one from commercial stock. He should be able to remove a shoe, pare hoofs, sharpen or replace calks, and properly replace the shoe. This work requires good health and strength. He should have had at least an equivalent of an apprenticeship as a general blacksmith and horseshoer.

Schooling: Common school.

BLACKSMITH'S HELPER**BEING**

Description: The duties of the blacksmith's helper are to use the sledge at the direction of the blacksmith, to look after the forge fire, to cut and arrange stock, and to assist the blacksmith in any and all work assigned. He may be in training for the blacksmith's trade.

Qualifications: The blacksmith's helper should be a strong, healthy young man who has a desire to become a blacksmith. He should have a knowledge of ordinary arithmetic and should learn to read drawings.

Schooling: Common school.

BLASTER**BAREGE**

Kindred Occupation: Blaster in engineering construction work.

Description: The blaster uses dynamite to clear the ground of obstructions preparatory to the construction of railways and skidways. These obstructions consist for the most part of tree stumps and rocks. It is an intermittent occupation.

Qualifications: The blaster must be experienced in the handling and use of explosives, caps, and fuses. This demands especial care during the winter months, in order to prevent the explosives from freezing. He should have a strong physique and be able to withstand extremes of weather and hard physical labor.

BLAZER**BASE**

Description: The blazer indicates the location of a chute or skidway by means of blazes, or marks made on trees by means of an ax.

Qualifications: The blazer must have some practical experience in laying out temporary roads, pack trails, and chutes. He must also have some knowledge of practical topography.

BOAT TENDER**BASIC**

Description: The boat tender operates a supply boat between the log camps and the sawmill in sections where log canals form a part of logging operations. The work will differ somewhat with the type of boat employed.

Qualifications: The boat tender must be experienced in the handling of small boats and of gasoline engines, if the boat is equipped with these.

BOLTER**BASIL**

Kindred Occupations: Saw feeder; Saw tender.

Description: The bolter feeds lath, stave, or heading stock through a bolting saw, reducing the material into "bolts" or blocks of a width and thickness suitable for conversion into the desired by-products.

Qualifications: The bolter must be familiar with the sizes of blocks or bolts necessary for the various by-products of the mill

Schooling: Common school.

BOOM MAN, LOGGING**BASSO**

Description: The boom man's work consists of binding logs together to be towed to the sawmill, or of releasing them at the log pond of the sawmill. This is done while the logs are in the water. The occupation is intermittent.

Qualifications: The boom man must be experienced in the art of binding logs together in such a fashion that they will not fall apart when towed to the sawmill. He must know how to handle ropes and chains and must be able to retain a firm footing upon floating logs. He should have a strong physique, be agile and dexterous, and must be able to withstand weather extremes and hard physical labor.

BOOM MAN, SAWMILL. (*See Pond man.*)

BRIDGE BUILDER. (*See Carpenter, bridge, logging camp.*)

BUCKER. (*See Bucker, head.*)

BUCKER, HEAD**BASTE**

Kindred Occupations: Drnm man; Engineer; Lever man; Sawyer.

Description: The head bucker is the foreman of the air-saw or bucker crew. He indicates the points at which the logs are to be moved to be

sawed, supervises the work of the crew, and the making of adjustments and minor repairs on the saw. If bucking is done by a crosscut saw, he may be one of the bucking crew. Buckers work singly or in pairs.

Qualifications: The head bucker must have some executive ability and discretion in the handling of men, and should have a strong physique. He should know how to support the tree preparatory to bucking, in order to avoid binding the saw or splitting the log.

Schooling: Common school.

CAMEL-BACK MAN

CRUEL

Description: The camel-back man operates by means of levers a device called a camel back, used to shunt mill products from one conveyer chain to another or to a platform.

Qualifications: The camel-back man must be familiar with kinds and grades of lumber in order to sort them.

CANTER. (*See Loader and logger.*)

CAPSTAN OR DRUM AND CABLE MAN

CROWN

Kindred Occupations: Boom crane director; Crane director; Derrick operator; Hoisting-engine man; Steam-shovel man.

Description: The duty of the capstan or drum and cable man is to operate a capstan or drum and cable for the skidding of logs, moving of buildings, and such other work as involves the use of the steam engine and boiler.

Qualifications: The capstan or drum and cable man should know how to anchor and support a cable; should be thoroughly familiar with all the parts of the machinery connected with a small hoisting engine; should be able to make repairs, move his engine, boiler, and machinery from place to place; have a thorough knowledge of the operation of a small steam boiler, steam engine, and pump; should be able to operate an outfit under unfavorable conditions in logging camps or in general construction work. He should have good physical strength and endurance and good eyesight and hearing. Should have had experience as fireman and assistant to a capstan or drum and cable man.

CARPENTER, BRIDGE, LOGGING CAMP

CRUET

Kindred Occupations: Mill carpenter; Millwright.

Description: The duties of the bridge carpenter in a logging crew are to build and repair temporary bridges, repair permanent bridges, and put up any permanent or temporary trestlework or scaffolding at the mill or on the driveway.

Qualifications: The bridge carpenter must thoroughly understand timber splicing and bridge bracing and be able to direct the work of helpers. He must be physically strong and able to climb. He should have had experience on a temporary bridge or trestle crew.

Schooling: Common school.

CARRIAGE MAN. (*See Dogger; also Setter.*)

CHAINMAN (Surveyor's assistant)

CHECK

Description: The duties of the chainman are to measure distances with a steel tape or a surveyor's chain under the direction of the surveyor, transit man, or level man. There are usually two chainmen, head and rear. The head chainman usually carries a flag or a sight pole, selecting the point where the axman drives a stake to mark the points indicated

by the surveyor or transit man. The rear chainman merely holds the tape or chain at zero at the last marking station.

Qualifications: The chainman must have good physical strength and ability. He must be hardened to outdoor work and have had experience as chainman in a surveyor's crew.

Schooling: Common school; preferably high school.

CHOKER MAN. (*See Loader and logger.*)

CHOPPER

CRUSH

Description: The chopper makes the undercut or notch to direct the falling of a tree, or fells the tree when this work is done entirely with an ax. He usually works under a foreman.

Qualifications: The chopper must be an expert axman and tree feller. He should have a sound physique and be accustomed to extreme weather conditions.

CHOPPER, HEAD

CRY

Description: The head chopper directs the choppers in their work, marks the point at which the tree shall be felled, and keeps a record of the choppers. He may also perform chopper's work.

Qualifications: He must be an experienced chopper himself and must have some executive ability. He should understand the difficulties of skidding and fell trees accordingly.

Schooling: Common school.

CHUTE BUILDER. (*See Carpenter, bridge, logging camp.*)

CIVIL ENGINEER

CRAIG

Description: The duties of the civil engineer are the planning, designing, and supervising of all classes of general construction operations.

Qualifications: He must be thoroughly familiar with the mathematical and mechanical principles and engineering features of designs, construction, or operation in connection with land surveying; structural, bridge, or building work of any kind; highway construction; hydraulic development; municipal engineering in connection with water works; drainage and sewerage; railroad survey and construction; harbor, canal, and dam construction, such as wharves, piers, excavation, and dredging.

Must be thoroughly familiar with the use of all types and classes of construction machinery used in civil engineering developments, such as cranes, hoists, derricks, shovels, hydraulic dredges, pumps, excavators, concrete mixers and distributors.

Must be thoroughly familiar with all materials used in construction work and be capable of preparing specifications and contracts for materials or equipment of any kind involved in such classes of work.

Schooling: Must be a technical school graduate with a broad practical experience in the various branches of civil engineering.

CIVIL ENGINEER'S HELPER

CREAM

Description: The civil engineer's helper assists the civil engineer in laying out roads, railways, chutes, buildings, etc.

Qualifications: The civil engineer's helper must have a knowledge of drafting, surveying, and engineering problems.

Schooling: High school or college.

CLIMBER**CUB**

Kindred Occupations: Block and tackle rigger; Squirrel man.

Description: The climber fastens skidding cables and rigging to trees.

Qualifications: The climber must have a knowledge of rigging and block fastenings. He must be dexterous and agile.

COMMISSARY MAN**CULL**

Kindred Occupation: Construction or mining camp cook.

Description: The commissary man has charge of the food supply of the camp and sometimes runs the camp store where one is operated.

Qualifications: The commissary man must have some knowledge of book-keeping, business methods, wholesale prices of food commodities, etc.

Schooling: Common school; preferably high school.

COOK, CAMP**CULT**

Kindred Occupations: Baker; General cook.

Description: The duties of the camp cook are to prepare meals under the direction of the chief cook in a temporary kitchen connected with any sort of camp.

Qualifications: The camp cook must be able to prepare meats and vegetables, make bread, biscuits, and pies on either coal, coke, or wood range. He must have good health and strength. He should have had experience as a cookee.

COOK, CHIEF, CAMP**CURB**

Kindred Occupations: Baker; General cook.

Description: The duties of the camp chief cook are to prepare meals, order supplies, and direct the affairs of the kitchen in such places as logging camps, construction camps, and mining camps.

Qualifications: The camp chief cook must be able to prepare meat and vegetables, bake biscuit and bread, pies, and plain cakes, with a camp kitchen outfit; must be able to handle a coke, coal, or wood range, and select the proper kinds and amounts of food for the various meals of the day; also prepare lunches for men who have to go a distance from the camp. He must be prepared to serve hot drinks and soup with meals served at a distance from the central kitchen. He should have had experience as an assistant to a chief cook in a camp or under similar conditions.

COOKEE, CAMP**CURE**

Kindred Occupation: Scullery man.

Description: The duties of the camp cookee are to prepare vegetables, meats, and other food for cooking, under the direction of the cook or chief cook.

Qualifications: The camp cookee should be neat in habits, willing to take directions, and show a desire to become a cook.

CORRAL MAN. (*See* Barn boss.)

COUNTER. (*See* Tallyman.)

CRANE OPERATOR, BOOM CRANE**CHEF**

Description: The duty of the crane operator on a boom crane is to operate the controlling devices of a boom crane in lifting and placing material on such work as building and bridge construction and in shipbuilding.

Qualifications: The boom-crane operator should thoroughly understand all the controlling devices on the crane. He must be able to fire a small portable boiler and to run a small hoisting engine. He must be able to make all minor repairs, such as repairs to valves, pipe fittings, and general machinery. He should know enough about all the parts of the machinery to make reports when it is not working right. He should be physically fit and alert and pass an examination for eyesight, color sight, and hearing. He should have had experience as a fireman or as assistant to a boom-crane operator.

CRUISER**CURL**

Description: A timber cruiser goes through the forests making maps of the ground and estimating the amount and value of the various kinds of timber in a given locality.

Qualifications: The timber cruiser knows how to estimate stumpage. He must know the various kinds of trees and their lumber value. He must understand logging operations sufficiently well to determine whether or not the logs can be gotten out to the sawmill at a profit. He must have some knowledge of the value of land, so as to be able to make an estimate of the resale value for any of the land after the timber is removed. He must know how to prepare maps and plats showing the topography of the ground covered. He should be able to do land surveying. The timber cruiser should have had considerable experience in estimating standing timber, and should have had general logging experience.

Schooling: Common school; preferably high school or college graduate.

NOTE.—Many timber cruisers have grown up in the logging industry and have acquired the training equivalent to the schooling indicated above, but have not attended any of the specified schools.

CUT-OFF MAN. (*See* Trimmer, timber.)

CUTTER, DIMENSION**CURRY**

Kindred Occupation: Head sawyer.

Description: The dimension cutter is employed at the log deck to examine the logs carefully and to indicate the product into which they shall be cut. Where employed he relieves the head sawyer of this work and expedites operations.

Qualifications: The dimension cutter must have a full knowledge of saw-mill products and their requirements and qualities.

Schooling: Common school; preferably high school.

CUTTER, LOGGING. (*See* Chopper.)

CUTTER, PILING**CURT**

Kindred Occupations: Air-saw man; Sawyer.

Description: A piling cutter is one who is employed in cutting timbers the proper length for piling to be used in railway, dock, or shipyard construction.

Qualifications: The piling cutter must be able to handle an air-saw or other variety of saw used in cutting logs.

Schooling: Common school; preferably high school.

DECK BUILDER**DICE**

Kindred Occupations: Decker; Deckman; Laborer.

Description: A deck builder builds the skidway—a sort of platform on which logs may be conveniently stored.

Qualifications: The deck builder requires no special skill but implies previous experience in deck construction.

DECK MAN**DID**

Description: The deck man works on the log deck where the logs are first brought into the mill by the bull chain. He examines the log, cuts out rocks, and guides it to its first position upon the incline to the saw carriage. He may also be required to scale or compute the board footage of the logs.

Qualifications: The deck man must possess exceptional agility and strength. No experience is required except that of handling logs quickly and precisely.

Schooling: Common school; preferably high school.

DIMENSIONS MILL MAN**DIET**

Description: The dimensions mill man has charge of the sawing of lath and other small stock cut to specified sizes, cutting them from material too small for boards.

Qualifications: He should be experienced in selecting such material from the by-products of the mill as can be utilized for this purpose, sawing it to the best advantage. He should be capable of directing the men employed in his department.

DOGGER**DIG**

Description: The dogger adjusts the log into position and clamps down the dogs that hold it on the head saw carriage preparatory to sawing. He works under the immediate direction of the head sawyer.

Qualifications: The dogger must be adept in the use of a peavey or cant hook. This work requires strength, dexterity, and attentiveness to the signals of the sawyer.

Schooling: Common school; preferably high school.

DONKEY ENGINEER. (*See Hoister, logging camp.*)

DRUM MAN. (*See Capstan or drum and cable man.*)

DRY YARD FOREMAN**DIKE**

Description: The dry yard foreman has charge of the storage yard, and gives instructions as to the sawing of required stock according to the various woods, grades and dimensions. He supervises the handling of the lumber as it leaves the mill, directing the trucking, piling, etc. He also directs the loading of stock for shipment.

Qualifications: He should be thoroughly familiar with yard operations, and with all grades of lumber. He should be able to figure rapidly and to estimate board feet. He must be capable of handling men.

EDGERMAN**EVADE**

Description: The duties of the edgerman are to inspect boards or thicker lumber to determine the widths into which they may economically be cut, operating the levers which adjust the saws laterally to the width determined upon, feeding the material into the edger to be cut and to remove the bark edge.

Qualifications: He must be familiar with all kinds and grades of lumber and with the market prices so that he can produce the sizes and qualities that render the product most valuable.

Schooling: Common school, preferably high school.

EDGERMAN'S HELPER**EVE**

Kindred Occupations: Resawyer's helper; Trimmer loader.

Description: The edgerman's helper places the lumber from the head saw, gang saw, and resaw into position on the edger table for inspection by the edger, preparatory to trimming the edges.

EXTRA MAN**EVERY**

Kindred Occupation: Common laborer.

Description: The extra man is employed to take the place of other employees when they are absent.

Qualifications: The extra man is usually an all-round man, able to fill any but the places requiring exceptional skill. He should be familiar with most of the unskilled or semiskilled work about the plant.

FALLER**FLOOD**

Description: The faller is one who fells trees by the use of either saw or ax. Usually a helper known as a second faller is employed.

Qualifications: The faller must be experienced in the handling of an ax or a saw, and often both.

FALLER, SECOND. (*See* Faller.)

FEED MIXER. (*See* Barn boss.)

FELLER. (*See* Faller.)

FILER, LOGGING CAMP**FLOOR**

Kindred Occupation: Saw setter.

Description: A filer's work consists of filing and setting the teeth of saws used in logging operations. The work is usually done at camp.

Qualifications: The filer must be skilled in handling hand metal working tools and be able to set a saw so that it will not bind when in use.

Schooling: Common school.

FILER, SAWMILL**FLORA**

Description: The filer sharpens and sets the teeth of saws to prevent binding and repairs broken saws by welding or brazing. A considerable part of the work is done by machinery, but some hand work is necessary.

Qualifications: He must have a knowledge of mechanics and of steel welding. He must be able to operate the machinery used in filing saws and be able to braze the saws so they will run true and stand the strain of operation. He should have worked as filer's helper.

FILER'S HELPER, SAWMILL**FLOUR**

Description: The filer's helper assists and works under the direction of the filer in keeping the saws in order. The position is considered a training course for filers.

Qualifications: The filer's helper must have a knowledge of filing and welding machines and appliances.

Schooling: Common school.

FLAGMAN. (*See* Rodman.)

FLUME TENDER**FLOW**

Description: The flume tender has charge of the crew of men operating a flume.

Qualifications: He must be quick and alert, seeing that the points in the flume where jams are apt to occur are properly attended to by the members of his crew. He must be familiar with the pickaroon and other implements to avoid jams.

FOREMAN, GENERAL, LOGGING CAMP**FLUFF**

Description: The general foreman of the logging camp has charge of the cutting crews, the loading and hauling crews, and the bunk house, stables, and logging crews.

Qualifications: The general foreman of the logging camp must be an all-round woodsman, familiar with felling trees and with handling logs, either when placed on skids or floating, or on sleds and wagons for delivery to car or mill. He should also be familiar with rafting logs and with floating them loose. He must have some knowledge of camp construction and sanitation, also of railway, bridge, and road construction, and should know how to lay out the season's work. This usually requires a strong, healthy man, able to stand all kinds of exposure out of doors and ability to handle men who are doing heavy out-of-door work.

Schooling: Common school.

FOREMAN. (*See also* Barn boss; Bucker, head; Chopper, head; Cook, chief, camp; Dry yard foreman; Loader man, head; Rigger, first, logging camp; Sawyer, head; Skidder foreman; Swamper, buck.)

GIRDLER**GLIM**

Description: The girdler precedes the sawyers by several months. He cuts a groove around the base of the tree. Girdling is done only with cypress timber, the object being to deaden and lighten it so that it will float when rafted.

Qualifications: He should be able to handle an ax and chop to a line; should be able to withstand extremes of climate and weather and hard physical labor.

GRADER, LUMBER**GLINT**

Description: The lumber grader grades and classifies green or dried lumber. He usually indicates by chalk or pencil marks the grade or class to which he assigns each piece.

Qualifications: The lumber grader must know lumber grades and be able to decide quickly upon the grade of each board.

Schooling: Common school.

GRADER'S HELPER**GLOBE**

Description: The grader's helper turns the board for inspection by the grader and marks the board as directed.

Qualifications: He acquires familiarity with grades of lumber and may succeed to the position of grader.

Schooling: Common school.

GREEN YARD FOREMAN. (*See* Dry yard foreman.)

HANDY MAN, LOGGING. (*See* Repair man, general machine repair.)

HARNES REPAIR MAN**HAUNT**

Description: The duties of the harness repair man are to make and repair any part of a light or heavy harness excepting the making of collars.

Qualifications: He must be able to select the proper cuts of leather for the various parts of the harness. He must be able to do hand stitching and riveting and take out and replace any part of the harness. It is desirable that he be able to make complete sets of single and double harness, not including the manufacture of the collars. He should have

served the equivalent of an apprenticeship and worked as a journeyman either in a logging or construction crew or in some small shop where harness repair work is done by one man or one man and an assistant.
Schooling: Common school.

HASHER, COOKHOUSE. (*See* Cookee, camp.)

HOISTER, LOGGING CAMP

HOIST

Kindred Occupation: Stationary engineer.

Description: The hoister operates a donkey engine used in raising sunken logs and bringing them to the mill slip. He may also be required to do other work in connection with starting logs up the slip.

Qualifications: The hoister must know how to operate a donkey engine and different kinds of log loading machines

Schooling: Common school.

HOOKER. (*See* Tong hooker.)

INSPECTOR, LAND. (*See* Cruiser.)

INSPECTOR, LOADING

INNER

Description: The loading inspector has charge of the loading of cars for shipment, keeping a tally of scaling and grading and classifying the stock.

Qualifications: He must have a knowledge of inspection rules; know the various grades of lumber, and be able to decide quickly upon the grade of each piece. He should be a rapid computer and be able to handle a crew of men.

INSPECTOR, TIES AND WOOD

INSET

Description: The tie and wood inspector inspects and classifies ties and computes or estimates the quantity of lumber and classifies it.

Qualifications: The tie and wood inspector must be well versed in the tie specifications of railroads and in the specifications for mine props and for classifications of lumber.

Schooling: Common school; preferably high school.

JUMP-SAW MAN. (*See* Trimmer, timber.)

KNOT BUMPER. (*See* Limber.)

LABORER, LOGGING CAMP AND SAWMILL

LET

The following occupations are included as laborers:

Bark fitter.	Chute peeler.	Helper.
Bell boy.	Chute tender.	Hog man.
Block greaser.	Cleaner.	Hook tender.
Brush burner.	Conveyor man.	Hydrant man.
Brutter.	Dishwasher.	Jackscrew man.
Bull cook.	Dogger.	Laborer.
Bundler.	Donkey tender.	Loader.
Car loader.	Drum puller.	Loader, trimmer.
Carrier, rails and ties.	Dumper.	Mucker.
Chainman.	Feeder.	Notcher.
Chain tender, second.	Gopher.	Oil boy.
Choker, second.	Grab driver.	Oiler.
Chunk buncher.	Grab hooker.	Peeler.
Chunk sawyer.	Greaser.	Picker.
	Ground man.	Piler.

LABORER, LOGGING CAMP AND SAWMILL—Concluded.

Poler.	Skid sawyer.	Tailer, resaw.
Porter.	Skid tender.	Tail sawyer.
Puller.	Sled tender.	Tie distributor.
Pulp piler.	Slip dumper.	Tier.
Rider.	Slip man.	Toggle knocker.
Rigger, second.	Smitter.	Tommie.
Rigging puller.	Sniper.	Tong hooker, second.
Right-of-way man.	Spike peddler.	Topper.
Road builder.	Spool tender.	Track dresser.
Roustabout.	Spool wright.	Track walker.
Run back.	Stake cutter.	Transfer man.
Sand burner.	Stave-block loader.	Trimmer operator.
Sand drier.	Straw boss.	Trucker.
Scavenger.	Stripper.	Waiter.
Scraper man.	Stumper.	Watchman.
Setter, cant.	Supply-house man.	Water buck.
Shingle weaver.	Swamper.	Wood buck.
Signalman.	Tailer, edger.	Wood loader.
Skidder.	Tailer, gang-saw.	Wood setter.

Description: The duties of the logging camp and sawmill laborers are to do the various kinds of work about a logging camp and a sawmill that do not require exceptional skill.

Qualifications: The general work about a logging camp and sawmill requires, first of all, physical strength, endurance, and dexterity. While in many cases the actual operation that the man is doing can be learned in a very short time, there is always the element of danger to himself and others which must be fully appreciated by the logging man. He must be accustomed to outdoor work. A good, active man from a quarry or construction gang would meet the requirements.

LANDING MAN. (*See Banker, yard.*)

LEVER MAN, LOG DECK. (*See Deck man.*)

LEVER MAN, LOGGING. (*See Capstan or drum and cable man.*)

LEVER MAN, SAWMILL**LEVER**

Description: The lever man works on the log deck, controlling the levers which operate the bull chain that hauls the logs up the chute into the mill, assists the deck man at his work, and directs the disposition of the product from the saw.

Qualifications: The lever man must be agile and strong.

Schooling: Common school.

LIMBER**LIMB**

Description: The limber cuts the limbs from logs by means of an ax or saw.

Qualifications: The limber must be a good hand with an ax or saw; must have a strong physique and be able to stand extremes of weather.

LINEMAN. (*See Rigger, logging camp.*)

LINER, EDGER. (*See Edgerman's helper.*)

LINE-UP MAN. (*See Resawyer's helper; Edgerman's helper.*)

LIVE ROLL MAN. (*See Transfer man.*)

LOADER AND LOGGER**LOAD**

The following are included as loaders and loggers:

Canter.	Loader man.	Stave-block roller.
Choker man.	Loader, second.	Top loader.
Decker.	Loading crew.	Unloader.
Jammer.	Log buncher.	Wagon crew.
Landing man.	Rafter.	Yardman.

Description: The duties of the loaders and loggers, the names of which are given above, are to load and move logs.

Qualifications: The first qualification of a loader or logger is good physical strength and agility. Logs are heavy and a slip or failure to do on time what a man is expected to do may cause a serious accident. The logger should be promoted from a cant-hook or peavey man to skidder and loader.

LOADER MAN, HEAD**LOAF**

Description: The head loader man is the overseer or foreman of a loading crew.

Qualifications: The head loader man must have had considerable experience as a member of the loading crew. This work requires quick judgment and action to avoid accident.

LOG RIGGER. (*See Rigger.*)

MACHINIST. (*See Repair man, general machine repair.*)

MACHINIST'S HELPER**MIXER**

Description: The machinist's helper assists the repair man or machinist in his repair work. He is also permitted to operate some of the more simple machines in the machine shops.

Qualifications: The machinist's helper must be familiar with some of the more simple machine-shop operations.

MARKER (in the woods)**MOCK**

Description: A marker is one who marks felled trees for cutting into log lengths.

Qualifications: The marker must have knowledge of general logging operations and sawmill requirements. He should be able to mark logs so as to show how to cut out the crooked places with the least waste.

MILLWRIGHT, SAWMILL**MODEL**

Kindred Occupations: General millwright; Factory engineer; Sawmill engineer.

Description: The sawmill millwright's duties consist of laying out, erecting, and maintaining portable or semiportable sawmills.

Qualifications: The sawmill millwright must be experienced in the construction and operation of sawmills of portable or semiportable types and a thoroughly practical and adaptable man able to meet emergencies, capable of knocking down buildings and machinery and quickly moving to new location and setting up complete mill. He should have a practical knowledge of band and circular sawmills, including sawing machinery, carriages, belting, pulleys, shafting, and hangers and all auxiliary apparatus. He must have a thorough practical knowledge of portable and semiportable boilers, engines, pumps, piping, and auxiliary

power equipment, and be able to erect ready for operation. He should have had experience as such in lumber operations, on large construction operations, or as maintenance man in a large woodworking mill.

MILLWRIGHT'S HELPER. (*See* Millwright, sawmill.)

OFF-BEARER. (*See* Laborer, logging camp and sawmill.)

OX TENDER. (*See* Barn man.)

PACKER

POUR

Description: The packer loads and drives pack animals in the transportation of supplies for logging camps.

Qualifications: He must know how properly to balance a pack, adjust pack saddles, and take care of pack animals.

PICK-UP

POUT

Description: The pick-up collects logs that have broken away from a raft or boom. He usually employs a peavey in this work.

Qualifications: He must be able to handle logs in the water and to step from log to log while they are floating in the water.

PILE-DRIVER OPERATOR

PATCH

Kindred Occupations: Dredge engineman; Hoisting engineman; Steam-shovel operator; Yard or wrecking crane operator.

Description: The pile-driver operator attends to the operation and maintenance of standard types of pile drivers on any character of work.

Qualifications: The pile-driver operator must be a thoroughly experienced and practical steam pile-driver operator on both drop and steam ram types. He must be able to set up a machine, either land or floating type, and operate and maintain it on any class of work. He should be a good steam-boiler fireman, capable of making minor repairs, including cutting out or replacing or reexpanding flues, and be able to operate and maintain engine pumps, piping, and accessories; must be a good rope man and rigger, also able to splice cables, reeve ropes, and guy frames. He should have a good general knowledge of piles, know when they are sound and right to drive; how to point and put shoes on. He should understand pulling piles. He should have been a member of a pile-driving crew in the building of docks, piers, foundation, or trestle work.

PILER. (*See* Stacker.)

PIPE FITTER, OUTSIDE

PAVE

Description: The duties of the outside pipe fitter are general outdoor pipe erection or fitting work around mines, quarries, or construction work of any character.

Qualifications: The pipe fitter must be a practical general pipe fitter, experienced on outside piping for compressed air, gas, steam, or water. Must be experienced in emergency pipe installation or repairs, and in running long or temporary air or steam pipe lines in quarries, mines, or any kind of construction work, for operation of rock drills, hoists, or pumps used for emergency pumping. He should be able to cut and fit from sketches and be capable of doing good light work in the open under unfavorable conditions, and should have general knowledge of use of standard valves, fittings, and pipe, and should preferably have some knowledge of proportioning pipes and mains, and be familiar with covering and insulation of exposed lines. He should have served an equivalent to an apprenticeship with an outside pipe fitter.

Schooling: Common school.

POND MAN**FRANK**

Description: The pond man works about the log pond, sorting and raising logs and starting them up the chute into the mill. For hand sorting and moving, a pike pole is used.

Qualifications: In some cases the pond men stay upon the floating logs while they are performing their work, and must be agile and strong. Some practical experience is necessary in order to select suitable logs and to get them started up the chute.

REPAIR MAN, GENERAL MACHINE REPAIR**RASH**

Description: The general machine repair man is a journeyman machinist who has specialized on machine repairs.

Qualifications: The general repair man must be especially skillful in making machine adjustments, such as bearing adjustments, leveling and lining up machinery, scraping and babbiting. He must be resourceful and able to accomplish results with limited equipment. He should have ability to read drawings sufficiently well to order all necessary stock and tools, and to obtain from the drawings a complete understanding of all mechanical requirements. He must be able to work to micrometer measurements. He should have good eyesight and good health.

Schooling: Common school; preferably high school.

REPAIR MAN, TRESTLE. (*See* Carpenter, bridge, logging camp.)**RESAWYER****REAP**

Kindred Occupation: Gang sawyer.

Description: The work of a resawyer consists in feeding slabs of thick boards from the head saw into pressure rolls which hold the slabs or boards in place and force them into horizontal, band, or circular resaws, to be cut into boards or reduced to standard sizes.

Qualifications: He must know how to get the most marketable material out of the product, be able to gauge the cutting capacity of the saw, and be familiar with its mechanism.

RESAWYER'S HELPER**REAR**

Kindred Occupation: Transfer man.

Description: The resawyer's helper assists the resawyer by placing the slabs or other product in position on the resaw table.

Qualifications: Only slightly above the common laborer.

RIGGER, FIRST, LOGGING CAMP**REBEL**

Description: The first, or head, rigger is in charge of a crew of loggers. (*See also* Rigger, logging camp.)

RIGGER, LOGGING CAMP**REBUS**

Kindred Occupation: Squirrel man.

Description: The rigger cuts the tops off standing trees and attaches guy wires and cable blocks for the purpose of cable skidding.

Qualifications: He must be skilled in the use of climbers and in attaching guy wires and blocks.

ROADMASTER**REFIT**

Description: The roadmaster lays out and constructs railroads, skidways and landings.

Qualifications: He should have a thorough knowledge of the construction of railroads, skidways, and landings. He should understand the various types of hand, power, and cableway skidding; and have a thorough knowledge of woodcraft.

RODMAN (Surveyor's assistant)**RAND**

Description: The duties of the rodman are to work with the transit or level man, handle the transit rod, level rod, stabia rod, and chain and steel tape.

Qualifications: The rodman must make accurate chain measurements and offset measurements, and be able to locate turning points and bench marks. He should be able to use the hand level; must understand the taking and plotting of field notes and sketching. He must have a general knowledge of surveying instruments. He must have good physical strength and be able to stand outdoor exposure. He should have had experience as a chainman, or an equivalent in an engineering school.

Schooling: He should be a college graduate in civil engineering.

ROLL-ON MAN. (See Deck man.)**ROLLWAY MAN. (See Banker, yard.)****ROPER. (See Tong hooker.)****SAWYER, CLAPBOARD****SPAR**

Description: The clapboard sawyer operates a circular saw used in cutting logs into wedge-shaped boards called clapboards. Selected pieces, 4 feet in length, of spruce logs are used for this purpose, and an automatic device rotates the log on its longitudinal axis, the saw being adjusted so that each cut reaches nearly to the center of the log.

Qualifications: The work requires special experience in clapboard sawing and usually the clapboard sawyer employs his own crew and moves from mill to mill, working up the logs selected for this purpose.

Schooling: Common school, or better.

SAWYER, GANG**SPARE**

Description: The gang sawyer supervises the operation of the gang saws. The work consists chiefly in controlling the speed of the feed rolls and in directing the cant setters.

Qualifications: He must know at what speed and in what manner the logs may be fed through the gang saw with greatest efficiency. He must be alert, use good judgment, and act with precision.

Schooling: Common school.

SAWYER, HEAD, LOGGING**SPARK**

Description: The head sawyer is foreman of a sawing crew. He directs the work of the sawing crew and may himself constitute one of the crew.

Qualifications: The work of the head sawyer requires a knowledge of timber and the ability to fell and work it up into the most merchantable log lengths. He should have had several years' experience as sawyer, in most cases, in order to qualify as head sawyer.

Schooling: Common school.

SAWYER, HEAD, SAWMILL**SPAT**

Description: The head sawyer directs the initial sawing operations done at the head of the saw. He trips the log from the deck onto the saw carriage, supervises the adjustment of the log upon the carriage and the size of the stock to be cut, and operates the head saw.

Qualifications: He must be able to judge quickly the marketable quality of a log and the kind of product into which it is to be sawed where no dimension cutter is employed. Next to the saw filer he is the highest paid employee in the mill and must usually serve several years as setter before becoming head sawyer.

Schooling: Common school.

SAWYER, PILING. (*See Cutter, piling.*)

SAWYER, ROCK

SPEAK

Description: The rock sawyer operates a small circular saw called a rock saw, in front of the head saw, for the purpose of cutting a groove through the bark and removing any rocks which might damage the head saw.

Qualifications: The work of the rock sawyer is not strenuous and requires but little skill and experience.

SAWYER. (*See also Faller.*)

SCALER, LOGGING

SPEAR

Description: The scaler computes, mentally or by means of a "log stick," the number of feet contained in logs.

Qualifications: If the work is accurately done, it must take into account the imperfections in the log and their effect upon the quantity of merchantable lumber that can be cut from the log. This requires several years' experience and familiarity with logging operations. Often, however, the scale is a rough measurement, requiring little or no experience.

Schooling: Common school.

SCALER, SAWMILL

SPECK

Description: The scaler is employed on the log deck to compute from the dimensions of the log the probable number of board feet that it will make when sawed. He usually employs a slide rule especially adapted to this purpose. He may be obliged to keep his own records, or may have an assistant or tallyman to take down the estimates.

Qualifications: When accuracy is required, this work demands good judgment, a knowledge of timber, and careful measurements.

Schooling: Common school.

SETTER (on saw carriage)

SPELL

Description: The setter operates the setting mechanism of the head-saw carriage, moving the saw sidewise into such position as designated by the head sawyer. This adjustment regulates the thickness of the piece to be sawed. Some types of setting mechanisms are operated by steam power and others by hand. The position is usually a prerequisite to that of sawyer.

Qualifications: The setter usually must have served as dogger before becoming a setter. He must have some knowledge of mechanical appliances such as he is called upon to operate. He should have a knowledge of the best way to saw a log, must be alert, and should be able to carry out the signaled directions of the sawyer.

Schooling: Common school.

SIZER, TIMBER

SPEND

Kindred Occupation: Timber trimmer.

Description: The timber sizer operates a heavy planing machine to reduce oversized products to exact size.

Qualifications: He must be familiar with the operation of a planer, and particularly with the cutting capacity of the machine.

Schooling: Common school.

SKID ADZER**SPICE**

Kindred Occupation: Tie adzer.

Description: The skid adzer uses an adz for trimming up timbers to be used in the construction of a chute or skidway.

Qualifications: Only practical skill in the use of the implement is necessary and can easily be acquired.

SKIDDER FOREMAN**SPIED**

Description: The skidder foreman has charge of the skidding operations.

Qualifications: He must have a general knowledge of steam skidding machinery and be able to make repairs and adjust the different machinery to the different conditions present in logging woods, direct the skidding of logs, and handle a crew of men. He must be a man of mature judgment and practical experience. He should have a general knowledge of woodcraft.

SKIDDER MAN. (*See Capstan or drum and cable man.*)

SKIDWAY MAN. (*See Banker, yard.*)

SLIP MAN. (*See Laborer, logging camp and sawmill.*)

SNUBBER**SPIKE**

Description: The snubber, by means of a snub line, checks the speed of sleds or logs on sharp declivities.

Qualifications: The work demands considerable practical experience before proficiency is attained.

SORTER**SPILL**

Description: The sorters sort the lumber product, as it leaves the mill, into the different sizes and grades.

Qualifications: As a rule, each sorter is responsible for but one grade which he pulls from the sorting table as the product is carried along by transfer chains. Practically no experience is necessary, inasmuch as the grader performs the work of classification.

SPUDDER. (*See Barker.*)

STABLEMAN. (*See Barn man.*)

STACKER**SPIN**

Description: The stacker is engaged in stacking lumber for drying or storing.

Qualifications: The stacker must be able to build a pile of lumber in such a manner as to permit of the circulation of air, avoid warping the lumber, and, if in the open, to shed water. Stackers usually work in pairs; one, the tipper, with a wheel or pyramid as a fulcrum, elevates one end of the board so that the man on the stack can reach it. He must possess physical strength sufficient to handle heavy lumber.

STAKER. (*See Axman.*)

STAVE-BLOCK SPLITTER**SPINE**

Kindred Occupations: Log splitter; Rail splitter.

Description: The stave-block splitter, by means of a sledge and wedges, splits stave blocks into sizes more convenient for sawing into staves.

Qualifications: He should have had some practical experience as a log splitter. He should have sufficient physical strength to handle the ax and split difficult timbers.

STEWARD. (*See Commissary man.*)

STULL HEWER. (*See Timber hewer.*)

SURVEYOR, GENERAL

SIEGE

Kindred Occupations: Civil engineer; Instrument man.

Description: The general surveyor makes surveys in connection with water systems, pipe lines, land boundaries, and surveying work of a general nature.

Qualifications: The general surveyor must be capable of making preliminary and location surveys, compass surveys, topographical sketches, levels for grades and flow, profile and cross-section surveys, and of laying out reservoirs; must be capable of making complete and intelligent field notes and plotting them in regular form. He must be thoroughly familiar with various types of transits, levels, and compasses and capable of making all necessary adjustments. He must be a rapid and accurate computer on civil-engineering work, and be familiar with the use of mathematical tables and engineering data. He should have had general surveying experience in municipal contracting or engineering work.

Schooling: Technical-school graduate.

SWAMPER, BUCK

SPIRE

Description: The buck swamper is the foreman of a stumping or swamping crew.

Qualifications: The buck swamper must be able to direct the use of explosives and to supervise workmen.

TALLYMAN, LOGGING

TRAIL

Kindred Occupation: Recording clerk.

Description: The tallyman records the measurements of logs as called off by the scaler.

Qualifications: The tallyman must be familiar with methods of recording the lumber measurements of logs.

Schooling: Common school.

TALLYMAN, SAWMILL

TRAIN

Kindred Occupations: Recording clerk; Tally clerk.

Description: The tallyman records the measurements or number of board feet of lumber, such as the estimates of the scaler or the board feet given him by the grader of the green lumber. Anyone who keeps check or tally of the product is included.

Qualifications: The tallyman must be familiar with the nomenclature of the logging industry.

Schooling: He must be able to read and write.

TEAMSTER, LOGGING CAMP

TRAIT

The following are included as teamsters: Driver; Grader; Slip driver; Water carter; Water hauler; Water slinger; Wood hauler.

Kindred Occupation: General teamster.

Description: The duties of a teamster in a logging camp are to drive horses for such work as hauling logs, camp supplies, and water, and road grading.

Qualifications: The teamster in a lumber camp must be able to handle a team in heavy work over poor roads and in all kinds of difficult places. He must use great care and judgment in avoiding and in getting out of trouble. He should have had experience as teamster in a construction crew or in heavy hauling.

TIMBER HEWER**TRAM**

Kindred Occupations: Stull hewer; Tie hewer.

Description: The timber hewer hews ties, stulls, or longer timbers into shape for uses to which they are to be put. This is usually done by ax or adz.

Qualifications: Considerable experience is necessary in order to become proficient in hewing to a line and leaving a smooth face.

TIMBERMAN. (*See* Cruiser.)

TIMBER SIZER. (*See* Trimmer, timber.)

TIMBER TRIMMER. (*See* Trimmer, timber.)

TIMEKEEPER, LOGGING CAMP**TRAP**

Description: The timekeeper keeps the record of the time worked or work performed by the employees of the logging camp.

Qualifications: The timekeeper must be familiar with the various types of logging operations and methods.

Schooling: Common school.

TOGGLER**TRASH**

Kindred Occupations: Grab-hook man; Laborer; Toggle knocker.

Description: The toggler fastens a chain about the logs upon a car for transportation, to keep them from rolling off.

Qualifications: The toggler must be experienced in adjusting the chains so as to distribute the strain incident to transportation over a rough logging railway.

TONG HOOKER**TRAY**

Kindred Occupations: Choker; Grab-hook man; Laborer.

Description: The tong hooker sets the tongs, attached to the end of the skidding cable, to the log preparatory to skidding. A choker or grab-hook chain may be used instead of tongs.

Qualifications: The tong hooker's work is somewhat more than common labor, inasmuch as improperly adjusted skidding tackle will not hold fast to the log and will mean accidents and delay.

TOP MAN, JAMMER. (*See* Loader and logger.)

TRAIN LOADER. (*See* Loader and logger.)

TRANSFER MAN**TREAD**

Description: The transfer man supervises the operation of live rolls or chains used to convey half-finished or finished lumber-mill products from one machine to another or to a storage place.

Qualifications: The transfer man should have some knowledge of kinds and grades of lumber.

Schooling: Common school.

TRESTLE BUILDER. (*See* Carpenter, bridge, logging camp.)

TRIMMER, TIMBER**TREAT**

Description: The timber trimmer, by means of a power-driven or hand-operated saw, either within or without the mill, squares the ends of timbers and cuts them into standard lengths.

WAGONER**WEND**

Kindred Occupations: General blacksmith; Mechanic; Wheelwright.

Description: The wagoner does wagon and truck building and repair.

Qualifications: The wagoner must be an experienced wagon builder and metal fitter, capable of building up from stock parts or repairing running gear or bodies of wagons and trucks. He should be a skillful and expert general mechanic, with knowledge of woodworking and wagon-smithing tools; able to make emergency road repairs or do general work in repair shop to maintain wagon trains. He should have a practical knowledge of wheelwright work. He should have had experience in a general carriage or wagon shop, or as all-round country blacksmith and wagon builder.

WAREHOUSE MAN. (*See Commissary man.*)

WINCH MAN. (*See Crane operator, boom crane.*)

WOOD HAULER. (*See Teamster.*)

WOODS SUPERINTENDENT**WEST**

Description: The woods superintendent has charge of all woods operations relating to the getting out of logs, poles, pulp and chemical wood, etc. He supervises the work of the foreman or contractor.

Qualifications: He must have good judgment and a thorough knowledge of all of the operations of lumbering, from tree to sawmill. He should be able to estimate timber. He must be competent to plan operations and to employ labor to the best advantage. He should have good health and energy.

Schooling: Common school or better.

