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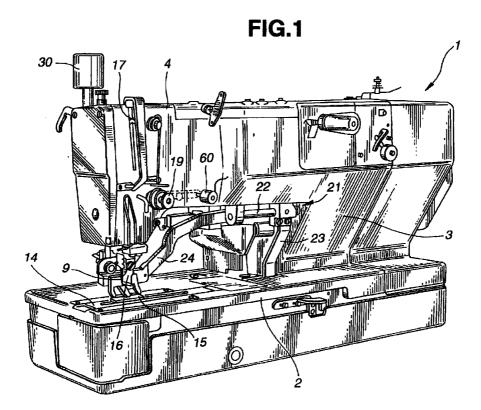
(11)

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(54) Buttonhole darning sewing machine

(57) There is provided needle drop control means which, when a sewing machine stop signal is generated, sets a needle 9 stop position on the more right side than a cloth cutting knife 16 with respect to an operator. The needle drop control means, when the formation of buttonhole darning stitches is completed, sets the needle 9 stop position on the more right side than a cloth cutting knife 16 with respect to the operator. The needle drop control means includes electrical drive means for moving a needle 9 to a given position existing in the right and left direction, and a control circuit for giving a drive instruction to the electrical drive means to stop the needle 9 at the given position, that is, the given needle stop position.





EUROPEAN SEARCH REPORT

Application Number EP 98 11 1679

Category	Citation of document with indic of relevant passage		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)	
Α	US 5 086 719 A (M. 0G. * column 1, line 30 -		1,4	D05B3/06 D05B69/22	
Α	US 4 185 574 A (P. TO 29 January 1980 * column 1, line 32 -		1,4		
А	PATENT ABSTRACTS OF J. vol. 015, no. 361 (C-12 September 1991 -& JP 03 143484 A (B 19 June 1991 * abstract *	0867),	1,4		
Α	US 5 222 449 A (K. KO 29 June 1993	IE ET AL.)			
Α	US 2 273 242 A (A.R. 17 February 1942	WOOD)			
A	US 1 473 240 A (M. MC	 CANN) 6 November 1923		TECHNICAL FIELDS SEARCHED (Int.Cl.6)	
	The present search report has been	·			
Place of search THE HAGIIE		Date of completion of the search 17 June 1999	р,н	D'Hulster, E	
THE HAGUE 17 CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure		T : theory or principle E : earlier patent doc after the filing dat D : document cited in L : document cited fo	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filling date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding		

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

17-06-1999

Patent documer cited in search rep		Publication date		Patent family member(s)	Publication date
US 5086719	Α	11-02-1992	JP	3143485 A	19-06-1991
US 4185574	Α	29-01-1980	NONE		
US 5222449	Α	29-06-1993	JP DE	5115635 A 4214092 A	14-05-1993 03-12-1992
US 2273242	Α	17-02-1942	DE GB	854460 C 542617 A	
US 1473240	 А	06-11-1923	NONE		

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