

UNITED STATES DEPARTMENT OF LABOR

W. N. DOAK, Secretary

BUREAU OF LABOR STATISTICS

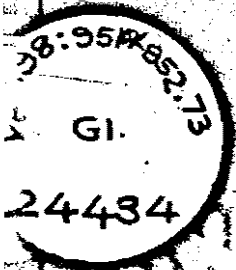
ETHELBERT STEWART, Commissioner

BULLETIN OF THE UNITED STATES
BUREAU OF LABOR STATISTICS

No. 526

WAGES AND HOURS OF LABOR SERIES

**WAGES AND HOURS OF LABOR
IN THE FURNITURE INDUSTRY
1910 TO 1929**



JANUARY, 1931

X9(M98):9510K952.73
G1
024434

Dhananjayrao Gadgil Library



UNITED STATES DEPARTMENT OF LABOR

W. N. DOUGLAS

BUREAU OF LABOR STATISTICS

ETHELBERT STEWART, Commissioner

BULLETIN OF THE UNITED STATES }
BUREAU OF LABOR STATISTICS } No. 526

WAGES AND HOURS OF LABOR SERIES

**WAGES AND HOURS OF LABOR
IN THE FURNITURE INDUSTRY
1910 TO 1929**



JANUARY, 1931

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1931

X9(M98): 9510k252.73

G1

24434

CONTENTS

	Page
Introduction and summary	1
Hours and earnings by State and sex	4
Average and classified earnings per hour, 1929, by occupations	5
Full-time hours per week and per day, 1929	7
Changes in wage rates between July 1, 1927, and period of this study	11
Wage systems	11
Pay for overtime	14
Days worked in one week	14
Index numbers of employment and of pay rolls, 1923 to 1929	15
Importance of the industry	16
Scope and method	18
Occupations in the industry	19
General tables	19
TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1929, by occupation, sex, and State	20
TABLE B.—Average and classified earnings per hour in seven specified occupations, 1929, by sex and State	31
TABLE C.—Average and classified full-time hours per week in seven specified occupations, 1929, by sex and State	36
TABLE D.—Average and classified hours actually worked in one week in seven specified occupations, 1929, by sex and State	42
TABLE E.—Average and classified actual earnings in one week in seven specified occupations, 1929, by sex and State	48
APPENDIX.—Factory terms of occupations, with definitions, and classification by Bureau of Labor Statistics	54

APPENDIX

Factory terms of occupations, with definitions, and classification by Bureau of Labor Statistics

Factory term	Definition	Classified by bureau as—
Antiquers.....	Special process of shades reproduced on new furniture to represent antiques.	Finishers.
Apprentices.....	Learn the work of a particular occupation or trade under a contract to serve a specified number of years.	Other employes.
Assemblers and cabinetmakers.....	The various parts of wood which have been cut and dressed in the machine department are united to form sections or completed units of furniture. The joints of the various pieces are usually coated with glue, assembled and held in place by clamps until dry. Nails and screws are also used to hold these joints in place. The term includes those who assemble parts or complete sections, and fit and adjust uneven joints; cabinetmakers, cabinet repairers, and patchers; sample workers, chair blockers, and assemblers; frame assemblers, bench hands, door makers, bed makers, table makers; joint, case, cabinet, and small part gluers; case and clamp men, drivers up, door and panel framers, dowel drivers, and case, drawer, and door fitters.	Assemblers and cabinetmakers.
Back assemblers.....	(See Back makers)	Do.
Back drivers.....	(See Back makers)	Do.
Back makers.....	Assemble parts to form backs of chairs or pieces of furniture.	Do.
Band-saw markers.....	Mark the materials for band sawyers.	Other employes.
Bed makers.....	Assemble and glue or nail together parts to form complete sections of beds. Includes head, end, and rail makers.	Assemblers and cabinetmakers.
Bench hands.....	Assemble by gluing or nailing together the various pieces to form a section or complete piece of furniture.	Do.
Benders, hand clamps.....	Bend by hand, pieces of wood, such as are used for backs of chairs.	Other employes.
Benders, machine.....	Bend by the use of a machine, pieces of wood such as are used for backs of chairs.	Machine hands.
Bit sharpeners.....	(See Millwrights)	Other employes.
Blenders.....	Paint color designs of blended shades on pieces of furniture.	Finishers.
Blockers.....	Glue together with aid of hand clamps, blocks which are later turned, to produce table legs or similar pieces.	Gluers, rough stock.
Box makers.....	(See Crate builders)	Crate, packers, and wrappers.
Box nailers.....	Nail covers on boxes which have been packed for shipment.	Do.
Bull workers.....	Carry frames or pieces of furniture from one department to another; handle bales of excelsior, hair, moss, etc., and do other heavy work about factory.	Laborers.
Burlapers.....	Tack burlap over springs (when this work is not done by spring setters).	Other employes.
Brushmen.....	Apply the varnish, shellac, etc. by hand with a brush.	Finishers.
Cabinetmakers.....	Assemble the parts that have been cut and dressed in the machine department. They are sometimes designated as "bench hands," "case fitters," etc. Their work is necessarily done by hand, though in some cases clamps or other devices are used for forcing joints up tight. These joints are held together with glue or iron braces screwed to each section at point of union. The work consists in fitting together the parts that form a complete piece of furniture.	Assemblers and cabinetmakers.
Car loaders.....	Load furniture into railroad cars.	Laborers.
Carpenters.....	Do various kinds of repair work, usually in a nonproductive capacity.	Other employes.
Carpenter's helpers.....	Do unskilled work under supervision of carpenters.	Do.
Carvers, hand.....	Carve and fashion ornamental designs on such parts as arms and backs of chairs, panels, table legs, feet, etc. The work is done with high tempered steel chisels. The machine-carved pieces are usually finished by hand carvers.	Carvers, hand.
Carvers, machine.....	This machine usually holds several new pieces and the pattern. The operator traces the pattern with an attachment of the machine and thus reproduces several carved pieces of the same design with one operation of the machine. Spindle carvers who are free hand workers are also included as carvers, machine.	Carvers, machine.

Factory terms of occupations, with definitions, and classification by Bureau of Labor Statistics—Continued

Factory term	Definition	Classified by bureau as—
Carving gluers or tackers.	Glue or nail to doors, drawers, panels, or other parts of furniture, thin compo or carved parts, representing designs for decorative purposes.	Trimmers.
Case clamp men	Fit and adjust clamps to hold in proper place until dry, glue joints of sections or cases.	Assemblers and cabinetmakers.
Case fitters	Shave or trim the uneven parts so that the joints fit properly when united.	Do.
Chair assemblers	After all parts of the chair have been shaped and fitted in the machine department, the dowel pins are driven in and the different pieces are assembled and put together and placed in a press or clamp which holds them firmly in place until the glue has had time to harden. In the case of flush joints the chair assembler shaves or trims the parts forming the joint until it is quite smooth.	Do.
Chair blockers	(See Chair assemblers)	Do.
Chair drivers	(See Chair assemblers)	Do.
Choppers, veneer	(See Cutters, veneer)	Veneers.
Clamp men	(See Case clamp men)	Assemblers and cabinetmakers.
Clipper, veneer	(See Cutters, veneer)	Veneers.
Coaters	Apply stains, etc., by hand with a brush.	Finishers.
Color mixers	Mix paints, stains, etc.	Other employees.
Compo gluers or tackers.	Glue or nail to doors, drawers, panels, or other parts of furniture, thin compo parts, representing carvings or fancy designs, for decorative purposes.	Trimmers.
Compo mounters	Fasten to doors, panels, etc., of furniture, thin pieces of "compo," which represent carvings of various designs for decorative purposes.	Do.
Compo workers	(See Composition workers)	Other employees.
Composition workers	Press into molds a pastelike mixture of glue and other materials, to form designs of carvings, known as "overlays" or "compo carving."	Do.
Conveyermen	Attend to, and piece materials on or take them off the conveyor.	Do.
Crate builders	Nail together the parts to form a crate or box in which pieces of furniture are shipped.	Craters, packers, and wrappers.
Crate sawyers	Operate cut-off saws which trim boards into specified lengths. These pieces are used for building crates.	Machine hands.
Craters, packers, and wrappers.	Build crates, arrange burlap, excelsior, or paper around pieces of furniture for shipment. Includes box nailers, box makers, crate builders.	Craters, packers, and wrappers.
Cushion and pad makers.	Stuff the moss, hair, or other filling into the various pads and cushions used in upholstered furniture.	Cushion and pad makers.
Cushion filler	(See Cushion and pad makers)	Do.
Cushion sewers	Sew up seams of cushions.	Sewers.
Cushion stuffer	(See Cushion and pad makers)	Cushion and pad makers.
Cutters (upholstering materials).	Cut by hand or machine the leather or fabric materials which are used for making cushions, pads, etc., and upholstering furniture.	Cutters (upholstering materials).
Cutters, veneer	Cut veneer to specified lengths or widths with hand or circular saw or shears.	Veneers.
Decorators	Glue or nail to doors, drawers, or other parts of furniture, thin compo or carved pieces, representing fancy carved designs, for decorative purposes.	Trimmers.
Do.	Paint by hand with a brush, floral, or other designs on pieces of furniture.	Finishers.
Dippers	Dip low grade chairs and other small pieces into a vat of stain or varnish.	Do.
Door fitters	Plane or shave the edges or make other necessary adjustments to make doors open and close easily.	Assemblers and cabinetmakers.
Door framers	(See Door makers)	Do.
Door hangers	Put on hinges and fit doors so as to open and close easily.	Do.
Door makers	Assemble and glue or nail together parts to form complete doors.	Do.
Dovetail operators	Run woodworking machine that makes dovetail cuts.	Machine hands.
Dowel drivers	(See Chair assemblers)	Assemblers and cabinetmakers.
Drawer fitters	Plane or shave the edges to make drawers slide easily.	Do.
Drawer liners	Glue velvet, etc., or other lining materials to silver drawers of buffets.	Trimmers.
Drawer makers	Assemble and glue or nail together parts to form a complete drawer.	Assemblers and cabinetmakers.
Drivers-up	(See Cabinetmakers)	Do.
Dryers (veneer)	Dry veneer and thin panels that are to be veneered.	Other employees.
Dry kiln laborers	Load the kiln with lumber, and take it out after being treated.	Laborers.
Dry kiln men	Supervise the placing of lumber in the kiln and taking out of the same; also look after the heat of the kiln.	Other employees.

Factory terms of occupations, with definitions, and classification by Bureau of Labor Statistics—Continued

Factory term	Definition	Classified by bureau as—
Dullers.....	These workers apply the final operation, when a dull effect is desired; the piece is gone over with a rag and crude oil, or ordinary wax may be applied by hand with fine sand-paper.	Finishers.
Edge rollers.....	Make pads or rolls which are attached to davenport, sofas, etc.	Cushion and pad makers.
Electricians.....	Repair defects or make necessary changes in the wiring of lights or ignition about the factory.	Other employees.
Electrician's helpers.....	Work under supervision of electricians.....	Do.
Elevator operators.....	Run freight and passenger elevators.....	Do.
End clamp men.....	(See Case clamp men).....	Assemblers and cabinetmakers.
Feeders, glue spreader (vaneer).....	(See Glue spreaders (vaneer)).....	Veneerers.
Fillers.....	Rub into the pores of the wood (with the aid of a brush or rag), a solution of pyrite, rotten stone or pulverized lava, and burnt oil, or other mineral filling.	Finishers.
Finishers.....	Use a brush by hand to apply filler, varnish, lacquer and stains of various kinds. Also do high lighting, dull finishing, graining and dipping. Include antiquers, blenders, brushmen, decorators (stain), dippers, dullers, fillers, grainers, high-lighters, painters (furniture), patchers (stains), repairers (stains), shaders, etc.	Do.
Fitters-up.....	Put on metal parts such as knobs, locks, etc.	Trimmers.
Frame makers.....	Assemble skeleton or frames of a case, mirror or chair. Ends are glued and driven up and held in place by means of clamps.	Assemblers and cabinetmakers.
Framers.....	(See Frame makers)	Do.
Gimp tackers.....	Fasten with nails a narrow strip of leather or cloth over the places where the upholstering materials join.	Trimmers.
Glass cutters.....	Cut glass to fit various pieces of furniture.....	Other employees.
Glass fitters.....	Fit glass in china closets, mirrors into frame; attach hardware to unite frames and mirrors.	Trimmers.
Glass setters.....	Fit glass in china closets, mirrors into frame; attach hardware to unite frames and mirrors.	Do.
Glue, block.....	Use a brush by hand to glue blocks of wood on the inside corner of cases to give added strength; also glue on drawer strips or slides.	Assemblers and cabinetmakers.
Glue, cabinet.....	Apply glue by hand with a brush to the joints of the various parts or sections which form a cabinet.	Do.
Glue, case.....	(See Glue, cabinet)	Do.
Glue, joint.....	(See Glue, cabinet)	Do.
Glue-machine feeders (vaneer).....	(See Glue spreaders)	Veneerers.
Glue sizers.....	Apply by hand with a brush, a coating of glue.....	Other employees.
Glue (small parts).....	Apply glue by hand with a brush to the joints of the parts which are to be united.	Assemblers and cabinetmakers.
Glue spreaders (vaneer).....	Pass the pieces of vaneer into a machine between 2 rollers, the lower roller revolving in a pan of glue, thus coating each piece as it passes through the machine.	Veneerers.
Glue wheel hands.....	Glue together edge to edge, boards that have been planed to fit together. This is a clamping operation performed on a glue wheel. These wide pieces are used for table, desk tops or other wide surfaces. The glue hardens as the wheel revolves. Pieces are held in place by clamps until glue hardens.	Glue, rough stock
Grainers.....	Feed the pieces which are to be grained into a machine consisting of two rollers, one of which is made of gelatin with its surface so prepared that it prints an imitation grain upon the part coming in contact with it. Irregular surfaces and edges are grained by being held against the roller.	Finishers.
Hair pickers.....	Take the hair from the bales and tear or pull it apart and remove any sticks, burrs or other foreign substances that would cause unevenness in cushions or other upholstered parts of furniture.	Other employees.
Handy men.....	May be expected to do all manner of work from common labor to work requiring considerable skill.	Do.
Helpers.....	Include those who assist around machines, in spray booths, etc., off-bearers, tail boys, and other general helpers throughout the factory. (Do not include real apprentices.)	Helpers.
High-lighters.....	Use steel wool or similar material to scrape or reduce the color in specified sections of the pieces of furniture which have been stained and are to receive this process. Shadows are thus produced when the next coat of stain or varnish is applied. On light colored wood, dark stains are sprayed to produce the desired shades.	Finishers.
Inspectors.....	Inspect the various pieces for defective work.....	Other employees.
Jointer operators.....	Run woodworking machines known as jointers.....	Machine hands.
Knife grinders.....	(See Machinists)	Other employees.

Factory terms of occupations, with definitions, and classification by Bureau of Labor Statistics—Continued

Factory term	Definition	Classified by bureau as—
Laborers.....	Perform general unskilled work about factory. Include sweepers, stock handlers and pilers, lumber handlers and pilers, car loaders, yard labor, truckers, truck loaders and unloaders, furniture movers, dry kiln and shipping labor, luggers, etc.	Laborers.
Lathe turners.....	Press the revolving stock in the lathe against set knives of the machine or press hand chisels against the revolving stock. The former operation is known as automatic lathe (back-knife lathe or full automatic lathe) turning and the latter as hand turning.	Machine hands.
Layers-on (veneer)....	Receive the pieces of veneer as they come from the glue spreading machine, place each on the piece to which it is to be glued. The next base is then placed on top of this, ready to receive the next piece of veneer.	Veneerers.
Lindermen operators..	Run woodworking machines which tongue, groove, and glue the edges of boards together to form a wider piece.	Machine hands.
Loaders.....	Load furniture into railroad cars.....	Laborers.
Luggers.....	Transfer pieces of furniture to various parts of factory.....	Do.
Lumber handlers or pilers.	Perform general work about lumber yard such as stacking lumber and getting out stocks of lumber for machine department.	Do.
Machine hands.....	Operate the various woodworking machines, such as the boring machine, dovetailer, equalizer, jointer, or facer, lathe turning (hand and automatic), molding machine, mortiser, planer, router, sander (belt, drum, spindle, etc.), saw (band, cut-off, jig, miter, rip, etc.), scraper, sliker, tenoner, turning lathe, universal woodworker, linderman, etc. Only workers who actually operate machines should be included.	Machine hands.
Machine repairmen....	Tear down, make necessary repairs, set up, and adjust any kind of machine tools needing repair.	Other employees.
Machine repairman's helpers.....	Assist in the repair of machines.....	Do.
Machine setters.....	Set up and adjust machines which are to be operated by other workmen.	Do.
Machinists.....	Skilled and experienced employees who repair, adjust, or set machine tools to be operated by other workmen; grind tools, file, and set saws.	Do.
Machinist's helpers.....	Work under supervision of machinists.....	Do.
Markers (for band saw).	Mark the materials for band sawyers.....	Do.
Marquetry workers....	Inlay ornamental woods of different tints so as to form designs or shapes, these small pieces being fixed in with glue. Designs are usually built up of wide pieces veneered together, the outer edge forming the design. This is sliced off with a thin saw into many repeats of the same design.	Veneerers.
Matchers, veneer.....	Arrange the pieces of veneer so that when united they will form figures and designs of the wood, or show uniform grain.	Do.
Millwrights.....	Experienced power-transmission men who are capable of up-setting and aligning machinery under unfavorable conditions, set and file saws, sharpen tools, and frequently repair machines.	Other employees.
Millwright's helpers.....	Work under supervision of millwrights.....	Do.
Mirror frame makers..	(See Frame makers).....	Assemblers and cabinetmakers.
Mortisers.....	Operate a machine which cuts a recess or a mortise into a piece of wood for the reception of the tenon of another piece.	Machine hands.
Moss pickers.....	Feed moss into "gin" which combs it and removes dirt and impurities.	Other employees.
Movers.....	Transfer furniture to various parts of factory.....	Laborers.
Multiple carvers.....	Operate machines which produce several carvings by one operation.	Carvers, machine.
Nash sanders.....	Special machines used for smoothing surfaces.....	Machine hands.
Off bearings.....	Take away materials from the back of machines.....	Helpers.
Oilers.....	Oil shaft bearings, motors and other parts of the factory power-transmission equipment.	Other employees.
Other employees.....	Include apprentices, band-saw markers, benders (band clamps), bit sharpeners, buristers, carpenters, carpenter's helpers, color mixers, compo workers, composition workers, conveyormen, dry-kiln men, electricians, electrician's helpers, elevator operators, glass cutters, glue sizers, hair pickers, handy men, inspectors, knife grinders, machinists, machine repairmen, machine repairman's helpers, machinist's helpers, machine setters, markers (for band saw), millwrights, millwright's helpers, moss pickers, oilers, pattern makers, repairers (machines), saw filers, saw filer's helpers, set-up men, stock chasers, tool setters, tow pickers, and all others not shown as selected occupations.	Do.

Factory terms of occupations, with definitions, and classification by Bureau of Labor Statistics—Continued

Factory term	Definition	Classified by bureau
Overlay gluers or tackers.	Glue or nail to doors, drawers, panels or other parts of furniture, thin compe or carved parts, representing fancy carved designs for decorative purposes.	Trimmers.
Packers	Put pieces of furniture in crates for shipment.	Craters, packers, and wrappers.
Pad makers	Stuff the hair, moss, etc., into the pads and cushions which form the movable parts of upholstered furniture.	Cushion and pad makers.
Painters	Apply paint or other stains by hand with a brush.	Finishers.
Panel frames	(See Frame makers)	Assemblers and cabinetmakers.
Patchers (cabinet work).	Repair defective or broken parts which require cabinet work.	Do.
Patchers (varnish, shellac, etc.).	Repair defective or marred surfaces.	Finishers.
Patchers (veneer)	Repair defective or broken veneered parts.	Veneers.
Pattern makers	Make wood patterns for various parts of furniture.	Other employes.
Piers, lumber	Unload and stack lumber in yard.	Laborers.
Pleat sewers	Stitch pleats in cushions or other upholstered articles or parts.	Sewers.
Polishers and rubbers	Rub the varnished surfaces with oil, or water and rotten stone to produce the desired polish. This is done between the various coats of varnish. Includes both hand and machine workers.	Polishers and rubbers.
Pressmen (veneer)	Place in power presses the piles of glued veneer, press them down, clamp and remove these clamped piles to stacks where they remain until thoroughly dry.	Veneers.
Rabbit operators	Run woodworking machines which cut recesses in the edge of pieces of stock for the reception of the lip of other pieces.	Machine hands.
Rail makers	(See Bed makers)	Assemblers and cabinetmakers.
Refinishers	Repair spoiled surfaces.	Finishers.
Repairers (cabinet work).	Repair defective or broken parts which require cabinet work.	Assemblers and cabinetmakers.
Repairers (machines)	(See Machine repairmen)	Other employes.
Repairers (upholstering).	Repair defective or broken sections of upholstering.	Upholsterers.
Repairers (varnish, shellac, etc.).	Repair defective or marred surfaces.	Finishers.
Repairers (veneer)	Repair defective or broken veneered parts.	Veneers.
Retouchers	Repair spoiled surfaces.	Finishers.
Rubbers	(See Polishers and rubbers)	Polishers and rubbers.
Sample makers	Assemble with extreme care, complete pieces of furniture to be used in sample rooms.	Assemblers and cabinetmakers.
Sanders, hand	These workers use sand or emery paper by hand. In the cabinet department they smooth the rough joints or surfaces which have not been properly cared for in the machine department. In the finishing department, the surface is gone over after it has been filled and stained, and sometimes after the coat of shellac, depending on the finish desired.	Sanders, hand.
Sanders, machine	Operate sanding machines for smoothing various surfaces.	Machine hands.
Saw filers	Sharpen saws for woodworking machines.	Other employes.
Saw filer's helpers	Work under supervision of saw filers.	Do.
Sawyers, veneer	(See Cutters, veneer)	Veneers.
Seat makers (upholstering materials).	Adjust hair, moss or other material in place to form the seat, pull and fasten the leather or tapestry over these materials and tack them in place.	Upholsterers.
Set-up men	(See Machine setters)	Other employes.
Sewers	Stitch by hand or machine, the seams of the cushions and pads; also the false pleats that form part of the fronts of various articles of upholstered furniture.	Sewers.
Sewing machine operators	(See Sewers)	Do.
Shaders	(See High-lighters)	Finishers.
Shellackers (brush work).	Apply the shellac by hand with the aid of a brush.	Do.
Shellackers (spray machine).	Apply the shellac with a spray machine.	Sprayers.
Side-rail makers	(See Bed makers)	Assemblers and cabinetmakers.
Sprayers	Apply shellac, varnish, or other materials by use of a spraying machine.	Sprayers.
Spindle carvers	The object to be carved is held against the revolving tools of this high speed spindle. It is highly skilled, free hand carving.	Carvers, machine.
Spring lacers	(See Spring tiers)	Spring setters.

Factory terms of occupations, with definitions, and classification by Bureau of Labor Statistics—Continued

Factory term	Definition	Classified by bureau as—
Spring setters.....	Set the springs, tie and lace them in place with cord so that they will form an even surface. A canvas covering is then placed over them and tacked around the edges. The proper lacing of these springs is the most difficult part of the work.	Spring setters.
Spring tiers.....	Lace and tie the springs in place with cord so that they will form an even surface.	Do.
Stackers, lumber.....	Unload and pile lumber in yard.....	Laborers.
Stackers, veneer.....	Pile the veneer into stacks.....	Veneerers.
Stainers.....	Dip the pieces into a vat of stain, or apply the stain by the aid of a brush.	Finishers.
Sticker operators.....	Run a woodworking machine which dresses moldings.....	Machine hands.
Stitchers.....	(See Sewers).....	Sewers.
Stock chasers.....	Go about the factory in search of missing parts of specified orders.	Other employees.
Stock cutters.....	Operate swing saws in cutting to length or to width the stock of specified dimensions.	Machine hands.
Stock handlers.....	Load or unload stock.....	Laborers.
Stock assemblers or pileers.....	Stack lumber and get out stocks of lumber for machine department.	Do.
Stock movers.....	Transfer parts or completed pieces of furniture about the factory.	Do.
Stock-room men.....	Have charge of supplies, such as paints, stains, etc., trimmings, and upholstery materials.	Other employees.
Strippers, hand.....	(See Decorators).....	Finishers.
Sweepers.....	Clean up factory (not office nor wash-room workers).....	Laborers.
Table makers.....	Assemble and glue or nail together parts to form sections or complete tables.	Assemblers and cabinet makers.
Tall boys.....	Take away materials from the back of machines.....	Helpers.
Tapers, veneer.....	Unite with a paper taping machine the matched pieces of veneer.	Veneerers.
Tenoner hands.....	Run a machine which cuts a tenon on the end of a piece of wood to fit into the mortise of another piece.	Machine hands.
Tool setters.....	(See Machine setters).....	Other employees.
Tow pickers.....	Open the bales, pull the material apart, remove any foreign substances that would cause unevenness in cushions or upholstered parts.	Do.
Trimmers.....	Put on metal parts such as handles, knobs, locks, rollers, connecting parts for beds, set glass, paste linings in drawers, tack gimp or leather binding on upholstering, tack or glue on carvings, overlays or compo.	Trimmers.
Truck loaders.....	Load or unload trucks.....	Laborers.
Truckers, hand.....	Push loaded or empty trucks about factory.....	Do.
Turners, automatic.....	(See Lathes turners).....	Machine hands.
Turners, hand.....	(See Lathes turners).....	Do.
Upfitters.....	Put on metal parts such as knobs, locks, etc.....	Trimmers.
Upholsterers.....	Usually receive the frame with the springs set and covered with canvas. They adjust the hair, moss or other materials in place, pull and fasten with tacks the leather or tapestry over these materials. Some upholsterers specialize on certain parts, such as arms or backs of chairs.	Upholsterers.
Varnishers (brush work).....	Apply the varnish by hand with the aid of a brush.....	Finishers.
Varnishers (spray machine).....	Apply the varnish with a spray machine.....	Sprayers.
Veneerers.....	Includes cutters, joiners, glue spreaders, layers-on, matchers, marquetry workers, pressman, tapers, and repairers of veneer.	Veneerers.
Waxers.....	Rub the pieces of furniture with wax to produce a polished surface.	Polishers and rubbers.
Welt sewers.....	Stitch welts or false pleats into a cushion.....	Sewers.
Wrappers.....	Arrange paper around pieces of furniture for shipment.....	Craters, packers, and wrappers.

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.*

Cancellation 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. 223. Operation of the industrial disputes investigation act of Canada. [1918.]
- No. 235. Joint industrial councils in Great Britain. [1919.]
- No. 233. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
- No. 237. 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. 453. Trade agreements, 1927.
- No. 481. Joint industrial control in the book and job printing industry. [1928.]

Cooperation.

- No. 313. 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).

Employment and Unemployment.

- *No. 109. Statistics of unemployment and the work of employment offices. [1913.]
- No. 172. Unemployment in New York City, N. Y. [1916.]
- *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 the 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. [1916.]
- *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, 1923.

Foreign Labor Laws.

- *No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]
- No. 494. Labor legislation of Uruguay. [1922.]
- No. 510. Labor legislation of Argentina. [1930.]

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. 285. Building operations in representative cities in 1920.
- No. 524. Building permits in the principal cities of the United States in [1921 to] 1929.

Industrial Accidents and Hygiene.

- *No. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories. [1912.]
- *No. 120. Hygiene of painters' trade. [1913.]
- *No. 127. Danger to workers from dust and fumes, and methods of protection. [1913.]
- *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 cost 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. 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. 278. Standardization 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. Occupational hazard and diagnostic signs: A guide to impairments to be looked for in less arduous occupations. [1922.]
- No. 392. Survey of hygiene conditions in the printing trades. [1925.]
- No. 405. Phosphorous necrosis in the manufacture of fireworks and in the preparation of phosphorus [1926.]
- No. 427. Health survey of the printing trades, 1923 to 1925.
- No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C., July 14-18, 1926.
- No. 460. A new test for industrial lead poisoning. [1928.]
- No. 468. 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. 240. Chinese migrations, with special reference to labor conditions. [1923.]
- No. 249. Industrial relations in the West Coast lumber industry. [1923.]
- No. 261. 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. 389. Labor relations in the lace and lace-curtain industries in the United States. [1925.]

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. 229. Wage-payment legislation in the United States. [1917.]
- No. 285. 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. 444. Decisions of courts and opinions affecting labor, 1926.
- No. 496. Labor legislation of 1928.
- No. 517. Decisions of courts and opinions affecting labor, 1927-28.

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, 1923.
- *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. 490. Fifteenth, New Orleans, La., May 21-24, 1928.
- No. 508. Sixteenth, Toronto, Canada, June 4-7, 1929.

Proceedings of Annual Meetings of the International Association of Industrial Accident Boards and Commissions.

- No. 310. 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. 278. Sixth, Toronto, Canada, September 22-26, 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.

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. 400. 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.

Productivity of Labor.

- No. 356. Productivity costs in the common-brick industry. [1924.]
- No. 390. 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.]

Retail prices and Cost of Living.

- *No. 131. Sugar prices, from refiner to consumer. [1913.]
- *No. 130. Wheat and flour prices, from farmer to consumer. [1913.]
- *No. 154. Butter prices, from producer to consumer. [1914.]
- No. 170. Foreign food prices as affected by the war. [1916.]
- No. 337. 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 1927.

Safety Codes.

- *No. 331. Code of lighting: Factories, mills, and other work places.
- No. 336. Safety code for the protection of industrial workers in foundries.
- No. 350. Specifications of laboratory tests for approval of electric 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.

Safety Codes—Continued.

- 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. 436. Safety code for the use, care, and protection of abrasive wheels.
- 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. 609. Textile safety code.
- No. 512. Code for identification of gas-mask canisters.
- No. 519. Safety code for woodworking plants, as revised 1930.

Vocational and Workers' Education.

- *No. 159. Short-unit courses for wage earners, and a factory school experiment. [1918.]
- *No. 163. Vocational education survey of Richmond, Va. [1916.]
- *No. 199. Vocational education survey in Minneapolis, Minn. [1917.]
- No. 371. Adult working-class education in Great Britain and the United States. [1920.]
- No. 439. Apprenticeship in building construction. [1928.]

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 1918.
- No. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1918.
- *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. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1918.
- No. 266. 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, 1923.
- No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
- No. 365. Wages and hours of labor in the paper and pulp industry, 1923.
- No. 394. Wages and hours of labor in metalliferous mines, 1924.
- No. 407. Labor costs 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, 1926.
- No. 416. Hours and earnings in anthracite and bituminous coal mining, 1922 and 1924.
- No. 472. Wages and hours of labor in the slaughtering and meat-packing industry, 1927.
- No. 476. Union scales of wages and hours of labor, 1927. [Supplement to Bulletin 407.]
- No. 484. Wages and hours of labor of common street laborers, 1928.
- No. 487. Wages and hours of labor in woolen and worsted goods manufacturing, 1910 to 1928.
- No. 492. Wages and hours of labor in cotton-goods manufacturing, 1910 to 1928.
- No. 497. Wages and hours of labor in the lumber industry in the United States, 1928.
- No. 498. Wages and hours of labor in the boot and shoe industry, 1910 to 1928.
- No. 499. History of wages in the United States from colonial times to 1928.
- No. 502. Wages and hours of labor in the motor-vehicle industry, 1928.
- No. 503. Wages and hours of labor in the men's clothing industry, 1911 to 1928.
- No. 504. Wages and hours of labor in the hosiery and underwear industries, 1907 to 1928.*
- 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. 515. Union scales of wages, May 15, 1929.
- No. 518. Hours and earnings in bituminous-coal mining, 1929.
- No. 522. Wage and hours of labor in foundries and machine shops, 1929.
- 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, 1928. [In press.]

Welfare Work.

- *No. 123. Employer's 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.

Wholesale Prices.

- No. 294. Index numbers of wholesale prices in the United States and foreign countries. [1921.]
- No. 453. Revised index numbers of wholesale prices, 1922 to July, 1927.
- No. 521. Wholesale prices, 1929.

Women and Children in Industry.

- 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. 123. Employment of women in power laundries in Milwaukee. [1913.]
- *No. 180. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. [1914.]
- *No. 187. Minimum wage legislation in the United States and foreign countries. [1915.]
- *No. 175. Summary of the report on conditions of women 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.]
- *No. 183. Unemployment among women in department and other retail stores of Boston, Mass. [1916.]
- No. 193. Dressmaking as a trade for women in Massachusetts. [1916.]
- No. 215. 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.]
- *No. 223. Employment of women and juveniles in Great Britain during the war. [1917.]
- No. 223. Women in the lead industries. [1919.]

Workmen's Insurance and Compensation (Including laws relating thereto).

- *No. 101. Care of tuberculous wage earners in Germany. [1912.]
- *No. 102. British national insurance act, 1911.
- No. 103. Sickness and accident insurance law in Switzerland. [1912.]
- No. 107. Law relating to insurance of salaried employees in Germany. [1913.]
- *No. 155. Compensation for accidents to employees of the United States. [1914.]
- *No. 212. Proceedings of the conference of social insurance called by the International Association of Industrial Accident Boards and Commissions, Washington, D. C., December 5-9, 1916.
- *No. 243. Workmen's compensation legislation in the United States and foreign countries, 1917 and 1918.
- No. 301. Comparison of workmen's compensation insurance and administration. [1922.]
- No. 312. National health insurance in Great Britain, 1911 to 1921.
- No. 379. Comparison of workmen's compensation laws of the United States as of January 1, 1925.
- No. 477. Public-service retirement systems, United States and Europe. [1929.]
- No. 496. Workmen's compensation legislation of the United States and Canada as of January, 1929. (With text of legislation enacted in 1927 and 1928.)

Miscellaneous series.

- *No. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1916.
- No. 208. Profit sharing in the United States. [1916.]
- No. 242. Food situation in central Europe, 1917.
- No. 284. International labor legislation and the society of nations. [1919.]
- No. 288. Historical survey of international action affecting labor. [1920.]
- No. 282. Mutual relief associations among Government employees in Washington, D. C. [1921.]
- No. 319. The Bureau of Labor Statistics: Its history, activities, and organization. [1922.]
- No. 326. Methods of procuring and computing statistical information of the Bureau of Labor Statistics. [1922.]
- No. 342. International Seamen's Union of America: A study of its history and problems. [1923.]
- No. 348. Humanity in government. [1923.]
- No. 372. Convict labor in 1923.
- No. 396. Cost of American almshouses. [1925.]
- No. 398. Growth of legal-aid work in the United States. [1926.]
- No. 401. Family allowances in foreign countries. [1926.]
- No. 451. Labor organization in Chile. [1928.]
- No. 452. Park recreation areas in the United States. [1928.]
- No. 465. Beneficial activities of American trade-unions. [1928.]
- No. 479. Activities and functions of a State department of labor. [1928.]
- No. 483. Conditions in the shoe industry in Haverhill, Mass., 1928.
- No. 489. Care of aged persons in United States. [1929.]
- No. 491. Handbook of labor statistics, 1929 edition.
- No. 505. Directory of homes for the aged in the United States. [1929.]
- No. 506. Handbook of American trade-unions: 1929 edition.
- No. 518. Personnel research agencies: 1930 edition.