

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**A43D 1/00****Foot or last measuring devices; Measuring devices for shoe parts**

A43D 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](#))

A43D 1/022

- .. {involving making footprints or permanent moulds of the foot}

A43D 1/025

- .. {comprising optical means, e.g. mirrors, photo-electric cells, for measuring or inspecting feet}

A43D 1/027

- .. {Shoe fit indicating devices}

A43D 1/04

- . Last-measuring devices

A43D 1/06

- . Measuring devices for the inside measure of shoes, for the height of heels, or for the arrangement of heels

A43D 1/08

- . Measuring devices for shoe parts

A43D 3/00**Lasts**

A43D 3/02

- . Lasts for making or repairing shoes (making of wooden lasts [B27M 3/20](#))

A43D 3/021

- .. {for orthopaedic footwear}

A43D 3/022

- .. {comprising means, e.g. hooks, for holding, fixing or centering shoe parts on the last}

A43D 3/023

- .. {Hinge constructions for articulated lasts}

A43D 3/024

- .. {Lasts with a fore part and heel section relatively slideable to one another along an inclined line of cut}

A43D 3/025

- .. {Longitudinally expansible lasts}

A43D 3/026

- .. {Lasts for making rubber footwear or for vulcanizing rubber soles to footwear}

A43D 3/027

- .. {Lasts with exchangeable parts, e.g. for changing the form or for remodelling}

A43D 3/028

- .. {Tack retaining means for lasts}

A43D 3/029

- .. {Constructional features of the heel section}

A43D 3/04

- . Pneumatic lasts; Elastic lasts

A43D 3/06

- . Wedge locks for lasts

A43D 3/08

- . Devices for stretching special parts of shoes

A43D 3/10

- . Devices for removing lasts

A43D 3/12

- . Devices for inserting or reinserting lasts

- A43D 3/14 . Stretching or spreading lasts; Boot-trees; Fillers; Devices for maintaining the shape of the shoe ([drying of footwear A47L 23/20](#))
- A43D 3/1408 .. {Devices for heating or drying shoes}
- A43D 3/1416 .. {Boot-trees}
- A43D 3/1425 .. {Devices for sole stretching}
- A43D 3/1433 .. {Shoe-trees}
- A43D 3/1441 ... {spreading the width of a shoe, i.e. laterally expandable}
- A43D 3/145 {adjustable}
- A43D 3/1458 {by a screw}
- A43D 3/1466 ... {stretching the length of a shoe, i.e. longitudinally expandable}
- A43D 3/1475 {adjustable}
- A43D 3/1483 {by a screw}
- A43D 3/1491 ... {with means for sweaty feet, e.g. with disinfecting or deodorant means ([cleaning of a footwear A47L 23/20](#))}

A43D 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](#)**

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

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

- A43D 8/003 . {specially adapted for forming upper blanks or leggings by stretching}
- A43D 8/006 . {for forming shoe stiffeners}
- A43D 8/02 . Cutting-out ([cutting in general B26D, B26F](#); of leather articles in general [C14B 5/00](#))
- A43D 8/04 .. Stamping-out ([A43D 8/10 takes precedence](#))
- A43D 8/06 ... Dies therefor
- A43D 8/08 ... Combined stamping-out and bonding, e.g. high frequency electric current being applied between cutting edge and work support
- A43D 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](#))
- A43D 8/12 ... Patterns or templates therefor
- A43D 8/14 Applying bindings to pattern edges
- A43D 8/16 . Ornamentation ([by creasing A43D 8/44](#); of leather in general [C14B 1/56](#))

- A43D 8/18 . . . by punching or perforating ([punching for eyelet-setting A43D 100/02](#))
- A43D 8/20 . . . Dies therefor
- A43D 8/22 . . . by embossing or printing ([printing per se, stamping per se B41](#))
- A43D 8/24 . . . Embossing using heat, e.g. high frequency electric current
- A43D 8/26 . . . Marking for future work ([A43D 8/16 takes precedence; printing per se, stamping per se B41](#))
- A43D 8/265 . . . {[Marking buttonhole locations](#)}
- A43D 8/28 . . . Patterns for drawing cut-outs ([in making clothes A41H 3/00](#))
- A43D 8/30 . . . Charting sheet material for subsequent cutting
- A43D 8/32 . . . Working on edges or margins ([of leather in general C14B 1/02, C14B 11/00](#))
- A43D 8/34 . . . by skiving ([A43D 8/48 takes precedence](#))
- A43D 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](#))
- A43D 8/38 . . . by cutting-out, e.g. using templates
- A43D 8/40 . . . by folding, turning in or over, hammering
- A43D 8/42 . . . by singeing, contracting, dyeing
- A43D 8/44 . . . Creasing presses ([folding on margins A43D 8/40](#))
- A43D 8/46 . . . Splitting ([of leather in general C14B 1/02](#))
- A43D 8/48 . . . combined with skiving
- A43D 8/50 . . . Combined splitting and trimming of the heel-seat portions of sole blanks ([of soles fixed to shoe bottoms A43D 27/04](#))
- A43D 8/52 . . . Flexing ([of leather in general C14B](#))
- A43D 8/54 . . . by milling
- A43D 8/56 . . . of sole blanks by slitting

Pulling-over or lasting

- A43D 9/00** . . . **Devices for binding the uppers upon the lasts** ([for the toe ends A43D 15/00](#))
- A43D 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**
 - . . . {[Applying or removing protective coverings](#)}
 - . . . {[Devices for temporarily fixing or aligning insoles on lasts](#)}
 - . . . Machines for applying reinforcement or ornamental straps to the margins of uppers ([to soles or insoles A43D 43/06](#))
 - . . . to the margins thereof
 - . . . Coating with thermoplastic materials to stiffen the toe or heel portion
 - . . . Machines for seam-pressing or flattening shoe parts, quarters, or the like ([on lasted shoes A43D 55/00](#))
 - . . . Machines for temporary buttoning of shoe parts
 - . . . Machines for temporary lacing of shoe parts or for cutting-away the lacing strips after lasting

- A43D 11/085 . . {Lacing machines}
- A43D 11/10 . Devices for holding the lacing portions in position during lasting
- A43D 11/12 . Machines for forming the toe part or heel part of shoes, with or without use of heat
- A43D 11/14 . Devices for treating shoe parts, e.g. stiffeners, with steam or liquid (for soled shoes [A43D 95/12](#))
- A43D 11/145 . . {with means, e.g. transport chains, for continuously transferring the shoe parts through the machines}

- A43D 13/00** **Machines for pulling-over the uppers when loosely laid upon the last and tacking the toe end**
- A43D 13/02 . Devices for locating caps or stiffeners on pulling-over machines

- A43D 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](#))**

- A43D 17/00** **Pulling-over or lasting machines with oscillating shoe supports**

- A43D 19/00** **Hand lasting; Lasting pincers**
- A43D 19/02 . Tacking or nailing devices for use with lasting pincers

- A43D 21/00** **Lasting machines**
- A43D 21/003 . {with lasting strings, stretching straps or the like, for forming the shank portions of shoes}
- A43D 21/006 . {with rotating lasting means}
- A43D 21/02 . with one single lasting gripper
- A43D 21/04 . for lasting the opposite sides of the shoe one after another
- A43D 21/06 . for wooden soles ([A43D 21/16](#), [A43D 21/18](#) take precedence)
- A43D 21/08 . with last supports and toe- or heel-embracing wipers movable both horizontally and vertically ([A43D 21/16](#) takes precedence)
- A43D 21/10 . Bed-lasting machines
- A43D 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)}
- A43D 21/122 . . {with pincers and clamps}
- A43D 21/125 . . {with a plurality of pincers ([A43D 21/122](#) takes precedence)}
- A43D 21/127 . . {with wipers ([A43D 21/16](#), [A43D 21/18](#) take precedence)}
- A43D 21/14 . for toe or heel parts, with nailing devices
- A43D 21/16 . with lasting pincers {and} toe- or heel-embracing wipers
- A43D 21/163 . . {with heel-embracing wipers}
- A43D 21/166 . . {with toe-embracing wipers}
- A43D 21/18 . with lasting pincers and straight-acting wipers, also for forming the shank portions of shoes

- A43D 23/00** **Single parts for pulling-over or lasting machines (nailing devices [A43D 75/00](#))**

- A43D 23/02 . Wipers; Sole-pressers; Last-supports; Pincers
- A43D 23/022 . . {Sole-pressers}
- A43D 23/025 . . {Last-supports}
- A43D 23/027 . . {Pincers}
- A43D 23/04 . Last-carriers; Shoe-guides
- A43D 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)

A43D 25/00 Devices for gluing shoe parts

- A43D 25/047 . Devices for lasting with adhesives or for gluing together insoles and uppers ([A43D 25/18](#), [A43D 25/20](#) take precedence)
- A43D 25/053 . . with rotating gripping means
- A43D 25/06 . Devices for gluing soles on shoe bottoms ([A43D 25/18](#), [A43D 25/20](#) take precedence)
- A43D 25/063 . . {Multiple pressing devices in a closed circuit, e.g. rotating multiple pressing devices}
- A43D 25/066 . . {Heel clamps or heel presses for glueing heels to shoe bottoms}
- A43D 25/07 . . using flexible diaphragm pressing devices
- A43D 25/08 . . Welt hold-down devices
- A43D 25/10 . . Press-pads or other supports of shoe-gluing presses
- A43D 25/12 . Devices for gluing heel-breasts to heels or for gluing coverings on heels ([A43D 25/18](#), [A43D 25/20](#) take precedence)
- A43D 25/123 . . {Devices for glueing heel-breasts to heels}
- A43D 25/126 . . {Devices for glueing coverings on heels}
- A43D 25/14 . Devices for filling the shoe bottom
- A43D 25/16 . Devices for making glued platform shoes
- A43D 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](#))
- A43D 25/181 . . {by rollers}
- A43D 25/183 . . {by nozzles}
- A43D 25/185 . . {by imprinter plates}
- A43D 25/186 . . {by dipping}
- A43D 25/188 . . {by grids}
- A43D 25/20 . Arrangements for activating or for accelerating setting of adhesives, e.g. by using heat

A43D 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](#))

- A43D 27/02 . Soles or heels fixed on shoe bottoms (stamps or dies for soles or heel-lifts [C14B](#))
- A43D 27/04 . . Heel-end portions of soles fixed on shoe bottoms (on loose soles [A43D 8/46](#))
- A43D 27/06 . . Heel breast flaps

A43D 29/00	Machines for making soles from strips of material
A43D 31/00	Machines for making or inserting shank stiffeners
A43D 31/02	. Machines for making shank stiffeners
A43D 31/04	. Machines for inserting shank stiffeners
A43D 33/00	Machines for assembling lifts for heels (cutting-out heel lifts A43D 8/02)
A43D 33/02	. Gauges for heel lifts; Magazines for piling up heel lifts
A43D 33/04	. Nailing machines for building the heels from lifts
A43D 33/06	. Machines for sorting heel lifts
A43D 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)
A43D 37/00	Machines for roughening soles or other shoe parts preparatory to gluing
A43D 37/005	. {characterised by constructional details of the rotative tools used therewith}
A43D 39/00	Machines for making foot-supporting pads or instep-raisers for flat feet
A43D 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)
A43D 43/02	. for making stitch lips by cutting
A43D 43/06	. for applying reinforcing materials to insoles; Attachment of ornamental tapes or ribs, e.g. sewing ribs, on soles, or the like
A43D 44/00	Machines for attaching welts or rands
A43D 47/00	Machines for trimming or butting welts fixed on uppers
A43D 49/00	Machines for pounding
A43D 51/00	Machines for lip-setting
A43D 53/00	Machines for trimming-off surplus material along the inseam
A43D 55/00	Machines for flattening, pressing, or rubbing the inseams of lasted shoes
A43D 57/00	Machines for attaching the welt ends
A43D 59/00	Machines for rasping the lasting-margins of shoes which are sewn through
A43D 61/00	Machines for nail-pulling, nail-cutting, or nail-detecting
A43D 63/00	Machines for carrying-out other finishing operations
A43D 67/00	Machines for fastening soles or heels by means of screws or screwed wire
A43D 69/00	Shoe-nailing machines (nailing machines in general B27F)

A43D 69/005	· {using nails being made from alternative materials, e.g. leather}
A43D 69/02	· using ready-made nails
A43D 69/04	· with apparatus for separating the nails from a wire or from a strip of metal or other material
A43D 69/06	· using ready-made staples
A43D 69/08	· with apparatus for making staples
A43D 69/10	· using ready-made wooden pegs
A43D 69/12	· with apparatus for separating the pegs from a strip of wood
A43D 69/14	· for nailing or stapling the lasted margin onto shoes with wooden soles
A43D 71/00	Elements of nailing machines; Nail-feeding devices
A43D 71/02	· Driving mechanisms for moving the horn; Nail-cutting apparatus connected with the horn
A43D 75/00	Nailing devices on pulling-over or lasting machines
A43D 79/00	Combined heel-pressing and nailing machines
A43D 81/00	Machines for attaching top-lifts
A43D 83/00	Heel-presses without nailing apparatus; Machines for pressing single lifts or punching holes for nailing
A43D 85/00	Machines or apparatus for turning, e.g. for making turn-shoes
A43D 86/00	Machines for assembling soles or heels onto uppers, not provided for in groups A43D 25/00 to A43D 83/00, e.g. by welding
<u>Performing finishing operations upon uppers, soles, or heels on soled shoes; Making shoe appurtenances</u>	
A43D 87/00	Edge or heel cutters; Machines for trimming the heel breast (trimming machines for wooden heels B27M; copying machines B44B)
A43D 89/00	Sole-levelling machines with rolls
A43D 91/00	Stitch-separating or seam-indenting machines
A43D 93/00	Edge-indenting machines
A43D 95/00	Shoe-finishing machines
A43D 95/02	· Machines for treating or smoothing shoe uppers to remove wrinkles, folds, or the like
A43D 95/04	· Machines for laying channel-flaps
A43D 95/06	· Machines for colouring or chemical treatment; Ornamenting the sole bottoms (burnishing A43D 95/20)

- A43D 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](#))
- A43D 95/10 . Drying or heating devices for shoes
- A43D 95/12 . Devices for conditioning, tempering, or moistening (preparatory to pulling-over or lasting [A43D 11/14](#))
- A43D 95/125 . . {with means, e.g. transport chains, for continuously transferring shoes through the devices}
- A43D 95/14 . incorporating marking, printing, or embossing apparatus (ornamentation of shoe part blanks [A43D 8/16](#) ; printing *per se* , stamping *per se* [B41](#))
- A43D 95/16 . Burnishing tools for shoemaking (in general [B24D](#))
- A43D 95/18 . . Devices for heating the burnishing tools for shoemaking
- A43D 95/20 . Machines for burnishing soles or heels
- A43D 95/22 . Machines for burnishing the edges of soles, with or without devices for edge-indenting
- A43D 95/24 . Machines for buffing soles
- A43D 95/26 . Devices for applying wax
- A43D 95/28 . Machines for attaching protectors to soles or heels

A43D 97/00 Machines for making pulling-on pieces

**A43D 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](#))**

A43D 100/00 Setting or removing eyelets, buttons, lacing-hooks, or elastic gussets in shoes

- A43D 100/02 . Punching and eyelet-setting machines or tools (for garments in general [A41H 37/02](#))
- A43D 100/04 . . inserting invisible eyelets
- A43D 100/06 . . inserting two eyelets simultaneously
- A43D 100/08 . Setting buttons on footwear (for garments [A41H 37/00](#))
- A43D 100/10 . Machines or tools for setting lacing-hooks in shoes
- A43D 100/12 . Machines for inserting elastic gussets in shoes
- A43D 100/14 . Devices for removing buttons, lacing-hooks, or the like from shoes

Miscellaneous mechanisms for shoemaking

A43D 111/00 Shoe machines with conveyers for jacked shoes {or for shoes or shoe parts}

- A43D 111/003 . with clamping or gripping mechanism
- A43D 111/006 . with special means to place the shoe or shoe part in the following machine

A43D 113/00 Machines for making shoes with out-turned flanges of the uppers or for making moccasins

A43D 115/00 Machines for skiving or removing heel-lifts, heels, or soles, or for removing stitches, preparatory to repair

A43D 117/00 **Racks for receiving or transporting shoes or shoe parts; Other conveying means**

A43D 119/00 **Driving or controlling mechanisms of shoe machines; Frames for shoe machines**

A43D 2200/00 **Machines or methods characterised by special features**

- A43D 2200/10 . Fully automated machines, i.e. machines working without human intervention
- A43D 2200/20 . Machines including a carousel with different working posts around a turning table
- A43D 2200/30 . Machines including a magazine, e.g. for feeding blanks, pre-forms or sheets
- A43D 2200/40 . Multitool machines, e.g. machines with a plurality of tools or working heads
- A43D 2200/50 . Machines using pneumatic means
- A43D 2200/60 . Computer aided manufacture of footwear, e.g. CAD or CAM

A43D 999/00 **Subject matter not provided for in other groups of this subclass**