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(54) Toe and ball laster.

(57) A machine (101) to apply adhesive to the toe and ball region of a footwear upper assembly (103,103A,103B) that includes a last (104), an upper (105) draped about the last (104) and an insole (102) at the last bottom. The machine (101) includes a pair of adhesive nozzles (5,5A) to apply the adhesive (109) onto the footwear upper assembly (103) near the edge of the insole (102), a pair of nozzle arms (17 17A) one nozzle arm of the pair of nozzle arms (17 17A) being secured to each nozzle of the pair of adhesive nozzles (5, 5A) and adapted to move the nozzle secured thereto; and a mechanical structure (107) operable to guide the nozzles (5, 5A) along respective paths adjacent each edge of the insole to deposit a ribbon of adhesive (109) onto the upper assembly (103) from the toe of the upper assembly to the ball region of the upper assembly. The mechanical structure (107) includes a nozzle guide template (2) that is configured to an outline that, together with other mechanical structures, matches the outline of the insole (102) between the toe and the ball region of the smallest upper assembly (103) of the style to be lasted. The nozzle-guide template (2) has a guide surface and is shiftable to accommodate, for example, right footwear upper assemblies and left footwear upper assemblies of the style to be lasted; The nozzle-guide template is composed of a plurality of segments, 6, 7, 6A, 7A) at the toe region thereof to permit angular adjustment of one segment relative to the other to match the shape of the insole (102) for footwear sizes larger than the smallest footwear upper assembly (103). A template follower (8, 8A) is connected to each nozzle arm (17, 17A), one follower being positioned to ride along the guide surface of each nozzle-guide segment (6, 7, 6A, 7A). A drive mechanism (28,29) is provided to move the template followr (8, 8A) from the toe region of its associated nozzle-guide template (2) to the ball region thereof.

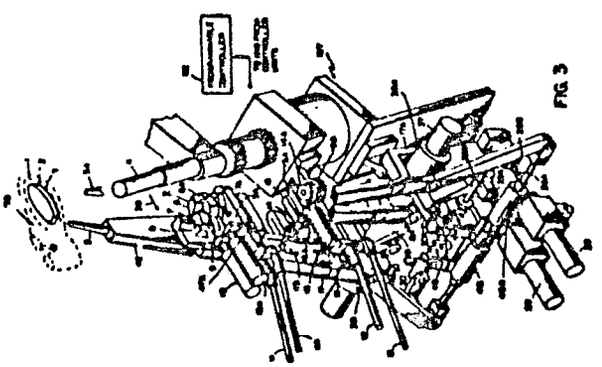

FIG 3

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EUROPEAN SEARCH REPORT

Application Number

EP 87 31 1263

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	FR-A-2 198 362 (HUBER) * Claim 1 *	1,5,12, 13	A 43 D 25/18
A	GB-A-1 134 070 (ZAVODY) * Page 3, lines 54-59 *	1,5,12, 13	
A	FR-A-2 225 114 (USMC)		
A	US-A-2 008 801 (USMC)		
A	DE-C-3 341 118 (ISMC)		

TECHNICAL FIELDS SEARCHED (Int. Cl.4)

A 43 D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	18-04-1989	RIS M.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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