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(54) **Control device in vacuum hoist means.**

(57) Control device in vacuum hoist means (1-11) which can be provided with a member (3) to grip goods. The member (3) is vertically movable in relation to an anchoring point (6). The vacuum hoisting means comprise a tubular container (1) closed at both ends, the upper end of which is connectable to said anchoring point (6) and the lower end of which with goods via the member (3). The wall material between the ends of the container (1) is compressible in axial direction and a connection is provided on the container for connection to a vacuum-generating means (5). The means (1-11) are provided with control and valve means (4 and 11) to control the vacuum in the container (1) so that its axial length can be altered. The control and valve means (4 and 11) are so designed that the valve means (4 and 11) can be brought into a fully open state (stepless or not) by control means (4). There is provided, preferably at the lower end of the container (1), an additional valve to open or close a channel between the lower end of the container (1) and the suction body (3). This valve consists of a spring-loaded sealing body displaced by the goods approaching said suction body (3), thereby opening the channel, so that the goods can be adhered.

The vacuum-generating means (5) is connected via an operable valve (7) to the surroundings or to a blast air source. The valve (7) may be steplessly adjustable so that the hoisting speed of means (1-11) is reduced when air is supplied from valve (7).

The invention enables speed control by supplying the vacuum-generating means (5) with a controllable quantity of air in parallel with air from the container (1).

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FIG. 1

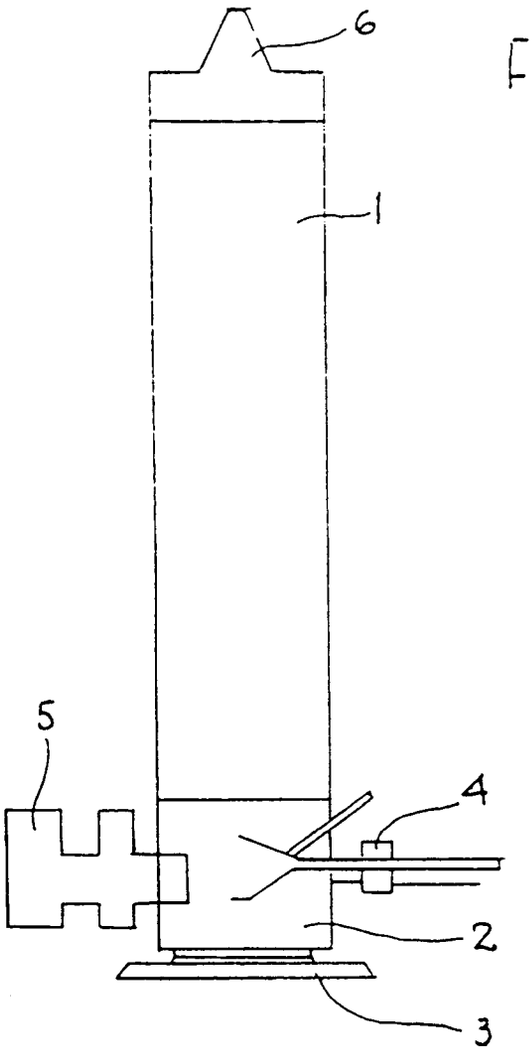
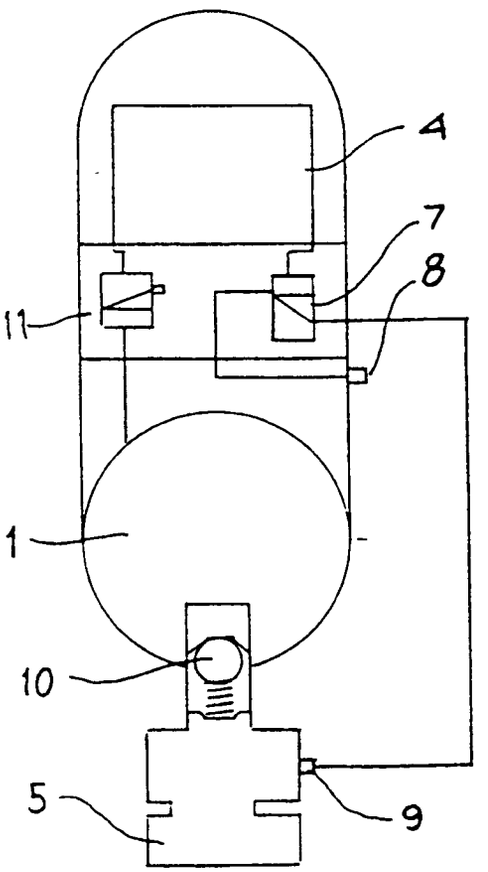


FIG. 2



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EUROPEAN SEARCH REPORT

Application Number

EP 91 85 0064

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)
Y	GB-A-2 200 615 (PORTEC LTD.) * abstract; figures 1A,1B,2,5A-5C * * page 1, line 10 - line 22 * * page 4, line 15 - line 19 * * page 4, line 30 - page 5, line 20 * * page 5, line 35 - page 6, line 7 * * page 7, line 10 - line 26 *	1	B66C1/02 B66F3/24
Y	FR-A-1 474 799 (BERTIN ET COMPAGNIE S.A.) * page 1, right column, line 26 - page 2, left column, line 5 * * page 2, left column, line 21 - line 48 * * page 2, left column, line 58 - right column, line 22 * * page 2, right column, line 35 - line 44 * * page 3, left column, line 27 - line 54 * * page 3, right column, line 6 - line 19 * * page 3, right column, line 25 - line 54 * * figures 1,4,5 *	1	
Y	DE-A-1 431 936 (MASCHINENFABRIK HASENCLEVER A.G.) * page 8, line 9 - line 12 * * page 9, line 5 - line 16 * * page 9, line 20 - line 26 * * page 9, line 30 - page 10, line 10 * * figure *	1	TECHNICAL FIELDS SEARCHED (Int. Cl.5) B66C B66F B65G B65B B25B
A	FR-A-2 370 660 (THIERION) * page 5, line 1 - line 17; figures *	1	F16K
A	CH-A-526 461 (GIS A.G.) * column 3, line 61 - column 4, line 25 * * column 5, line 37 - line 53; figure 3 *	1	
A	GB-A-376 110 (NEUENSCHWANDER) * page 1, line 97 - line 105; figure *	1	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	15 NOVEMBER 1991	GUTHMULLER J.A.

CATEGORY OF CITED DOCUMENTS

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