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(12) **United States Design Patent**
Jiang et al.

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(54) **LIFTING CYLINDER**

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(**) Term: **15 Years**

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(30) **Foreign Application Priority Data**

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(51) **LOC (10) Cl.** **12-05**

(52) **U.S. Cl.**
USPC **D34/28**

(58) **Field of Classification Search**
USPC D34/28, 29, 31, 33, 35, 38; 254/8 B, 254/419, 423, 93 H, 29 R, 30, 100; 248/351, 352, 354.1; 52/126.6; 182/141; D25/122; 72/392; D12/400, 223; 298/17 R, 17.5, 17.6, 19 R, 22 C, 17 B, 298/17 S, 17 SG, 17 T, 17.7; 414/427; 405/290
CPC .. B66F 13/00; B66F 3/24; B66F 5/025; B66F 5/04

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,135,278 A * 11/1938 Countryman B66F 13/00
72/392
2,963,185 A * 12/1960 Jones B60P 1/6418
298/11

D216,144 S * 11/1969 Gillen D34/31
3,580,543 A * 5/1971 Hafeli B66F 13/00
254/100
3,744,757 A * 7/1973 White B66F 13/00
254/94
D281,199 S * 10/1985 Prawl D34/28
4,629,388 A * 12/1986 Riemer B60P 3/127
280/47.131
D373,884 S * 9/1996 Price D34/31
D388,925 S * 1/1998 Hulegaard D34/28
7,165,361 B2 * 1/2007 Vanagan E04G 7/307
182/141
7,240,885 B1 * 7/2007 Sullivan E04G 25/06
248/351
D616,570 S * 5/2010 Krajcir D25/122
(Continued)

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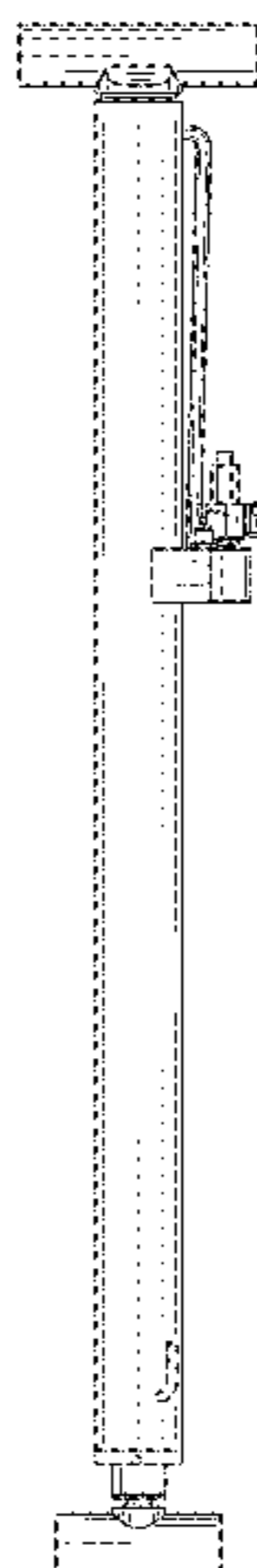
(57) **CLAIM**

We claim the ornamental design for a lifting cylinder, as shown.

DESCRIPTION

FIG. 1 is a front view of a lifting cylinder, showing our new design;
FIG. 2 is a rear elevational view thereof;
FIG. 3 is a left side elevational view thereof;
FIG. 4 is a right side elevational view thereof;
FIG. 5 is a top plan view thereof;
FIG. 6 is a bottom plan view thereof; and,
FIG. 7 is a perspective view thereof.
The broken lines shown in the figures are for the purpose of illustrating portions of the lifting cylinder and form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

8,052,352	B2 *	11/2011	Bolton	.....	E21D 15/24 248/351
8,118,368	B1 *	2/2012	Rogers	.....	B60P 1/165 298/17.6
8,496,217	B2 *	7/2013	Cerezo Lotina	.....	E04G 21/26 248/351
2014/0152073	A1 *	6/2014	Nakate	.....	B60P 1/162 298/22 C
2015/0015054	A1 *	1/2015	Uozu	.....	B60P 1/162 298/22 C
2016/0075267	A1 *	3/2016	Ericsson	.....	B60P 1/26 298/19 R

* cited by examiner

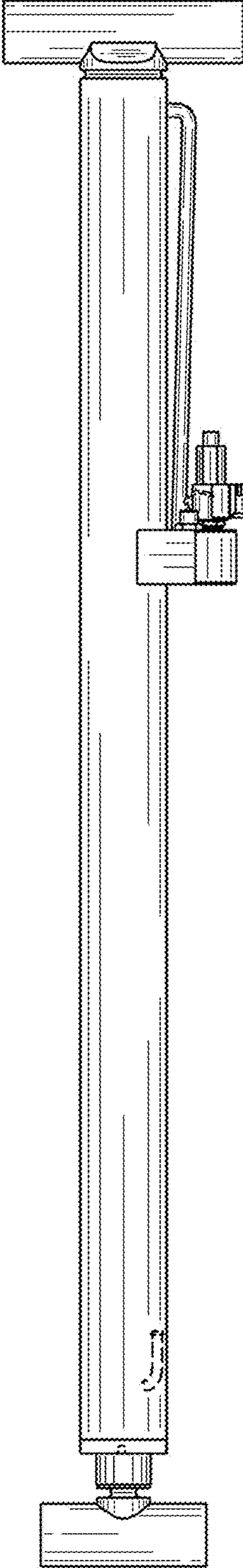


FIG. 1

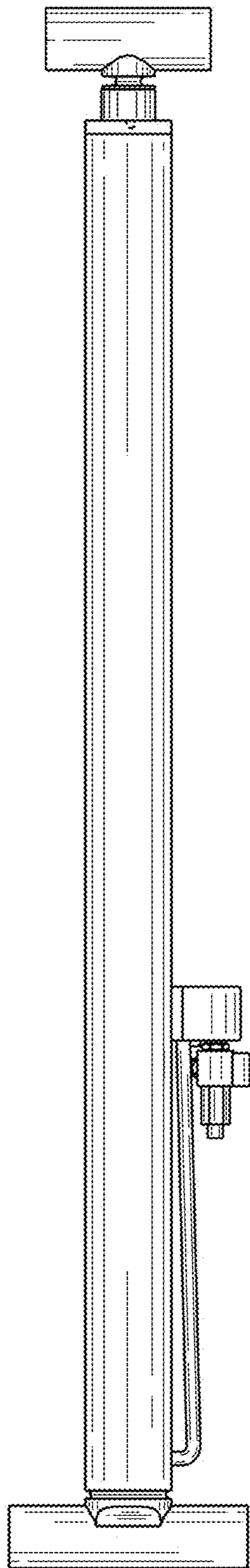


FIG. 2

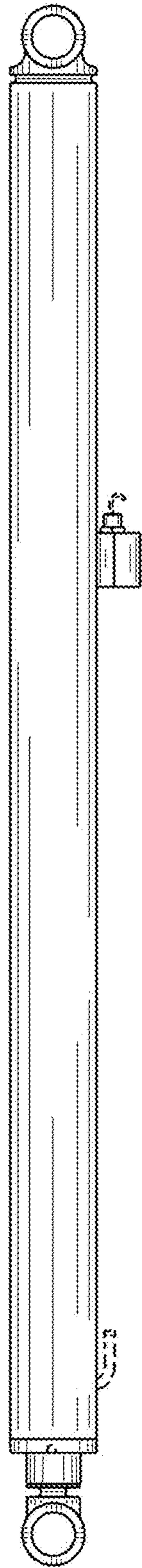


FIG. 3

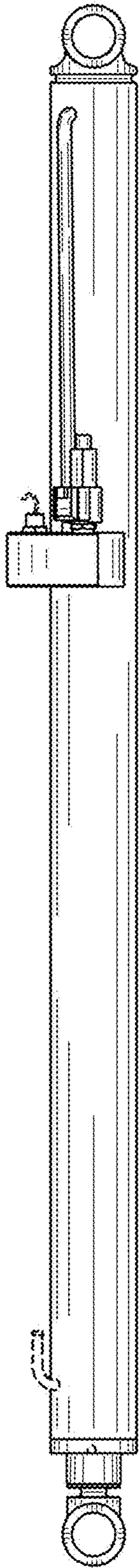


FIG. 4

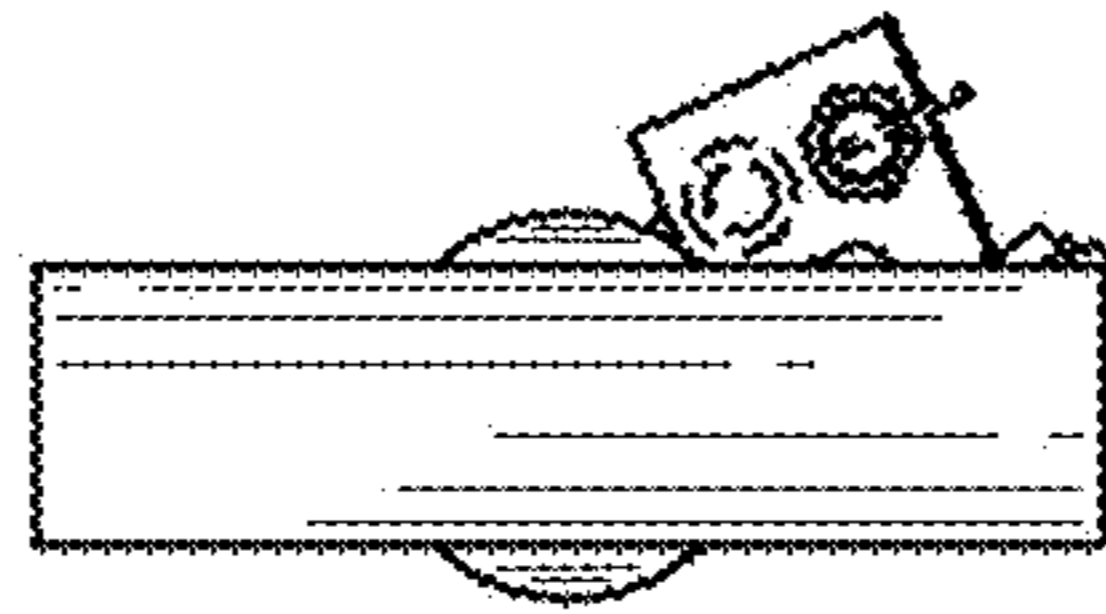


FIG. 5

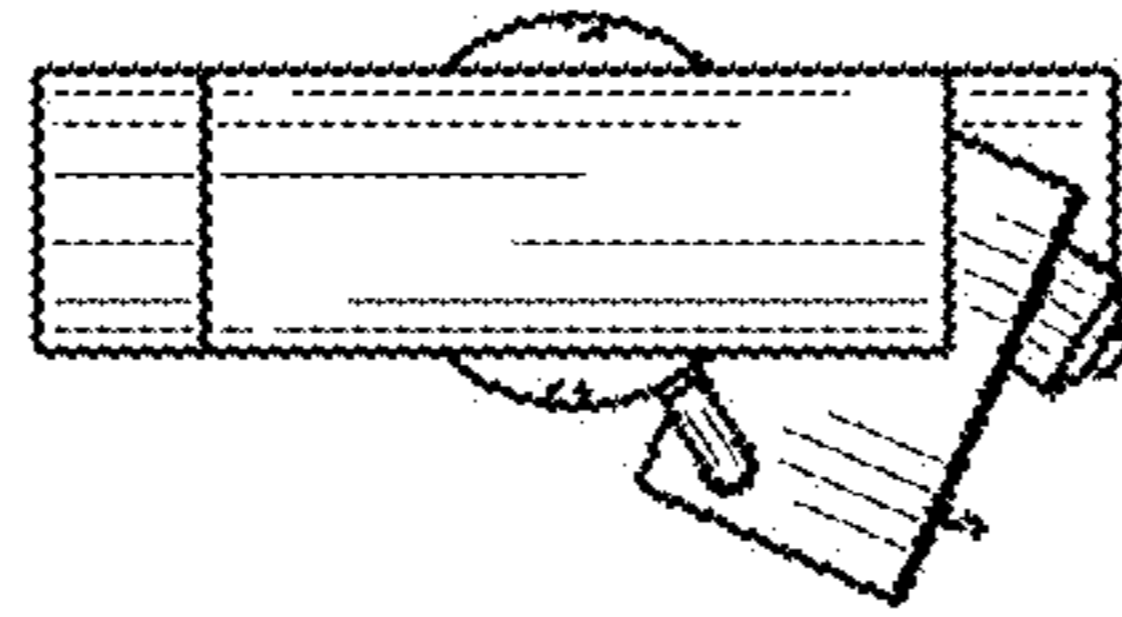


FIG. 6

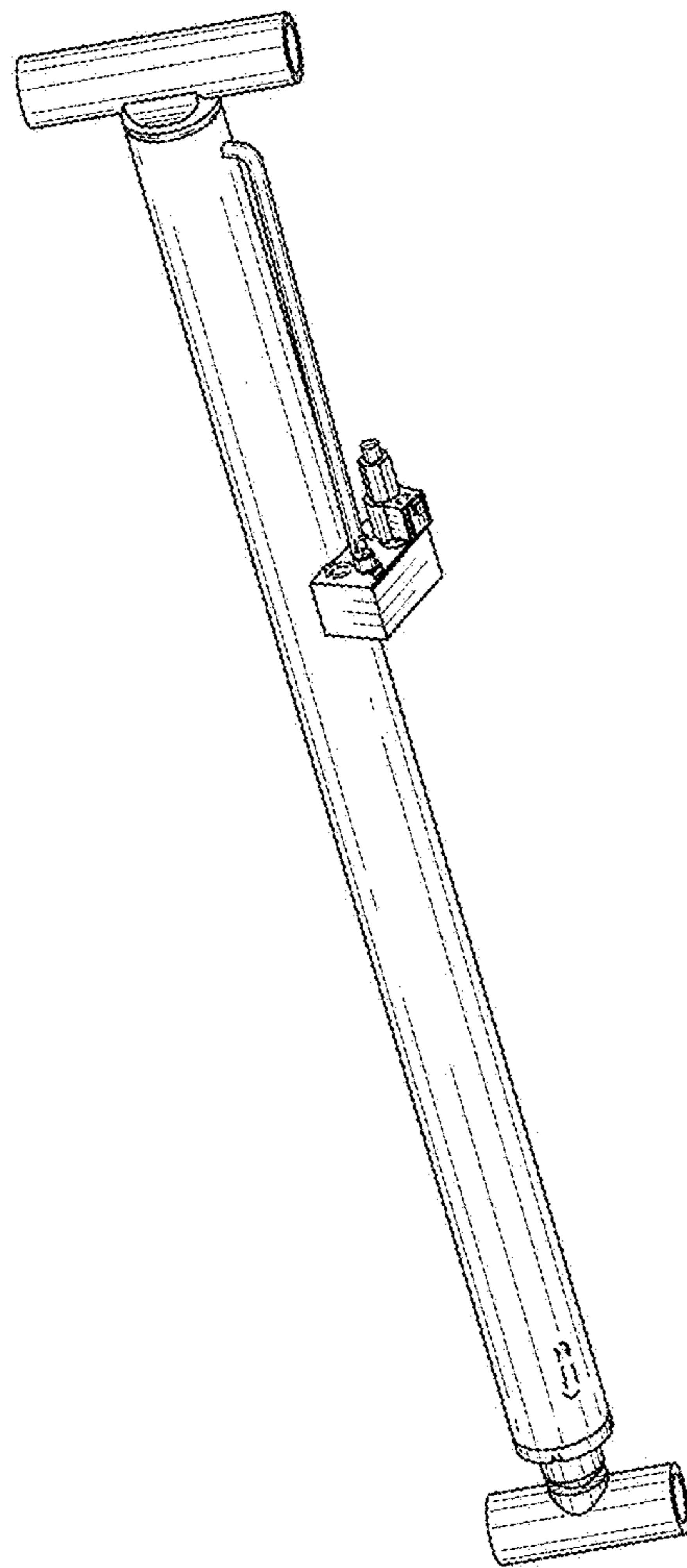


FIG. 7