

EUROPEAN PATENT APPLICATION

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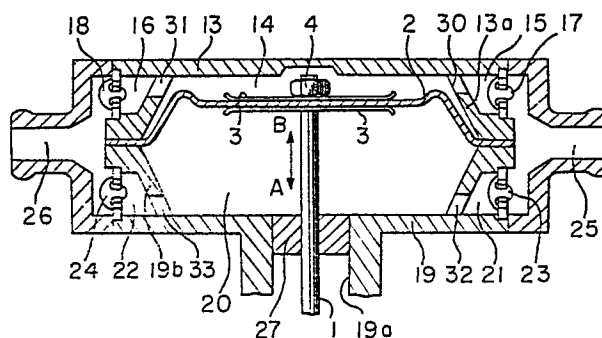
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Diaphragm type pump device.

A diaphragm type pump device comprises a connecting rod (1), a diaphragm (2) connected to an end of the connecting rod, a cover (13) which firmly secures the outer circumferential part of the diaphragm and constitutes a first operation chamber (14), a frame (19) which opposes the cover to firmly secure the outer circumferential part of the diaphragm (2) in association with the cover (13) and constitutes a second operation chamber (20), and an intake port (15; 21) and a discharge port (16; 22) which are respectively communicated with the first operation chamber (14) and the second operation chamber (20) and provided with check valves (17, 23; 18, 24) each having different communicating direction, wherein the first and second operation chambers (14; 20) alternately perform pumping operation by the amplitude movement of the diaphragm (2) due to a combination of the reciprocating movement of the connecting rod and the action of the check valves.





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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US - A - 4 137 020 (ITO et al.) * Totality, especially fig. 1,4 * --	1,2	F 04 B 43/02
X	US - A - 3 461 808 (NELSON et al.) * Totality * --	1-4	
X	DE - A1 - 2 511 298 (AGROTECHNIKA, N.P.) * Fig.4-7 * --	1,2,4	
A	DE - A1 - 3 140 790 (MOLZAN) * Fig.1,3 * --	1,2,4	
A	DE - B - 1 907 454 (ROACH) * Totality, especially fig. 5,6 * ----	1,2,4	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			F 04 B 43/00 F 04 B 45/00
Place of search VIENNA		Date of completion of the search 04-09-1986	Examiner PIPPAN
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	