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(54) **Ice skate sharpening machine.**

(57) A machine for sharpening the blade of an ice skate (8) has a vertically mounted thin grinding wheel (409) with a convex transverse cross-section corresponding to the concave transverse cross-section desired for the blade edge. Clamping plates on a cradle (10) hold the blade above the wheel with their central planes coplanar and with the wheel biased against the blade. The cradle (10) is pivotable about a horizontal axis (901) above the skate so that the skate can be swung in an arc. Hence the movement of the blade over the wheel takes place in an arc that is curved in the same direction as the convex profile of the blade edge. This action reduces the problem of unevenness of depth of cut along the length of the blade, that has been experienced with prior machines employing straight line relative travel between the skate and the wheel. The tendency for the wheel to take a deeper cut at the more sharply curved toe and heel portions of the blade can be further compensated for by increasing the speed of traverse of the blade over the wheel in the vicinities of these end portions. This traversing speed can be reduced incrementally from a maximum at the extreme toe end of the blade down to a minimum over the central portion of the blade, while being increased again incrementally as the wheel approaches the heel end. Provision is also made for stopping the motor that drives the grinding wheel when the wheel is in the area of the picks of a figure skate.

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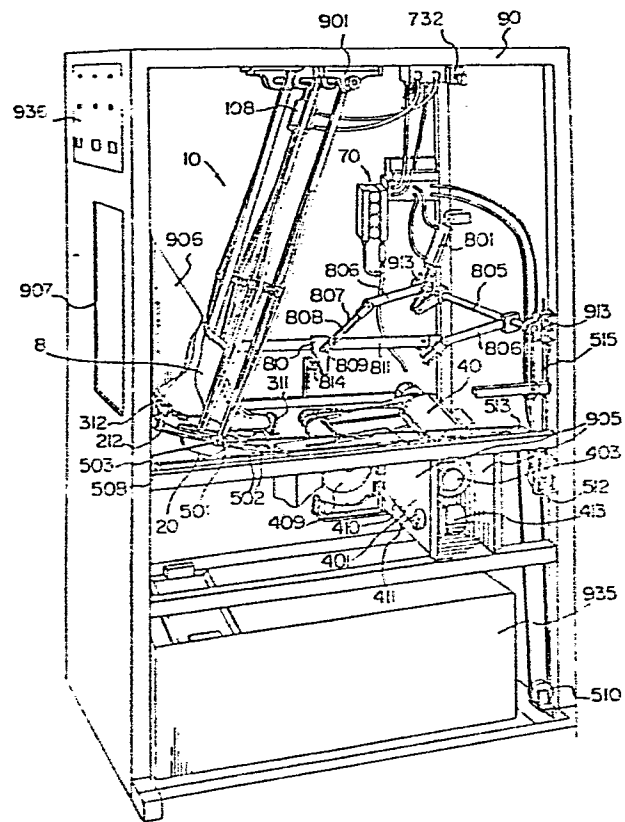


FIG. 1



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. 3)
X	US-A-3 789 551 (NORRIS) * Column 4, lines 27-48; figures *	1	A 63 C 3/10 B 24 B 9/04
A		4	
A	US-A-4 078 337 (CHIASSE) * Column 2, line 15 - column 3, line 24; column 4, lines 7-64; figures *	1,3,4,5,9	
A	DE-C- 851 002 (DORNSEIF) * Page 2, lines 40-68; figures *	1,2,3	
A	US-A-4 294 043 (SAKCRISKA) * Abstract; figures *	1,3,4,5,9	TECHNICAL FIELDS SEARCHED (Int. Cl. 3)  A 63 C B 24 B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 05-09-1985	Examiner GERMANO A.G.
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 P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			