

CLASS 69, LEATHER MANUFACTURES**SECTION I - CLASS DEFINITION**

This class includes: (1) leather working apparatus and processes, (2) apparatus and processes for production of leather from hides, skins, etc., (3) apparatus and processes for treating fur.

The class does not include boots, shoes, gloves, trunks, baggage, pocket-books, or other leather receptacles or their manufacture, except such apparatus as is clearly general in its capability of operation.

It does not include leather cutting (except skiving or splitting), punching, or sewing. The apparatus for the manufacture of harness is here included; but the articles of harness are elsewhere classified.

SECTION II - REFERENCES TO OTHER CLASSES**SEE OR SEARCH CLASS:**

- 8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 94.1+ for methods of treating hides and skins with fluids including tanning processes, and subclass 112 for carroting of fur.
- 19, Textiles: Fiber Preparation, subclass 2 for mechanical processes of removing the hair or fur from hides and skins for the purpose of recovering the fibers for subsequent use in a textile process.
- 26, Textiles: Cloth Finishing, subclasses 15+ for the finishing of fur by shearing.
- 38, Textiles: Ironing or Smoothing, for apparatus for smoothing and ironing textiles.
- 162, Paper Making and Fiber Liberation, appropriate subclasses, for apparatus for making paper of leather fibers and see especially subclasses 2, 144 and 151 for processes for producing paper from leather and the products produced thereby.
- 241, Solid Material Comminution or Disintegration, for processes and apparatus for comminuting leather. See section 12 of the class definition of that class (241) for the line.
- 451, Abrading, for abrading of a hide, skin, or leather, generally.

SUBCLASSES**1 MACHINES:**

This subclass is indented under the class definition. Miscellaneous leather-working machines.

SEE OR SEARCH CLASS:

100, Presses, appropriate subclasses for presses not elsewhere provided for.

1.5 Belt-stretching:

This subclass is indented under subclass 1. Various machines for putting leather, canvas, or other belting under tension to take out the initial stretch or to bring the belting to uniform shape.

SEE OR SEARCH THIS CLASS, SUBCLASS:

19.1+, for a skin or hide stretcher.

2 Cutting and/or impressing:

This subclass is indented under subclass 1. Machines for cutting or trimming leather and at the same time creasing or otherwise impressing it for ornamental purposes or which simply crease or impress without cutting.

SEE OR SEARCH CLASS:

100, Presses, subclasses 94+ for presses which additionally treat the material by cutting, breaking, piercing or comminuting, not elsewhere provided for.

3 Horse collar shaping:

This subclass is indented under subclass 1. Apparatus upon which horse-collars are shaped or given proper contour.

SEE OR SEARCH THIS CLASS, SUBCLASS:

8, for apparatus for molding leather articles.

4 Horse collar stuffing:

This subclass is indented under subclass 1. Apparatus for stuffing the padding material into horse-collars.

6 Rounding:

This subclass is indented under subclass 1. Machines which by drawing or passing a string or strip therethrough will cut or roll the same to

circular or semicircular shape, usually for harness-reins, fillings, or whip-lashes.

6.5 **Roughing:**

This subclass is indented under subclass 1. Machines for treating leather or leather articles by cutting or rasping to produce an uneven surface for cementing.

SEE OR SEARCH CLASS:

- 29, Metal Working, subclasses 76.1+ for filing devices generally.
- 157, Wheelwright Machines, subclass 13 for apparatus and processes for treating the outer periphery of a rubber tire casing by a slitting or machine operation which art (in the absence of this subclass) would ordinarily be classified in accord with the particular operation. (The treating of a rubber casing by abrading is classified in Class 451, Abrading).
- 451, Abrading, for roughening leather with natural abrasive material (e.g., sandpaper, emery cloth, etc.).

7 **Seam-pressing:**

This subclass is indented under subclass 1. Machines for pressing, rubbing, or rolling down leather seams.

SEE OR SEARCH CLASS:

- 12, Boot and Shoe Making, subclass 57.1 for combined upper turning and seam pressing.
- 38, Textiles: Ironing or Smoothing, for ironing and smoothing fabrics in general.
- 100, Presses, appropriate subclasses for presses not elsewhere provided for.

7.3 **Pounding:**

This subclass is indented under subclass 1. Machines for treating leather or leather articles to compress them by a hammering action.

7.5 **Searing:**

This subclass is indented under subclass 1. Machines for searing leather.

- (1) Note. This subclass includes machines which sear leather for the purpose of causing the edge of the leather to shrink and curl to produce a finished edge.

SEE OR SEARCH CLASS:

- 219, Electric Heating, for electric heaters.
- 263, Heating, for miscellaneous heating apparatus and methods in general.

7.7 **Edge-finishing:**

This subclass is indented under subclass 1. Machines for working upon the perimeter of leather stock or articles by burnishing, molding, etc.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 17, for belt finishing machines.

8 **Forming and pressing:**

This subclass is indented under subclass 1. Machines for forming and shaping leather articles by molding, clamping and/or compressing.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 3, for horse collar shaping machines.

SEE OR SEARCH CLASS:

- 100, Presses, appropriate subclasses for presses not elsewhere provided for.

9 **Skiving or splitting:**

This subclass is indented under subclass 1. Machines for beveling leather or leather articles, or cutting them parallel to their upper and lower edges.

SEE OR SEARCH CLASS:

- 12, Boot and Shoe Making, subclass 16.5 for devices for splitting a flap portion of nonuniform thickness from a shoe sole to form a breast flap covering, 31.5, for devices for forming the heel seat portion of a sole by a splitting or skiving operation, 46, for devices for forming a seat portion on a heel, 46.5, for devices for cutting a sloping surface on the front edge of a spring heel, 58, for devices for skiving the edges of uppers, and 62, for devices for skiving or beveling the edges of toe or heel stiffener blanks.
- 30, Cutlery, appropriate subclasses for hand cutting tools adapted for use in leather manufacture but of more general application.

9.1 Evening and grading:

This subclass is indented under subclass 9. Machines provided with means to determine the smallest thickness of the leather being treated and then shaving the leather to this thickness.

9.3 Combined or plural diverse:

This subclass is indented under subclass 9. Machines for (1) a skiving and/or splitting together with another operation, or (2) a plurality of different skiving and/or splitting operations on the leather part being treated.

9.5 Rotary tubular knife:

This subclass is indented under subclass 9. Machines which are provided with a revolving pipe-like cutter.

SEE OR SEARCH CLASS:

79, Button Making, subclass 16.
83, Cutting, subclasses 861+ for edge trimming, skiving, or scoring devices generally subclasses 425+ for a cutting device including means to move the work against a fixedly located tool, and subclasses 663+ for a rotatable type of cutting tool.

10 Belt knife:

This subclass is indented under subclass 9. Machines which are provided with a traveling band cutter.

SEE OR SEARCH CLASS:

83, Cutting, subclass 201 for cutting devices having endless flexible band knives, and subclass 661 for band knives, per se.

11 Fixed knife:

This subclass is indented under subclass 9. Machines which are provided with a stationary cutter against which the work is drawn or fed.

SEE OR SEARCH CLASS:

83, Cutting, subclasses 425+ for cutting devices wherein work is moved against a fixed tool.

12 Reciprocating feed:

This subclass is indented under subclass 11. Machines which are provided with means which engage the work to move it against the fixed knife and then return to a normal work feeding position.

SEE OR SEARCH CLASS:

83, Cutting, subclasses 259+, 276+, 294, 319, 352, and 401+ for cutting machines with reciprocating or oscillating work pushers or grippers.
144, Woodworking, subclass 175.

13 Roller feed:

This subclass is indented under subclass 11. Machines which are provided with positively driven rollers which engage and move the work to the fixed knife.

SEE OR SEARCH CLASS:

83, Cutting, subclasses 861+ for edge trimming, skiving, grooving or scoring devices generally, and subclasses 401+, particularly subclasses 425+ for cutting devices wherein work is advanced against a tool.
144, Woodworking, subclass 175.

15 Reciprocating knife:

This subclass is indented under subclass 9. Machines in which the knife is translated back and forth.

(1) Note. The work may either be stationary or movable.

16 Rotary disk knife:

This subclass is indented under subclass 9. Machines in which the knife is in the form of generally flat planar member of circular configuration which is sharpened upon its periphery and which rotates about the axis perpendicular to the plane.

17 Strap-finishing:

This subclass is indented under subclass 1. Machines for rubbing, blacking, polishing, creasing, burnishing, and otherwise finishing leather straps.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

7.7, for other machines for working the edges of leather pieces.

19 WORK STRETCHER OR HOLDER:

This subclass is indented under the class definition. Apparatus for (1) applying tension to hide, skin or leather or (2) holding or supporting such work during the treatment or manufacture of the same or (3) maintaining such work taut during relaxation or drying of the same.

(1) Note. In this and indented subclasses are placed, e.g., a "setting out" board for supporting leather while it dries a leather or skin stretching device and a "stitching horse" for saddlers or harness makers.

(2) Note. Work supports which are parts of a leather working machine are classified with the complete machines of which they are parts.

SEE OR SEARCH CLASS:

269, Work Holders, appropriate subclasses. Class 269 is the residual locus for patents to a device for clamping, supporting and/or holding an article (or articles) in position to be operated on or treated. See notes thereunder for other related loci.

19.1 Stretcher:

This subclass is indented under subclass 19. Device including means for applying or maintaining tension in one or more directions to or within the hide, skin or leather.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

1.5, for a belt stretching machine.
33, for treating a hide, skin or leather by folding, flexing, crumpling, suppling or similar action for stretching, softening and rendering the same more flexible.
46, for a machine which stretches leather by rubbing action of a member over the surface thereof.

SEE OR SEARCH CLASS:

16, Miscellaneous Hardware (e.g., Bushing, Carpet Fastener, Caster, Door Closer, Panel Hanger, Attachable or Adjunct Handle, Hinge, Window Sash Balance, etc.), subclass 5 for a combined carpet fastener and stretcher.
26, Textiles: Cloth Finishing, subclasses 51+ for a cloth stretching apparatus involving a cloth finishing operation; and subclasses 71+ for the apparatus, per se, for expanding (e.g., stretching, spreading) a running length cloth web.
28, Textiles: Manufacturing, subclasses 149+ for a frame upon which threads are to be stretched and held while being fabricated into a structure by some textile operation.
29, Metal Working, subclass 91.5 for an upholstery making apparatus for drawing or pressing an outer fabric layer into or about a stuffed or padded furniture component.
38, Textiles: Ironing or Smoothing, subclasses 102.1+ for a cloth stretcher frame (e.g., curtain stretcher frame).
52, Static Structures (e.g., Buildings), subclass 222 for a building panel having a tensioned or flexed sheet facing.
160, Flexible or Portable Closure, Partition, or Panel, subclasses 371+ for a fabric filled or covered frame or a frame for such use; especially subclasses 372+ for a device wherein the fabric may be stretched by adjusting the frame size and subclass 378 for a frame type device including means for applying tension to the fabric therein.
223, Apparel Apparatus, subclasses 61+ for a device for stretching apparel on forms.
254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 200+ for a tensioner for use in forcing a carpet or like covering into place in laying it, when including means for affording mechanical advantage.
294, Handling: Hand and Hoist-Line Implements, subclass 8.6 for a stretcher for use in forcing a carpet or like covering into place in laying it,

when not including means for affording mechanical advantage.

19.2 Cased hide or skin type:

This subclass is indented under subclass 19.1. Device for stretching hides or skins that are taken whole from an animal in the form of a sleeve, said device being of such geometry and/or structure as to be fitted into such sleeve.

SEE OR SEARCH CLASS:

- 12, Boot and Shoe Making, subclasses 114+ for a device for interiorly stretching assembled shoes.
- 223, Apparel Apparatus, subclass 63 for a frame or the like to be placed inside the sleeve or leg of an item of wearing apparel and expanded to stretch and/or crease the same, and subclass 65 for a similar device for stretching a tie.

19.3 With adjustable tensioning means:

This subclass is indented under subclass 19.1. Device including means to selectively vary the tension applied to the hide, skin or leather.

20 TOOLS:

This subclass is indented under the class definition. Devices comprising hand manipulable devices for use by leather workers in the working or manufacturing of leather or leather articles.

SEE OR SEARCH CLASS:

- 15, Brushing, Scrubbing, and General Cleaning, subclasses 236.01+ for scrapers of general cleaning utility, and see the Notes thereto for miscellaneous scrapers of more specialized application.
- 30, Cutlery, appropriate subclasses, for hand awls.
- 83, Cutting, appropriate subclasses for cutting, scoring, punching or pricking devices in general.

21 PROCESSES:

This subclass is indented under the class definition. Processes of treating hides, skins or leather not otherwise provided for, and combinations of such processes with the fluid treatment of hides, skins, or leather.

(1) Note. Products of leather or fur will be found in appropriate subclasses in Class 112, Sewing, if sewn only, and in appropriate subclasses in Class 428, Stock Material or Miscellaneous Articles, if not provided for elsewhere.

(2) Note. This subclass includes processes involving laminating leather where the process also includes steps not ancillary to the laminating process. For processes of laminating leather including steps ancillary to the laminating process, see Class 156, Adhesive Bonding and Miscellaneous Chemical Manufacture, appropriate subclasses.

SEE OR SEARCH CLASS:

- 8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 94.1+ and the notes thereto, for a process of treating a hide, skin or leather with chemicals and fluids, particularly see subclasses 94.16+ for a method of removing hair from a hide by the use of a chemical.
- 29, Metal Working, subclasses 90.01+ for processes for condensing, compacting, smoothing or polishing the surface of metallic or nonmetallic articles.
- 100, Presses, subclasses 35+ for methods of pressing not elsewhere provided for.
- 112, Sewing, appropriate subclasses for sewn leather or fur stock material.
- 156, Adhesive Bonding and Miscellaneous Chemical Manufacture, and see (2) Note above.
- 205, Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions, subclass 692 for electrolytic treatment of hides or skins.
- 428, Stock Material or Miscellaneous Articles, appropriate subclasses, particularly subclasses 102+ for stock material which may be of leather and which includes stitching and a discrete fastener, coating or adhesive bond, subclass 473 for a plural layer product including a layer of animal

membrane (e.g., leather), and subclass 904 (a cross-reference art collection) for artificial leather product or stock material.

21.5 Skiving or splitting:

This subclass is indented under subclass 21. Processes which are directed to, or include, a step of beveling or splitting the hide skin or leather article as defined in subclass 9 above.

22 Fur:

This subclass is indented under subclass 21. Processes directed to the specialized treatment of skins provided with hair, because of the presence of the hair.

SEE OR SEARCH CLASS:

- 2, Apparel, subclasses 65 and 66 for fur garments.
- 8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 94.14 and 404, for the dyeing of fur and the treatment of a fur with a fluid.
- 112, Sewing, subclass 401 for a patent for a plurality of fur sections joined in edge-to-edge relation by sewing, and subclasses 475.01+ for a method of sewing fur.
- 428, Stock Material or Miscellaneous Articles, subclasses 85+ for stock material comprising animal skin with the fur attached, and including structure other than or in addition to stitching.

23 Fur treatment:

This subclass is indented under subclass 1. Apparatus for the specialized treatment of skins provided with hair, because of the presence of the hair.

- (1) Note. For apparatus for the treatment of hides or skins having hair thereon but not modified to particularly treat them because of the presence of the hair thereon, see other appropriate subclasses of this class.

SEE OR SEARCH CLASS:

- 19, Textiles: Fiber Preparation, subclass 2 for the removal of fur fibers from the hide in which the said fibers are

recovered in a condition suitable for use in textile processes.

- 26, Textiles: Cloth Finishing, subclasses 15+ for the finishing of fur by shearing the fur fibers to a uniform length or to produce a decorative effect.
- 112, Sewing, subclasses 16+ for sewing machines specialized for use on furs.

24 Coarse hair-removing:

This subclass is indented under subclass 23. Apparatus for removal of the coarse or "water" hairs from a skin.

SEE OR SEARCH CLASS:

- 219, Electric Heating, subclasses 227+.

25 Clipping:

This subclass is indented under subclass 24. Apparatus for removing the coarse or "water" hairs from a skin by clipping the hairs.

SEE OR SEARCH CLASS:

- 26, Textiles: Cloth Finishing, subclasses 15+.
- 28, Textiles: Manufacturing, subclasses 222+ for methods and apparatus for clearing threads of unwanted fibrils or other protruding matter.
- 30, Cutlery, for pertinent subclass(es) as determined by schedule review.

26 Plucking:

This subclass is indented under subclass 24. Apparatus for removing the coarse or "water" hairs from a skin by plucking them therefrom.

SEE OR SEARCH CLASS:

- 452, Butchering, subclasses 82+ for gripping-type epidermal outgrowth removers.

27 Fur-orienting or smoothing:

This subclass is indented under subclass 23. Apparatus for the smoothing, combing, carding, or otherwise orienting the hairs on the skin.

SEE OR SEARCH CLASS:

- 15, Brushing, Scrubbing, and General Cleaning, for brushing machines, brushes, wipers, et cetera of general utility.

- 19, Textiles: Fiber Preparation, subclasses 98+ and subclasses 115+ for combing and carding machines used in preparing fibrous materials for use in textile processes.
- 38, Textiles: Ironing or Smoothing, appropriate subclass, for apparatus for smoothing or ironing textile fabrics.
- 132, Toilet, subclasses 219+ for combs designed to be used by inserting the teeth into the hair of a person.

28 With fluid:

This subclass is indented under subclass 23. Apparatus, for the treatment of the skin with a fluid.

- (1) Note. Many of the patents in this subclass are directed to apparatus for dyeing or carotting of the hair while on the skin.
- (2) Note. The tanning or other fluid treatment of hides, skins, or leather even though provided with hairs, are not included in this subclass, for which see this class, subclasses 29+.

SEE OR SEARCH THIS CLASS, SUBCLASS:
29+, (see note 2).

SEE OR SEARCH CLASS:

- 8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 404+ for processes of coloring fur or hair, subclass 94.14, for the fluid treatment of fur not otherwise provided for and subclass 112 for processes of carotting furs.
- 34, Drying and Gas or Vapor Contact With Solids, appropriate subclasses, for processes and apparatus within that class definition; this subclass including such subject matter when combined with other treatments of fur not provided for in Class 34.
- 68, Textiles: Fluid Treating Apparatus, appropriate subclass, for apparatus, for treating textiles with fluid.
- 118, Coating Apparatus, appropriate subclasses for apparatus for coating hides, skins or leather, and see section V of the class definition of Class 118

for the line between Class 69 and Class 118.

29 Fluid-treating apparatus:

This subclass is indented under subclass 1. Apparatus for the treatment of hides, skins and leather with a fluid not more specifically provided for elsewhere.

- (1) Note. Many of the patents in this subclass and indented subclasses, are directed to apparatus for tanning hides or skins.
- (2) Note. This subclass includes the fluid treatment, of hides, skins or leather even though the hair remains thereon, unless there is also some treatment of the hair; for the latter, see this class, subclass 23, or indented subclasses, especially subclass 28.
- (3) Note. This and the indented subclasses take patents defining more than mere vat or tank structure. Such structures, per se, are in the appropriate structure class, particularly Class 52, Static Structures (e.g., Buildings), Class 217, Wooden Receptacles, and Class 220, Receptacles, noted below.

SEE OR SEARCH CLASS:

- 8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 94.1+ for processes of treating hides, skins or leather with a fluid.
- 34, Drying and Gas or Vapor Contact With Solids, appropriate subclass, for processes and apparatus within the definition of that class: this subclass and indented subclasses including such subject matter when combined with other treatments of hides, skins or leather not provided for in class 34.
- 52, Static Structures (e.g., Buildings), particularly subclasses 192+ and 264+.
- 68, Textiles: Fluid Treating Apparatus, for apparatus, for the fluid treatment of textiles.
- 134, Cleaning and Liquid Contact With Solids, and see the notes thereto for other apparatus for treating solid

- materials other than hides, skins, and leather with liquids.
- 217, Wooden Receptacles, particularly subclass 4.
- 220, Receptacles, appropriate subclasses.
- 435, Chemistry: Molecular Biology and Microbiology, subclass 265 for apparatus for treating hides, skins, et cetera, by processes which involve fermentation.
- 30 Rotary drum:**
This subclass is indented under subclass 29. Apparatus, in which the hides are enclosed in a rotating drum during the fluid treatment.
- (1) Note. The drum may be perforate, or imperforate; and the hides may be attached to the drum, the hides, skins, or leather must be at least partially enclosed in the drum.
- SEE OR SEARCH CLASS:
34, Drying and Gas or Vapor Contact With Solids, subclasses 108, 109, 126-142, and see the notes to subclass 108.
68, Textiles: Fluid Treating Apparatus, subclasses 139+.
- 31 Liquor agitation:**
This subclass is indented under subclass 29. Apparatus including means to agitate the fluid with which the hides, skins, or leather is treated.
- SEE OR SEARCH CLASS:
366, Agitating, for agitators of general application, but agitators especially designed for use in the fluid treating of hides, skins, or leather are here.
- 32 With hide, skin or leather moving means:**
This subclass is indented under subclass 29. Apparatus, including means, for moving the hide, skin, or leather through the fluid with which the same is treated.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
30, for rotating drums containing the hide, skin, or leather; however, rotating drums or frames with hides, skins,
- or leather attached to the outside thereof are in this subclass.
- SEE OR SEARCH CLASS:
68, Textiles: Fluid Treating Apparatus, subclasses 148 through 170 for textile fluid treating apparatus in which the textiles are moved through the treating fluid.
- 33 Hide folding, flexing, suppling or crumpling:**
This subclass is indented under subclass 1. Apparatus for treating hides, skins, or leather by folding, flexing, crumpling, suppling, or similar action for stretching, softening and rendering the same more flexible.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
46, for machines which stretch leather by rubbing action of a member over the surface of the hide or leather.
- SEE OR SEARCH CLASS:
72, Metal Deforming, subclasses 127+ for working successive portions of a metal workpiece by deflecting it from a path of movement with respect to a deforming tool.
- 34 Staking:**
This subclass is indented under subclass 33. Apparatus in which the hide, skin or leather is passed over a sharp edge so that the hide, skin or leather is flexed or folded over the sharp edge.
- 35 Boarding:**
This subclass is indented under subclass 33. Apparatus in which the hide, skin or leather is folded upon itself, grain side inward, the fold is then passed over the hide, skin or leather.
- (1) Note. In most of the patents, pressure is applied to the leather at the fold, the purpose being to alter the appearance of the grain side of the leather commonly known as "boarding".
- (2) Note. The distinction between the subject matter of this subclass and that of subclass 34 is that the apparatus of subclass 34 includes a sharp edge over

which the hide, skin or leather is folded, whereas in this subclass the hide, skin or leather is folded upon itself.

SEE OR SEARCH THIS CLASS, SUBCLASS:

33, for "fulling" mills in which a hide, skin or leather is wound upon a mandrel within a cage like member, the direction of rotation of the mandrel being reversed so as to cause the leather to double back upon itself.

36 Band-type knife:

This subclass is indented under subclass 1. Apparatus for the treatment of hides, skins, or leather with a band type knife, and not more specifically provided for elsewhere.

SEE OR SEARCH THIS CLASS, SUBCLASS:

10, for band type knife machines for skiving or splitting leather.

37 Rotary tool:

This subclass is indented under subclass 1. Apparatus for the treatment of hides, skins or leather by the use of a tool which is positively rotated about its own axis during contact with the hide, skin or leather worked upon.

- (1) Note. The tool may be of any configuration such as a scraper, roll, brush roll, smooth roll, et cetera.
- (2) Note. Machines having tools which are rotated solely by contact with the hide, skin, or leather being worked upon are not in this subclass, or indented subclasses, for which see the appropriate subclass below.

SEE OR SEARCH CLASS:

29, Metal Working, subclasses 90.01+ for machines or processes for condensing, compacting, smoothing, or polishing the surface of metallic or nonmetallic articles, usually by rubbing with a smooth surface of greater hardness than that of the article being operated upon.

38, Textiles: Ironing or Smoothing, particularly subclasses 44+, and subclasses 100 and 101 for ironing and

smoothing apparatus for use on textiles.

38 With tool grinder or cleaner:

This subclass is indented under subclass 37. Apparatus which includes means for grinding or cleaning the rotary tool during the operation of the machine.

SEE OR SEARCH CLASS:

15, Brushing, Scrubbing, and General Cleaning, subclasses 246+ for cleaning devices within that class which are attached to the article or machine upon which they are to operate, and combinations of such articles or machines with the attachments when the article or machine is set forth in only insufficient detail to provide a setting for the attached cleaning device.

451, Abrading, subclasses 415+, particularly subclasses 419+ for an attachment for grinding part of a machine to which it is attached, and to the combination of a machine with such attachment when the structure of the machine to which it is attached is not significantly claimed.

39 Rotating about vertical axis, horizontal work support:

This subclass is indented under subclass 37. Apparatus in which the tool rotates about a vertical axis and the hide, skin or leather is placed on a horizontal work support, the working surface of the tool being the radial surface thereof.

40 With additional translating motion during treatment:

This subclass is indented under subclass 37. Apparatus in which the rotating tool has additional motion other than rotation, during its operation upon a hide, skin or leather.

SEE OR SEARCH THIS CLASS, SUBCLASS:

45, and 46, for tools which have nonrotary motion, and also rotation about the axis of the tool, the rotation being due solely to contact with the hide, skin or leather worked upon.

SEE OR SEARCH CLASS:

408, Cutting by Use of Rotating Axially Moving Tool, appropriate subclasses, for drilling machines which feed the work or tool or both relative to one another along the axis of relative rotation of tool and work; and, see the Notes thereto for other machines with means to feed a rotating tool relative to work.

41 Belt-type work support:

This subclass is indented under subclass 37. Apparatus in which the hide, skin or leather, during treatment with the rotating tool, is supported by a flexible belt or apron.

- (1) Note. Many of the patents in this subclass are drawn to machines having an endless belt work support which carries the hide, skin or leather past the tool. Also the belt may itself be supported at a point opposite the tool by a roll or other means.

SEE OR SEARCH CLASS:

100, Presses, subclass 153 for concurrent conveying and pressing presses of the endless conveyor type, not elsewhere provided for, and having a roll element co-acting with the endless conveyor to effect the compressing.

42 Cylinder work support:

This subclass is indented under subclass 37. Apparatus in which the hide, skin or leather, during treatment with the rotating tool, is supported by a cylindrical roll.

SEE OR SEARCH CLASS:

100, Presses, subclasses 155+ for roller type concurrent pressing and conveying presses, not elsewhere provided for.

43 Smooth roll only:

This subclass is indented under subclass 42. Apparatus in which the only rotating tool is a roll which does not have blades thereon or any other irregular surface configuration.

- (1) Note. Many of the patents in this subclass are for leather wringers and for roller presses for leather.

SEE OR SEARCH CLASS:

38, Textiles: Ironing or Smoothing, subclasses 44+ for similar apparatus for ironing or smoothing of textiles.
68, Textiles: Fluid Treating, Apparatus, subclasses 244+ for similar apparatus for wringing textiles.
492, Roll or Roller, for a roll, per se, not elsewhere provided for, and see the notes thereunder.

44 Moving work support:

This subclass is indented under subclass 37. Apparatus in which the hide, skin or leather is placed on a work support which is in motion during the treatment of the hide, skin or leather.

SEE OR SEARCH THIS CLASS, SUBCLASS:

41, for machines having moving belt type work supports.
42, and 43, for machines having cylindrical work supports.

SEE OR SEARCH CLASS:

100, Presses, subclass 156 for roller type concurrent conveying and pressing presses, not elsewhere provided for, in which the roller co-acts with a nonrotary surface.

45 Pivoted tool:

This subclass is indented under subclass 1. Apparatus for the treatment of hides, skins or leather by the use of a tool which is pivoted about a point external from the tool and the tool turns about the pivot during treatment of the hide, skin or leather.

- (1) Note. The tool may be of any configuration such as a scraper brush, burnishing tool, free turning roll, et cetera.

SEE OR SEARCH CLASS:

100, Presses, subclass 210 for roll and platen presses, not elsewhere provided for.

46 Translating tool:

This subclass is indented under subclass 1. Apparatus for the treatment of hides, skins or leather having a tool which has a translatory motion while in contact with the hide, skin or leather.

- (1) Note. The tool may be of any configuration such as a scraper brush, burnishing tool, free turning roll, et cetera.

- 68, Textiles: Fluid Treating Apparatus, subclasses 241 and 242 for platen presses used in expressing liquid from textiles.
100, Presses, subclasses 214+ for reciprocating platen presses not elsewhere provided for.

END

47 Moving work support:

This subclass is indented under subclass 1. Apparatus for the treatment of hides, skins or leather in which the hide, skin or leather is placed on a support which is in motion during the treatment of the hide, skin or leather.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 41, through 44, for machines having rotating tools and work supports which are in motion during the treatment of the hide, skin or leather.

SEE OR SEARCH CLASS:

- 100, Presses, subclasses 144+ for concurrent type pressing and conveying presses not elsewhere provided for.

48 Presses:

This subclass is indented under subclass 1. Apparatus for treating leather in which opposing forces are brought to bear upon the leather which tend to compress the leather, not otherwise provided for.

- (1) Note. Machines which exert a pressing action on leather in which a member moves over the surface of the leather are classified above on the basis of the structure of the machine, see particularly subclass 43 for opposing roller type press.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 43, for roller presses. (See note 1).

SEE OR SEARCH CLASS:

- 38, Textiles: Ironing or Smoothing, subclasses 25 through 43, 71 and 72 for presses having two press platens for use in smoothing or ironing-textiles.