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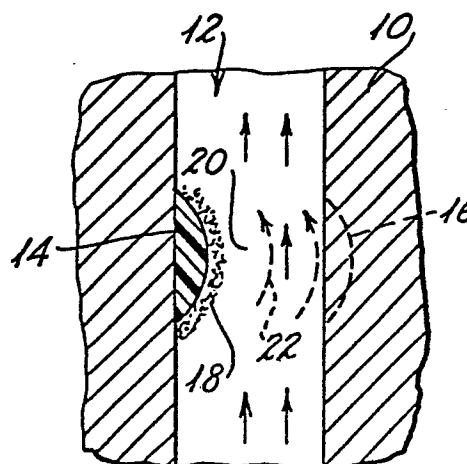
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54 **Means and methods for abrading a work surface.**

57 The invention relates to honing, polishing, reducing, or otherwise abrading, in which improved means and methods are employed for abrasion of workpieces (10) in general, and at least selected internal portions (16) of workpieces (10) such as bores, passages, and cavities in particular. In general, the abrasion is accomplished by the use of a flowable abrasive medium (20), with particular embodiments using a visco-elastic, rheopectic abrasive medium.

The abrasive medium (20) is in the form of a plastic or semisolid matrix containing abrasive particales (120) distributed substantially uniformly throughout the matrix. The matrix transports the particles (120) through or across selected portions of a workpiece (122) being treated in order to permit the abrasive particles (120) to remove upraised metal and to round or radius corners as it passes, or to otherwise uniformly remove or finish these portions. Uniform distribution and maximised abrasive effect of the particles (120) is obtained by use of the matrix which also provides a relatively firm backing (14) for the abrasive when the medium is subjected to high pressure.





European Patent
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EUROPEAN SEARCH REPORT

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Application number

EP 83 30 5255

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)
D,A	US-A-3 521 412 (McCARTY) * abstract; column 8, lines 24-62 *	1	B 24 B 31/00
D,A	--- US-A-3 634 973 (R.W. McCARTY) * abstract; claim 1 *	1,17	
D,A	--- US-A-3 802 128 (MINEAR, SR. et al.) * figure 1 *	1	
D,A	--- US-A-3 819 343 (RHOADES) * abstract *	1	
D,A	--- US-A-3 618 272 (WHALEN et al.) * claim 1 *	1	
D,A	--- US-A-2 986 856 (FEHR) * claim 1 *	1	
D,A	--- US-A-3 955 327 (FRANCO) * claims 1, 3 *	1	
D,A	--- US-A-2 799 789 (WOLFESKILL) * claim 1; column 6, line 60 - column 7, line 4; figures 1, 3 * --- -/-	1,38	
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 30-06-1987	Examiner MARTIN A E W
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			



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)
D,A	US-A-3 247 572 (MUNK) * claim 1 *	1	
D,A	US-A-3 593 410 (TAYLOR) * abstract; claim 1; figures 19-21 *	34,35	
A	WERKSTATT UND BETRIEB, vol. 108, no. 10, October 1975, pages 687-689, München; P. GOSGER: "Presslappen zum Polieren und Entgraten" * page 688, paragraph 4 *	1	
A	GB-A- 866 948 (BOULTON PAUL AIRCRAFT) * claims 1-3 *	1	
A	US-A-3 583 103 (RYSTROM) * claim 1 *	1,29	TECHNICAL FIELDS SEARCHED (Int. Cl. ³)
A	US-A-3 465 480 (HAUSERMANN) * claim 1 *	34,35	
A	DE-A-2 939 682 (AEG-ELOTHERM) * claims 1, 3 *	34,35	
A	GB-A- 751 670 (GRANT) * claim 1 *	54	
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