



US00D364924S

# United States Patent [19]

[11] Patent Number: **Des. 364,924**

**Medema**

[45] Date of Patent: **\*\*Dec. 5, 1995**

[54] **TROCAR**

[75] Inventor: **Douglas J. Medema**, Plainwell, Mich.

[73] Assignee: **Richard-Allan Medical Industries, Inc.**, Richland, Mich.

[\*\*] Term: **14 Years**

[21] Appl. No.: **5,227**

[22] Filed: **Feb. 22, 1993**

[52] U.S. Cl. .... **D24/146**

[58] Field of Search ..... D24/146, 147;  
604/164, 264, 168, 166, 165, 158; 606/185,  
184

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

D. 320,857	10/1991	Tompkins et al. .
1,147,408	7/1915	Kells .
1,213,001	1/1917	Philips .
1,835,287	12/1931	Donovan .
2,097,039	10/1937	Peterson .

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

3713829	10/1988	Denmark .
475215	2/1951	Italy .
2161709	1/1986	United Kingdom .

**OTHER PUBLICATIONS**

"**Hunt/Reich Secondary Cannula Provides Major Cost Savings**," Brochure of Apple Medical Corp., 2 pages, date unknown but at least more than one year before the filing date of Feb. 22, 1993.

"**Auto Suture Disposable Laparoscopic System**," Brochure of Auto Suture, United States Surgical Corporation and Century Medical, Inc., 4 pages, date unknown but at least more than one year before the filing date of Feb. 22, 1993.

"**Surgiport III**," Brochure of Auto Suture, United States Surgical Corporation and Century Medical, Inc., 2 pages, date unknown but at least more than one year before the filing date of Feb. 22, 1993.

"**Advanced Laparoscopy with Auto Suture**," Brochure of

Auto Suture International, Inc., Copyright 1992, 2 pages.  
 "Laparoscopic Products Catalogue," Dexide, Inc., Copyright 1991, 4 pages.  
 "Entree®," Brochure of Core Dynamics, Inc., Copyright 1992, 2 pages.  
 "Trocan®," Brochure of Cabot Medical, Copyright Mar. 1991, 2 pages.  
 "The Source of Laparoscopic Innovation Origin," Brochure of Origin Medsystems, Inc., Copyright 1992, 4 pages.  
 "Surgical Trocars with Sureseal® Valve," Brochure of Applied Medical Resources, Copyright 1992, 2 pages.  
 "Blunt-Tip Trocar," Brochure of Origin Medsystems, Inc., Copyright 1992, 2 pages.  
 "Thoracic Trocar," Brochure of Origin Medsystems, Inc., Copyright 1992, 2 pages.  
 "Bold by Design," Endopath TriStar Disposable Surgical Trocar, by Ethicon Endosurgery, Copyright 1992, 1 page.  
 "Lock into the Cutting Edge of Laparoscopy," Brochure of Dexide, Inc., Copyright 1992, 6 pages.  
 Distributor Price List of Ethicon Endo-Surgery, dated Feb. 24, 1992, Front Cover, pp. 7-11 and 38-39.  
 "Innovations in Endosurgery," The Endopath Disposable Blunt Tip Trocar for Open Laparoscopy, Brochure of Ethicon, Inc., Copyright 1991, 1 page.  
 "Endopath," Trokare Veress-Nadeln, Brochure of Ethicon GMBH & Co. Inc., Copyright 1992, 4 pages.

*Primary Examiner*—A. Hugo Word  
*Assistant Examiner*—I. Simmons  
*Attorney, Agent, or Firm*—Leydig, Voit & Mayer, Ltd.

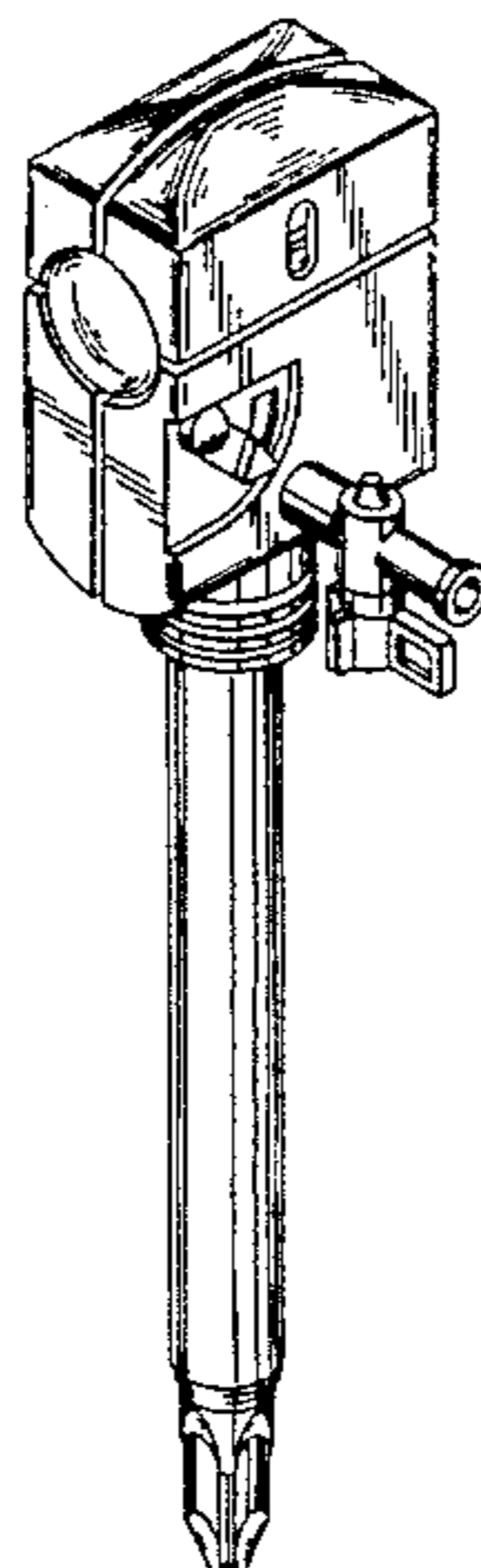
[57] **CLAIM**

The ornamental design for a trocar, as shown and described.

**DESCRIPTION**

FIG. 1 is a right front perspective view of the trocar;  
 FIG. 2 is a front elevational view thereof;  
 FIG. 3 is a left side elevational view thereof;  
 FIG. 4 is a rear elevational view thereof;  
 FIG. 5 is a right side elevational view thereof;  
 FIG. 6 is a top plan view thereof;  
 FIG. 7 is a bottom plan view thereof; and,  
 FIG. 8 is a right front perspective exploded view of the trocar showing the two halves of the trocar separated.

**1 Claim, 3 Drawing Sheets**



U.S. PATENT DOCUMENTS					
2,496,111	1/1950	Turkel .	4,493,076	1/1985	Williams et al. .
2,525,329	10/1950	Wyzenbeek .	4,496,345	1/1985	Hasson .
2,541,542	2/1951	Perez et al. .	4,523,379	6/1985	Osterhout et al. .
2,623,521	12/1952	Shaw .	4,535,773	8/1985	Yoon .
3,007,471	11/1961	McClure, Jr. .	4,556,059	12/1985	Adamson, Jr. .
3,039,468	6/1962	Price .	4,601,710	7/1986	Moll .
3,090,384	5/1963	Baldwin et al. .	4,645,492	2/1987	Weeks ..... 604/174
3,459,189	7/1965	Alley et al. .	4,650,473	3/1987	Bartholomew et al. .... 604/174
3,540,447	11/1970	Howe .	4,654,030	3/1987	Moll et al. .
3,545,443	12/1970	Ansari .	4,808,168	2/1989	Warring .
3,565,074	2/1971	Foti et al. .	4,902,280	2/1990	Lander .
3,613,684	10/1971	Sheridan .	4,931,042	6/1990	Holmes et al. .
3,721,229	3/1973	Panzer ..... 128/2 A	4,943,280	7/1990	Lander .
3,789,852	2/1974	Kim et al. .	5,002,557	3/1991	Hasson .
3,817,250	6/1974	Weiss et al. .	5,030,206	7/1991	Lander .
3,860,006	1/1975	Patel .	5,053,016	10/1991	Lander .
3,893,446	7/1975	Miller ..... 128/2 A	5,066,288	11/1991	Deneiga et al. .
3,895,632	7/1975	Ploweicki .	5,085,648	2/1992	Purdy et al. .
3,948,270	4/1976	Hasson .	5,104,382	4/1992	Brinkerhoff et al. .
3,993,079	11/1976	Henriques de Gatztanondo .	5,104,383	4/1992	Shichman .
3,994,287	11/1976	Turp et al. .	5,114,407	5/1992	Burbank .
4,013,080	3/1977	Froning .	5,116,353	5/1992	Green .
4,058,121	11/1977	Choski et al. .	5,127,909	7/1992	Shichman .
4,177,814	12/1979	Knepshild et al. .	5,129,885	7/1992	Green et al. .
4,180,068	12/1979	Jacobsen et al. .	5,139,487	8/1992	Baber .
4,186,750	2/1980	Patel .	5,141,517	8/1992	Shutt .
4,215,699	8/1980	Patel .	5,143,082	9/1992	Kindberg et al. .
4,230,123	10/1980	Hawkins, Jr. .	5,147,316	9/1992	Castillenti .
4,254,762	3/1981	Yoon .	5,152,754	10/1992	Plyley et al. .
4,299,230	11/1981	Kubota .	5,158,552	10/1992	Borgia et al. .
4,325,370	4/1982	Young ..... 128/245	5,217,441	6/1993	Shichman ..... 604/164 X
4,345,589	8/1982	Hiltebrandt .	5,226,890	7/1993	Ianniruberto et al. .... 604/164
4,414,974	11/1983	Dotson et al. .	5,256,147	10/1993	Vidal et al. .... 604/158
4,419,094	12/1983	Patel .	5,256,149	10/1993	Banik et al. .... 604/164
4,447,236	5/1984	Quinn .	5,261,888	11/1993	Semm ..... 604/164
4,491,132	1/1985	Aikins .	5,261,891	11/1993	Brinkerhoff et al. .... 604/165
			5,290,243	3/1994	Chodoraw et al. .... 604/165

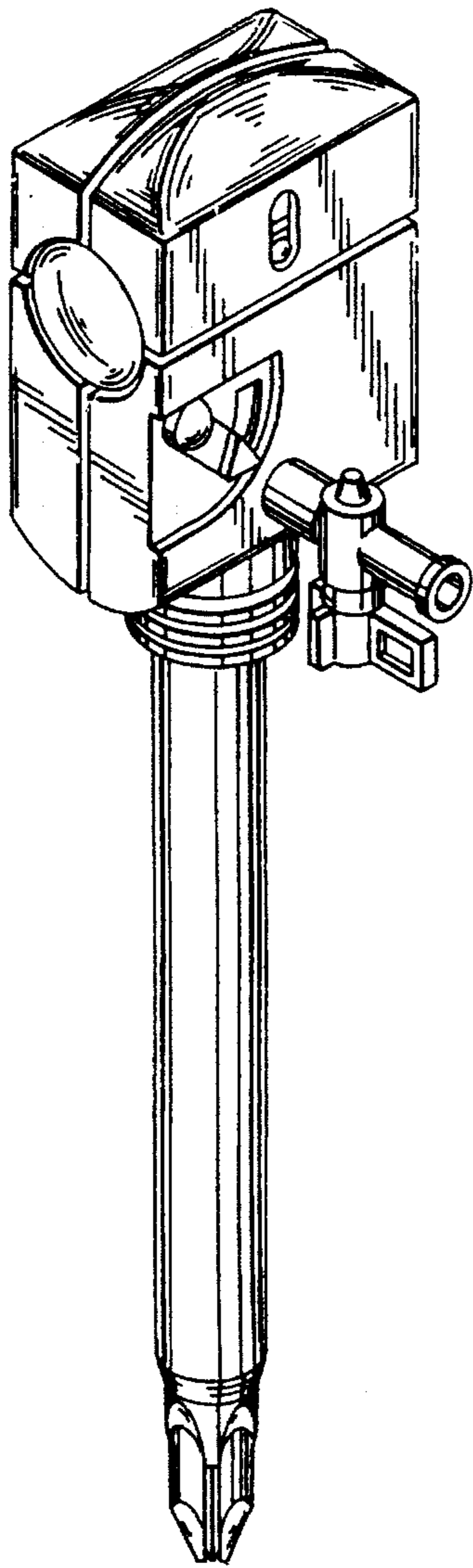


FIG. 1

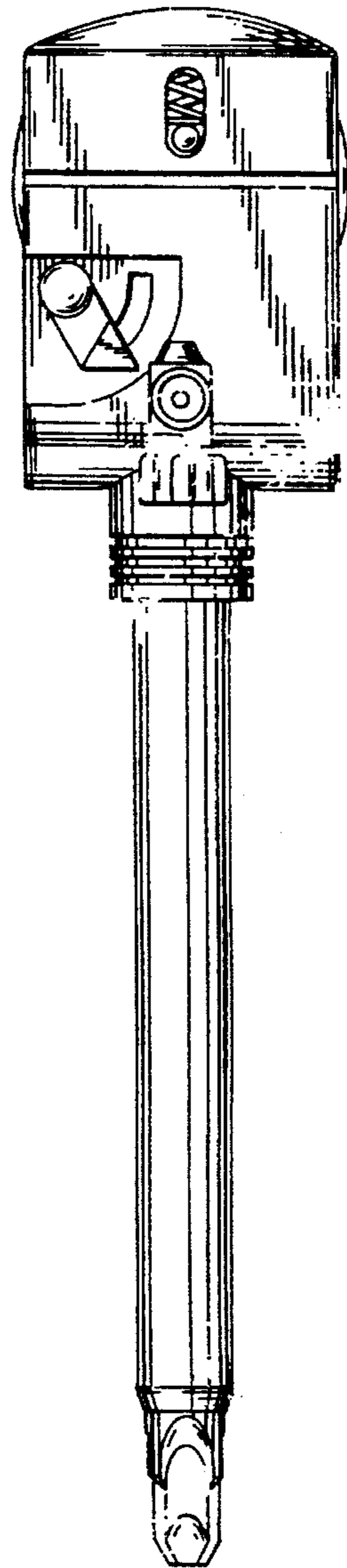


FIG. 2



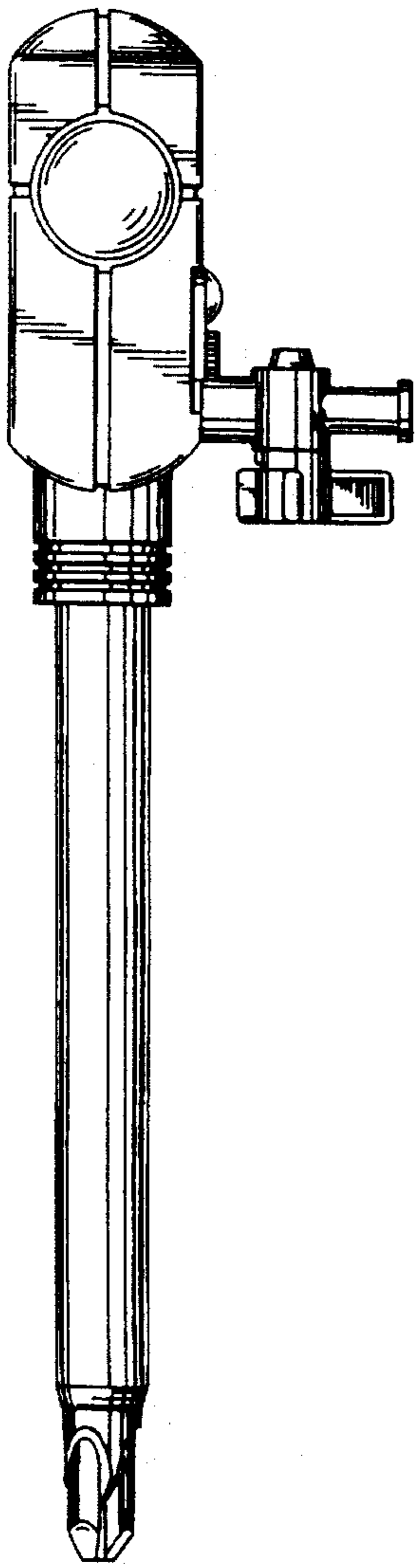


FIG. 3

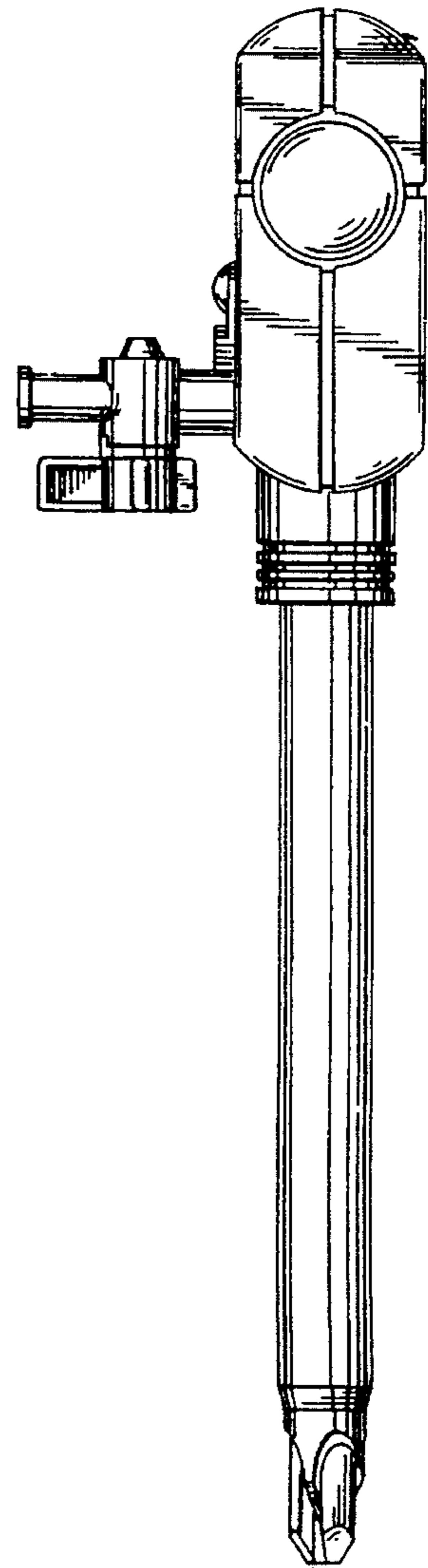


FIG. 5

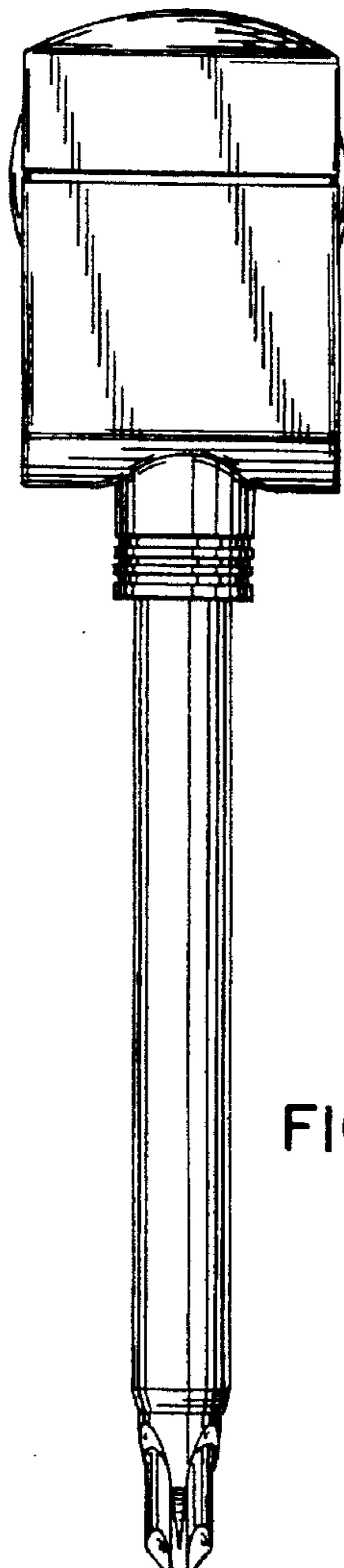


FIG. 4

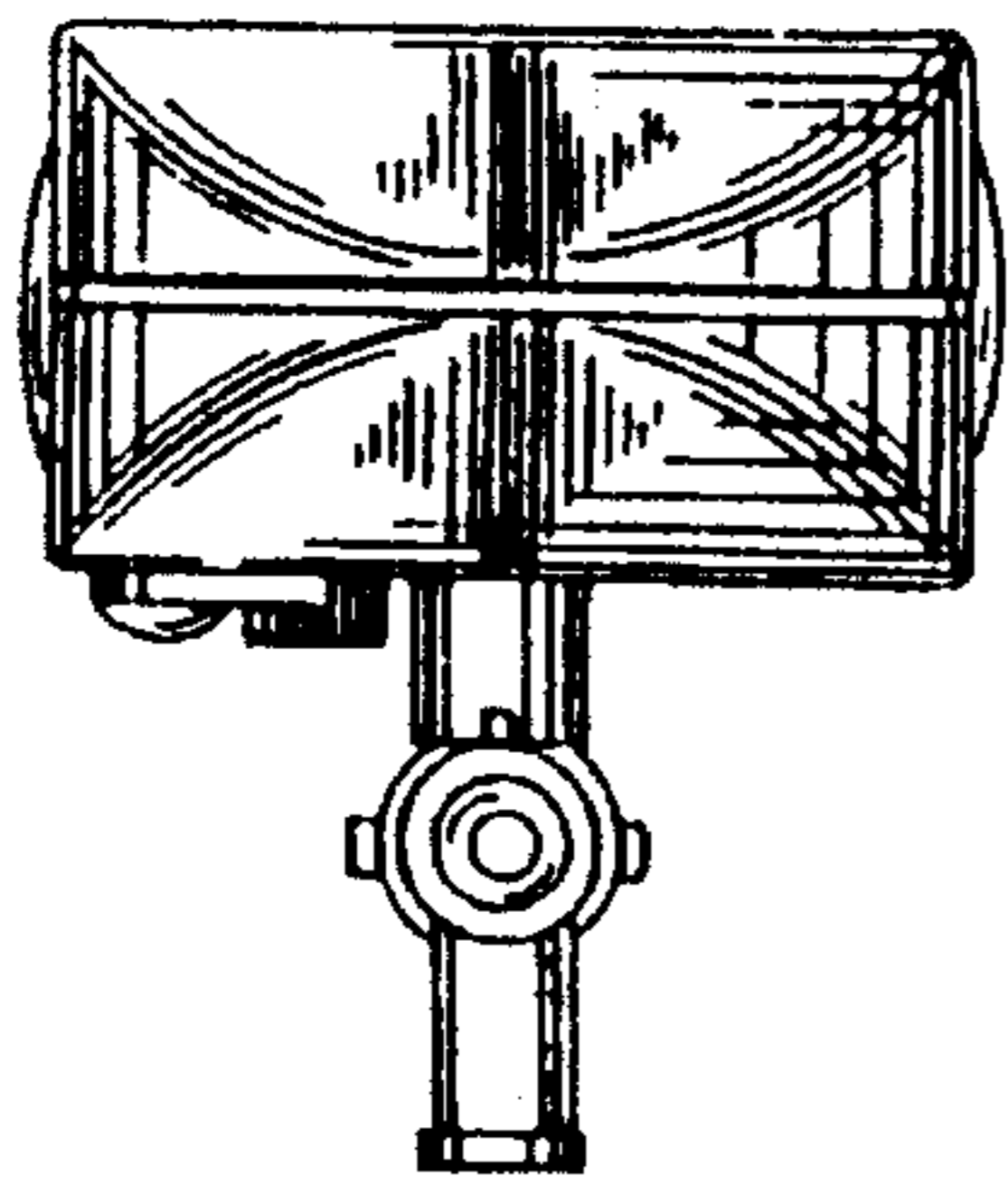


FIG. 6

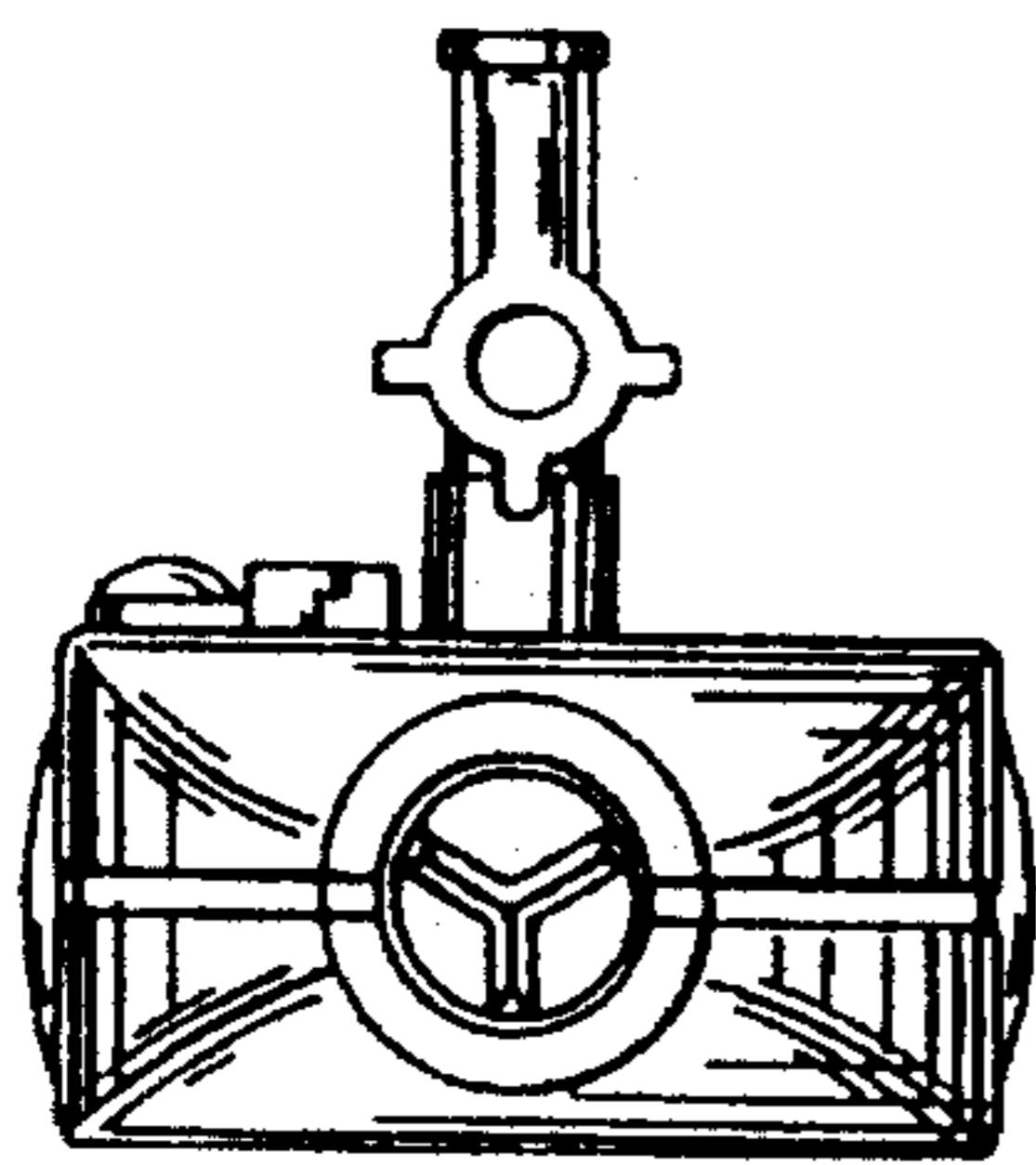
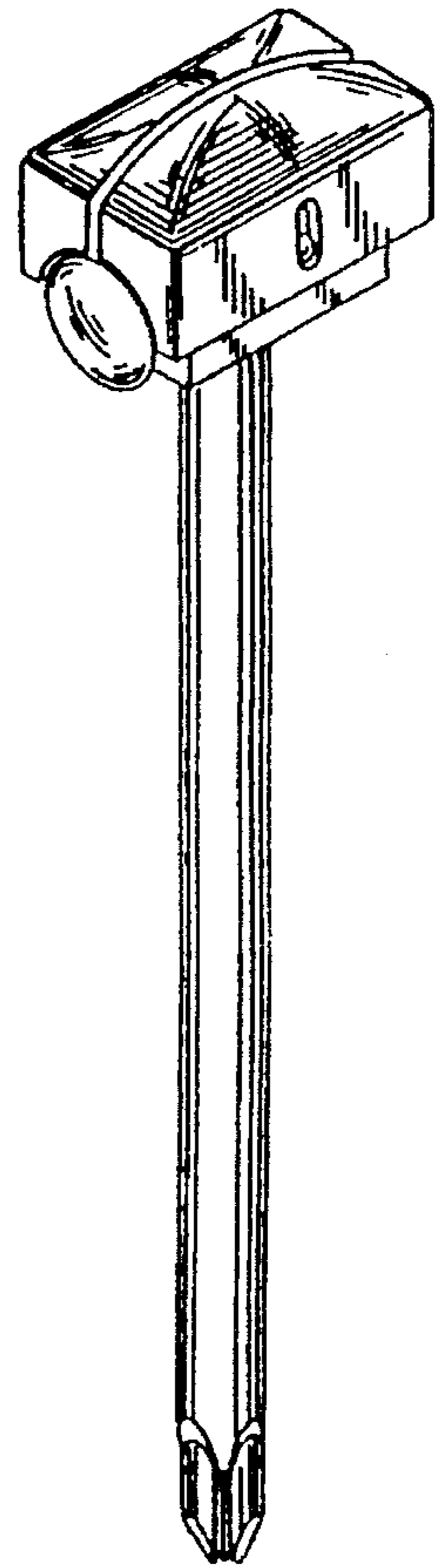


FIG. 7

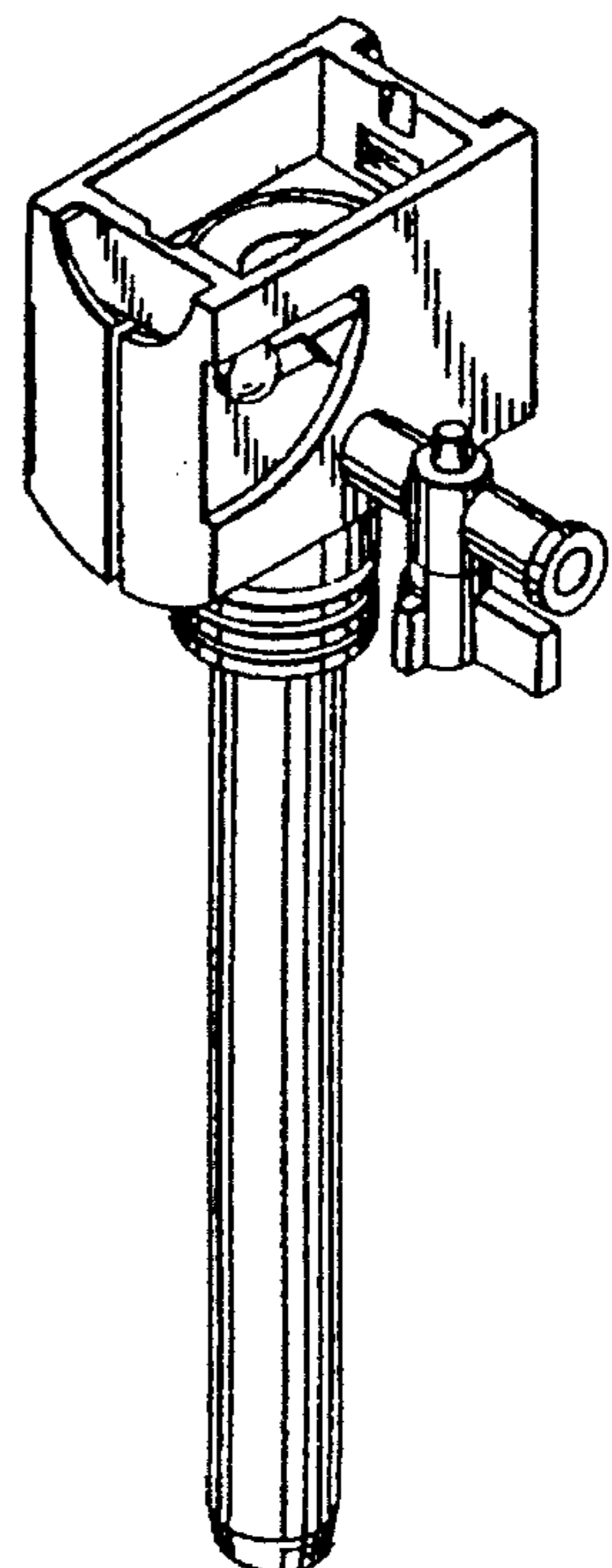


FIG. 8