

CPC COOPERATIVE PATENT CLASSIFICATION

A HUMAN NECESSITIES

PERSONAL OR DOMESTIC ARTICLES

A43 FOOTWEAR

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.

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

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](#))

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| 8/003 | . {specially adapted for forming upper blanks or leggings by stretching} | 11/01 | . Machines for applying reinforcement or ornamental straps to the margins of uppers (to soles or insoles A43D 43/06) |
| 8/006 | . {for forming shoe stiffeners} | 11/02 | . . to the margins thereof |
| 8/02 | . Cutting-out (cutting in general B26D , B26F ; of leather articles in general C14B 5/00) | 11/03 | . . Coating with thermoplastic materials to stiffen the toe or heel portion |
| 8/04 | . . Stamping-out (A43D 8/10 takes precedence) | 11/04 | . Machines for seam-pressing or flattening shoe parts, quarters, or the like (on lasted shoes A43D 55/00) |
| 8/06 | . . . Dies therefor | 11/06 | . Machines for temporary buttoning of shoe parts |
| 8/08 | . . . Combined stamping-out and bonding, e.g. high frequency electric current being applied between cutting edge and work support | 11/08 | . Machines for temporary lacing of shoe parts or for cutting-away the lacing strips after lasting |
| 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) | 11/085 | . . {Lacing machines} |
| 8/12 | . . . Patterns or templates therefor | 11/10 | . Devices for holding the lacing portions in position during lasting |
| 8/14 | Applying bindings to pattern edges | 11/12 | . Machines for forming the toe part or heel part of shoes, with or without use of heat |
| 8/16 | . Ornamentation (by creasing A43D 8/44 ; of leather in general C14B 1/56) | 11/14 | . Devices for treating shoe parts, e.g. stiffeners, with steam or liquid (for soled shoes A43D 95/12) |
| 8/18 | . . by punching or perforating (punching for eyelet-setting A43D 100/02) | 11/145 | . . {with means, e.g. transport chains, for continuously transferring the shoe parts through the machines} |
| 8/20 | . . . Dies therefor | 13/00 | Machines for pulling-over the uppers when loosely laid upon the last and tacking the toe end |
| 8/22 | . . by embossing or printing (printing per se, stamping per se B41) | 13/02 | . Devices for locating caps or stiffeners on pulling-over machines |
| 8/24 | . . . Embossing using heat, e.g. high frequency electric current | 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) |
| 8/26 | . Marking for future work (A43D 8/16 takes precedence; printing per se, stamping per se B41) | 17/00 | Pulling-over or lasting machines with oscillating shoe supports |
| 8/265 | . . {Marking buttonhole locations} | 19/00 | Hand lasting; Lasting pincers |
| 8/28 | . . Patterns for drawing cut-outs (in making clothes A41H 3/00) | 19/02 | . Tacking or nailing devices for use with lasting pincers |
| 8/30 | . . Charting sheet material for subsequent cutting | 21/00 | Lasting machines |
| 8/32 | . Working on edges or margins (of leather in general C14B 1/02 , C14B 11/00) | 21/003 | . {with lasting strings, stretching straps or the like, for forming the shank portions of shoes} |
| 8/34 | . . by skiving (A43D 8/48 takes precedence) | 21/006 | . {with rotating lasting means} |
| 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) | 21/02 | . with one single lasting gripper |
| 8/38 | . . . by cutting-out, e.g. using templates | 21/04 | . for lasting the opposite sides of the shoe one after another |
| 8/40 | . . by folding, turning in or over, hammering | 21/06 | . for wooden soles (A43D 21/16 , A43D 21/18 take precedence) |
| 8/42 | . . by singeing, contracting, dyeing | 21/08 | . with last supports and toe- or heel-embracing wipers movable both horizontally and vertically (A43D 21/16 takes precedence) |
| 8/44 | . Creasing presses (folding on margins A43D 8/40) | 21/10 | . Bed-lasting machines |
| 8/46 | . Splitting (of leather in general C14B 1/02) | 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)} |
| 8/48 | . . combined with skiving | 21/122 | . . {with pincers and clamps} |
| 8/50 | . . Combined splitting and trimming of the heel-seat portions of sole blanks (of soles fixed to shoe bottoms A43D 27/04) | 21/125 | . . {with a plurality of pincers (A43D 21/122 takes precedence)} |
| 8/52 | . Flexing (of leather in general C14B) | 21/127 | . . {with wipers (A43D 21/16 , A43D 21/18 take precedence)} |
| 8/54 | . . by milling | 21/14 | . for toe or heel parts, with nailing devices |
| 8/56 | . . of sole blanks by slitting | 21/16 | . with lasting pincers {and} toe- or heel-embracing wipers |
| Pulling-over or lasting | | 21/163 | . . {with heel-embracing wipers} |
| 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} | | |

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| 21/166 | . . {with toe-embracing wipers} | 31/04 | . Machines for inserting shank stiffeners |
| 21/18 | . with lasting pincers and straight-acting wipers, also for forming the shank portions of shoes | 33/00 | Machines for assembling lifts for heels (cutting-out heel lifts A43D 8/02) |
| 23/00 | Single parts for pulling-over or lasting machines (nailing devices A43D 75/00) | 33/02 | . Gauges for heel lifts; Magazines for piling up heel lifts |
| 23/02 | . Wipers; Sole-pressers; Last-supports; Pincers | 33/04 | . Nailing machines for building the heels from lifts |
| 23/022 | . . {Sole-pressers} | 33/06 | . Machines for sorting heel lifts |
| 23/025 | . . {Last-supports} | 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) |
| 23/027 | . . {Pincers} | 37/00 | Machines for roughening soles or other shoe parts preparatory to glueing |
| 23/04 | . Last-carriers; Shoe-guides | 37/005 | . {characterised by constructional details of the rotative tools used therewith} |
| 23/06 | . Devices for cutting-off superfluous material on the uppers or linings | 39/00 | Machines for making foot-supporting pads or instep-raisers for flat feet |
| <u>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)</u> | | 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) |
| 25/00 | Devices for glueing shoe parts | 43/02 | . for making stitch lips by cutting |
| 25/047 | . Devices for lasting with adhesives or for glueing together insoles and uppers (A43D 25/18 , A43D 25/20 take precedence) | 43/06 | . for applying reinforcing materials to insoles; Attachment of ornamental tapes or ribs, e.g. sewing ribs, on soles, or the like |
| 25/053 | . . with rotating gripping means | 44/00 | Machines for attaching welts or rands |
| 25/06 | . Devices for glueing soles on shoe bottoms (A43D 25/18 , A43D 25/20 take precedence) | 47/00 | Machines for trimming or butting welts fixed on uppers |
| 25/063 | . . {Multiple pressing devices in a closed circuit, e.g. rotating multiple pressing devices} | 49/00 | Machines for pounding |
| 25/066 | . . {Heel clamps or heel presses for glueing heels to shoe bottoms} | 51/00 | Machines for lip-setting |
| 25/07 | . . using flexible diaphragm pressing devices | 53/00 | Machines for trimming-off surplus material along the inseam |
| 25/08 | . . Welt hold-down devices | 55/00 | Machines for flattening, pressing, or rubbing the in seams of lasted shoes |
| 25/10 | . . Press-pads or other supports of shoe-glueing presses | 57/00 | Machines for attaching the welt ends |
| 25/12 | . Devices for glueing heel-breasts to heels or for glueing coverings on heels (A43D 25/18 , A43D 25/20 take precedence) | 59/00 | Machines for rasping the lasting-margins of shoes which are sewn through |
| 25/123 | . . {Devices for glueing heel-breasts to heels} | 61/00 | Machines for nail-pulling, nail-cutting, or nail-detecting |
| 25/126 | . . {Devices for glueing coverings on heels} | 63/00 | Machines for carrying-out other finishing operations |
| 25/14 | . Devices for filling the shoe bottom | 67/00 | Machines for fastening soles or heels by means of screws or screwed wire |
| 25/16 | . Devices for making glued platform shoes | 69/00 | Shoe-nailing machines (nailing machines in general B27F) |
| 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) | 69/005 | . {using nails being made from alternative materials, e.g. leather} |
| 25/181 | . . {by rollers} | 69/02 | . using ready-made nails |
| 25/183 | . . {by nozzles} | 69/04 | . with apparatus for separating the nails from a wire or from a strip of metal or other material |
| 25/185 | . . {by imprinter plates} | 69/06 | . using ready-made staples |
| 25/186 | . . {by dipping} | 69/08 | . with apparatus for making staples |
| 25/188 | . . {by grids} | 69/10 | . using ready-made wooden pegs |
| 25/20 | . Arrangements for activating or for accelerating setting of adhesives, e.g. by using heat | 69/12 | . with apparatus for separating the pegs from a strip of wood |
| 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) | | |
| 27/02 | . Soles or heels fixed on shoe bottoms (stamps or dies for soles or heel-lifts C14B) | | |
| 27/04 | . . Heel-end portions of soles fixed on shoe bottoms (on loose soles A43D 8/46) | | |
| 27/06 | . . Heel breast flaps | | |
| 29/00 | Machines for making soles from strips of material | | |
| 31/00 | Machines for making or inserting shank stiffeners | | |
| 31/02 | . Machines for making shank stiffeners | | |

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| 69/14 | • for nailing or stapling the lasted margin onto shoes with wooden soles |
| 71/00 | Elements of nailing machines; Nail-feeding devices |
| 71/02 | • Driving mechanisms for moving the horn; Nail-cutting apparatus connected with the horn |
| 75/00 | Nailing devices on pulling-over or lasting machines |
| 79/00 | Combined heel-pressing and nailing machines |
| 81/00 | Machines for attaching top-lifts |
| 83/00 | Heel-presses without nailing apparatus; Machines for pressing single lifts or punching holes for nailing |
| 85/00 | Machines or apparatus for turning, e.g. for making turn-shoes |

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| 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 |

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

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

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| 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 <i>per se</i> , stamping <i>per se</i> 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 |

Miscellaneous mechanisms for shoemaking

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| 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 |

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| 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 |