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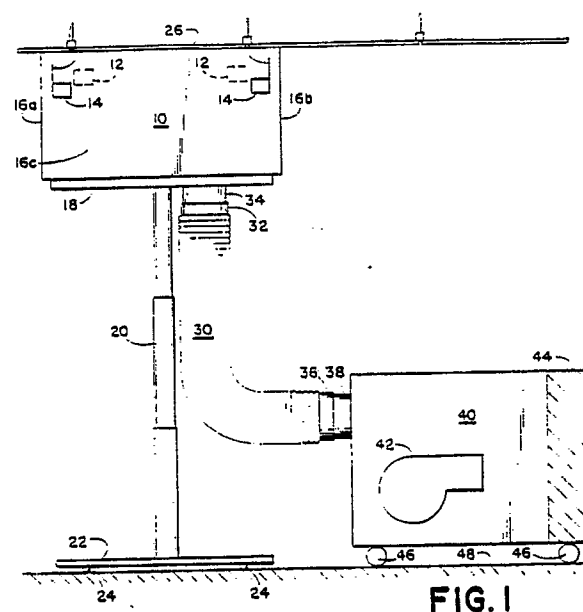
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54 Asbestos removal system.

57 A method and apparatus is disclosed for the safe removal of asbestos-containing materials present in buildings in the form of ceiling or wall panels and the like. The apparatus includes a panel-sized containment bin (10) which includes rotary saws (12) that extend outward therefrom to cut loose the asbestos-containing materials. A protective surfactant is first applied to the material to be removed, and the material is then sawed into conveniently sized panels using slow-speed cutting heads and both primary and secondary negative air pressure systems so as to capture within the containment bin (10) any asbestos fibers that become airborne. An encapsulant is also applied to the materials being removed immediately after cutting. The invention may be used for both vertical or horizontal panel installations. The apparatus is mobile and self-propelled, and may be remotely operated to give additional operator safety. The invention when in use has limited the production of residual airborne asbestos fibers to an average of 0.0032 fibers/cc, of fibers over 5 microns long and having an aspect ratio of 3:1, the range of such fiber counts over 15 measurements being 0.0024-0.0047 fibers/cc with a standard

deviation of 0.00096.





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.5)
X	EP-A-0 130 747 (U.K. ASBESTOS PLANT & MACHINERY LTD) * Page 5, lines 21-37; pages 6-8; page 9, lines 1-8; figures 1-3 *	1,2,5,6 ,9,10, 11,12	E 04 G 23/00 B 08 B 15/02
X	US-A-4 274 676 (CHAPEL) * Column 3, lines 18-68; columns 4-8; figures 1-5 *	1,2,5,6	
A	---	4,8	
A	WO-A-8 700 222 (FEDERAL-MOGUL CORP.)		
A	AT-B- 351 989 (SCHOPF)		
A	US-A-4 693 755 (ERZINGER)		
A	FR-A-2 355 578 (ROUSSELIN)		
P,X	US-A-4 782 844 (HUGHES) * Columns 1-3; column 4, lines 1-12; figures 1-9 *	1,5,9, 10,11	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			E 04 G B 08 B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 06-06-1990	Examiner VIJVERMAN W.C.
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	