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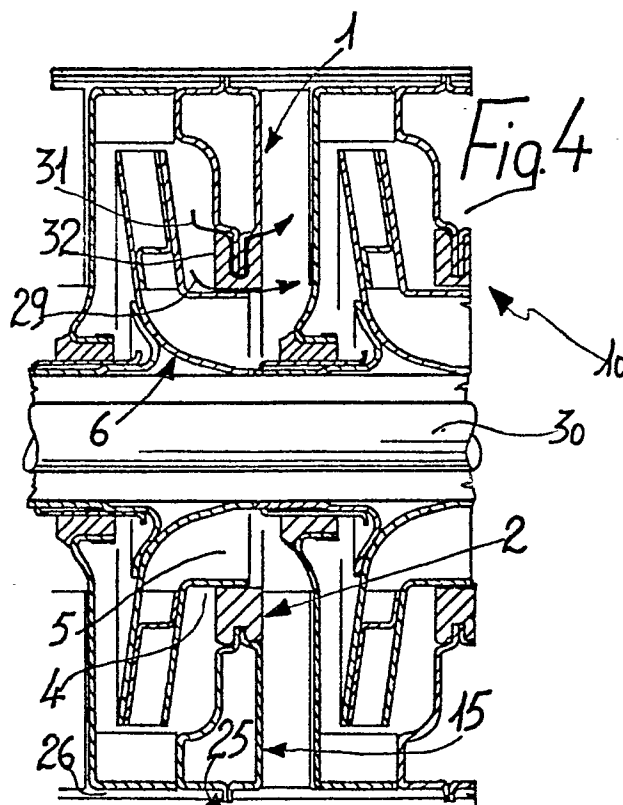
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(54) Hydraulic sealing ring on the inlet of the impeller in single-stage and multistage pumps.

(57) The hydraulic sealing ring (1) on the inlet (5) of the impeller (6), particularly for single-stage and multistage pumps is made in a rubber-like material the inner face (3) whereof couples to the outer surface (4) of the inlet (5) of an impeller (6). The ring (1) has substantially radial openings which connect a shimming face to the outer one to allow a slight injection of liquid bled from the higher-pressure chamber in output from the impeller blades in the shimming region and to allow the creation and the maintenance of an extremely thin layer of liquid adapted to ensure a lubrication of the scraping surfaces with a reduced leakage towards the lower-pressure region at the input of the impeller (6) and to counterbalance the radial force which tends to press the ring around the inlet (5) of the impeller (6), said force being generated by the pressure of the liquid acting on the outer face (4) of said ring.



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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.4)
A	DE-A-3 207 327 (K.H. MÜLLER) * page 4; figures 1-3 * ---	1,3,4	F 16 D 29/00
A	FR-A-2 269 414 (ALLMANNA SVENSKA ELEKTRISKA AKTIEBOLAGET) * page 4, line 29 - page 5, line 12; figure 2 * ---	1,4	
A	US-A-2 644 403 (L.J. DAWSON) * whole document * ---	2	
D,A	EP-A-0 167 837 (LOWER S.P.A.) ---		
A	US-A-1 839 514 (A.R. WEIS) ---		
A	DE-B-1 653 713 (GRUNDFOS A/S) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			F 16 D 29/00 F 16 J 15/00
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 12-08-1988	Examiner HOFFMANN M.P.
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	