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(12) **United States Design Patent** (10) **Patent No.:** **US D775,916 S**
Ludtke et al. (45) **Date of Patent:** **** Jan. 10, 2017**

(54) **CONVERTIBLE SNAP-RING PLIERS**
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(**) Term: **14 Years**

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(51) **LOC (10) Cl.** **08-05**

(52) **U.S. Cl.**
USPC **D8/52**

(58) **Field of Classification Search**
USPC D8/4, 5, 51-60
CPC B25B 27/205; B25B 7/18; B25B 7/02;
B25B 7/04; Y10T 29/5363
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,483,380 A * 9/1949 Duffy B25B 27/205
29/229
3,762,019 A * 10/1973 Epstein B25B 27/205
29/229
D273,455 S * 4/1984 Teitelbaum D8/52
D276,880 S * 12/1984 Tozaburo D8/52
4,572,179 A * 2/1986 Teitelbaum A61B 17/12
29/235
4,793,224 A * 12/1988 Huang B25B 27/205
29/229
5,007,313 A 4/1991 Jeromson, Jr. et al.
5,065,650 A * 11/1991 Anderson B25B 7/10
29/229

5,174,177 A * 12/1992 Jeromson, Jr. B25B 7/10
29/225
5,826,467 A * 10/1998 Huang B25B 7/06
29/229
5,865,075 A * 2/1999 Medved B25B 27/205
29/229

(Continued)

FOREIGN PATENT DOCUMENTS

WO WO 2011/090983 1/2011

OTHER PUBLICATIONS

Redline Detection, LLC; Rapid Shift Internal to External Circlo Pliers (Part No. RDL95-0200) <http://www.olct.co/redline-detection/snap-ring-pliers-12-piece-set#>, dated May 8, 2014.

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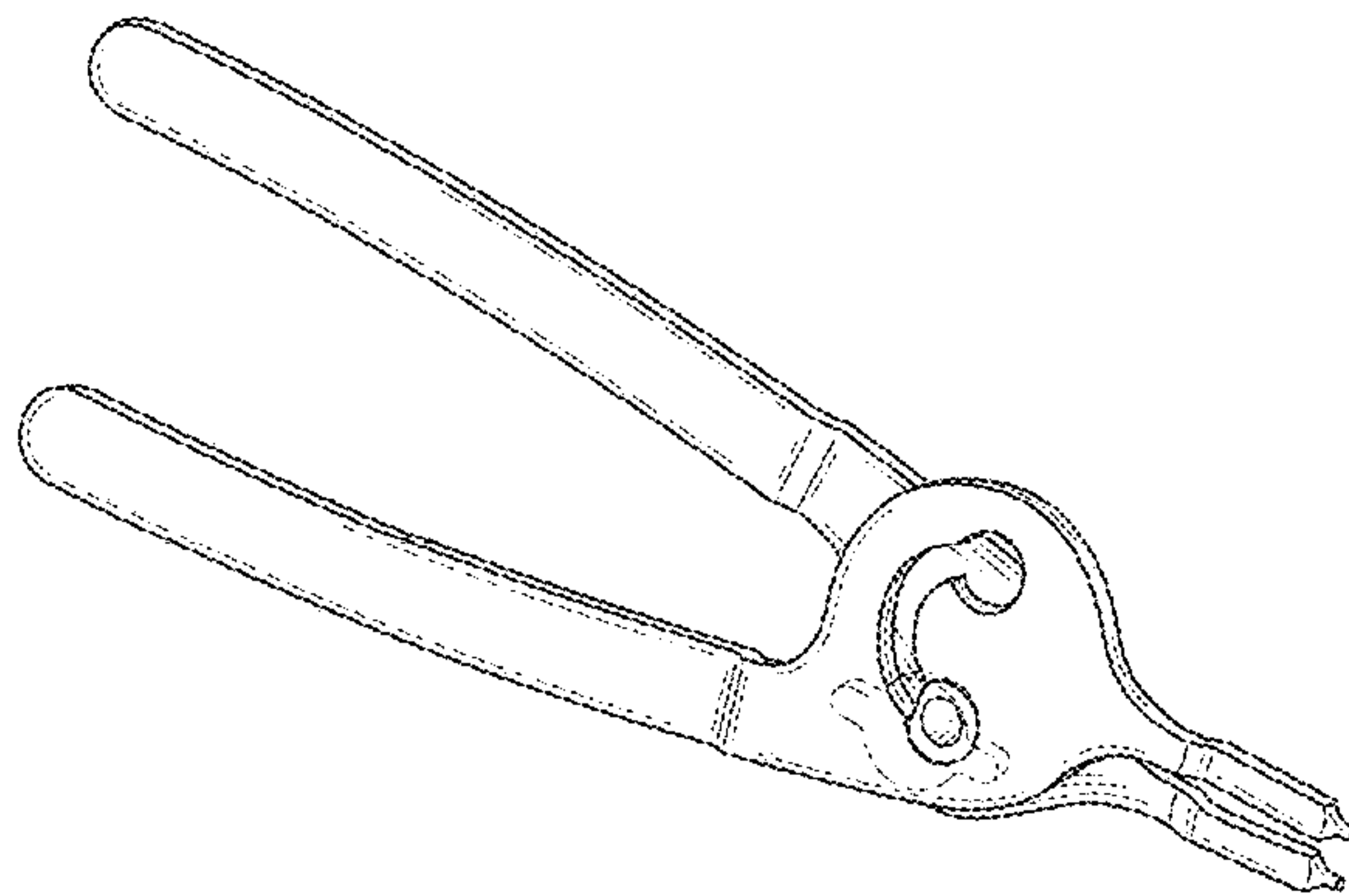
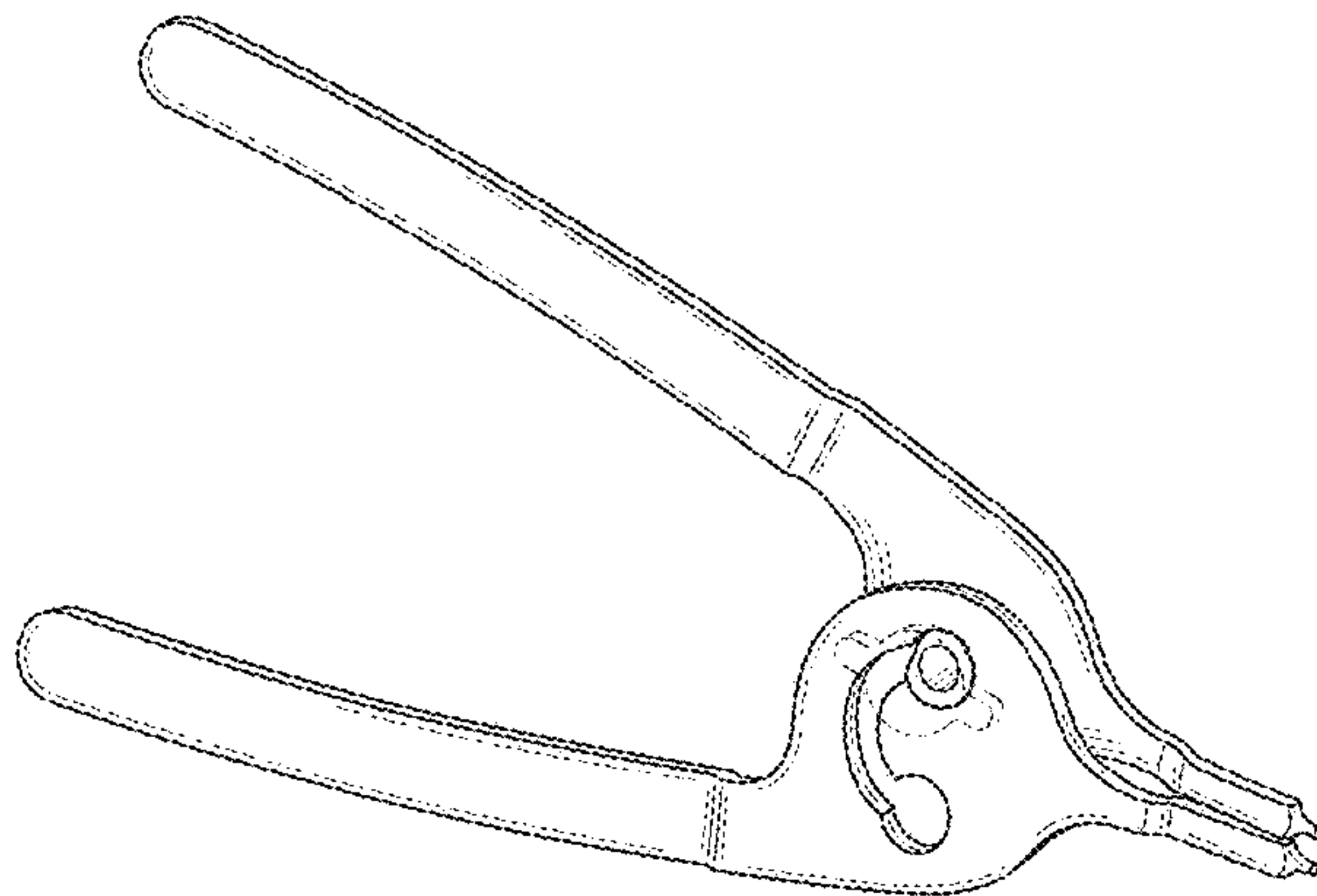
(57) **CLAIM**

The ornamental design for a convertible snap-ring pliers, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of the convertible snap-ring pliers;
FIG. 2 is a perspective view thereof in an alternate position;
FIG. 3 is an exploded perspective view thereof;
FIG. 4 is a bottom plan view thereof;
FIG. 5 is a top plan view thereof;
FIG. 6 is a right side elevation view thereof;
FIG. 7 is a left side elevation view thereof;
FIG. 8 is a front elevation view thereof; and,
FIG. 9 is a rear elevation view thereof.
The broken lines illustrate portions of the convertible snap-ring pliers that form no part of the claimed design.

1 Claim, 3 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

6,145,417	A *	11/2000	Bates		B25B 27/205	81/177.4
6,257,105	B1 *	7/2001	Lin		B25B 27/205	29/229
6,378,403	B1 *	4/2002	Bates		B25B 7/06	29/229
6,983,677	B1 *	1/2006	Engel		B25B 27/205	29/229
7,448,301	B1 *	11/2008	Cronin		B25B 27/205	29/229
8,347,471	B2 *	1/2013	Wang		B25B 7/14	29/229
2011/0214538	A1 *	9/2011	Huang		B25B 27/14	81/302
2015/0298310	A1 *	10/2015	Cronin		B25F 1/003	7/132

* cited by examiner

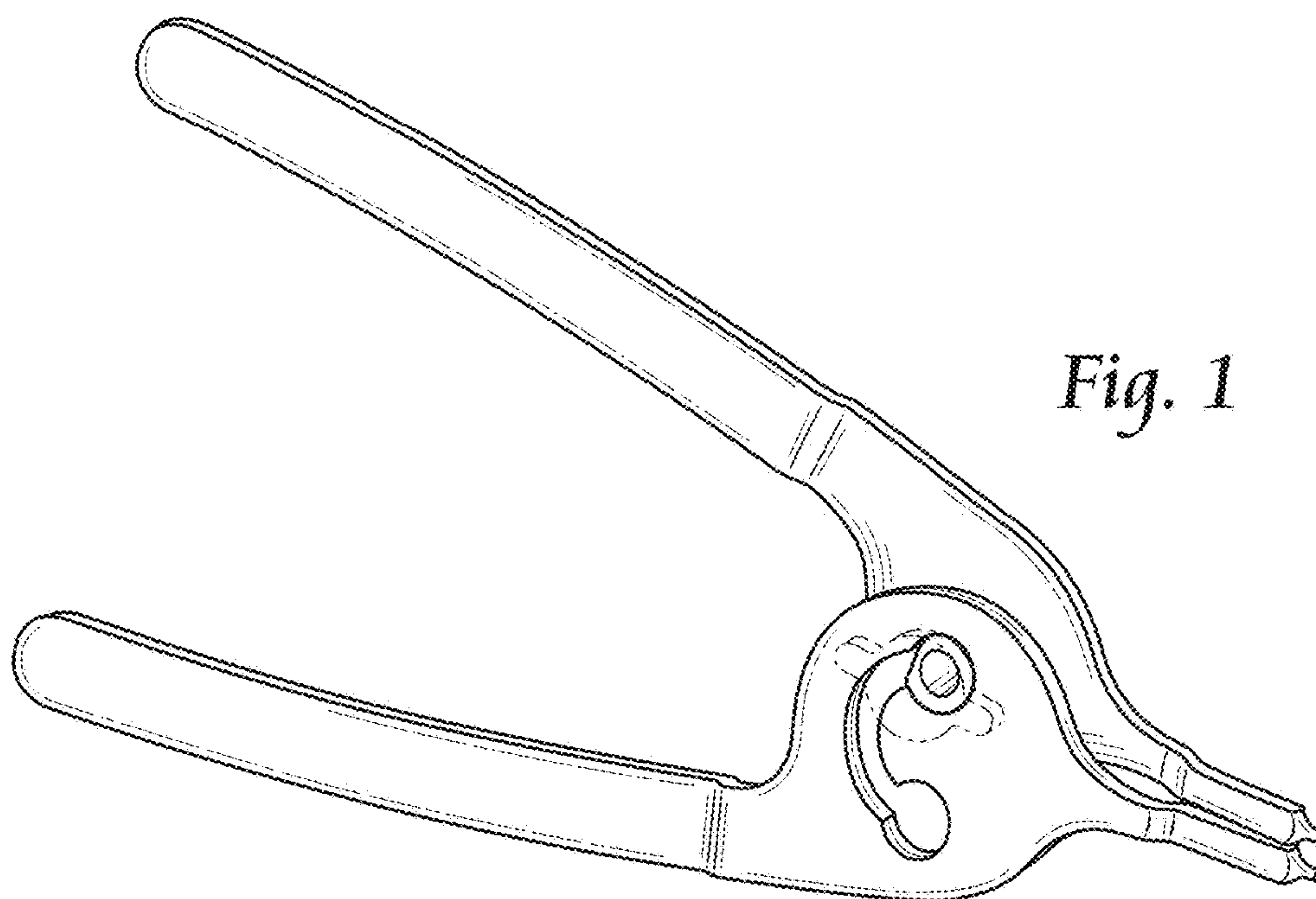


Fig. 1

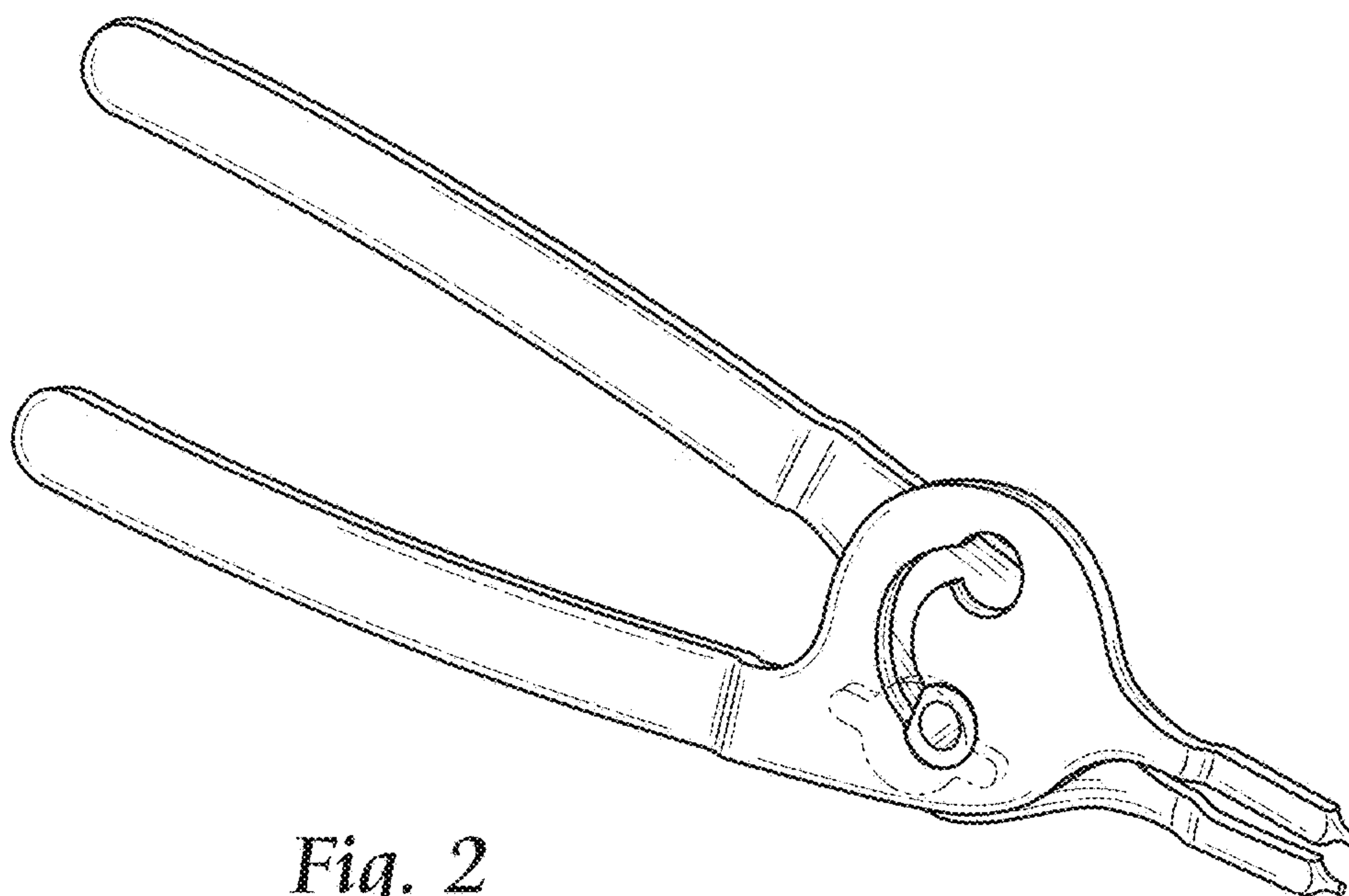
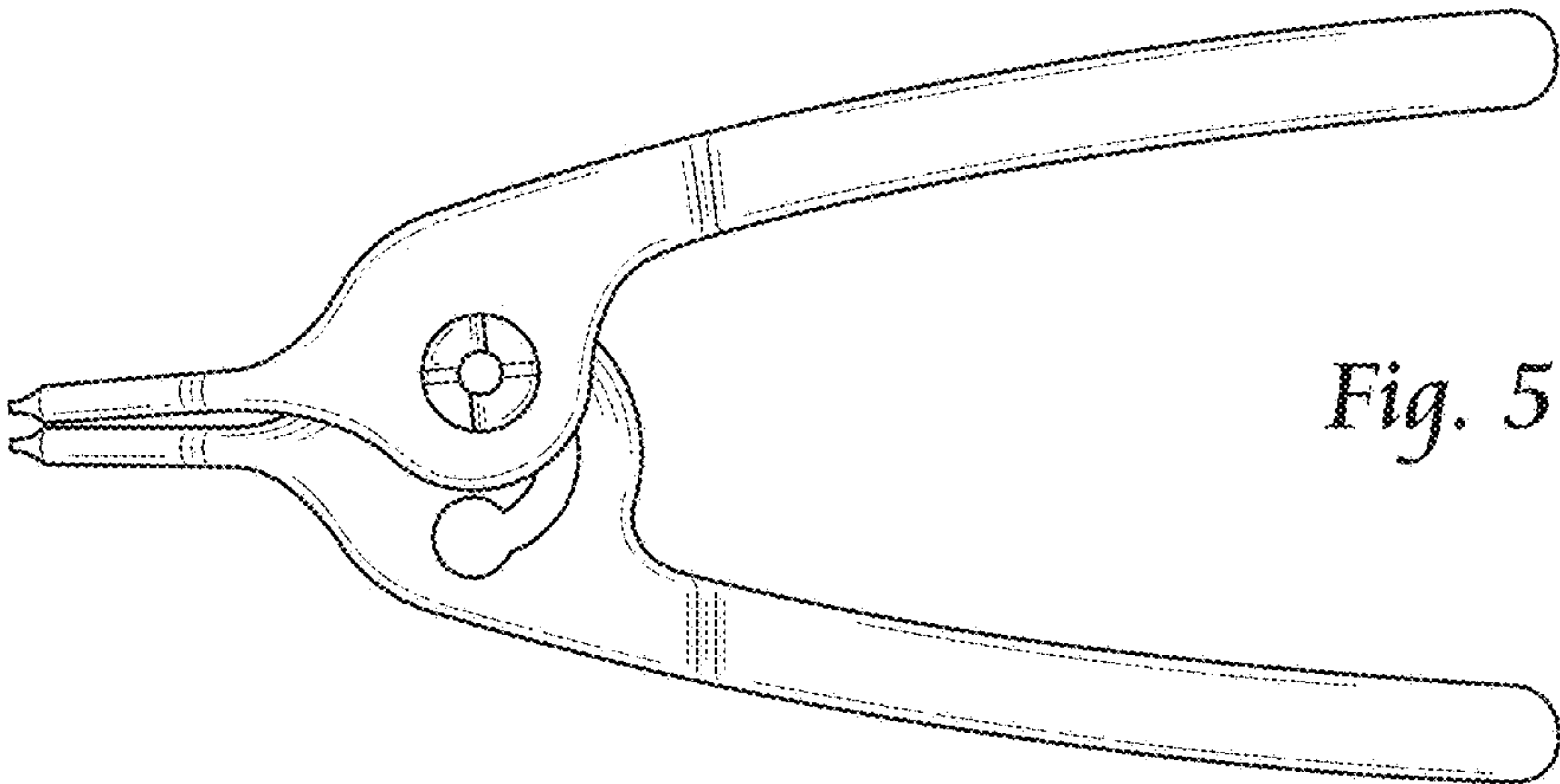
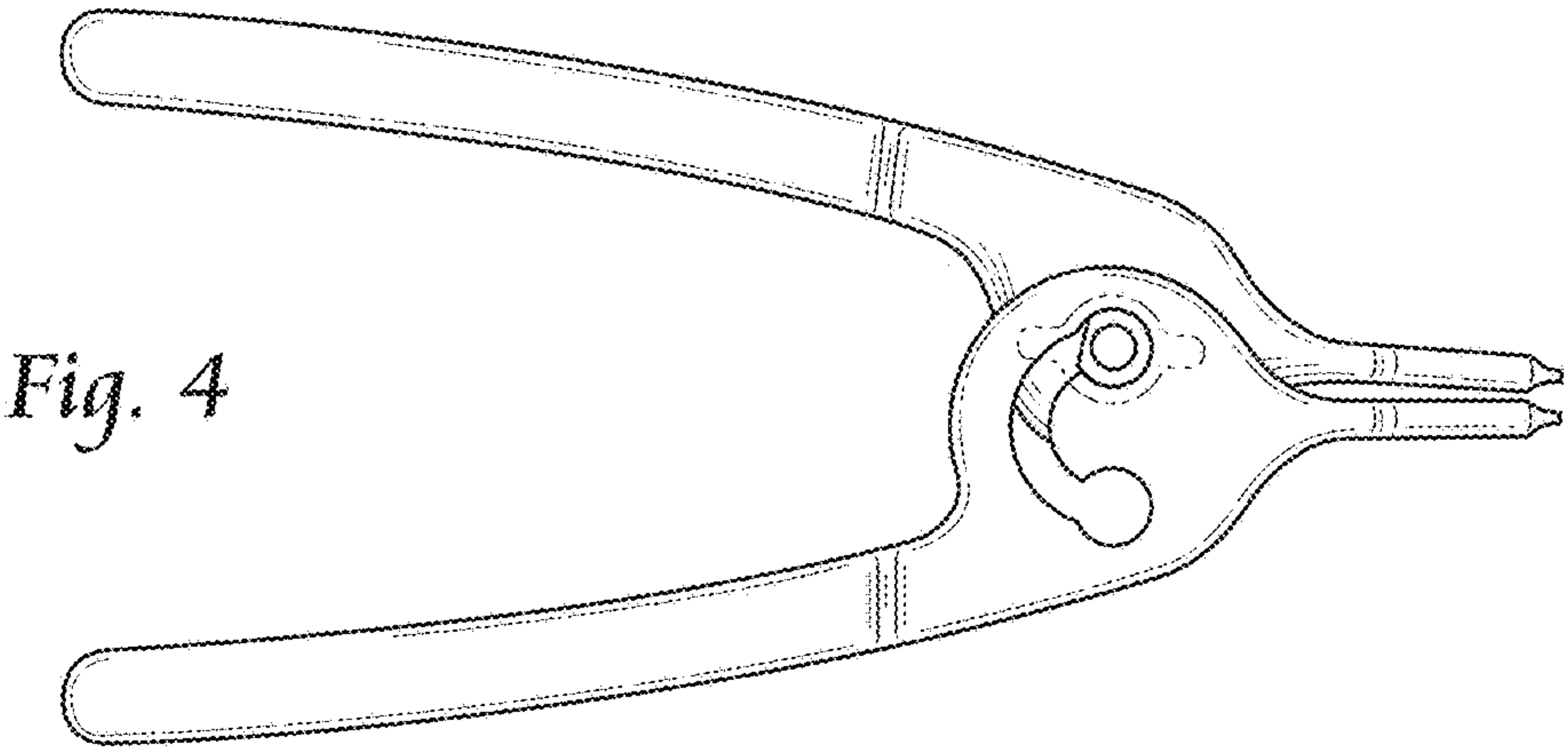
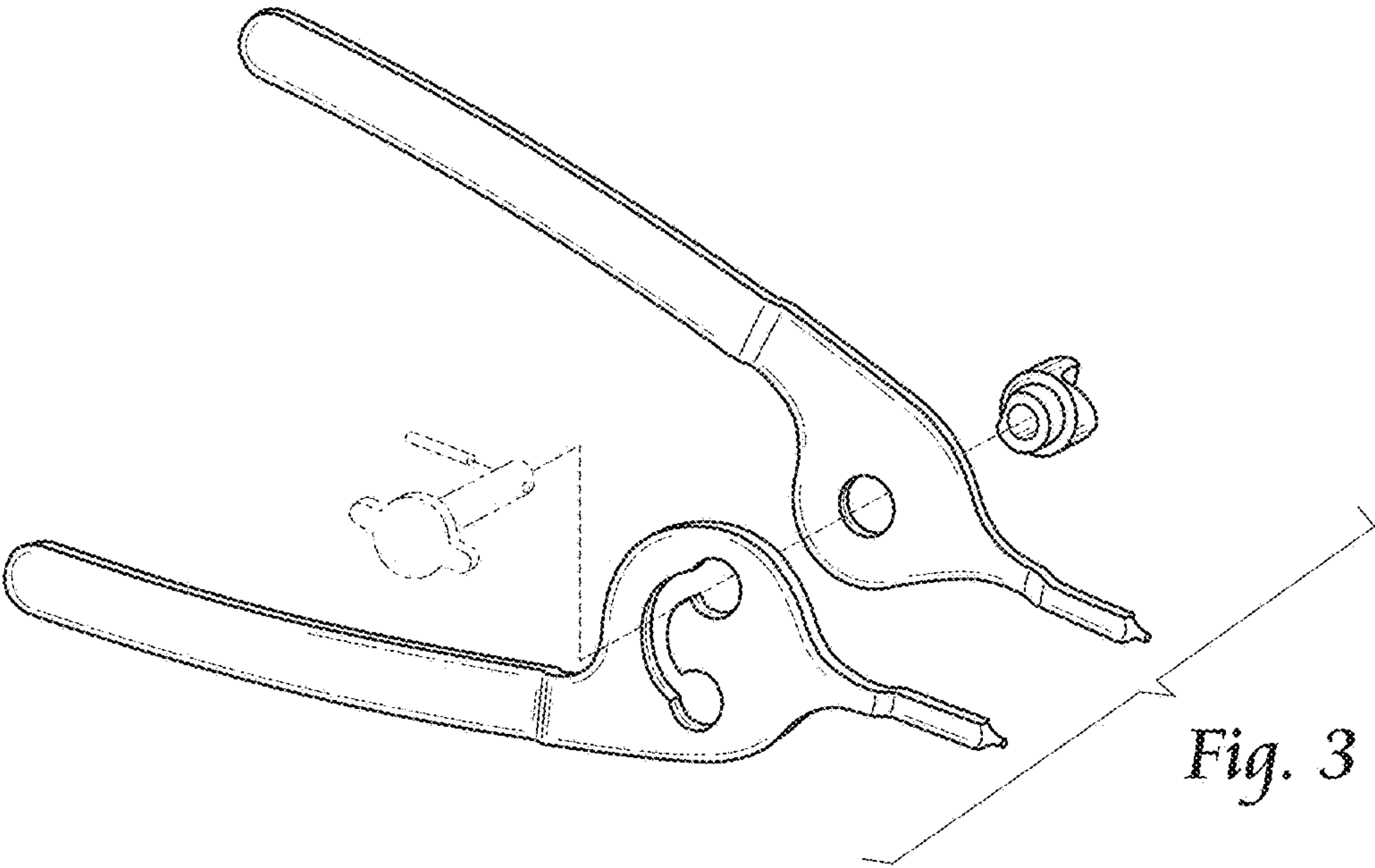


Fig. 2



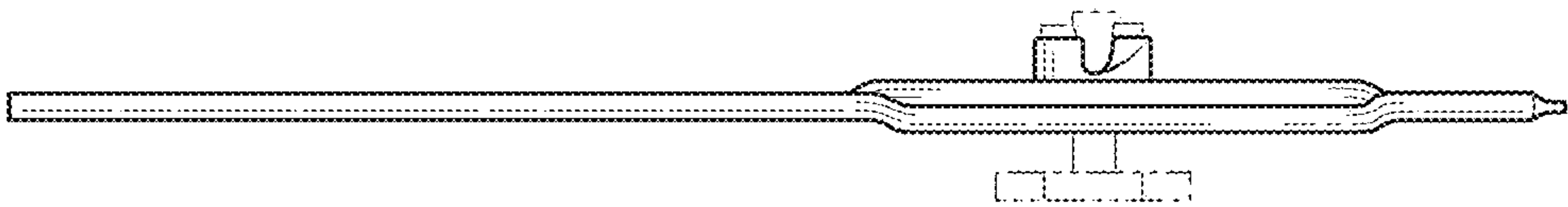


Fig. 6

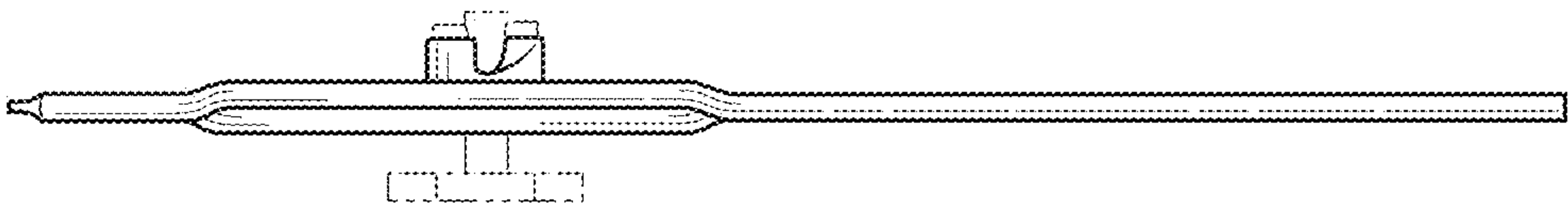


Fig. 7

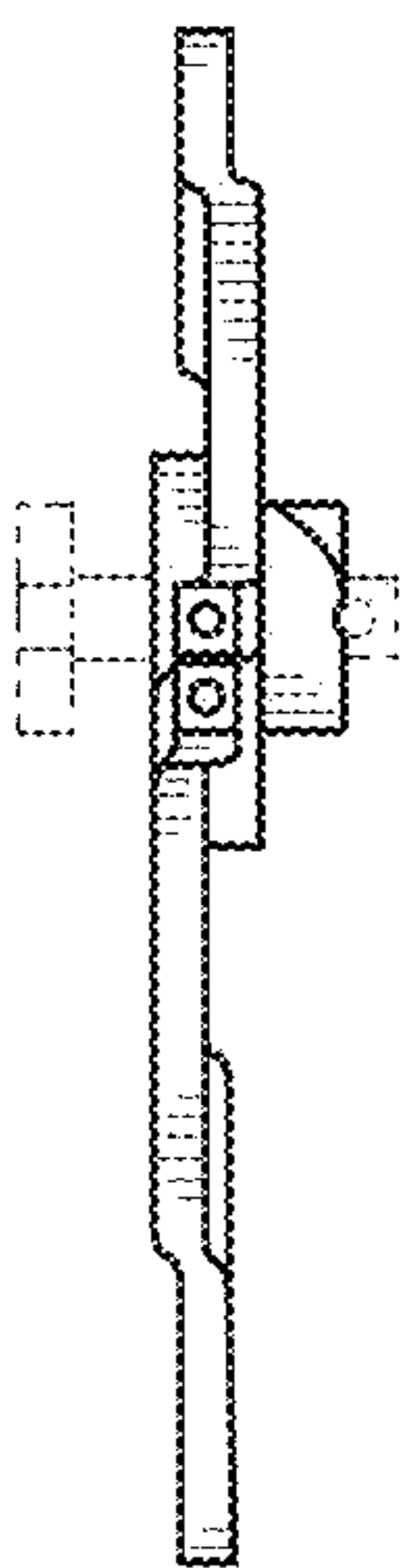


Fig. 8

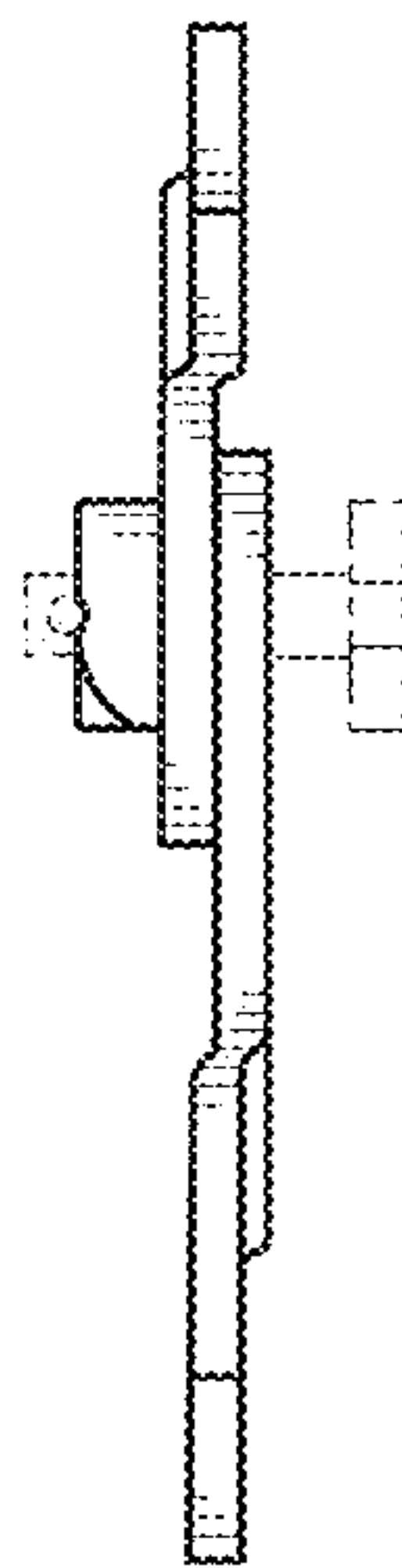


Fig. 9