

CPC COOPERATIVE PATENT CLASSIFICATION

A43D MACHINES, TOOLS, EQUIPMENT OR METHODS FOR MANUFACTURING OR REPAIRING FOOTWEAR

NOTE

In this subclass, a method of manufacturing footwear which is dependent on a distinct machine or tool, is classified in the group covering the machine or tool for the manufacture.

Measuring devices; Lasts; Tools

1/00 Foot or last measuring devices; Measuring devices for shoe parts

- 1/02 . Foot-measuring devices ([measuring the shape, pattern or size of the body for diagnostic purposes A61B 5/103](#), e.g. [measuring physical dimensions A61B 5/107](#))
- 1/022 . . {involving making footprints or permanent moulds of the foot}
- 1/025 . . {comprising optical means, e.g. mirrors, photo-electric cells, for measuring or inspecting feet}
- 1/027 . . {Shoe fit indicating devices}
- 1/04 . Last-measuring devices
- 1/06 . Measuring devices for the inside measure of shoes, for the height of heels, or for the arrangement of heels
- 1/08 . Measuring devices for shoe parts
- 3/00 Lasts**
- 3/02 . Lasts for making or repairing shoes ([making of wooden lasts B27M 3/20](#))
- 3/021 . . {for orthopaedic footwear}
- 3/022 . . {comprising means, e.g. hooks, for holding, fixing or centering shoe parts on the last}
- 3/023 . . {Hinge constructions for articulated lasts}
- 3/024 . . {Lasts with a fore part and heel section relatively slideable to one another along an inclined line of cut}
- 3/025 . . {Longitudinally expansible lasts}
- 3/026 . . {Lasts for making rubber footwear or for vulcanizing rubber soles to footwear}
- 3/027 . . {Lasts with exchangeable parts, e.g. for changing the form or for remodelling}
- 3/028 . . {Tack retaining means for lasts}
- 3/029 . . {Constructional features of the heel section}
- 3/04 . Pneumatic lasts; Elastic lasts
- 3/06 . Wedge locks for lasts
- 3/08 . Devices for stretching special parts of shoes
- 3/10 . Devices for removing lasts
- 3/12 . Devices for inserting or reinserting lasts
- 3/14 . Stretching or spreading lasts; Boot-trees; Fillers; Devices for maintaining the shape of the shoe ([drying of footwear A47L 23/20](#))
- 3/1408 . . {Devices for heating or drying shoes}
- 3/1416 . . {Boot-trees}
- 3/1425 . . {Devices for sole stretching}
- 3/1433 . . {Shoe-trees}
- 3/1441 . . . {spreading the width of a shoe, i.e. laterally expandable}
- 3/145 {adjustable}
- 3/1458 {by a screw}

- 3/1466 . . . {stretching the length of a shoe, i.e. longitudinally expandable}
- 3/1475 {adjustable}
- 3/1483 {by a screw}
- 3/1491 . . . {with means for sweaty feet, e.g. with disinfecting or deodorant means ([cleaning of a footwear A47L 23/20](#))}

5/00 Hand appliances or hand tools for making or repairing shoes, other than those covered by groups [A43D 15/00](#), [A43D 19/00](#), [A43D 95/00](#), [A43D 100/00](#), [A43D 117/00](#)

- 5/005 . {for heel removing}
- 5/02 . Stands for making footwear ([stands for cleaning shoes A47L 23/16](#))
- 5/04 . Knives ([knives in general B26B](#))
- 5/06 . Tools for cutting off the ends of nails or pegs in shoes
- 5/08 . Awls ([making B21G](#))
- 5/10 . Shoe-peg rasps ([wood rasps B27G 17/06](#))
- 5/12 . Hand nailing apparatus for shoemaking ([A43D 19/02 takes precedence; nailing apparatus in general B25C, B27F](#))
- 5/14 . . Hand pincers for stapling

8/00 Machines for cutting, ornamenting, marking or otherwise working up shoe part blanks ([pulling-over or lasting A43D 9/00 - A43D 23/00](#); [making or fastening soles, heels or welts A43D 25/00 - A43D 83/00](#))

- 8/003 . {specially adapted for forming upper blanks or leggings by stretching}
- 8/006 . {for forming shoe stiffeners}
- 8/02 . Cutting-out ([cutting in general B26D, B26F](#); of leather articles in general [C14B 5/00](#))
- 8/04 . . Stamping-out ([A43D 8/10 takes precedence](#))
- 8/06 . . . Dies therefor
- 8/08 . . . Combined stamping-out and bonding, e.g. high frequency electric current being applied between cutting edge and work support
- 8/10 . . Cutting-out using pattern grading ([for trimming A43D 8/38](#); [pattern grading in making clothes A41H 3/00](#); [pattern copying in general B23Q 33/00, B23Q 35/00](#))
- 8/12 . . . Patterns or templates therefor
- 8/14 Applying bindings to pattern edges
- 8/16 . Ornamentation ([by creasing A43D 8/44](#); of leather in general [C14B 1/56](#))
- 8/18 . . by punching or perforating ([punching for eyelet-setting A43D 100/02](#))
- 8/20 . . . Dies therefor
- 8/22 . . by embossing or printing ([printing per se, stamping per se B41](#))

- 8/24 . . . Embossing using heat, e.g. high frequency electric current
- 8/26 . Marking for future work ([A43D 8/16 takes precedence](#); [printing per se](#), [stamping per se B41](#))
- 8/265 . . {[Marking buttonhole locations](#)}
- 8/28 . . Patterns for drawing cut-outs ([in making clothes A41H 3/00](#))
- 8/30 . . Charting sheet material for subsequent cutting
- 8/32 . Working on edges or margins ([of leather in general C14B 1/02](#), [C14B 11/00](#))
- 8/34 . . by skiving ([A43D 8/48 takes precedence](#))
- 8/36 . . by trimming the margins of sole blanks ([trimming as an intermediate operation in shoemaking A43D 27/00](#), as a finishing operation in shoemaking [A43D 87/00](#))
- 8/38 . . . by cutting-out, e.g. using templates
- 8/40 . . by folding, turning in or over, hammering
- 8/42 . . by singeing, contracting, dyeing
- 8/44 . Creasing presses ([folding on margins A43D 8/40](#))
- 8/46 . Splitting ([of leather in general C14B 1/02](#))
- 8/48 . . combined with skiving
- 8/50 . . Combined splitting and trimming of the heel-seat portions of sole blanks ([of soles fixed to shoe bottoms A43D 27/04](#))
- 8/52 . Flexing ([of leather in general C14B](#))
- 8/54 . . by milling
- 8/56 . . of sole blanks by slitting

Pulling-over or lasting

- 9/00** **Devices for binding the uppers upon the lasts** ([for the toe ends A43D 15/00](#))
- 11/00** **Machines for preliminary treatment or assembling of upper-parts, counters, or insoles on their lasts preparatory to the pulling-over or lasting operations; Applying or removing protective coverings**
 - 11/003 . {[Applying or removing protective coverings](#)}
 - 11/006 . {[Devices for temporarily fixing or aligning insoles on lasts](#)}
 - 11/01 . Machines for applying reinforcement or ornamental straps to the margins of uppers ([to soles or insoles A43D 43/06](#))
 - 11/02 . . to the margins thereof
 - 11/03 . . Coating with thermoplastic materials to stiffen the toe or heel portion
 - 11/04 . Machines for seam-pressing or flattening shoe parts, quarters, or the like ([on lasted shoes A43D 55/00](#))
 - 11/06 . Machines for temporary buttoning of shoe parts
 - 11/08 . Machines for temporary lacing of shoe parts or for cutting-away the lacing strips after lasting
 - 11/085 . . {[Lacing machines](#)}
 - 11/10 . Devices for holding the lacing portions in position during lasting
 - 11/12 . Machines for forming the toe part or heel part of shoes, with or without use of heat
 - 11/14 . Devices for treating shoe parts, e.g. stiffeners, with steam or liquid ([for soled shoes A43D 95/12](#))
 - 11/145 . . {[with means, e.g. transport chains, for continuously transferring the shoe parts through the machines](#)}
- 13/00** **Machines for pulling-over the uppers when loosely laid upon the last and tacking the toe end**

- 13/02 . Devices for locating caps or stiffeners on pulling-over machines
- 15/00** **Pulling-over or lasting machines for binding the toe end with cord, string, or wire; Machines for lasting with clamps; Lasting machines with sewing devices, also for platform shoes** ([special sewing machines for leather or shoes D05B](#))
- 17/00** **Pulling-over or lasting machines with oscillating shoe supports**
- 19/00** **Hand lasting; Lasting pincers**
 - 19/02 . Tacking or nailing devices for use with lasting pincers
- 21/00** **Lasting machines**
 - 21/003 . {[with lasting strings, stretching straps or the like, for forming the shank portions of shoes](#)}
 - 21/006 . {[with rotating lasting means](#)}
 - 21/02 . with one single lasting gripper
 - 21/04 . for lasting the opposite sides of the shoe one after another
 - 21/06 . for wooden soles ([A43D 21/16](#), [A43D 21/18 take precedence](#))
 - 21/08 . with last supports and toe- or heel-embracing wipers movable both horizontally and vertically ([A43D 21/16 takes precedence](#))
 - 21/10 . Bed-lasting machines
 - 21/12 . with lasting clamps, shoe-shaped clamps, {[pincers](#),} wipers, stretching straps or the like for forming the toe or heel parts of the last {([A43D 21/16](#), [A43D 21/18 take precedence](#))}
 - 21/122 . . {[with pincers and clamps](#)}
 - 21/125 . . {[with a plurality of pincers A43D 21/122 takes precedence](#)}
 - 21/127 . . {[with wipers A43D 21/16](#), [A43D 21/18 take precedence](#)}
 - 21/14 . for toe or heel parts, with nailing devices
 - 21/16 . with lasting pincers {[and](#)} toe- or heel-embracing wipers
 - 21/163 . . {[with heel-embracing wipers](#)}
 - 21/166 . . {[with toe-embracing wipers](#)}
 - 21/18 . with lasting pincers and straight-acting wipers, also for forming the shank portions of shoes
- 23/00** **Single parts for pulling-over or lasting machines** ([nailing devices A43D 75/00](#))
 - 23/02 . Wipers; Sole-pressers; Last-supports; Pincers
 - 23/022 . . {[Sole-pressers](#)}
 - 23/025 . . {[Last-supports](#)}
 - 23/027 . . {[Pincers](#)}
 - 23/04 . Last-carriers; Shoe-guides
 - 23/06 . Devices for cutting-off superfluous material on the uppers or linings

Making or fastening soles, heels or welts, or preparing same for fastening to the shoe; Carrying out other operations subsequent to lasting; Turning ([sewing D05B](#))

- 25/00** **Devices for gluing shoe parts**
 - 25/047 . Devices for lasting with adhesives or for gluing together insoles and uppers ([A43D 25/18](#), [A43D 25/20 take precedence](#))
 - 25/053 . . with rotating gripping means
 - 25/06 . Devices for gluing soles on shoe bottoms ([A43D 25/18](#), [A43D 25/20 take precedence](#))

25/063	. . {Multiple pressing devices in a closed circuit, e.g. rotating multiple pressing devices}	43/06	. for applying reinforcing materials to insoles; Attachment of ornamental tapes or ribs, e.g. sewing ribs, on soles, or the like
25/066	. . {Heel clamps or heel presses for glueing heels to shoe bottoms}		
25/07	. . using flexible diaphragm pressing devices	44/00	Machines for attaching welts or rands
25/08	. . Welt hold-down devices	47/00	Machines for trimming or butting welts fixed on uppers
25/10	. . Press-pads or other supports of shoe-gluing presses	49/00	Machines for pounding
25/12	. Devices for glueing heel-breasts to heels or for glueing coverings on heels (A43D 25/18 , A43D 25/20 take precedence)	51/00	Machines for lip-setting
25/123	. . {Devices for glueing heel-breasts to heels}	53/00	Machines for trimming-off surplus material along the inseam
25/126	. . {Devices for glueing coverings on heels}	55/00	Machines for flattening, pressing, or rubbing the in seams of lasted shoes
25/14	. Devices for filling the shoe bottom	57/00	Machines for attaching the welt ends
25/16	. Devices for making glued platform shoes	59/00	Machines for rasping the lasting-margins of shoes which are sewn through
25/18	. Devices for applying adhesives to shoe parts (A43D 25/20 takes precedence; applying liquids or other fluent materials to surfaces in general B05)	61/00	Machines for nail-pulling, nail-cutting, or nail-detecting
25/181	. . {by rollers}	63/00	Machines for carrying-out other finishing operations
25/183	. . {by nozzles}	67/00	Machines for fastening soles or heels by means of screws or screwed wire
25/185	. . {by imprinter plates}	69/00	Shoe-nailing machines (nailing machines in general B27F)
25/186	. . {by dipping}	69/005	. {using nails being made from alternative materials, e.g. leather}
25/188	. . {by grids}	69/02	. using ready-made nails
25/20	. Arrangements for activating or for accelerating setting of adhesives, e.g. by using heat	69/04	. with apparatus for separating the nails from a wire or from a strip of metal or other material
27/00	Machines for trimming as an intermediate operation (working on edges or margins, e.g. by trimming, of shoe part blanks A43D 8/32; trimming as a finishing operation in shoemaking A43D 87/00)	69/06	. using ready-made staples
27/02	. Soles or heels fixed on shoe bottoms (stamps or dies for soles or heel-lifts C14B)	69/08	. with apparatus for making staples
27/04	. . Heel-end portions of soles fixed on shoe bottoms (on loose soles A43D 8/46)	69/10	. using ready-made wooden pegs
27/06	. . Heel breast flaps	69/12	. with apparatus for separating the pegs from a strip of wood
29/00	Machines for making soles from strips of material	69/14	. for nailing or stapling the lasted margin onto shoes with wooden soles
31/00	Machines for making or inserting shank stiffeners	71/00	Elements of nailing machines; Nail-feeding devices
31/02	. Machines for making shank stiffeners	71/02	. Driving mechanisms for moving the horn; Nail-cutting apparatus connected with the horn
31/04	. Machines for inserting shank stiffeners	75/00	Nailing devices on pulling-over or lasting machines
33/00	Machines for assembling lifts for heels (cutting-out heel lifts A43D 8/02)	79/00	Combined heel-pressing and nailing machines
33/02	. Gauges for heel lifts; Magazines for piling up heel lifts	81/00	Machines for attaching top-lifts
33/04	. Nailing machines for building the heels from lifts	83/00	Heel-presses without nailing apparatus; Machines for pressing single lifts or punching holes for nailing
33/06	. Machines for sorting heel lifts	85/00	Machines or apparatus for turning, e.g. for making turn-shoes
35/00	Presses for shaping pre-existing loose soles, shoe bottoms or soles fixed to shoe bottoms (glueing soles on shoe bottoms A43D 25/06)		
37/00	Machines for roughening soles or other shoe parts preparatory to glueing		
37/005	. {characterised by constructional details of the rotative tools used therewith}		
39/00	Machines for making foot-supporting pads or instep-raisers for flat feet		
43/00	Machines for making stitch lips, or other preparatory treatment of soles or insoles before fixing same (flexing of soles or insoles A43D 8/52)	86/00	Machines for assembling soles or heels onto uppers, not provided for in groups A43D 25/00 - A43D 83/00, e.g. by welding
43/02	. for making stitch lips by cutting		

Performing finishing operations upon uppers, soles, or heels on soled shoes; Making shoe appurtenances

- 87/00** Edge or heel cutters; Machines for trimming the heel breast (trimming machines for wooden heels [B27M](#); copying machines [B44B](#))
- 89/00** Sole-levelling machines with rolls
- 91/00** Stitch-separating or seam-indenting machines
- 93/00** Edge-indenting machines
- 95/00** Shoe-finishing machines
 - 95/02 . Machines for treating or smoothing shoe uppers to remove wrinkles, folds, or the like
 - 95/04 . Machines for laying channel-flaps
 - 95/06 . Machines for colouring or chemical treatment; Ornamenting the sole bottoms (burnishing [A43D 95/20](#))
 - 95/08 . Machines or tools for scouring, abrading, or finishing, with or without dust-separating (suction cleaners for removing dust [A47L 5/00](#); domestic cleaning of footwear [A47L 23/00](#))
 - 95/10 . Drying or heating devices for shoes
 - 95/12 . Devices for conditioning, tempering, or moistening (preparatory to pulling-over or lasting [A43D 11/14](#))
 - 95/125 . . {with means, e.g. transport chains, for continuously transferring shoes through the devices}
 - 95/14 . incorporating marking, printing, or embossing apparatus (ornamentation of shoe part blanks [A43D 8/16](#); printing *per se*, stamping *per se* [B41](#))
 - 95/16 . Burnishing tools for shoemaking (in general [B24D](#))
 - 95/18 . . Devices for heating the burnishing tools for shoemaking
 - 95/20 . Machines for burnishing soles or heels
 - 95/22 . Machines for burnishing the edges of soles, with or without devices for edge-indenting
 - 95/24 . Machines for buffing soles
 - 95/26 . Devices for applying wax
 - 95/28 . Machines for attaching protectors to soles or heels
- 97/00** Machines for making pulling-on pieces
- 98/00** Machines for making laces (of leather [C14B](#); braidings in general [D04C](#)); Applying fibre or celluloid to ends of laces (making tags from metal sheet [B21D](#); from wire [B21F](#))
- 100/00** Setting or removing eyelets, buttons, lacing-hooks, or elastic gussets in shoes
 - 100/02 . Punching and eyelet-setting machines or tools (for garments in general [A41H 37/02](#))
 - 100/04 . . inserting invisible eyelets
 - 100/06 . . inserting two eyelets simultaneously
 - 100/08 . Setting buttons on footwear (for garments [A41H 37/00](#))
 - 100/10 . Machines or tools for setting lacing-hooks in shoes
 - 100/12 . Machines for inserting elastic gussets in shoes
 - 100/14 . Devices for removing buttons, lacing-hooks, or the like from shoes

Miscellaneous mechanisms for shoemaking

- 111/00** Shoe machines with conveyors for jacked shoes {or for shoes or shoe parts}
- 111/003 . {with clamping or gripping mechanism}

- 111/006 . {with special means to place the shoe or shoe part in the following machine}
- 113/00** Machines for making shoes with out-turned flanges of the uppers or for making moccasins
- 115/00** Machines for skiving or removing heel-lifts, heels, or soles, or for removing stitches, preparatory to repair
- 117/00** Racks for receiving or transporting shoes or shoe parts; Other conveying means
- 119/00** Driving or controlling mechanisms of shoe machines; Frames for shoe machines

2200/00 Machines or methods characterised by special features

- 2200/10 . Fully automated machines, i.e. machines working without human intervention
- 2200/20 . Machines including a carousel with different working posts around a turning table
- 2200/30 . Machines including a magazine, e.g. for feeding blanks, pre-forms or sheets
- 2200/40 . Multitool machines, e.g. machines with a plurality of tools or working heads
- 2200/50 . Machines using pneumatic means
- 2200/60 . Computer aided manufacture of footwear, e.g. CAD or CAM
- 999/00** Subject matter not provided for in other groups of this subclass