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(54) **Steerable air bar/edge dam apparatus.**

(57) An apparatus is provided which both floatingly supports a web (W), and maintains the web in a substantially straight path as it travels through a dryer. The apparatus comprises a steerable air bar assembly (24) comprising: i) one or more adjustable air bars (38), each having an elongated surface from which air may be discharged, said surface being in opposing relation to the running web, and each having two ends; ii) air supply means (42,44,46,48), in fluid communication with the air bars; and iii) adjustment means (40) for altering the orientation of the elongated surfaces of the adjustable air bars with respect to the running web. In a preferred embodiment the orientation of the surfaces is adjusted such that each said surface rotates about an axis which is substantially parallel to the longitudinal centerline of the running web. Said steerable air bar assembly is positioned in a web dryer such that the web is guided through the dryer in a substantially straight path. A plurality of such steerable air bar assemblies can be used in a web dryer. The dryer can also include one or more fixed air bars.

In a preferred embodiment of the invention, the apparatus further comprises in combination with the steerable air bar assembly (24), back pressure means (34) for creating an opposing force to urge the web back to a substantially centered position. Said back pressure means preferably comprises one or more edge dams (35) preferably disposed at or near the ends (30) of one or more fixed air bars (18) in the web dryer.

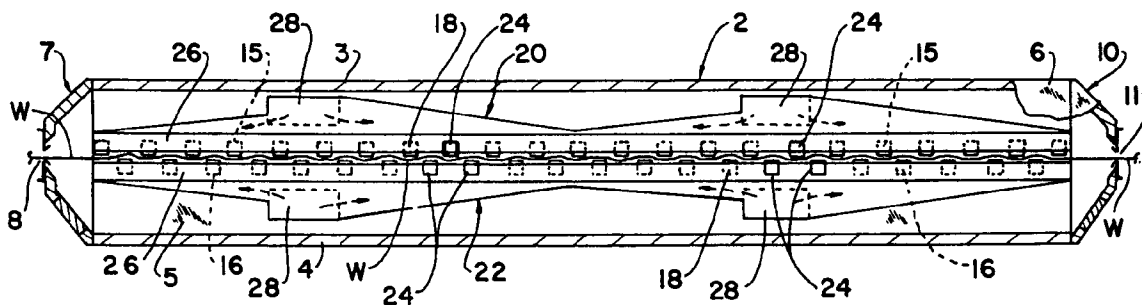


Fig. 1



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 30 0308

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	DE-A-1 460 544 (DORNBUSCH & CO.)	1, 2, 3, 5, 8, 9	F26B13/20
Y	* the whole document *	19, 21	
A	---	17	
X	GB-A-905 819 (DRABERT ET AL)	1, 2, 3, 5, 7, 8	
Y	* the whole document *	11, 12	
A	---	4	
Y	PATENT ABSTRACTS OF JAPAN vol. 10, no. 153 (M-484)(2209) 3 June 1986 & JP-A-61 007 161 (CHIYUUGAI RO KOGYO K.K.) 13 January 1986	11, 12	
A	* abstract *	14, 15, 16	
X	EP-A-0 068 272 (DAIDOTOKUSHUKO KABUSHIKIKAISHA)	17, 18	
Y	* the whole document *	19, 21	
A	---		
A	US-A-4 787 547 (HELLA ET AL)	1, 2, 4, 5, 7	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
	* the whole document *		
A	RESEARCH DISCLOSURE. no. 252, April 1985, EMSWORTH, HAMPSHIRE, GB page 175; 'drying oven'	11, 12, 14, 15	F26B B65H
A	US-A-4 575 952 (BODENAN ET AL) * column 6, line 22 - line 52; figure 2 *	6	
A	DE-A-3 533 273 (RUCKH)		

The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 25 MARCH 1992	Examiner SILVIS H.
<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</p> <p>***** & : member of the same patent family, corresponding document</p>			

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