CLASS 68, TEXTILES: FLUID TREATING APPARATUS

SECTION I - CLASS DEFINITION

This class is the class of machines, implements and accessories for fluid treatment of textile fabrics, textile fibers, and pulp as for the purpose of carbonizing, bleaching, dyeing, moistening, mercerizing or mordanting the same or for the removal of dirt, grease, soil, and other like substances from them by the use of solvents, saponifiers or emulsifiers, unless specifically provided for elsewhere.

The machines of this class have been divided into the following types:

Gas, steam, or mist treating. These are machines for subjecting a textile to a fluid in the form of a gas, steam, or mist.

Scrubbing. These are machines for effecting treatment of textiles, while saturated with a liquid, by reason of a sliding action taking place between the textiles and a contacting element, during which action the textiles may be kneaded or brushed. Scrubbing may be effected by the use of a pair of cooperating rolls if they rotate at different peripheral velocities or rotate in the same direction. Generally, scrubbers have a squeezing effect which is incidental to the scrubbing action.

Squeezing. These are machines for effecting treatment of textiles, while saturated with a liquid, by reason of application and release of pressure on the textiles.

Impulsing. These are machines for effecting treatment of textiles, while immersed in a liquid, by causing an intermittently movable element to impart repeated impulses to portions of the textiles as distinguished from the entire mass, such that the textile portions will travel a distance independently of the moving element.

Dragging. These are machines for effecting treatment of discrete portions of the entire mass of textiles by causing them to be engaged by and dragged around the tub with a moving element, without the textile portions being clamped to the element, while the textiles are submerged in a liquid. Generally, the moving element is a pin or comprises fingers or narrow blades. Where the entire mass of textiles is moved within a tub or moved into and out of the tub in one continuous cycle, as by rakes or conveyors moving the entire mass, the patents are classified in the liquid flow subclasses.

Tumbling. These are machines for effecting treatment of textiles by causing them to be tumbled about in a drum or cage which is mounted on a horizontal or inclined axis, said textiles being submerged in a liquid during at least a portion of the revolution of the drum or cage and being free to move in the cage. The drum or cage must make at least a 360° revolution, and may or may not have vanes, buckets, or the like to cause a circulation of liquid within the tumbler and may or may not have vanes to cause a rubbing action within the tumbler.

Liquid flowing. These are machines for effecting treatment of textiles by reason of the relative motion of a liquid and the textiles as by the forcing of a liquid by pumps, by centrifuging or the like through the textiles, or by the shifting bodily of the entire mass of textiles through the liquid with free access of the liquid thereto in contradistinction to moving discrete portions of the textiles, or by the agitation of the entire mass of both the liquid and the textiles submerged in the liquid.

Liquid applying. These are machines for treating textiles with liquid in which the textiles are subjected to an application of liquid other than by being submerged in the liquid or by being subjected to a vapor, spray, or mist.

NOTES

(1) PROCESSES:

Where both process and apparatus (for Class 68) for its practice are claimed, the patent is classified in the class appropriate to the process claimed and is cross-referenced to this class for the apparatus. (Note: Where the Search notes below are to processes, this is noted by a parenthentical insert at the end of the note. Otherwise, the Search note is to Apparatus.)

SECTION II - REFERENCES TO OTHER CLASSES

SEE OR SEARCH CLASS:

8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, see note (1).

8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, which is the generic class for processes of bleaching and dyeing materials of any kind, fluid treatment and chemical modification of

textiles, fibers, hides, skins, and other animal tissues, and see the notes thereto for related art. (Processes)

15, Brushing, Scrubbing, and General Cleaning, for apparatus for operating on materials other then textiles and fibers by means of a draft or current of air, steam, or equivalent gaseous fluid, brushing, scraping, shaking, wiping, shotting, or the use of a squeegee, both with and without use of a liquid; also for cleaning spots by means of an implement provided with an applicator; also apparatus especially designed for cleaning floor coverings and upholstery while in normal serviceable position by such means whether with or without the use of a liquid.

19, Textiles: Fiber Preparation, subclass 66 for apparatus for liquid treatment of textile fibers combined with working of the fibers.

26, Textiles: Cloth Finishing, subclasses 19+ for fluid treatment of cloth for the purpose of fulling the same, and subclasses 81, 92, and 106 for stretching combined with gaseous (e.g., steam) treatment for heating or drying.

28, Textiles: Manufacturing, appropriate subclasses for textile product fabrication combined with fluid treatment or for mechanical operations of thread finishing combined with fluid treatment.

34, Drying and Gas or Vapor Contact With Solids, for both processes and apparatus for drying, including the drying of textiles.

69, Leather Manufactures, subclass 28 for apparatus for cleaning fur.

74, Machine Element or Mechanism, appropriate subclasses for gearing for driving a part of a washing machine without claiming the element which in itself does the washing. When the element which does the washing is claimed, no matter how broadly, the patents are classified in this class (68).

101, Printing, for application of coloring material to a textile by a printing operation, and see particularly subclass 172 for multicolor printing of yarn strands. (Processes)

118, Coating Apparatus, appropriate subclasses for apparatus for coating or impregnating textile materials other than the treatments set forth in section I of the class definition of Class 68.

134, Cleaning and Liquid Contact With Solids, see note (1); this class also being the generic class cleaning apparatus and for apparatus for contacting solids with liquids for cleaning or other purposes.

134, Cleaning and Liquid Contact With Solids, which is the generic class for cleaning processes, and for processes for contacting solids with liquids and see the notes thereto for related art. (Processes)

162, Paper Making and Fiber Liberation, subclasses 233+ for apparatus for digesting fibrous material in order to liberate the individual fibers (e.g., in the production of paper pulp).

205, Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions, subclasses 689+ for electrolytic treatment of organic fibrous material.

206, Special Receptacle or Package, subclass 0.5 for bluing infusion packages.

210, Liquid Purification or Separation, subclasses 348+ for filtration, especially subclasses 360.1+ for centrifugal extractors, and subclasses 513+ for gravitational separators.

211, Supports: Racks, subclasses 119.01+ for clotheslines of the type wherein isolated supports are joined by flexible strands on which clothes are hung. Other clotheslines, such as single supports with arms supporting flexible strands, and rack structures with rigid or flexible clothes supporting elements are in other appropriate subclasses of Class 211.

217, Wooden Receptacles, for containers of general utility.

220, Receptacles, for containers of general utility, this class being the generic class for receptacle structure (of whatever material made) not otherwise provided for.

223, Apparel Apparatus, subclass 23 for patents for cleaning hats.

242, Winding, Tensioning, or Guiding, subclasses 388+ for a reeling device for winding similar material.

248, Supports, subclass 27.5 for washboard supports, and appropriate subclasses for tub stands and supports.

252, Compositions, appropriate subclasses for processes of cleaning which are the mere uses of detergents, even though the material so treated is specified, and also for detergent compositions.

264, Plastic and Nonmetallic Article Shaping or Treating: Processes, for cleaning artificial silk threads combined with significant processes relating to the manufacture of said threads, see particularly subclass 165 and indented subclasses. (Processes)

294, Handling: Hand and Hoist-Line Implements, subclasses 8.5 and 23.5 for clothes tongs and clothes sticks.

366, Agitating, for patents for effecting commingling of solids and liquids, with irregular motion of the material.

383, Flexible Bags, subclasses 6+ for clothespin bags.

425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 67+ for filament or film forming apparatus combined with liquid treating apparatus.

427, Coating Processes, see note (1).

427, Coating Processes, which is the generic class for processes of coating or impregnating in general. (Processes)

430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, for process and composition for fluid treatment of sheet and web products therein provided. (Processes)

SUBCLASSES

1 WASTE RECLAIMING APPARATUS:

This subclass is indented under the class definition. Apparatus for cleaning and conditioning used journal box lubricating waste or the like including mechanisms for extracting or separating the used oil from the waste, purifying the used oil, cleaning the waste, reconditioning the waste and reimpregnating the waste with pure lubricating oil, and combinations thereof, not otherwise provided for.

2 CARBONIZING APPARATUS:

This subclass is indented under the class definition. Machines for the purpose of destroying a part of the textile material to clear the same from the remainder of the textiles by utilizing a fluid, the fluid being usually an acid either in the liquid or gaseous form.

3 MACHINES:

This subclass is indented under the class definition. Textile fluid treating machines not otherwise classifiable below.

4 Convertible:

This subclass is indented under subclass 3. Textile fluid treating machines with some additive, removable, or displaceable part, other than the drive mechanism, and which part may or may not be replaced by another part, to alter the function of the machine.

(1) Note. The new function may be another mode of fluid textile treatment.

SEE OR SEARCH THIS CLASS, SUBCLASS:

10, and 11, for machines in which the textile treating mechanism is transferable from one vat to another.

SEE OR SEARCH CLASS:

100, Presses, subclass 103 for presses convertible to a nonpressing function, not elsewhere provided for.

5 With gas, steam or mist treating:

This subclass is indented under the class definition. Machines of the kind utilizing fluids other than liquids, such as a gas, steam, vapor or mist, for acting directly upon the textiles.

SEE OR SEARCH THIS CLASS, SUBCLASS:

2, for carbonizing apparatus using an acid in gaseous form.

43, and 183, for the use of air to cause a turbulence of the liquid.

SEE OR SEARCH CLASS:

34, Drying and Gas or Vapor Contact With Solids, for such apparatus not limited to the purposes of Class 68.

26, Textiles: Cloth Finishing, for machines for steaming and working a fabric to shrink the same, subclass 18.5 and subclasses 81, 92, and 106, for apparatus combining steaming and stretching a running web of textile.

223, Apparel Apparatus, subclass 51 for machines for steaming formed articles of apparel, see Class.

239, Fluid Sprinkling, Spraying, and Diffusing, for hand manipulable fluid mixing and spraying devices especially subclasses 303+, 337+, 398+, and 525+.

6 Static devices:

This subclass is indented under subclass 5. Machines or devices wherein there are no moving parts save a fluid controlling valve or pump.

7 With fabric carrying cylinder:
This subclass is indented under subclass 5. Machines or devices wherein there are no moving parts save a fluid controlling valve or pump and wherein the device includes a cylinder about which the textile is wrapped.

8 Textile on cylinder:
This subclass is indented under subclass 5. Machines for treating textile material with fluids other than liquids while it is wrapped on a cylinder.

(1) Note. For other wound packages, see this class, subclasses 189 and 198.

9 With successive fluids and plural tubs:
This subclass is indented under subclass 3. Machines wherein the textile is subjected to successive actions of different fluids in different tanks.

(1) Note. For machines wherein the textile is subjected to successive immersions in the same tank see this class, subclasses 175+.

10 Relatively transferable textile holder:
This subclass is indented under subclass 9. Machines in which a textile holder or holders may be moved relatively to a series of vats containing different liquids for progressive or selective immersion in the liquids.

11 Plural tubs and relatively transferable textile worker:
This subclass is indented under subclass 3. Machines in which there are a plurality of vats, each adapted to contain liquid and textiles and in which there is a textile-working device such as a squeezer, impeller or drag, which is transferable from one vat to another.

12.01 Single tub and automatic sequential operation mechanism:
This subclass is indented under subclass 3. Subject matter wherein the textile fluid treating machine is a single tub controlled by a device which enables sequential treatment steps to be performed without intervention by a human being.

SEE OR SEARCH THIS CLASS, SUBCLASS:
190, for means to automatically reverse a flow of liquid to effect a surging action of the liquid.

SEE OR SEARCH CLASS:
134, Cleaning and Liquid Contact With Solids, particularly subclasses 56+, 58, and 95.1 for a process or a means for sequential or automatic operation of several steps of fluid treatment or liquid contact with nontextile articles.
137, Fluid Handling, particularly subclasses 387 and 625 for means for operating valves in sequence to feed quantities of fluid to a container, or to operate supply or drain valves in a sequence.
192, Clutches and Power-Stop Control, subclasses 138+ for means to stop the drive of a machine with the working element in a predetermined position.
210, Liquid Purification or Separation, subclasses 101 and 222 for means for separating a liquid from a solid.

12.02 Sequence control means responsive to a sensed condition:
This subclass is indented under subclass 12.01. Subject matter wherein the control device utilizes means to sense a condition or a change in condition to initiate or terminate a treatment step.

SEE OR SEARCH THIS CLASS, SUBCLASS:
12.21+, for a textile treating apparatus of the single tub and automatic sequential operation mechanism-type with a liquid level or a temperature responsive control device which regulates liquid flow.

12.03 Temperature of the load:
This subclass is indented under subclass 12.02. Subject matter wherein the condition which is sensed is the degree of hotness of the material being treated.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.19+, for a temperature responsive control device which regulates liquid flow in a textile fluid treating apparatus of the single tub and automatic sequential operation mechanism-type.

SEE OR SEARCH CLASS:

374, Thermal Measuring and Testing, appropriate subclass for temperature measuring, per se.

12.04 Weight of the load:

This subclass is indented under subclass 12.02. Subject matter wherein the condition which is sensed is the heaviness of the material being treated.

SEE OR SEARCH CLASS:

177, Weighing Scales, appropriate subclasses for a scale to determine the weight of an article or material.

12.05 Liquid level:

This subclass is indented under subclass 12.02. Subject matter wherein the condition which is sensed is the height of the treating liquid in the tub.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.21+, for a liquid level responsive control device which regulates liquid flow.

SEE OR SEARCH CLASS:

73, Measuring and Testing, subclasses 290+ for liquid level measuring, per se.

137, Fluid Handling, subclass 387 for liquid level control of the cycle of a non-textile cleaning machine.

12.06 Unbalanced load:

This subclass is indented under subclass 12.02. Subject matter wherein the condition which is sensed is the center of gravity of the treated textile material in the tub.

SEE OR SEARCH CLASS:

73, Measuring and Testing, subclasses 66+ for an apparatus or a process for determining the amount or location of masses or forces causing unbalance in a rotatable body.

310, Electrical Generator or Motor Structure, subclass 261 for miscellaneous rotor structures including those having balancing means.

12.07 Dyer:

This subclass is indented under subclass 12.01. Subject matter wherein the textile treating machine includes features peculiar to coloring the textile material.

SEE OR SEARCH CLASS:

8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 400 through 696 for a process of or a composition for dyeing material of any kind including specific treatment peculiarly related to dyeing, such as mordanting, color protecting, etc.

12.08 Dry cleaner:

This subclass is indented under subclass 12.01. Subject matter wherein the textile treating machine includes means peculiar to cleansing textile material with a substantially nonaqueous or organic solvent (e.g., petroleum naphtha).

12.09 With cooling means:

This subclass is indented under subclass 12.08. Subject matter combined with means for lowering the temperature of the textile material or the solvent being used.

SEE OR SEARCH CLASS:

62, Refrigeration, appropriate subclass for cooling means, per se.

165, Heat Exchange, appropriate subclass for a heat exchange system, per se.

12.11 Pneumatically actuated:

This subclass is indented under subclass 12.01. Subject matter including means which utilizes positive or negative air pressure to activate some part of the machine.

SEE OR SEARCH CLASS:

91, Motors: Expansible Chamber Type, appropriate subclass for devices for converting energy of a pressurized fluid into work.

12.12 Special cycle specified (e.g., prewash cycle, permanent press cycle, etc.):

This subclass is indented under subclass 12.01. Subject matter wherein an interval of time is specified during which a particular treatment of the material takes place.

12.13 With treating liquid filtering or reclaiming means:

This subclass is indented under subclass 12.01. Subject matter combined with means for removing or neutralizing undesirable matter or contaminants in the treating fluid.

SEE OR SEARCH CLASS:

134, Cleaning and Liquid Contact With Solids, subclass 109 for an apparatus having means for separating contaminants from the treating fluids in a non-textile fluid treatment or a liquid contact apparatus.

210, Liquid Purification or Separation, subclasses 348+ for filtration, per se.

12.14 Dewatering detail:

This subclass is indented under subclass 12.01. Subject matter wherein significance is attributed to a means for extracting liquid or moisture from a textile material.

SEE OR SEARCH CLASS:

34, Drying and Gas or Vapor Contact With Solids, appropriate subclasses, particularly subclasses 266+, 312+, and 397+ for a process for drying material.

210, Liquid Purification or Separation, subclasses 348+ for filtration, per se, especially subclasses 360.1+ for gravitational separators.

12.15 With heating means:

This subclass is indented under subclass 12.14. Subject matter combined with means for elevating the temperature of the textile material.

SEE OR SEARCH CLASS:

34, Drying and Gas or Vapor Contact With Solids, appropriate subclasses, particularly subclasses 266+, 312+, and 397+ for a process for drying material.

110, Furnaces, appropriate subclass for a solid fuel burner having a feature specialized to the burning of such fuel.

126, Stoves and Furnaces, appropriate subclass for an apparatus for applying heat which does not use electrical characteristics or structure.

219, Electric Heating, appropriate subclass for a miscellaneous process or apparatus for application of electrical energy for heating.

431, Combustion, appropriate subclass for a gaseous or liquid fuel combustion apparatus.

12.16 Motor control circuitry detail:

This subclass is indented under subclass 12.01. Subject matter wherein significance is attributed to a circuit arrangement or an element thereof for regulating the operation of an electric motor.

SEE OR SEARCH CLASS:

318, Electricity: Motive Power Systems, appropriate subclass for an electric motor control circuit, per se.

12.17 Relay:

This subclass is indented under subclass 12.16. Subject matter wherein the circuit includes an electromagnetic relay.

SEE OR SEARCH CLASS:

335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclasses 2+ for an electromagnetic relay, per se.

361, Electricity: Electrical Systems and Devices, subclass 160 for a control circuit for a relay.

12.18 With additive dispensing:

This subclass is indented under subclass 12.01. Subject matter combined with means to introduce an additive to the tub.

(1) Note. An example of an additive is a detergent, fabric conditioner or bleach which is generally added to the washing liquid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.07, for a fluid treating apparatus of the single tub automatic seqential operation mechanism-type having a dyer combined with a dispenser.

13, and 17+, for another fluid treating apparatus for textiles combined with dispensing means.

SEE OR SEARCH CLASS:

134, Cleaning and Liquid Contact With Solids, subclass 93 for a liquid contact with solid apparatus combined with solid treating agent supplying means.

137, Fluid Handling, subclass 240 for fluid handling systems combined with means to add material to the fluid and subclass 268 for a fluid handling system combined with means for holding solid material to be dissolved or entrained in the fluid.

222, Dispensing, appropriate subclasses for dispensing, per se.

12.19 Liquid handling:

This subclass is indented under subclass 12.01. Subject matter including means to confine, direct or control the flow of the treating fluid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.05, for the control of the sequential liquid treatment steps in a single tub in response to the height of the treating liquid in the tub.

SEE OR SEARCH CLASS:

137, Fluid Handling, appropriate subclasses for a mere valved pipe; subclasses 59+, 107, 302+, 312+, 427, 562, 565.36, 577+, and 596 for an overflow and drain of general utility; subclass 268 for a fluid handling system including means for holding solid material which is to be dissolved or entrained in fluid; appropriate subclass for means to valve soap to the machine; and subclass 387 for a liquid level responsive or maintaining system for controlling the operation of a washing machine.

12.21 Level or temperature responsive:

This subclass is indented under subclass 12.19. Subject matter including means responsive to the height of or the hotness of the treating liquid for controlling the flow of the treating liquid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.02+, for a liquid level or temperature responsive control device which initiates or terminates a textile liquid treatment step.

SEE OR SEARCH CLASS:

137, Fluid Handling, subclass 240 for addition of separate material in an additional cleaning system, subclass 268 for the addition of nonfluid material to a flow system, subclasses 331+ for cyclic or program type actuation of valves and subclass 387 for fluid level control of a machine for treating nontextile-type material.

12.22 With temperature modification:

This subclass is indented under subclass 12.21. Subject matter combined with means for elevating or lowering the temperature of the treating liquid.

SEE OR SEARCH CLASS:

34, Drying and Gas or Vapor Contact With Solids, subclasses 245+ for an apparatus for applying electrical or radiant energy to work and subclasses 266+ for a process involving applying electrical or radiant energy to work.

110, Furnaces, appropriate subclass for a solid fuel burner having a feature specialized to the burning of such fuel.

126, Stoves and Furnaces, appropriate subclasses for a nonelectrical apparatus for applying heat.

219, Electric Heating, appropriate subclass for a miscellaneous process or apparatus for application of electrical energy for heating.

431, Combustion, appropriate subclass for a gaseous or liquid fuel combustion apparatus.

12.23 Sequence controller detail:
This subclass is indented under subclass 12.01. Subject matter wherein significance is attributed to the means controlling the sequential treatment steps of the textile treating machine.

SEE OR SEARCH CLASS:
91, Motors: Expansible Chamber Type, particularly subclasses 341+ for independently operated timer, delay, pattern or cyclic control.

12.24 Clutch detail or transmission detail:
This subclass is indented under subclass 12.01. Subject matter including means to selectively connect the driving and the driven parts of the machine (i.e., clutch) or an assembly of mechanical power transmitting elements, (i.e., tranmission) and significance is attributed to the clutch or transmission.

SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, appropriate subclasses for power transmitting elements, per se.
192, Clutches and Power-Stop Control, subclasses 30+ for a clutch, per se.

12.25 With delay detail:
This subclass is indented under subclass 12.24. Subject matter wherein particular significance is attributed to a means for temporarily stopping, detaining or hindering some part of the clutch or transmission.

12.26 Door safety latch detail:
This subclass is indented under subclass 12.01. Subject matter wherein significance is attributed to a means for securing the door of the machine in a closed position during liquid treatment.

SEE OR SEARCH CLASS:
70, Locks, appropriate subclasses for a lock, per se.
220, Receptacles, subclasses 315+ for a closure of general utility combined with a fastening device.
292, Closure Fasteners, appropriate subclasses for a fastener, per se.

12.27 Indicator or sensor detail:
This subclass is indented under subclass 12.01. Subject matter wherein significance is attributed to either (a) a means for mechanically or electrically giving a humanly preceptible signal or (b) a means which responds to a physical stimulus and transmits a resulting impulse.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclass 866.5 fora sensor, per se.
116, Signals and Indicators, appropriate subclasses for nonelectrical means for giving a humanly preceptible signal, per se.
340, Communications: Electrical, appropriate subclasses for electric means for giving a humanly perceptible indication or signal.

13 Combined:
This subclass is indented under subclass 3. Machines of this class combined with other means in which or by which similar or other functions may be performed.

SEE OR SEARCH THIS CLASS, SUBCLASS:
4, for convertible washing machines.
27, for multiple washing machines.

14 With scrub-board:
This subclass is indented under subclass 13. Machines with scrub boards wherein the scrub board may be utilized independently of the remainder of the machine.

SEE OR SEARCH THIS CLASS, SUBCLASS:
28+, for machines wherein textiles are subjected to a scrubbing action simultaneously with some other cleansing or like treatment.

15 With tank heater:
This subclass is indented under subclass 13. Machines combined with means for applying heat to the tub to heat the liquid therein or for applying heat to liquid within the tub.

SEE OR SEARCH THIS CLASS, SUBCLASS:

147+, for machines provided with heating means in a fluid circulatory system, particularly subclasses 191+ where the flow of liquid or pumping action is induced by heat.

207, for devices for preheating the fluid while feeding the same to a washing machine.

SEE OR SEARCH CLASS:

122, Liquid Heaters and Vaporizers, for a closed or pressurized liquid heater or vaporizer having other than significant structure for fluid treatment of a textile.

126, Stoves and Furnaces, for a water heater or steam generator of an open or unpressurized type, or may be a closed or pressurized type if it is part of the stove or furnace structure having other than significant structure for fluid treatment of a textile; and subclasses 344 through 363.1 for a liquid heater that may include a kettle, a steam generator, stove pipe for use with a stove, and a domestic water heater or boiler (e.g., kitchen boiler, range boiler, etc.) for use with a stove or furnace.

16 Tumbler drum:

This subclass is indented under subclass 15. Machines of the tumbler type combined with means for applying heat to the tub to heat the liquid therein or for applying heat to liquid within the tub.

17 With soap supply:

This subclass is indented under subclass 13. Machines combined with means to supply soap or a concentrated soap solution to the tub.

SEE OR SEARCH CLASS:

100, Presses, subclasses 71+ for presses not elsewhere provided for, having means to add materials to each other.

134, Cleaning and Liquid Contact With Solids, subclass 93 for apparatus there provided for combined with solid treating agent supplying means.

137, Fluid Handling, subclass 268 for fluid handling systems including means for holding solid material to be dissolved or entrained in the fluid, and appropriate subclass for means to valve soap to the machine.

222, Dispensing, for means to meter quantities of soap or soap solutions and to dispense the same.

18 With solvent recovery:

This subclass is indented under subclass 13. Machines combined with means to reclaim and reuse a solvent.

(1) Note. The combined means is usually in a fluid circulating system including the machine and is a filter, centrifuge, still, dirt coagulator, or the like.

SEE OR SEARCH THIS CLASS, SUBCLASS:

1,

SEE OR SEARCH CLASS:

34, Drying and Gas or Vapor Contact With Solids, subclasses 72+, and Class 55, Gas Separation.

100, Presses, subclasses 90+ for presses not elsewhere provided for, combined with means for separating various materials from one another.

196, Mineral Oils: Apparatus, subclasses 46+ for apparatus for purifying used oils.

202, Distillation: Apparatus, for distillation apparatus, in general.

203, Distillation: Processes, Separatory, appropriate subclasses, for distillation processes in general.

208, Mineral Oils: Processes and Products, subclass 179 for processes of purifying used oils.

19 With liquid extractor:

This subclass is indented under subclass 13. Machine comprising means for removing liquid from the textile.

SEE OR SEARCH CLASS:

34, Drying and Gas or Vapor Contact With Solids, for the liquid removing subcombination, and see the notes to that class.

100, Presses, subclasses 104+ for a press not elsewhere provided for, having drain means for liquid expressed from the material by the expressing operation.

19.1 Disparate extractors:
This subclass is indented under subclass 19. Machine having two or more liquid removal means of different kinds.

19.2 Centrifugal extractor and gaseous drier:
This subclass is indented under subclass 19.1. Machine wherein the liquid removal means includes (a) means for rotating the textile rapidly about an axis to effect outward radial movement of the liquid therefrom while restraining the textile against such movement, and (b) means for supplying a gaseous medium to the textile.

(1) Note. The gaseous medium may be heated before or during contact with the textile.

20 Gaseous drier:
This subclass is indented under subclass 19. Machines combined with means to facilitate drying of the textiles by means of the passage of a gaseous medium through the textiles or by withdrawing vapor from the textiles.

SEE OR SEARCH THIS CLASS, SUBCLASS:
5+, for oxidizing machines to oxidize or age dyes in textiles

SEE OR SEARCH CLASS:
100, Presses, subclasses 92+ for presses not elsewhere provided for combined with means for heating, cooling or drying the material pressed.

21 Squeezer extractor:
This subclass is indented under subclass 19. Machines combined with squeezing means to extract liquid from the textiles subsequent to the liquid treatment.

22 Roller:
This subclass is indented under subclass 21. Machines combined with squeezing means of the roller type to extract liquid from textiles subsequent to the liquid treatment.

SEE OR SEARCH THIS CLASS, SUBCLASS:
4, for a textile fluid treating machine convertible into a wringing machine
13, for textile fluid treating machines combined with wringer supports.
234, for tubs combined with wringer supports
241+, for wringers, per se.
245, for tubs combined with wringers.

SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, subclass 17 for gearing for driving a combined washer and wringer.
100, Presses, subclasses 155+ for roller-type concurrent pressing and conveying presses not elsewhere provided for.

23 Centrifugal extractor (e.g., centrifuge):
This subclass is indented under subclass 19. Machine wherein the liquid removal means includes means for rotating the textile rapidly about an axis to effect outward radial movement of the liquid therefrom, while restraining the textile against such movement.

SEE OR SEARCH CLASS:
210, Liquid Purification or Separation, subclasses 360.1+ for a centrifugal extractor of that class.
494, Imperforate Bowl: Centrifugal Separators, appropriate subclasses for apparatus for breaking up a mixture of fluids or fluent substances into two or more components by centrifuging within a generally solid-walled, receptacle-like member. If utilized for treating textiles, however, an imperforate bowl, centrifugal extractor, per se, is not in Class 494, but, rather, is in this class (68), inasmuch as the treating of textiles is not within the scope of that class (494), if on the other hand, the centrifugal extractor is perforate in nature, it may be proper for Class 210, noted above.

23.1 With means to control or isolate vibration:
This subclass is indented under subclass 23. Machine wherein the centrifuge is provided with means effective to either (a) reduce or

eliminate vibratory forces caused by an unbalanced condition of a textile load within the centrifuge, or (b) reduce the conduction of such forces to any structure supporting the centrifuge.

SEE OR SEARCH CLASS:
210, Liquid Purification or Separation, subclass 144 for vibration or unbalance responsive control means for a similar centrifuge extractor, and see the notes to that subclass.

23.2 Including counterbalance:
This subclass is indented under subclass 23.1. Machine including means for applying forces to the centrifuge, during its rotation, to position the center of gravity of the centrifuge and its load on the geometric axis of rotation.

23.3 Vertical axis centrifuge:
This subclass is indented under subclass 23.1. Machine wherein the axis of rotation of the centrifuge is vertical.

23.4 Including additional fluid handling means actuated by rotation of centrifuge:
This subclass is indented under subclass 23. Machine including means for regulating fluid flow either to or from the centrifuge, in addition to the basic extraction, which means operates in response to the direction or speed of rotation of the centrifuge.

SEE OR SEARCH THIS CLASS, SUBCLASS:
207, and 208, for a textile treating machine, per se, provided with fluid handling means.

SEE OR SEARCH CLASS:
210, Liquid Purification or Separation, subclasses 145+ for rotation responsive control means for a similar centrifugal extractor.

23.5 Including fluid supply means:
This subclass is indented under subclass 23. Machine including means to deliver a fluid to the centrifuge.

SEE OR SEARCH THIS CLASS, SUBCLASS:
181+, for a textile treating machine, per se, provided with means for supplying fluid to a fixed receptacle, and see notes to that subclass.

23.6 Including impulsing means (e.g., agitator) within and independent of centrifuge:
This subclass is indented under subclass 23. Machine including an impeller movable within and relative to the centrifuge.

SEE OR SEARCH THIS CLASS, SUBCLASS:
131+, for a machine of this class having similar impulsing means, and see the notes to that subclass.

23.7 Oscillating type:
This subclass is indented under subclass 23.6. Machine wherein the impeller moves accurately to and fro.

24 Horizontal or nonvertical axis tumbler and centrifuge:
This subclass is indented under subclass 23. Machine wherein both the liquid treatment of the textile and the centrifugal extraction are effected by means including a generally cylindrical receptacle mounted for rotation about a horizontal or nonvertical axis.

25 Shiftable to vertical axis centrifuge:
This subclass is indented under subclass 23. Machines of the type wherein the liquid treatment is effected on an axis other than vertical while the centrifuging is done on a vertical axis. Generally the receptacle or the whole machine is tilted from an inclined or horizontal axis to a vertical axis, but the subclass also includes means whereby the material-containing receptacle may be rotated on two axes without shifting the axis of the receptacle.

26 Independent vat and centrifuge:
This subclass is indented under subclass 23. Machines of the type wherein the liquid treatment of a textile is effected in one receptacle and the centrifuging is effected in another receptacle to which the textile has been transferred.

27 Plural fluid treating machines:
This subclass is indented under subclass 3. Multiple connected textile liquid treatment machines; also single receptacles provided with partition walls nonmovable with respect to the receptacles to maintain batches of textiles being treated separated from one another, with means in each compartment movable with respect to the textiles in that compartment to effect an operation on the textiles; also machines provided with a movable textile-engaging element, the exterior surface of which forms part of a liquid treatment means for operation upon one batch of articles and having within the element a receptacle wherein a second batch of textiles may be treated.

(1) Note. The compartments may or may not have fluid communication with each other and the means for effecting the treatment may be a tumbling cylinder in a compartment, or one or both machines may be of the liquid flow-type.

SEE OR SEARCH THIS CLASS, SUBCLASS:
11, for a textile-engaging element is transferred from one tub to another
143, and 145, for compartmented tumbling cylinders.

28 Combined operations:
This subclass is indented under subclass 3. Machines with means to effect liquid treatment of textiles by a combination of operations, not specifically provided for below.

SEE OR SEARCH CLASS:
100, Presses, subclass 102 for presses combined with other features, and not elsewhere provided for.
118, Coating Apparatus, subclass 427 for immersion coating devices having opposed relatively movable means acting on the immersed work.

29 With free element:
This subclass is indented under subclass 28. Wherein squeezing and scrubbing of textile materials is effected by one or more elements freely movable in the liquid within a receptacle, there being still another mode of textile liquid treatment provided.

(1) Note. The "another mode of textile liquid treatment" may be of the liquid flow-types as where a tub is moved bodily to cause the textiles and liquid in the tub to move relative to one another, or as where the textiles are fastened to a carrier to be moved thereby through the liquid.

SEE OR SEARCH THIS CLASS, SUBCLASS:
30, for other free elements.

30 Tumbling, scrubbing and squeezing:
This subclass is indented under subclass 28. Machines wherein there is a tumbler and means within the tumbler to effect both a scrubbing and squeezing action on textiles within the tumbler.

(1) Note. Usually the independent devices are loose corrugated or smooth weights or they are flails pivoted to the tumbler and provided with corrugated surfaces.

31 Scrubbing and squeezing:
This subclass is indented under subclass 28. Machines with means to effect treatment of textiles solely by scrubbing and squeezing the same.

(1) Note. Sets of movable elements to effect scrubbing and squeezing of textiles are included in this subclass.

32 One work element reciprocable longitudinally of a roll axis:
This subclass is indented under subclass 31. Machines of the type wherein the treatment is effected by a squeezing action between a roll and another element, generally another roll, and in which either the roll or the other element reciprocates longitudinally of the roll axis to effect a scrubbing action.

33 Cooperating movable work element:
This subclass is indented under subclass 31. Machines to squeeze and scrub textiles wherein there are at least two cooperating elements and both of which are positively moved to effect the treatment.

(1) Note. Structures wherein one of the elements is merely resiliently supported are excluded from this class.

(2) Note. One of the elements may be a scrub board movable beneath or above the textiles to scrub the same and the other may be a roller or rollers movable along the scrub board to squeeze the opposite face of the textiles. One of the elements may have a combined squeezing and scrubbing action.

34 One movable with tub:
This subclass is indented under subclass 33. Machines to squeeze and scrub textiles wherein there are at least two cooperating elements, both of which are movable to effect the treatment and wherein one of the movable elements moves with the tub.

35 Single movable work element:
This subclass is indented under subclass 31. Machines to squeeze and scrub textiles wherein there are at least two cooperating elements, one of which is movable to effect the two operations.

(1) Note. Usually one of the elements has a compound motion to effect the two operations and one of the other elements has a scrubbing surface.

36 Pivotally movable:
This subclass is indented under subclass 35. Machines of the character wherein the movable element has a pivotable motion only.

(1) Note. The two actions are usually a scrubbing action between a corrugated face on the swinging element and a cooperating corrugated face in the tub, and a squeezing action between the same swinging element and some faces in the tub which serve as abutments for textiles in the tub. Another mode of accomplishing the two actions is by causing a swinging member having both rollers and a corrugated face to sweep across a corrugated bed. Still another mode is by having the pivotally mounted member force a cooperating scrub member to swing about a pivot eccentric to the pivot of the first member.

37 Rectilinearly movable:
This subclass is indented under subclass 35. Machines of the character wherein the movable member has a rectilinear motion only.

38 Scrubbing and liquid flowing:
This subclass is indented under subclass 28. Machines provided with means to scrub a textile combined with means to effect relative motion between the textile and the liquid.

(1) Note. The scrubbers may be widely separated elements in a receptacle and the textiles may be freely movable in an oscillatory or rectilinearly reciprocable receptacle.

(2) Note. The motion of the liquid must be caused by something other than the movement of the scrubber itself.

(3) Note. Structures wherein the scrubber is on the walls of a reciprocatory, oscillating or rotary receptacle are excluded from this subclass and will be found in the tumbler and liquid flow subclasses of this class.

SEE OR SEARCH CLASS:
15, Brushing, Scrubbing, and General Cleaning, subclass 40 for machines for scrubbing a floor or a rug on the floor with the use of fluids

39 Endless apron and scrubber:
This subclass is indented under subclass 38. Combined scrubber and liquid flow machines provided with a bed and an endless apron carrying the textiles beneath a liquid wherein the scrubbing action takes place between these elements by reason of their relative motion with respect to one another.

(1) Note. The bed may be a platen or a plurality of rollers.

40 Scrubber reciprocable longitudinally of apron:
This subclass is indented under subclass 39. Machines wherein the scrubber has a reciprocating motion longitudinally of the apron.

41 Horizontal axis pivoted carrier scrubber:
This subclass is indented under subclass 38. Combined scrubbing and liquid flow wherein a movable scrubbing element pivoted on a horizontal axis has means to clamp the textile thereto to carry the textile beneath the liquid and against the cooperating scrubbing element.

42 Carrier roll and platen:
This subclass is indented under subclass 38. Combined scrubbers and liquid flow machines of the roll and platen type wherein the roll has means to facilitate the wrapping thereabout or otherwise carrying of the textile to be treated.

43 Squeezing and liquid flowing:
This subclass is indented under subclass 28. Machines provided with means to squeeze a textile, combined with means to effect relative motion between the textile and a liquid.

(1) Note. Liquid flow or turbulence may be generated by forcing air through the liquid.

(2) Note. The means to effect a movement of the textile may be an oscillation of the tub.

(3) Note. The motion of the liquid must be created by means other than the mere movement of the squeezer itself.

SEE OR SEARCH THIS CLASS, SUBCLASS:
130, for squeezers, per se, with built-in air pumps; and for the similar squeezer implement, see subclass 217.

SEE OR SEARCH CLASS:
100, Presses, subclasses 73+ for presses having means to treat the material with liquid or steam, and not elsewhere provided for.

44 Squeezer and endless belt:
This subclass is indented under subclass 43. Squeezing machines in which the squeezing of the textile is effected by the coaction of a plurality of endless belts carrying the textile in or beneath a liquid and a squeezer.

(1) Note. Generally a pair of belts is employed between which the textile is placed, and the whole is passed between rolls or beneath a pounder.

SEE OR SEARCH CLASS:
100, Presses, subclasses 151+ for endless conveyor type presses, not elsewhere provided for, of the concurrent pressing and conveying-type.

45 Single endless belt:
This subclass is indented under subclass 44. Combined squeezing and liquid flow machines in which the squeezing of the textile is effected between an endless belt carrying the textile in or beneath a liquid and a squeezer.

(1) Note. Generally the machine comprises an apron on which the textile is placed, which apron passes beneath the surface of a liquid and a roller or bank of rollers or the machine comprises a belt to which the textile is secured and which is dragged by the belt through the liquid and a pair of cooperating squeezers.

SEE OR SEARCH CLASS:
100, Presses, subclass 153 for endless conveyor type concurrent pressing and conveying presses, not elsewhere provided for, in which a roll co-acts with the endless conveyor to effect the pressing operation.

46 Roll and carrier roll:
This subclass is indented under subclass 43. Combined squeezing and liquid flow machines in which there is a roll about which the textile is wrapped and which carries the textile through the liquid and beneath another roll.

SEE OR SEARCH CLASS:
100, Presses, subclasses 76+ for presses not elsewhere provided for which, additionally, treat the material by winding or folding a sheet, web or strand.

47 Roller bed and carrier roll:
This subclass is indented under subclass 43. Combined squeezing and liquid flow machines wherein there is a roll about which a textile is

wrapped and which carries the textile through the liquid and beneath a roller bed.

48 Movable tub, tray or cage:
This subclass is indented under subclass 43. Machines of the squeezing and liquid flow-type wherein the tub, cage or tray itself moves.

SEE OR SEARCH THIS CLASS, SUBCLASS:
111, for machines where there is a displacement of the tub merely to position a new portion of the batch of textiles beneath the squeezer.

49 With shuttle squeezer:
This subclass is indented under subclass 48. Machines of the type wherein the squeezing is effected by means of a free moving weight which shifts back and forth in a predetermined path in the tub as the tub oscillates or reciprocates.

SEE OR SEARCH THIS CLASS, SUBCLASS:
121, for similar devices where a squeezer moves rectilinearly back and forth but in which the tub does not move.

50 Vertically movable:
This subclass is indented under subclass 48. Machines of the type wherein the squeezing and liquid flow are effected, at least in part, by the vertical movement of a tub, a tray or a cage.

51 Mechanical liquid pump:
This subclass is indented under subclass 43. Machines of the type wherein pumping means of the mechanical-type is employed to effect flow of liquid in a definite direction or directions through the textiles being treated.

(1) Note. The pump may be incorporated with the squeezer element (as a valved pounder), or be a pump structure operating coordinately with the movements of the squeezer element or be a pump driven by a separate motor means; and the pump may be of the valved type to produce a flow of liquid in one direction only or of the surge-type to produce currents in alternately opposite directions. Pounders, however are not regarded as pumps unless they are valved or operate in pump cylinders.

52 Squeezing and dragging:
This subclass is indented under subclass 28. Machines provided with means to squeeze a textile combined with means to drag the textile through the liquid.

53 Impulsing and liquid flowing:
This subclass is indented under subclass 28. Machines provided with means to impel a textile through a liquid combined with means other than vanes on the receptacle to effect a flow of liquid through the textile.

(1) Note. The said other means may be either a liquid pump or a gas pump to pump air through the liquid in the tub and through the textile.

54 Impulsing and scrubbing:
This subclass is indented under subclass 28. Machines provided with means to impel a textile through a liquid combined with means to scrub the textile.

(1) Note. The scrubbing means may be a corrugated surface on the impeller or on the inner wall of the tub, or it may be an element movable independently of the impeller.

55 Dragging and liquid flowing:
This subclass is indented under subclass 28. Machines provided with means to drag a textile through the liquid combined with other means to effect a flow of liquid through the textile.

56 Dragging and scrubbing:
This subclass is indented under subclass 28. Machines provided with means to drag a textile through a liquid combined with means to effect a scrubbing of textile.

57 Drag on vertical axis:
This subclass is indented under subclass 56. Machines as wherein the drag means is mounted to rotate or oscillate on a vertical axis.

58 Tumbling and liquid flowing:
This subclass is indented under subclass 28. Machines provided with tumblers and with means to effect a flow of liquid through the

tumbler either by moving the tumbler bodily through the liquid or by passing a liquid through the tumbler by means other than elements rigidly or pivotally attached to the tumbler.

59 Spurting nozzle, thermal flow:
This subclass is indented under subclass 58. Machines of the type wherein the liquid flow is effected by means of heat applied to the tub and a resultant mixture of steam and hot liquid is forced through nozzles into the tub or tumbler.

60 Tumbling and scrubbing:
This subclass is indented under subclass 28. Machines wherein there is a tumbler for textiles and there is either a nonmovable device within the tumbler, or a device mounted for movement independently of the tumbler, for scrubbing the textiles.

(1) Note. The scrubbing device is usually a rotatable drum or a scrub board hung loosely on a shaft within the tumbler. Where the scrub elements are mounted for movement with the tumbler, see this class, subclass 139, and indented subclasses.

61 Tumbling and squeezing:
This subclass is indented under subclass 28. Machines where there is a tumbler and a device within the tumbler for effecting a squeezing action on textiles within the tumbler.

62 Liquid flowing and liquid applying:
This subclass is indented under subclass 28. Machines wherein there is a means for immersing the textile in a vat and a means for applying liquid to the textile by means of an applicator.

63 Scrubbing:
This subclass is indented under subclass 3. Machines provided with scrubbers only and not otherwise classifiable below.

(1) Note. See definition of scrubbing in main class definition of this class.

(2) Note. A machine with a scrubber above a fixed roller bed, or with a fixed roller cooperating with a fixed corrugated bed, or with a roller and bed which move so as to create a sliding action therebetween, or with brushes whether or not the brushes be on rollers, is a scrubber. A machine with a fixed axis roller cooperating with a fixed roller bed, or with a roller traversing a corrugated bed, or with a corrugated bed transversing a fixed axis roller, is a squeezer. A machine with a scrubber and a reciprocable roller bed is a combined scrubber and squeezer. A machine with a roller pressing the textile against an endless carrier apron or belt or between carrier belts is a combined squeezer and liquid flow device.

64 Scrubber and bed, reciprocatory:
This subclass is indented under subclass 63. Machines provided with scrubbing elements between which a textile is scrubbed and at least one of which has a motion of reciprocation.

(1) Note. Included in this group are sets of cooperating plate scrubbers which scrubbers may rotate in horizontal or vertical planes.

65 Bed reciprocable about a roll periphery:
This subclass is indented under subclass 64. Scrubbers of the type wherein one of the elements is a roll and another is a bed reciprocable about the roll periphery.

66 Both movable:
This subclass is indented under subclass 64. Machines provided with scrubbing elements between which a textile is scrubbed wherein both cooperating elements move to effect the scrubbing operation and at least one of them has a motion of reciprocation.

67 On horizontal axis:
This subclass is indented under subclass 66. Scrubbers of the type wherein both cooperating elements are pivotally mounted on a horizontal axis.

(1) Note. Generally the elements are each a scrubber arcuate in form and oscillating in opposite directions, the opposed faces of the elements being corrugated. One of the scrubbers may oscillate with the tub. In all instances, the scrubbers are so

close together as not to permit of swishing of the textiles through the liquid.

68 Vertical scrubbers:
This subclass is indented under subclass 66. Machines of the type wherein both cooperating elements are vertical and are pivotally mounted on a horizontal axis or horizontal axes.

(1) Note. The scrub elements are usually parallel plates.

69 Unitary tub and bed:
This subclass is indented under subclass 67. Machines of the type wherein both the tub and scrubbing bed move together.

(1) Note. Machines of this type have the work elements too close together to consider them as belonging to the liquid flow class.

70 On vertical axis:
This subclass is indented under subclass 66. Machines provided with cooperating scrubbers both of which are oscillatable about a vertical axis.

71 Tub movable with scrubber:
This subclass is indented under subclass 70. Machines of the type wherein one of the scrubbers is fixed to and moves with the tub.

(1) Note. See note to subclass 69 of this class.

72 Rectilinearly:
This subclass is indented under subclass 66. Machines with cooperating scrubbers both of which are movable rectilinearly.

73 In vertical plane:
This subclass is indented under subclass 72. Machines with cooperating scrubbers both of which are movable rectilinearly with the scrubbers lying in a vertical plane.

(1) Note. The scrubbers may move in any direction parallel to the planes of the scrubbers.

74 Scrubber, only, movable:
This subclass is indented under subclass 64. Machines provided with cooperating scrubbers only one of which is movable, that element being other than the bed.

75 On horizontal axis:
This subclass is indented under subclass 74. Machines wherein the movable scrubber is pivoted on a horizontal axis.

(1) Note. The bed with which the scrubber cooperates may comprise a series of rollers, but the scrubber must comprise elements fixed to the moving element.

76 Plate scrubber transverse to axis:
This subclass is indented under subclass 75. Machines wherein the scrubber is a plate oscillatable in a vertical plane and mounted perpendicularly to the horizontal axis.

77 Plural scrubbers:
This subclass is indented under subclass 75. Machines wherein there are a plurality of movable scrubbers mounted on one or more horizontal axes.

78 Individually pivoted scrubbers:
This subclass is indented under subclass 77. Machines in which there are a plurality of scrubbers or fingers mounted on parallel horizontal axes cooperating with a single or plural number of beds.

(1) Note. The multiplicity of fingers distinguishes the machine as a scrubber rather than as a drag.

79 On vertical axis:
This subclass is indented under subclass 74. Machines provided with cooperating scrubbing elements, only one of which is movable, the movement being about a vertical axis.

80 Downwardly directed scrubbing face:
This subclass is indented under subclass 79. Machines as wherein the scrubbing face of the movable element is directed downwardly.

81 Rectilinearly:
This subclass is indented under subclass 74. Machines provided with cooperating scrubbing elements, only one of which is movable, the movement being one of reciprocation in a rectilinear direction.

82 Bed, only, movable:
This subclass is indented under subclass 64. Machines provided with cooperating scrubbers, only the bed being movable.

83 On vertical axis:
This subclass is indented under subclass 82. Machines wherein the bed oscillates on vertical axis.

84 Rotary:
This subclass is indented under subclass 63. Scrubbers involving a scrubbing element which is rotated.

(1) Note. A scrubber is regarded as having an oscillatory motion rather than a rotary motion when the construction is such as to inhibit rotation of the scrubber through more than 360°, or the construction is such as to make it awkward to manipulate the scrubber through an angle of more than 360°.

85 Brush roller and roll:
This subclass is indented under subclass 84. Scrubbers of the rotary-type wherein one element is a brush roller and the other is a roller which may or may not be a brush between which the textile passes.

86 Roll and platen:
This subclass is indented under subclass 84. Scrubbers of the rotary-type wherein one element is a roll and the other is a platen.

(1) Note. The platen may be plane or concaved and may or may not be corrugated.

(2) Note. If the cooperating element with which the roll coacts comprises a roller or series of rollers, rotating or free to rotate at the same peripheral speed as the roll, see the squeezer subclasses of this class.

87 Brush roll or brush platen:
This subclass is indented under subclass 86. Scrubbers of the type wherein either the roll or platen is a brush or both elements include brushes.

88 Resiliently mounted platen:
This subclass is indented under subclass 86. Scrubbers of the roll and platen-type wherein the platen is resiliently mounted.

89 Vertical axis scrubber:
This subclass is indented under subclass 84. Rotary scrubbers wherein a scrub element is mounted to rotate on a vertical axis.

90 Horizontal axis scrubber:
This subclass is indented under subclass 84. Rotary scrubbers wherein a scrub element is mounted to rotate on a horizontal axis.

91 Fixed scrubber and bed, movable carrier:
This subclass is indented under subclass 63. Machines wherein there is a pair of fixed cooperating scrub elements with a carrier element therebetween, said carrier element having textiles draped thereabout or clamped thereto, and by means of which the textiles are transported between the scrub elements.

92 Scrubbers:
This subclass is indented under subclass 63. Scrubber structure, per se.

93 Scrubber bed or cage:
This subclass is indented under subclass 63. The scrubber bed or scrubber cage, per se, with which the scrubber cooperates.

94 Squeezing:
This subclass is indented under subclass 3. Machines in which a textile is squeezed while subjected to a liquid.

(1) Note. See definition of squeezing in main class definition of this class.

(2) Note. For the distinction between a squeezer and a scrubber, see the notes following the definition of subclass 63.

(3) Note. A machine wherein a squeezer cooperates with an endless belt carrying

the textile in or beneath a liquid is a combined squeezer and liquid flow device.

(4) Note. A beater or device having a flail action is regarded as a squeezer.

SEE OR SEARCH CLASS:
100, Presses, subclass 75 for presses, not elsewhere provided for, including means for adding liquid or steam interstaged between presses.
366, Agitating, appropriate subclasses for agitating devices for purposes other than washing,

95 Squeezer and textile cover:
This subclass is indented under subclass 94. Squeezing machines in which a nonmovable apron or flexible cover rests on the textiles and pressure is effected by squeezing on the apron or cover.

96 Deformable receptacle:
This subclass is indented under subclass 94. Squeezers wherein a receptacle is deformable to effect a squeezing action on the textiles.

SEE OR SEARCH THIS CLASS, SUBCLASS:
147, for receptacles with a perforate bottom movable to effect a displacement of the entire body of textiles.
242, for similar machines to express liquids from textiles.

SEE OR SEARCH CLASS:
100, Presses, subclass 211 for presses not elsewhere provided for having a flexible or spring pressure surface.

97 Roll type:
This subclass is indented under subclass 94. Squeezing machines embodying a roll which rolls over a textile, or squeezing machines wherein the textiles are carried by said roll into and between the roll and a cooperating squeezing element.

(1) Note. For distinction between a squeezer and a scrubber, see the second note under subclass 63 of this class.

SEE OR SEARCH CLASS:
100, Presses, subclasses 155+ for roller type presses of the concurrent conveying and pressing type not elsewhere provided for.
226, Advancing Material of Indeterminate Length, appropriate subclasses for methods of, and apparatus for, feeding material without utilizing the leading or trailing ends to effect movement of the material.
492, Roll or Roller, for a wringing or squeezing roll, per se, not elsewhere provided for, and see the notes thereunder.

98 Planetary:
This subclass is indented under subclass 97. Machines wherein a roll or drum has a planetary motion by reason of which a textile is squeezed between the roll or drum and a cooperating surface.

(1) Note. The roll or drum may be mounted eccentrically on a vertical axis and roll over the textiles which are positioned between it and the wall of the receptacle or the roll or drum may rotate about an axis itself rotating in an orbital path about a parallel axis outside of the roll or drum.

SEE OR SEARCH CLASS:
100, Presses, subclass 157 for roller-type concurrent and conveying presses having external and internal rolls and not elsewhere provided for.

99 Roll and roll:
This subclass is indented under subclass 97. Squeezing machines wherein the squeezing action is effected by passing the textiles between a pair of rolls.

SEE OR SEARCH THIS CLASS, SUBCLASS:
244+, for wringers of the roller-type.

100 Roll and roller bed:
This subclass is indented under subclass 97. Squeezing machines wherein the squeezing action is effected between a roll and a bed made up of rollers.

101 Resiliently mounted roller bed:
This subclass is indented under subclass 100. Squeezing machines of the type wherein the bed of the machine is resiliently mounted.

SEE OR SEARCH CLASS:
100, Presses, subclasses 169+ for concurrent pressing and conveying presses of the roll-type having yieldable roll adjustment, not elsewhere provided for.

102 Rectilinearly reciprocable roll and bed:
This subclass is indented under subclass 97. Squeezing machines of the roll-type wherein the roll translates rectilinearly and cooperates with a bed.

(1) Note. The bed as well as the cooperating roll or rolls may have a motion of translation.

SEE OR SEARCH CLASS:
100, Presses, subclass 210 for roll and platen presses not elsewhere provided for.

103 Fixed bed:
This subclass is indented under subclass 102. Machines of the type wherein the bed is fixed and the roll or rolls reciprocate rectilinearly over the bed.

104 Single roll:
This subclass is indented under subclass 103. Squeezing machines of the roll-type wherein the bed is fixed and there is but a single roll which reciprocates rectilinearly over the bed.

105 Fixed axis roll and reciprocable bed:
This subclass is indented under subclass 97. Squeezing machines of the roll-type wherein the roll rotates on a fixed axis and the bed is translated rectilinearly or oscillatable about an axis.

SEE OR SEARCH CLASS:
100, Presses, subclass 156 for roller-type concurrent, conveying and pressing presses, not elsewhere provided for, in which the roll coacts with a nonrotary press surface.

106 Oscillating roll and bed:
This subclass is indented under subclass 97. Squeezing machines of the roll-type wherein rollers are mounted on the end of a pivoted arm to roll over a bed.

107 Single roll:
This subclass is indented under subclass 106. Squeezing machines of the roll-type wherein a single roll is mounted on the end of a pivoted arm to roll over a bed.

108 Chasers:
This subclass is indented under subclass 94. Squeezing machines provided with a roll or wheel and a bed mounted to rotate on a vertical axis, in which the roll or wheel axis is radial or substantially so to the vertical axis, with the roll or wheel located wholly to one side of the vertical axis.

SEE OR SEARCH CLASS:
100, Presses, subclass 158 for presses of the concurrent pressing and conveying-type in which rolls are mounted on intersecting or inclined axes, not elsewhere provided for.

109 Nonrotatable bed:
This subclass is indented under subclass 108. Machines as in which the bed is nonrotatable and the wheel or roll sweeps over the bed in an orbital path.

110 Squeezer and bed, both movable:
This subclass is indented under subclass 94. Squeezing machines not provided for above wherein both the squeezer and bed move, and between which the textile is positioned to be treated.

111 Vertically reciprocable squeezer and vertically pivoted bed:
This subclass is indented under subclass 110. Squeezing machines wherein there is a tub which is displaceable about a vertical axis to position successive portions of a batch of textiles beneath a vertically reciprocable squeezer.

(1) Note. For squeezers in combination with means for moving receptacle to create a liquid flow within the receptacle, see this class, subclass 48. In subclass 111 the

receptacle is generally moved intermittently or through a small angle for each operation of the squeezer.

SEE OR SEARCH CLASS:
100, Presses, subclass 223 for reciprocating platen presses, not elsewhere provided for, having plural or indexing material supports or receptacles mounted for rotation.

112 Opposed receding and approaching squeezers:
This subclass is indented under subclass 110. Squeezers provided with a pair of elements both of which are movable toward and from each other to effect the squeezing of the textiles.

(1) Note. The elements may be pivoted to swing toward each other or may move in rectilinear paths. Where a bed, tray or cage moves broadside to the liquid, where there is also a squeezing action, see this class, subclasses 48+.

SEE OR SEARCH CLASS:
100, Presses, subclass 264 for reciprocating platen presses, not elsewhere provided for, in which there are opposed platens both of which are actuated.

113 Squeezer, only, movable:
This subclass is indented under subclass 94. Squeezing machines in which the squeezer element only of a pair of members, between which pressure is effected, is moved.

(1) Note. This group includes machines wherein an upper element only moves. Where only the lower element or bed moves, see this class, subclass 94.

(2) Note. For similar devices used in churns and other mechanisms, see Class 366, Agitating.

SEE OR SEARCH CLASS:
100, Presses, subclasses 214+ for reciprocating platen presses not elsewhere provided for.

114 Cradled:
This subclass is indented under subclass 113. Machines of the type wherein the squeezer rocks over the bed.

115 Plural horizontally pivoted squeezers:
This subclass is indented under subclass 113. Machines of the type wherein a plurality of squeezers are mounted on a horizontal axis or horizontal axes and they cooperate with a wall of the tub.

116 Bilateral squeezing faces:
This subclass is indented under subclass 113. Machines of the type wherein a plurality of squeezers mounted on a horizontal axis or axes are provided with opposed squeezing faces cooperating with two opposite walls of the tub.

SEE OR SEARCH CLASS:
100, Presses, subclass 209 for plural presses of the same type which are concurrently actuated and which alternately compress, not elsewhere provided for.

117 Single horizontally pivoted squeezer:
This subclass is indented under subclass 113. Machines of the type wherein a single squeezer is mounted on a horizontal axis and cooperates with a bed.

SEE OR SEARCH CLASS:
100, Presses, subclasses 233+ for reciprocating platen presses of the oscillatory or hinged platen-type, not elsewhere provided for.

118 Bilateral squeezing faces:
This subclass is indented under subclass 113. Machines of the type wherein a single squeezer mounted on a horizontal axis is provided with opposed squeezer faces and cooperates with opposed beds.

SEE OR SEARCH CLASS:
100, Presses, subclass 209 for plural presses of the same type which are concurrently actuated and which alternately compress, not elsewhere provided for.

119 Edge pivoted horizontal plate:
This subclass is indented under subclass 113. Machines of the type wherein a single squeezer mounted on a horizontal axis comprises a plate which is generally horizontal in its squeezing position and is pivoted either along one edge of the plate or by arms which are pivoted on an axis in the plane of the plate.

120 Rectilinearly movable squeezer:
This subclass is indented under subclass 113. Squeezing machines of the type in which the squeezer has a substantially rectilinear motion.

121 Bilateral squeezing faces:
This subclass is indented under subclass 120. Squeezing machines with a squeezer having a substantially rectilinear motion, the squeezer being provided with opposed squeezer faces cooperating with opposed beds or walls of a tub.

SEE OR SEARCH CLASS:
100, Presses, subclass 209 for plural presses of the same type which are concurrently actuated and which alternately compress, and not elsewhere provided for.

122 Vertically:
This subclass is indented under subclass 113. Squeezing machines of the type in which the squeezer has a substantially rectilinear vertical motion.

123 With squeezer displacement:
This subclass is indented under subclass 113. Squeezing machines of the type in which the squeezer has a substantially rectilinear vertical motion and in which the squeezer is displaced, or in which means are provided to facilitate displacement of the squeezer, while out of pressure engagement with the textiles, to cause the succeeding squeezing actions to be at different positions in the tub.

(1) Note. The squeezer may be rotated slightly or laterally displaced.

SEE OR SEARCH CLASS:
100, Presses, subclasses 221+ for reciprocating platen presses, not elsewhere provided for, having plural or indexing material supports or receptacles.

124 Successively acting squeezers:
This subclass is indented under subclass 122. Squeezing machines in which the squeezers are of the vertically rectilinearly reciprocating type and in which there are a plurality of squeezers acting successively on a batch of textiles.

SEE OR SEARCH CLASS:
100, Presses, subclass 237 for reciprocating platen presses, not elsewhere provided for, in which there are plural movable platens moving parallel to one another and opposed to a single platen or box.

125 Mountings:
This subclass is indented under subclass 94. Means for squeezing machines adjacent to, on, or in a tub.

126 For roll squeezers:
This subclass is indented under subclass 125. Mounting means as for squeezing machines of the roller-type.

SEE OR SEARCH CLASS:
226, Advancing Material of Indeterminate Length, subclass 194 for roll support, per se.

128 Squeezer roll strippers:
This subclass is indented under subclass 94. Means for stripping textiles from squeeze rolls to prevent the winding thereabout of the textiles.

SEE OR SEARCH THIS CLASS, SUBCLASS:
270, or strippers for use with wringer rolls.

SEE OR SEARCH CLASS:
100, Presses, subclass 174 for concurrent pressing and conveying presses of the roll-type not elsewhere provided for, and having means to strip the material from the rolls.

129 Nonrotary squeezers:
This subclass is indented under subclass 94. The structure of nonrotary squeezers, per se, that is, of the squeezing elements which cooperate with the bed.

SEE OR SEARCH THIS CLASS, SUBCLASS:
215+, for pounder implements.

SEE OR SEARCH CLASS:
100, Presses, subclasses 195+ for platens or pressure surfaces, not elsewhere provided for.
366, Agitating, for similar devices used in churns and other mechanism.

130 With plungers or valves:
This subclass is indented under subclass 129. The structure of nonrotary squeezers, per se, which are equipped with plungers or valves.

SEE OR SEARCH THIS CLASS, SUBCLASS:
216, and 217, for pounder implements combined with plungers or valves.

131 Impulsing:
This subclass is indented under subclass 3. Machines for impelling textiles while submerged in a liquid.

(1) Note. See definition of impulsing in main class definition of this class.

(2) Note. Impulsers using impellers are distinguished from machines using drags or dollies by function and structure. The function of an impeller is to impart a force to the textile so as to cause it to move a distance independently of the impeller; the function of a drag or dolly is to move the textile with the drag in its movement or movements.In structure, the impeller, used is an impulser, is generally a broad flat surface which may or may not be perforate, and which has an intermittent movement. The drag or dolly generally consists of a pin or plurality of pins or an open grille work to cause textiles to move with the drag or dolly, said drag or dolly having either a continuous rotary movement or a reciprocating movement. Impulsers and drags are distinguished from squeezing machines in that there is no surface cooperating with the impeller or drag between which surface and the impeller or drag the textiles may be compresses.

SEE OR SEARCH CLASS:
366, Agitating, particularly subclasses 241+for similar structure in agitators of general utility.

132 Oscillatory or rotary on vertical axis:
This subclass is indented under subclass 131. Machines in which the impeller is mounted to oscillate or rotate about a vertical axis.

133 Bottom drive:
This subclass is indented under subclass 132. Machines of the type in which the impeller is mounted on a vertical axis and is driven from below the impeller.

134 Impellers:
This subclass is indented under subclass 131. The structure of the impeller, per se.

135 Dragging:
This subclass is indented under subclass 3. Machines for dragging textile materials through a liquid.

(1) Note. See definition of dragging in main class definition of this class.

(2) Note. For features which distinguish a drag or dolly from an impeller and from a squeezer, see the note following the definition of subclass 131 of this class.

SEE OR SEARCH CLASS:
366, Agitating, particularly subclasses 241+for similar structure in agitators of general utility.

136 Oscillatory or rotary on vertical axis:
This subclass is indented under subclass 135. Machines of the type in which the drag is mounted to oscillate or rotate on a vertical axis.

137 Top drive:
This subclass is indented under subclass 136. Machines for effecting treatment of textiles by dragging them through a liquid and in which

the drag element is mounted on a vertical axis and is driven from above.

138 Dollies:
This subclass is indented under subclass 135. The structure of the dolly, or drag, per se.

139 Tumbling:
This subclass is indented under subclass 3. Tumblers which revolve or oscillate, through at least 360°, in an outer casing.

(1) Note. See definition of tumbling in main class definition of this class.

SEE OR SEARCH CLASS:
69, Leather Manufactures, subclass 30 for tumbling drums used in treating hides, skins, or leather.
217, Wooden Receptacles, and 220, Receptacles, appropriate subclasses for receptacle structure of general utility and for door constructions on washing machine casings and tumblers or the like.

140 Cage type tumbler supports, bearings or drive:
This subclass is indented under subclass 139. Supports, bearings or the drive mechanism for perforate tumblers of the type.

141 Wobbly cage:
This subclass is indented under subclass 139. Tumblers of the cage-type mounted so that one wall of the tumbler is inclined to the axis of rotation and is not at right angles thereto.

142 Cage construction:
This subclass is indented under subclass 139. The construction of the cage which adapts it to perform a textile treating operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:
157, for a cage constructed to prevent textile tumbling into the liquid from a height and having the textile secured thereto.

143 Compartmented:
This subclass is indented under subclass 142. Cages of the compartmented-type.

144 Imperforate receptacle type:
This subclass is indented under subclass 139. Tumblers which are imperforate.

145 Compartmented:
This subclass is indented under subclass 144. Imperforate compartmented tumblers.

146 Fixed inclined axis:
This subclass is indented under subclass 144. Imperforate tumblers which are mounted on an inclined axis.

147 Liquid flowing:
This subclass is indented under subclass 3. Textile treating machines wherein the treatment is effect solely by reason of relative movement between the textiles being treated and a liquid.

(1) Note. See definition of liquid flowing in the main class definition of this class.

(2) Note. The textile may be repeatedly dipped in a bath or passed therethrough in a continuous process of feeding the textile into a bath, treating it in the bath and removing the textile from the bath, or there may be a movement of the textile in a liquid bath, the movement being created by gaseous currents. There may be elements affixed to the interior of the textile-carrying receptacle to effect a scrubbing action on the textile material as it is sloshed about.

(3) Note. Patents wherein the treatment of textiles is effected by reason of the textiles falling from height and impacting against an abutment, as within a tumbler, are excluded from this subclass and the indented subclasses, and will be found for the most part in subclasses 139+, and in the combined operations subclasses.

148 Liquid displacement and movable cage or carrier:
This subclass is indented under subclass 147. Machines of the type wherein in addition to the movement of a perforate cage or a perforate carrier in or through a liquid, means are provided for effecting a movement of the body of liquid.

(1) Note. This subclass and the indented subclasses take patents in which the textiles are centrifuged to cause flow of liquids relative thereto.

149 Rotatable skein-supporting sticks:
This subclass is indented under subclass 148. Machines of the liquid flow-type in which a liquid is positively displaced by a pump or the like and there is a rotatable skein-supporting stick.

150 Wound package, central liquid flow:
This subclass is indented under subclass 147. Machines of the type wherein a cage or carrier is moved through a liquid and the textile is wound in package form about a longitudinal axis, the liquid being forced axially out of the wound packages.

SEE OR SEARCH THIS CLASS, SUBCLASS:
189, and 198, for other wound packages.

151 Vertically pivoted cage-pump or carrier-pump:
This subclass is indented under subclass 147. Machines of the type in which a cage or carrier is mounted on a vertical axis and a portion of the cage or carrier or a portion moving therewith serves as a pump to enforce circulation of liquid through the cage or carrier.

SEE OR SEARCH THIS CLASS, SUBCLASS:
139+, for tumblers with means on the periphery of the tumbler to pump liquid as it revolves.

152 Movable cage or perforate tray:
This subclass is indented under subclass 147. Machines of the type wherein the textiles are supported on a tray or placed in a cage which tray or cage is movable in the liquid.

(1) Note. The cage or tray may be supported by links or may be mounted to rotate on an axis or may rotate about a vertical axis and have other movement besides.

153 Oscillatable cage or tray:
This subclass is indented under subclass 147. Machines of the type wherein the textiles are supported on a tray or placed in a cage which tray or cage is oscillated through less than 360° on a horizontal axis.

SEE OR SEARCH THIS CLASS, SUBCLASS:
139+, for cages oscillating through 360° or more.

154 Vertical axis:
This subclass is indented under subclass 147. Machines of the type wherein the textiles are supported on a tray or placed in a cage which tray or cage is oscillatable on a vertical axis.

(1) Note. This subclass includes cages with vanes mounted on the inner walls of the cage.

155 Rectilinearly reciprocable cage or tray:
This subclass is indented under subclass 152. Machines of the liquid flow type wherein the textiles are supported on a tray or placed in a cage which tray or cage is rectilinearly reciprocated.

(1) Note. The tray or cage may have rubbing elements affixed thereto.

156 Vertically reciprocable:
This subclass is indented under subclass 155. Machines of the type wherein the cage or tray is reciprocated vertically.

157 Movable carrier in vat:
This subclass is indented under subclass 147. Machines wherein the treatment of textiles is effected solely by reason of the movement of a textile carrier through a liquid, the carrier not being in the form of a cage or tray, the textile being draped over, resting on or being secured to or within the carrier.

158 Continuous textile feed and discharge:
This subclass is indented under subclass 147. Machines of the character in which the textile material is fed into a bath, conveyed therethrough by a conveyor in the vat, and discharged from the bath, all in one continuous operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

210, for other feeding and delivery devices used in conjunction with fluid textile treating machines.

159 Skein carrying stick or frame in liquid receptacle:
This subclass is indented under subclass 157. Machines of the type wherein a skein stick or support for a skein or a frame for mounting several skeins is provided, the skein being supported for movement within a liquid.

SEE OR SEARCH CLASS:

226, Advancing Material of Indeterminate Length, subclasses 104+ for festooner, per se.

160 Rotatable skein stick:
This subclass is indented under subclass 159. Liquid flow machines wherein there is provided a rotatable skein stick which causes the skein to be linearly moved through a liquid.

161 With skein stretching means:
This subclass is indented under subclass 157. Liquid flow machines wherein there is provided a rotatable skein stick which causes the skein to be linearly moved through a liquid and wherein a skein stretching means is provided.

162 Rotatable carrier for sticks or frames:
This subclass is indented under subclass 157. Liquid flow machines wherein there is a rotatable carrier for skein sticks or for skein frames causing the skeins to travel through a liquid.

163 Rotatable skein stick:
This subclass is indented under subclass 162. Machines as wherein the skein stick rotates.

164 With skein stretching means:
This subclass is indented under subclass 162. Machines as wherein the skein stick rotates and skein stretching means are provided.

165 Reciprocable carrier for sticks or frames:
This subclass is indented under subclass 157. Liquid flow machines wherein there is a reciprocable carrier for skein sticks or for skein frames causing the skeins to travel through a liquid.

166 Rotatable skein stick:
This subclass is indented under subclass 165. Machines as wherein the skein stick rotates.

167 Traversing skein stick:
This subclass is indented under subclass 157. Liquid flow machines wherein there is a skein stick which traverses the liquid.

168 Endless belt stick carrier:
This subclass is indented under subclass 167. Machines as wherein the sticks are carried by an endless belt.

169 With skein stretching means:
This subclass is indented under subclass 168. Liquid flow machines wherein there is a stick mounted on an endless belt, which stick is adapted to carry a skein through a liquid, and in which means are provided for stretching the skein.

170 Vertically reciprocable carrier:
This subclass is indented under subclass 157. Machines of the type in which the carrier has essentially a vertical reciprocable movement.

171 Movable liquid receptacle:
This subclass is indented under subclass 147. Machines of the type wherein the receptacle is imperforate and is movable, the liquid flow being caused solely by the movement of the receptacle.

(1) Note. The patents in this subclass include receptacles which are reciprocable rectilinearly.

172 Rockable or oscillatable liquid receptacle:
This subclass is indented under subclass 147. Machines of the type wherein an imperforate receptacle is rocked or oscillated to effect sloshing about of textiles within the receptacle.

(1) Note. The receptacle may have rubbing elements or fins on its inner walls.

(2) Note. This subclass includes cradled receptacles.

173 Fixed axis:
This subclass is indented under subclass 147. Machines of the type wherein an imperforate receptacle is oscillatable on a fixed axis to effect sloshing about of textiles within the receptacle.

174 Vertical axis:
This subclass is indented under subclass 147. Machines of the type wherein an imperforate receptacle is oscillatable on a vertical axis.

175 Fixed liquid receptacle:
This subclass is indented under subclass 147. Machines in which there is a liquid containing receptacle, said receptacle being fixed and especially designed to effect the treatment of textiles by subjecting them to the liquid within the receptacle.

SEE OR SEARCH THIS CLASS, SUBCLASS:
5, for steam washboiler.

SEE OR SEARCH CLASS:
220, Receptacles, for metallic receptacles of general utility.

176 Helical textile course:
This subclass is indented under subclass 175. Machines as in which a textile in thread or rope form is helically passed about a pair of rollers or the like.

177 Web or rope pleating in receptacle:
This subclass is indented under subclass 175. Machines of the fixed liquid receptacle type provided with mechanism to cause a web in flat or rope form to be laid in pleats or the like within a receptacle.

178 Conditioning chutes:
This subclass is indented under subclass 177. Machines and in which the receptacle has a long neck portion forming a chute for the introduction of textile material into the receptacle and wherein means are provided for laying the textile material in pleats or folds as it is fed into the receptacle, the receptacle usually being of J-shape and the material being removed at the lower end ofthe J.

179 Conditioning chutes:
This subclass is indented under subclass 175. Machines of the fixed liquid receptacle-type in which the receptacle has a long neck portion forming a chute for the introduction of the textile-material into the receptacle, the textile usually being a web in either flat or rope form and the receptacle usually being of J-shape, the material being progressively fed into the receptacle through the chute and removed at the lower end of the J.

180 Jiggers:
This subclass is indented under subclass 175. Machines of the fixed liquid receptacle type wherein the textile material is wound back and forth from one of a pair of rollers to the other, the material intermediate the rolls passing through the liquid within the receptacle.

181 With liquid supply and efflux:
This subclass is indented under subclass 175. Machines of the type wherein there is a constant flow of liquid into the receptacle with a constant efflux of liquid therefrom.

(1) Note. Where the only liquid supply and efflux is due to a closed circulating system, it is not in this and the indented subclass, but in subclass 175 or other appropriate indented subclasses, particularly subclasses 184+ for pump circulating systems, subclass 190 for surgers, and subclasses 191 through 193 for systems where circulation is induced by heat.

182 Rotating stock strainer:
This subclass is indented under subclass 181. Machines of the liquid flow-type in which there is a constant flow of liquid into a vat, the liquid flowing through a revolving strainer and thence out of the vat, the textile in the vat thereby being treated with a constantly fresh supply of liquid.

SEE OR SEARCH CLASS:
210, Liquid Purification or Separation, appropriate subclasses, especially subclasses 348+ for filters for separating solids in general from liquids.

183 With gas supply to liquid:
This subclass is indented under subclass 175. Machines of the fixed receptacle liquid flow-type in which a gas is supplied to the liquid.

(1) Note. The gas is generally forced through the liquid in order to agitate the same. In some instances, the gas causes the liquid to surge back and forth.

SEE OR SEARCH THIS CLASS, SUBCLASS:
5, for gas applied directly to the textiles to oxidize a dye.
20, for gas forced through a textile in order to dry the same.
207, see this class, subclass.

SEE OR SEARCH CLASS:
34, Drying and Gas or Vapor Contact With Solids, where gas is forced through a textile in order to dry the same.

184 With liquid pump:
This subclass is indented under subclass 175. Machines of the liquid flow-type wherein the receptacle is fixed and the means for effecting a treatment of the textiles is a pumping of liquid.

(1) Note. The flow of liquid is usually a circulation induced by a mechanical pump either within the body of liquid but isolated from the textiles or in a conduit connected at both ends to the receptacle, the liquid but not the textiles passing through the conduit, or a pumping induced by application of heat to the liquid, or a pumping caused by intermittently applied air or steam pressure.

SEE OR SEARCH THIS CLASS, SUBCLASS:
18, for similar machines used with filters.
51, for combined liquid pumping and squeezing machines.
131+, for machines using agitators of the impulsing-type.
207, for machines for effecting a flow of liquid due to the injection into the tank of a vapor or liquid.

185 And interconnecting sampler:
This subclass is indented under subclass 184. Machines of the liquid flow- type wherein, in addition to the flow of liquid through a mass of textiles in a receptacle, the liquid flows through a sample batch of textiles.

(1) Note. The sample is usually in a liquid circuit parallel with the main liquid circuit but may be arranged in series with the main batch of textiles.

186 And textile holddown:
This subclass is indented under subclass 185. Machines of the type wherein there is provided a means to prevent looseness of the mass of textiles within the receptacle.

187 And textile holddown:
This subclass is indented under subclass 184. Machines of the type wherein there is provided a means to prevent undue looseness of the mass of textiles within the receptacles.

188 Skein supporting sticks:
This subclass is indented under subclass 184. Machines of the type wherein sticks are provided for supporting skeins.

189 Wound package, central liquid flow:
This subclass is indented under subclass 184. Machine of the type wherein the textile is wound into package form about a longitudinal axis and in which machines the liquid is pumped axially into or sucked axially out of the wound package.

SEE OR SEARCH THIS CLASS, SUBCLASS:
150, for wound packages of the type set forth in this subclass, which are displaceable. For wound package holders, see subclass 198.

190 Surgers:
This subclass is indented under subclass 184. Machines of the liquid flow-type wherein the liquid within a fixed receptacle has a periodic surging action (i.e., a periodic to and fro motion) automatically controlled.

(1) Note. The pumping action may be caused by intermittently applied air or steam pressure.

(2) Note. See subclass 184 or other appropriate indented subclass where the mechanism periodically delivers the liquid in pulses primarily in the same direction, the mechanism not functioning to deliver a corresponding pulse in the opposite direction, and also for machines with nonautomatic (e.g., manual) means for causing reverse liquid pulses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

51, for surgers combined with squeezers, and see the note to this subclass.

184, see note (2) 192, for thermal surgers.

191 Thermal flow:

This subclass is indented under subclass 184. Machines wherein the receptacle is fixed and the flow of liquid or pumping action is induced by heat adapted to be applied externally and directly to the receptacle or to a conduit leading at its ends to different levels in the receptacle.

(1) Note. This subclass includes cages which fit within the receptacle and between which cages and walls of the receptacle there is an upward flow of liquid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

15, for machines combined with heaters.

192 Surgers:

This subclass is indented under subclass 191. Machines of the type wherein the liquid moves alternately in opposite directions.

SEE OR SEARCH THIS CLASS, SUBCLASS:

190, for surgers where the operation is due to a pump, intermittent air pressure or intermittent steam pressure.

193 Tubular conductors:

This subclass is indented under subclass 191. Machines of the type wherein the liquid flows, at least in part of its path, through tubes.

SEE OR SEARCH THIS CLASS, SUBCLASS:

207, for machines with tubes to distribute the liquid within a receptacle where the flow is effected by the introduction of liquid or steam into a tube, as by an injector, to impart velocity to the liquid in the tube.

194 Textile holddowns:

This subclass is indented under subclass 175. Means within fixed receptacles of the type to prevent the textiles from rising above a given height.

195 False bottoms:

This subclass is indented under subclass 175. False bottoms for fixed receptacles of the type set forth in ... .

196 Covers:

This subclass is indented under subclass 175. Covers for fixed receptacles of the type, the covers being especially adapted to machines which treat textiles with liquid.

SEE OR SEARCH CLASS:

217, Wooden Receptacles, and 220, Receptacles, for receptacle covers in general.

197 Elevatable textile supports:

This subclass is indented under subclass 175. Machines of the liquid flow-type provided with an elevatable textile support to facilitate draining of the textiles prior to removal thereof from the machine or to facilitate removal of the textiles from the support.

SEE OR SEARCH THIS CLASS, SUBCLASS:

210, for machines in which the textiles may be unloaded.

SEE OR SEARCH CLASS:

217, Wooden Receptacles, subclass 64.for wooden receptacles with followers.

198 Hollow wound package holders:

This subclass is indented under subclass 175. Holders for wound packages, the holder being so constructed that liquid can flow readily axially along the holder.

SEE OR SEARCH THIS CLASS, SUBCLASS:
189, for other wound packages.

SEE OR SEARCH CLASS:
242, Winding, Tensioning, or Guiding, subclass 536 for convolute winding of separated layers, subclasses 602+ for a spool for storing elongated material with spaced apart coils or layers.

199 Carriers:
This subclass is indented under subclass 175. Carriers to hold textiles in such condition as to facilitate the liquid flow through the textiles.

200 Liquid applying:
This subclass is indented under subclass 3. Machines wherein the textile is not immersed in a liquid but is otherwise subjected to a liquid.

(1) Note. See definition of liquid applying in main class definition of this class.

SEE OR SEARCH THIS CLASS, SUBCLASS:
148+, for centrifuges to cause flow of liquid relative to the textiles even though the liquid is supplied other than by immersion.

SEE OR SEARCH CLASS:
101, Printing, subclass 172 for multicolor printing of yarn strands.

201 Needle injectors:
This subclass is indented under subclass 200. Machines with means for injecting a liquid into a textile by means of a needle.

202 Roller:
This subclass is indented under subclass 200. Machines wherein liquid is applied to a textile by means of a roller having a metallic or fabric surface which has been wetted.

203 Intermittent liquid applicator:
This subclass is indented under subclass 202. Machines as in which means are provided for effecting an intermittent application of liquid to the textiles.

204 Endless belts:
This subclass is indented under subclass 200. Machines wherein liquid is applied to a textile by means of a wetted endless belt or cord contacting the textile.

SEE OR SEARCH THIS CLASS, SUBCLASS:
5, for a textile moistened by means of vapor from a wetted belt.

205 Tricklers and sprinklers:
This subclass is indented under subclass 200. Machines for applying liquid to a textile by means of a pipe conducting a trickle or sprinkle of liquid thereto at a point where the textile is not immersed in a liquid.

206 With skein supporting sticks:
This subclass is indented under subclass 205. Machines of the type in which a stick is provided for supporting a skein.

207 Liquid supply or vapor supply to liquid:
This subclass is indented under subclass 3. Textile treating machines with means to supply liquid or vapor directly to the liquid within the machine.

SEE OR SEARCH THIS CLASS, SUBCLASS:
5+, for vapor supplied to a chamber to vapor treat a textile.
200+, for liquid supplied to textiles directly.
181, for an efflux of liquid during textile treatment as well as an influx.
183, see this class, subclass.

SEE OR SEARCH CLASS:
137, Fluid Handling, where the liquid supply means are merely valved pipes, and 236, Automatic Temperature and Humidity Regulation, subclasses 12.1+.

208 Drains and overflows:
This subclass is indented under subclass 3. Drains, drip catchers, sediment chambers and overflows especially adapted for use with textile treating machines.

SEE OR SEARCH THIS CLASS, SUBCLASS:

181, for overflows in combination with means to constantly supply liquid in a textile treating machine.

SEE OR SEARCH CLASS:

137, Fluid Handling, appropriate subclass, particularly subclasses 59+, 107, 302+, 312+, 427, 562, 565.36, 577+, and 596 for overflows and drains of general utility.

210, Liquid Purification or Separation, subclasses 532.1+ for heavier constituent chambers in gravitational separators.

209 Fire or explosion preventers or fume removers:

This subclass is indented under subclass 3. Textile treating machines modified so as to prevent an explosion of fire occurring and also machines with means to remove fumes therefrom.

SEE OR SEARCH THIS CLASS, SUBCLASS:

208, for venting devices which merely carry off an excess of liquid.

SEE OR SEARCH CLASS:

220, Receptacles, subclasses 88.1 through 89.4 for metallic receptacles with explosion preventing doors.

454, Ventilation, subclasses 49+ for fume removers in the form of a hood above a machine.

210 Loaders, unloaders, or dumpers:

This subclass is indented under subclass 3. Textile treating machines modified to facilitate loading of textiles in a vat or cage, unloading the textiles or dumping the same.

SEE OR SEARCH CLASS:

158, for feeding and delivery devices used in conjunction with means to convey a textile through a bath.

177, and 178 for web or rope pleating in a tank or chute.

197, or a tray or the like in liquid flow machines elevatable from the receptacle to drain textiles or to facilitate their removal from the tray.

211 Limited area clamps:

This subclass is indented under subclass 3. Clamping means especially adapted to enable the application of fluid to restricted areas on a textile.

212 Elements:

This subclass is indented under subclass 3. Elements of a textile fluid-treating machine not otherwise provided for in previous subclasses.

213 IMPLEMENTS:

This subclass is indented under the class definition. Implements not otherwise classifiable for treating textiles with fluids or while subjected to fluids.

SEE OR SEARCH CLASS:

118, Coating Apparatus, appropriate subclasses for coating devices for coating a base with fluid materials.

239, Fluid Sprinkling, Spraying, and Diffusing, appropriate subclasses, for distributing or discharging devices for dampening fabrics, especially subclass 374 for the shaker-type and subclasses 376+ for the upending or tilting discharge-type.

401, Coating Implements With Material Supply, appropriate subclasses for a coating implement used in a cleaning operation.

214 Combined:

This subclass is indented under subclass 213. Implements as for performing one function combined with another implement for performing another function.

215 Pounders:

This subclass is indented under subclass 213. Implements as for squeezing textile fabrics.

(1) Note. Usually the fabrics are placed within a tub filled with liquid and the implement is given an up-and-down motion to alternately squeeze the fabrics and release them from pressure, although a cradling motion may be given to the squeezer.

216 With plunger:
This subclass is indented under subclass 215. Squeezing implements in which there is an element slidable within the squeezer operable either to cause water surges or to give a squeezing action on the fabrics independently of the outer squeezer.

217 And valve:
This subclass is indented under subclass 216. Implements as in which there is a valve element cooperating with the plunger to effect circulation of fluid in one direction through the squeezer and through the fabrics in the tub.

218 Valved:
This subclass is indented under subclass 215. Squeezing implements which are provided with valves to effect a circulation of fluid through the squeezing implement and through the fabrics.

219 With material receptacle:
This subclass is indented under subclass 215. Squeezing implements with receptacles therein to store materials to gradually go into solution in the body of liquid which the implement operates.

220 Scrubbers:
This subclass is indented under subclass 213. Implements as provided with scrub surfaces.

(1) Note. These implements may be used in conjunction with a washboard or other corrugated surfaces.

SEE OR SEARCH CLASS:
2, Apparel, subclasses 16+ for a guard or protector for the hand and subclasses 158 and 159+ for a hand covering in general.
15, Brushing, Scrubbing, and General Cleaning, for cleaning implements of general application.
128, Surgery, for massaging implements with corrugated surfaces.

222 Steamers:
This subclass is indented under subclass 213. Implements for applying steam to a textile.

SEE OR SEARCH CLASS:
122, Liquid Heaters and Vaporizers, for a closed or pressurized liquid heater or vaporizer having other than significant structure for fluid treatment of a textile.
126, Stoves and Furnaces, for a water heater or steam generator of an open or unpressurized type, or may be a closed or pressurized type if it is part of the stove or furnace structure having other than significant structure for fluid treatment of a textile and subclass 348 for a liquid heating-type steam generating and cooking kettle furnace.

223 Washboards:
This subclass is indented under subclass 213. Washboards not otherwise classifiable.

SEE OR SEARCH CLASS:
81, Tools, for clamps for washboards.
248, Supports, subclass 27.5 for supports, for washboards.

224 Brandboards, soap holders, and soap supply:
This subclass is indented under subclass 223. Washboards with special brandboard structure or washboards with means to support soap or supply soap to the scrubbing surface.

(1) Note. A brandboard is that board at the top of a washboard which bears the manufacture's trademark or which serves the purpose of supporting a soap cake.

225 Splash guards and breast boards:
This subclass is indented under subclass 223. Means permanently secured to a washboard to prevent splashing or to support part of the weight of the body of the user.

SEE OR SEARCH THIS CLASS, SUBCLASS:
237, for attachments to wash tubs or wash boilers to serve the same purposes.

226 Rubbing surfaces:
This subclass is indented under subclass 223. Washboards with special scrubbing surfaces.

227 Brush type:
This subclass is indented under subclass 226. Washboards wherein the scrubbing surface includes a brush.

228 Sheet or slab:
This subclass is indented under subclass 226. Washboards wherein the scrubbing surface is of a single sheet or slab of material.

229 Surface design or elevation:
This subclass is indented under subclass 228. Washboards as wherein the sheet or slab has a special surface design or elevation.

230 Of slats, bars, or tubes:
This subclass is indented under subclass 226. Washboards wherein the scrubbing surface is made up of a series of bars, slats or tubes.

231 Of rollers:
This subclass is indented under subclass 226. Washboards wherein the scrubbing surface is made up of a series of rollers.

232 Tubs:
This subclass is indented under subclass 213. Tubs especially designed to enable the fluid treatment of textiles therein.

SEE OR SEARCH CLASS:
52, Static Structures (e.g., Buildings), for an in situ erected type structure forming an enclosure, particularly subclasses 192+ for such structure acting as a container with a material port, e.g., a grain bin, subclasses 245+ for an enclosure having a curvilinear wall, subclasses 262+ for an enclosure supported by vertical structures, and subclasses 264+ for an enclosure resting on a floor.
217, Wooden Receptacles, for wooden receptacles.
220, Receptacles, for metallic receptacles.

233 With scrub surfaces:
This subclass is indented under subclass 232. Washtubs with scrubbing surfaces therein.

235 ACCESSORIES:
This subclass is indented under the class definition. Devices which in themselves perform no textile treating operation but which are used in conjunction with textile treating machines or implements to facilitate their use.

(1) Note. For similar devices which form a combination with a textile treating machine, see the appropriate machine subclasses of this class.

236 Combined wash bench and wringer support:
This subclass is indented under subclass 235. Devices as which function to support both a tub and wringer.

SEE OR SEARCH CLASS:
248, Supports, subclasses 146+ for stands, in general, for receptacles.

237 Washtub or wash boiler attachments:
This subclass is indented under subclass 235. Attachments for washtubs or washboilers.

238 Wringer supports:
This subclass is indented under subclass 237. Attachments for washtubs or washboilers especially adapted to support a wringer.

239 Wringer supports:
This subclass is indented under subclass 235. Devices especially adapted to support a wringer and which are not supported on a washtub or washboiler.

240 Clothes supporting or spotting boards:
This subclass is indented under subclass 235. Boards on which a selected portion of a fabric may be treated to remove stains or the like, in spots.

241 Wringers:
This subclass is indented under the class definition. Devices, commonly called wringers, comprising mechanical means for pressing or otherwise removing liquid from treated material, especially as an adjunct to apparatus of this class.

(1) Note. This subclass is the generic place for stripping liquid from a strand by drawing it past a corner or edge.

SEE OR SEARCH CLASS:

15, Brushing, Scrubbing, and General Cleaning, subclass 102 for wiping machines for nontextile sheets, bars and plates; subclasses 236.01+ for miscellaneous hand scrapers; subclass 256.6 for scraper, wiper or brush attachments for cleaning a moving strand, the device being attached to a structure of which the moving strand is a part; and subclasses 260+ for wringer devices adapted to be attached to a pail to wring out mops.

34, Drying and Gas or Vapor Contact With Solids, for drying by heat and/or gas or vapor contact, and especially subclasses 397+ for processes for removal of liquids from solids mechanically; subclasses 69+ for apparatus for drying having diverse types of drying means, including one mechanical means, especially subclass 70 for devices in which the mechanical means is a wringer; and subclasses 618+ for drying mechanism for flexible strands.

100, Presses, appropriate subclasses for presses not elsewhere provided for, particularly subclasses 73+ for presses having means to add liquid or steam to the material, subclasses 104+ for presses equipped with drain means for expressed liquid, and subclass 153 for presses in which an endless conveyor coacts with a roll element, and subclasses 155+ for roller type concurrent conveying compressors.

118, Coating Apparatus, subclasses 100+ for apparatus having solid members acting on the coated work, and especially subclasses 114+ where the solid members are opposed rollers.

242, Winding, Tensioning, or Guiding, subclasses 548+, 566+, 615+, and 157+ for a guide associated with winding, unwinding or in general use for an elongated, running material.

242 Flexible diaphragm squeezers:

This subclass is indented under subclass 241. Wringers which effect removal of liquid from textiles by pressure applied to a diaphragm which presses against the textiles.

SEE OR SEARCH CLASS:

100, Presses, subclass 211 for presses not elsewhere classified, having a flexible or deformable pressure surface.

243 Twisters:

This subclass is indented under subclass 241. Wringers which effect removal of liquid from textiles by imparting a twist to the fabrics.

SEE OR SEARCH CLASS:

15, Brushing, Scrubbing, and General Cleaning, subclass 263 for mop wringers of the twister type.

244 Roller type:

This subclass is indented under subclass 241. Wringers of the roller type not otherwise classifiable.

SEE OR SEARCH CLASS:

15, Brushing, Scrubbing, and General Cleaning, subclass 262 for mop wringers of the roll type.

34, Drying and Gas or Vapor Contact With Solids, subclass 70.

100, Presses, appropriate subclasses for compressing and expressing rolls.

226, Advancing Material of Indeterminate Length, appropriate subclasses for methods of, and apparatus for, feeding material without utilizing the leading or trailing ends to effect movement of the material.

492, Roll or Roller, for a wringing or squeezing roll, per se, not elsewhere provided for, and see the notes thereunder.

245 Combined:

This subclass is indented under subclass 244. Wringers of the roller type combined with other instrumentalities.

(1) Note. Wringers combined with textiles treating machines will be found in this class, subclass 22.

247 Enclosable:
This subclass is indented under subclass 244. Wringers of the roller type with means to enable enclosing of the wringer, as by placing covers about the wringer or shifting the wringer into a cabinet.

248 Rolls in horizontal plane:
This subclass is indented under subclass 244. Wringers of the roller type wherein the rolls are arranged in a horizontal plane.

249 Interconnected functional units:
This subclass is indented under subclass 244. Wringers in which one functional unit, as a roll pressure applying or releasing mechanism, a shiftable drainboard, a roll driving mechanism, a feedboard, a wringer clamping device, a material guideboard or the like, is interconnected with another or others of the functional units to effect a simultaneous adjustment in the units as one unit is adjusted.

250 Guide, roll pressure, and clamp:
This subclass is indented under subclass 249. Wringers of the type in which the functional units involved are a guide, the roll pressure applying or releasing mechanism, and the means for clamping a wringer to a support.

251 Roll pressure and clamp:
This subclass is indented under subclass 249. Wringers of the type in which the functional units involved are the roll pressure applying or release mechanism and the means for clamping a wringer to a support.

252 Guide and clamp:
This subclass is indented under subclass 249. Wringers of the type in which the functional units involved are the means for guiding a fabric toward or from the bite of the rolls and the means for clamping the wringer to a support.

253 Roll pressure and drive:
This subclass is indented under subclass 249. Wringers of the type in which the functional units involved are the roll pressure applying or release mechanism and the means for driving the rolls.

(1) Note. This subclass also includes patents wherein roll separation effects a change in the drive mechanism.

SEE OR SEARCH CLASS:
100, Presses, subclass 47 for roll type presses having automatic or material triggered control of roll separation or speed and not elsewhere provided for.

254 Drive and drain:
This subclass is indented under subclass 249. Wringers of the type in which the interconnected functional units are the roll driving means and the means for draining off the liquid from the wringer.

255 Drive and wringer rotation lock:
This subclass is indented under subclass 249. Wringers of the type in which the interconnected functional units are the roll driving means and the means for controlling rotation of the wringer around its supported standard.

(1) Note. The wringer frame or its parts need not be claimed.

256 Pressure applying or release mechanisms:
This subclass is indented under subclass 244. Means to apply or release pressure between the wringer rolls and not otherwise provided for in the indented subclasses.

SEE OR SEARCH CLASS:
100, Presses, subclass 168 for roll type presses not elsewhere classified, having means to adjust the spacing between rolls.
292, Closure Fasteners, subclasses 92+for emergency operated means to release closure fasteners.

257 Roll separation against spring pressure:
This subclass is indented under subclass 256. Means to release the pressure of one roll on another by bodily shifting one roll away from the other against the action of means constantly tending to press the rolls together.

SEE OR SEARCH CLASS:
100, Presses, subclasses 169+ for concurrent conveying and pressing presses

of the roller type, not elsewhere provided for, and having yieldable rolls.

258 Power mechanisms:
This subclass is indented under subclass 256. Means to apply or release pressure between the rolls wherein power means is employed to effect the result.

259 Release through abnormal roll separation:
This subclass is indented under subclass 256. Means to release the pressure between the rolls effected through abnormal separation of the rolls.

260 Plural manipulative pressure adjustors:
This subclass is indented under subclass 256. Wringers provided with a plurality of pedals, handles, knobs, knurled nuts or like means, wherein pressure between the rolls may be applied or released, at will, by manual operation and without the use of any tools.

261 And auxiliary release:
This subclass is indented under subclass 260. Wringers of the type and in which additional means are provided to effect a release of pressure between the rolls.

(1) Note. The additional means may be capable of resetting the pressure on the rolls without manipulation of the pedals, handles, knobs, knurled nuts, or the like, otherwise usable to apply or release the pressure on the rolls.

262 Single manipulative pressure adjustor:
This subclass is indented under subclass 256. Wringers provided with single frame, pedal, handle, knob, knurled nut or like means, wherein pressure between the rolls at both ends thereof may be applied or released, at will, by hand or foot operation of the single means and without the use of any tools.

263 And auxiliary release:
This subclass is indented under subclass 262. Wringers of the type and in which additional means are provided to effect a release of pressure between the rolls.

(1) Note. The additional means may be capable of resetting the pressure without manipulation of the frame, pedal, handle, etc., otherwise usable to apply or release the roll pressure.

264 Guards, guides and feeds:
This subclass is indented under subclass 244. Wringers provided with guard means between a roller and bearing, or with guard means either in advance of the roll bite or about the rolls to hinder access of the hands of an operator to the bite of the rolls, or wringers provided with means to direct or carry fabrics to or from the bite of the rolls.

SEE OR SEARCH CLASS:
100, Presses, subclasses 173+ for roll type concurrent pressing and conveying presses not elsewhere provided for, and having material handling or guiding means.

265 Movable guide or feed:
This subclass is indented under subclass 264. Wringers provided with a movable means to direct or carry textiles to or from the rolls.

266 Feed or idler roll:
This subclass is indented under subclass 265. Wringers as in which the movable means is either an idler or a live roll.

267 Apron between rolls:
This subclass is indented under subclass 265. Wringers of the type in which textile is carried through the wringer by means of an apron or belt passing through the bite of the rolls.

SEE OR SEARCH CLASS:
69, Leather Manufactures, subclass 41 for similar structure for use in treating hides, skins, or leather.
100, Presses, subclass 153 for concurrent pressing and conveying presses of the endless conveyor type in which a roll acts with a conveyor, and not elsewhere provided for.

268 Apron to or from rolls:
This subclass is indented under subclass 265. Wringers as in which an apron moves the textile up to the rolls or carries the textiles from the rolls, but itself does not pass between the rolls.

269 Gearing and bearings:
This subclass is indented under subclass 244. Wringers with special gearing to drive the same or wringers with special bearing structure.

SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, subclass 387 for pivotally supported bevel gearing especially adaptable to wringer drive mechanism.
100, Presses, subclass 172 for roll drives for presses of the roll type not elsewhere provided for.

270 Strippers:
This subclass is indented under subclass 244. Devices for stripping textiles from wringer rolls to prevent their winding about the rolls.

SEE OR SEARCH CLASS:
100, Presses, subclass 174 for roll strippers for roll type concurrent pressing and conveying presses not elsewhere provided for.

271 Drains:
This subclass is indented under subclass 244. The structure of the means to conduct the water from beneath the wringer to a place of disposal.

272 Mountings:
This subclass is indented under subclass 244. The means for mounting a wringer when forming part of the wringer structure.

SEE OR SEARCH THIS CLASS, SUBCLASS:
238, and 239 for wringer supports, per se.

273 On horizontal axis:
This subclass is indented under subclass 272. Wringers which are mounted to swing on a horizontal axis.

274 On vertical axis:
This subclass is indented under subclass 272. Wringers which are mounted to move about a vertical axis.

275 On horizontal track:
This subclass is indented under subclass 272. Wringers which are displaceable along a track lying in a horizontal plane.

276 Clamps:
This subclass is indented under subclass 241. Wringers with clamps thereon to enable the securing of the wringer to a support.

SEE OR SEARCH CLASS:
269, Work Holders, subclasses 95+ for patents to a work holder with means to fasten to a support.

CROSS-REFERENCE ART COLLECTIONS

This following subclasses are a collection of cross-references of published disclosures pertaining to various specified aspects of fluid treating apparatus for textiles which aspects do not necessarily form appropriate bases for subclasses in the foregoing classification (i.e., subclasses superior hereto in the schedule). These subclasses may be of further assistance to the searcher as a starting point in further related fields of search either inside or outside the class. Thus, there is here provided a second access for retrieval of a limited number of types of disclosures.

(1) Note. Disclosures are placed in these subclasses for their values as references and as leads to appropriate main or appropriate secondary fields or search without regard to their original classification.

(2) Note. The disclosures cross-referenced into the following subclasses are examples only of the indicated subject matter and in no instance do they represent the entire extent of the prior art.

900 FOAM TREATMENT:
This subclass is indented under the class definition. Apparatus including means to treat the material with foam.

901 HIGH FREQUENCY TREATMENT:
This subclass is indented under the class definition. Apparatus including means to treat the material with high frequency vibrations and radiation.

902 DEVICES FOR STORAGE AND REUSE OF SOAP SUDS:

This subclass is indented under the class definition. Apparatus wherein means is provided to store used soap suds and to return the soap suds to a washing machine for reuse therein.

903 PERFORATED DRUM AND CONTINUOUS TEXTILE FEED AND DISCHARGE:

This subclass is indented under the class definition. Apparatus having a perforated drum subjected to either suction or pressure over which the textile material is continuously passed.

END