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(12) **United States Design Patent**
Keller

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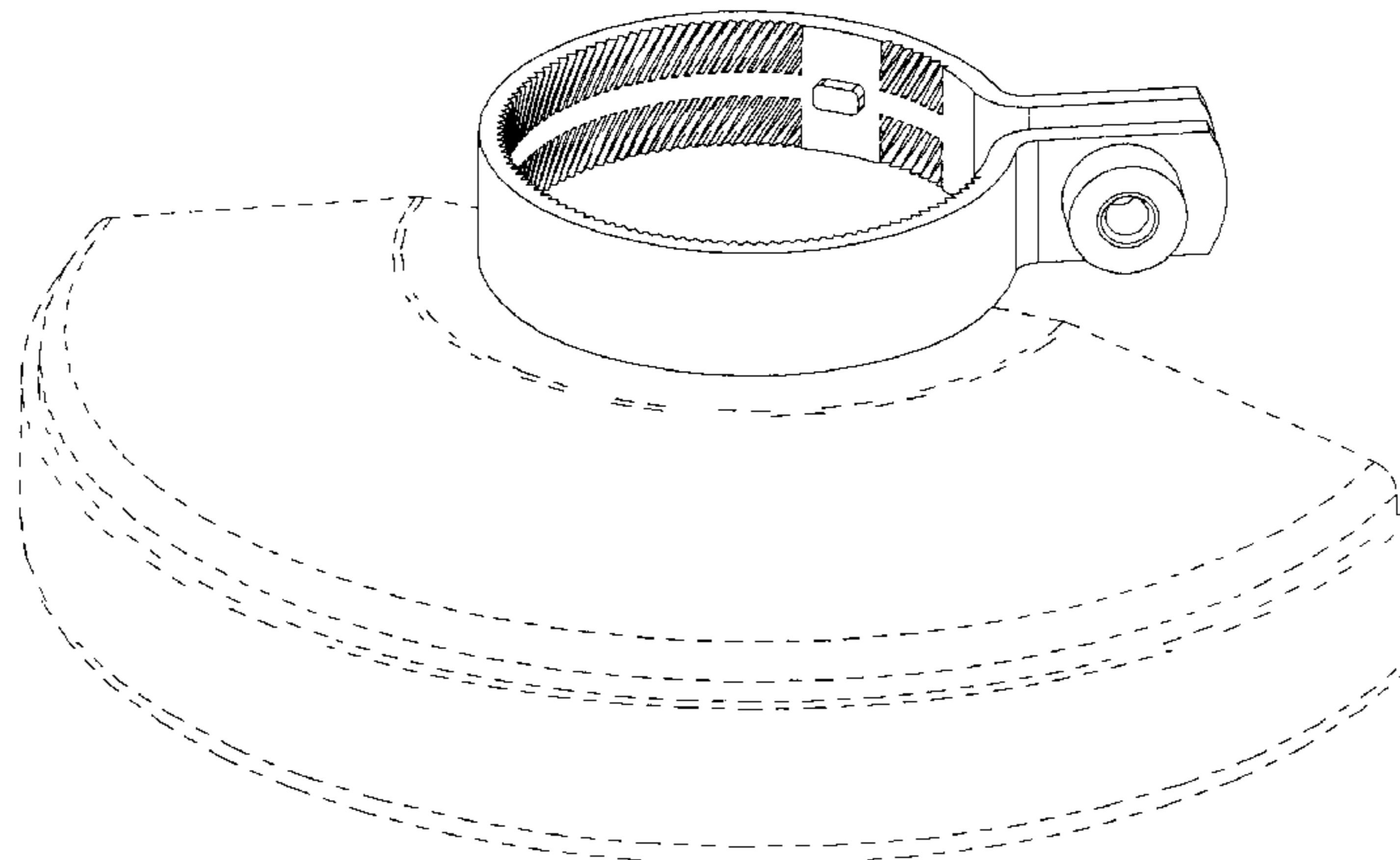
- (54) **KNURLED COLLAR ATTACHMENT SYSTEM**
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- (73) Assignee: **Porter-Cable Corporation**, Jackson, TN (US)
- (**) Term: **14 Years**
- (21) Appl. No.: **29/125,895**
- (22) Filed: **Jun. 30, 2000**
- (51) **LOC (7) Cl. 08-05**
- (52) **U.S. Cl. D8/70; D8/396**
- (58) **Field of Search D8/61, 62, 63, D8/64, 65, 66, 67, 68, 396, 69, 70, 395; 30/123.3; 81/54, 57.11, 57.42; 173/48, 109, 170; 227/2, 8, 10, 111, 112, 113, 114, 115, 116, 120, 123, 130, 131, 136, 142, 151; 451/451, 356; 248/62, 71, 74.1, 74.4, 229.24**

D269,155 S	*	5/1983	Rose	D8/395
4,400,995 A		8/1983	Palm	
4,434,586 A		3/1984	Miller et al.	
4,462,381 A		7/1984	Fushiya et al.	
4,574,532 A		3/1986	Häberle et al.	
4,581,966 A		4/1986	Kaiser et al.	
4,735,020 A		4/1988	Schulz et al.	
4,846,027 A	*	7/1989	Lu	81/57.42
4,848,001 A		7/1989	Clark et al.	
4,875,398 A		10/1989	Taylor et al.	
4,891,915 A		1/1990	Yasuda	
D307,541 S	*	5/1990	Tres	D8/396
4,924,635 A		5/1990	Rudolf et al.	
4,932,164 A		6/1990	Sullivan et al.	
4,955,162 A		9/1990	Jackson	
4,974,578 A		12/1990	Charles et al.	
4,989,374 A		2/1991	Rudolf et al.	
5,005,321 A		4/1991	Barth et al.	
5,031,325 A		7/1991	Walter et al.	
5,031,364 A		7/1991	Belanger	
5,038,523 A		8/1991	Farber et al.	
D322,077 S	*	12/1991	Downing	D8/70
5,071,427 A		12/1991	Stahl	
5,077,942 A		1/1992	Jacobsson	
5,125,189 A		6/1992	Holmin et al.	
5,138,735 A		8/1992	Kusz et al.	
5,207,028 A		5/1993	Timmons	
5,218,790 A		6/1993	Huang	
D337,499 S	*	7/1993	Matsunaga et al.	D8/62
5,263,283 A		11/1993	Rudolf et al.	
5,384,985 A		1/1995	Jacobsson	
5,386,667 A		2/1995	Häusslein et al.	
5,396,706 A		3/1995	Fajnsztajn	
5,398,456 A		3/1995	Kleider	
5,407,381 A		4/1995	Schaefer et al.	
5,411,433 A		5/1995	Keller	
5,466,183 A		11/1995	Kirn et al.	
5,527,207 A		6/1996	Azar et al.	
5,531,147 A		7/1996	Serban	
5,558,569 A		9/1996	Lee	
5,558,571 A		9/1996	Toyoshima et al.	
5,624,305 A		4/1997	Brown	
5,637,035 A		6/1997	Yee	
5,679,066 A		10/1997	Butz et al.	
5,681,214 A		10/1997	Kleider et al.	
5,733,183 A		3/1998	Schierling et al.	
5,766,062 A		6/1998	Edling	
D396,801 S	*	8/1998	Petty	D8/396
5,794,300 A		8/1998	McCracken et al.	

(56) **References Cited**

U.S. PATENT DOCUMENTS

828,706 A	8/1906	Bohling et al.	
845,578 A	* 2/1907	Ross	D8/395
859,479 A	* 7/1907	Blackburn	248/229.24
906,806 A	* 12/1908	Kortick et al.	248/71
1,834,727 A	* 12/1931	Pearson	173/109
1,862,637 A	* 6/1932	Slatcher	173/109
2,904,294 A	* 9/1959	Marygold	248/74.4
2,945,277 A	* 7/1960	Wiora	D8/396
3,646,712 A	3/1972	Quintana	
3,818,648 A	6/1974	Evans	
3,835,595 A	9/1974	Oshima et al.	
3,876,015 A	4/1975	Kivela	
3,969,856 A	7/1976	Zerrer	
4,024,633 A	5/1977	Stucker	
4,058,936 A	11/1977	Marton	
4,059,930 A	11/1977	Alessio	
4,065,886 A	1/1978	Harwood et al.	
4,125,968 A	11/1978	Mackey	
4,294,046 A	10/1981	Damiano	
4,330,967 A	5/1982	Richardson	



5,839,359	A	11/1998	Gardner	
5,839,950	A	11/1998	Edling et al.	
5,940,976	A	8/1999	Söderqvist et al.	
D415,017	S	* 10/1999	Lo	D8/396
D427,052	S	* 6/2000	Nagato	D8/396
6,070,675	A	* 6/2000	Mayer et al.	173/48
6,244,358	B1	* 6/2001	Beer et al.	173/170

OTHER PUBLICATIONS

Makita Power Tools, wheel guards, various sizes and models, p. 118.*

Woodworker's Supply, stop collars 202-220 and 815-261, p. 131 catalogue 86, Aug. 1993.*

Trend-Lines, split stop collar set AB75, p. 59, catalogue 517C.*

* cited by examiner

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Assistant Examiner—T. Chase Nelson

(74) *Attorney, Agent, or Firm*—Merchant & Gould P.C.

(57) CLAIM

The ornamental design for a knurled collar attachment system, as shown and described.

DESCRIPTION

FIG. 1 is a front and top right perspective view of a knurled collar attachment system.

FIG. 2 is a front and top left perspective view of the knurled collar attachment system shown in FIG. 1.

FIG. 3 is a front elevational view of the knurled collar attachment system shown in FIG. 1.

FIG. 4 is a rear elevational view of the knurled collar attachment system shown in FIG. 1.

FIG. 5 is a right side elevational view of the knurled collar attachment system shown in FIG. 1.

FIG. 6 is a left side elevational view of the knurled collar attachment system shown in FIG. 1.

FIG. 7 is a top plan view of the knurled collar attachment system shown in FIG. 1.

FIG. 8 is a bottom plan view of the knurled collar attachment system shown in FIG. 1.

FIG. 9 is a front and top right perspective view of a knurled collar attachment system attached to an alternate power tool guard.

FIG. 10 is a front and top left perspective view of the knurled collar attachment system shown in FIG. 9.

FIG. 11 is a front elevational view of the knurled collar attachment system shown in FIG. 9.

FIG. 12 is a rear elevational view of the knurled collar attachment system shown in FIG. 9.

FIG. 13 is a right side elevational view of the knurled collar attachment system shown in FIG. 9.

FIG. 14 is a left side elevational view of the knurled collar attachment system shown in FIG. 9.

FIG. 15 is a top plan view of the knurled collar attachment system shown in FIG. 9.

FIG. 16 is a bottom plan view of the knurled collar attachment system shown in FIG. 9.

FIG. 17 is a front and top right perspective view of a knurled collar attachment system attached to an alternate power tool guard.

FIG. 18 is a front and top left perspective view of the knurled collar attachment system shown in FIG. 17.

FIG. 19 is a front elevational view of the knurled collar attachment system shown in FIG. 17.

FIG. 20 is a rear elevational view of the knurled collar attachment system shown in FIG. 17.

FIG. 21 is a right side elevational view of the knurled collar attachment system shown in FIG. 17.

FIG. 22 is a left side elevational view of the knurled collar attachment system shown in FIG. 17.

FIG. 23 is a top plan view of the knurled collar attachment system shown in FIG. 17.

FIG. 24 is a bottom plan view of the knurled collar attachment system shown in FIG. 17.

FIG. 25 is a front and top right perspective view of a knurled collar attachment system attached to an alternate power tool guard.

FIG. 26 is a front and top left perspective view of the knurled collar attachment system shown in FIG. 25.

FIG. 27 is a front elevational view of the knurled collar attachment system shown in FIG. 25.

FIG. 28 is a rear elevational view of the knurled collar attachment system shown in FIG. 25.

FIG. 29 is a right side elevational view of the knurled collar attachment system shown in FIG. 25.

FIG. 30 is a left side elevational view of the knurled collar attachment system shown in FIG. 25.

FIG. 31 is a top plan view of the knurled collar attachment system shown in FIG. 25; and,

FIG. 32 is a bottom plan view of the knurled collar attachment system shown in FIG. 25.

It will be understood that the present invention applies to a knurled collar attachment system in the environment of a power tool guard, as shown and described. The power tool guards themselves, shown in the drawings as the environment for the knurled collar attachment system, are not part of the design sought to be patented and are therefore set forth in broken lines.

1 Claim, 16 Drawing Sheets

FIG. 1

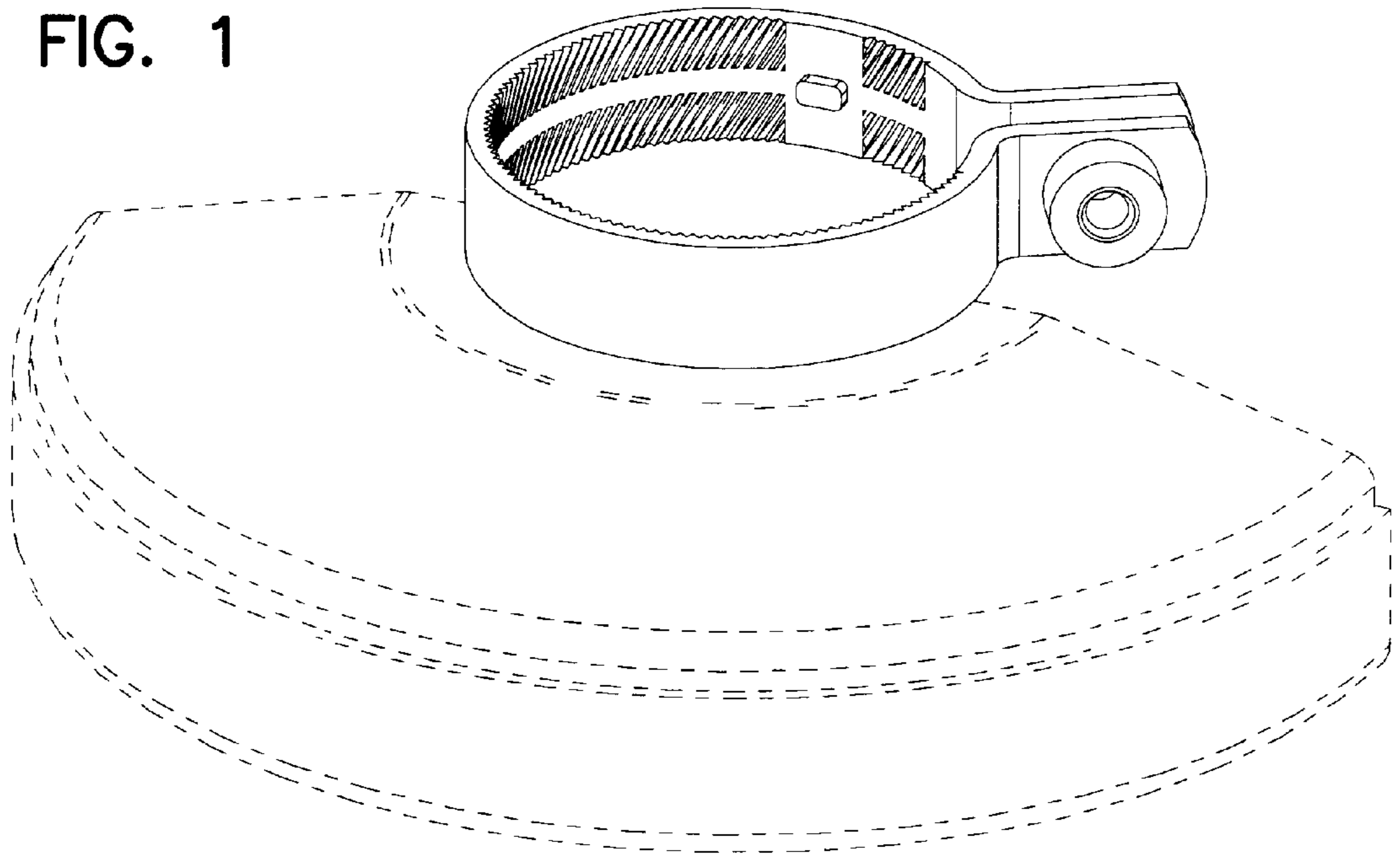


FIG. 2

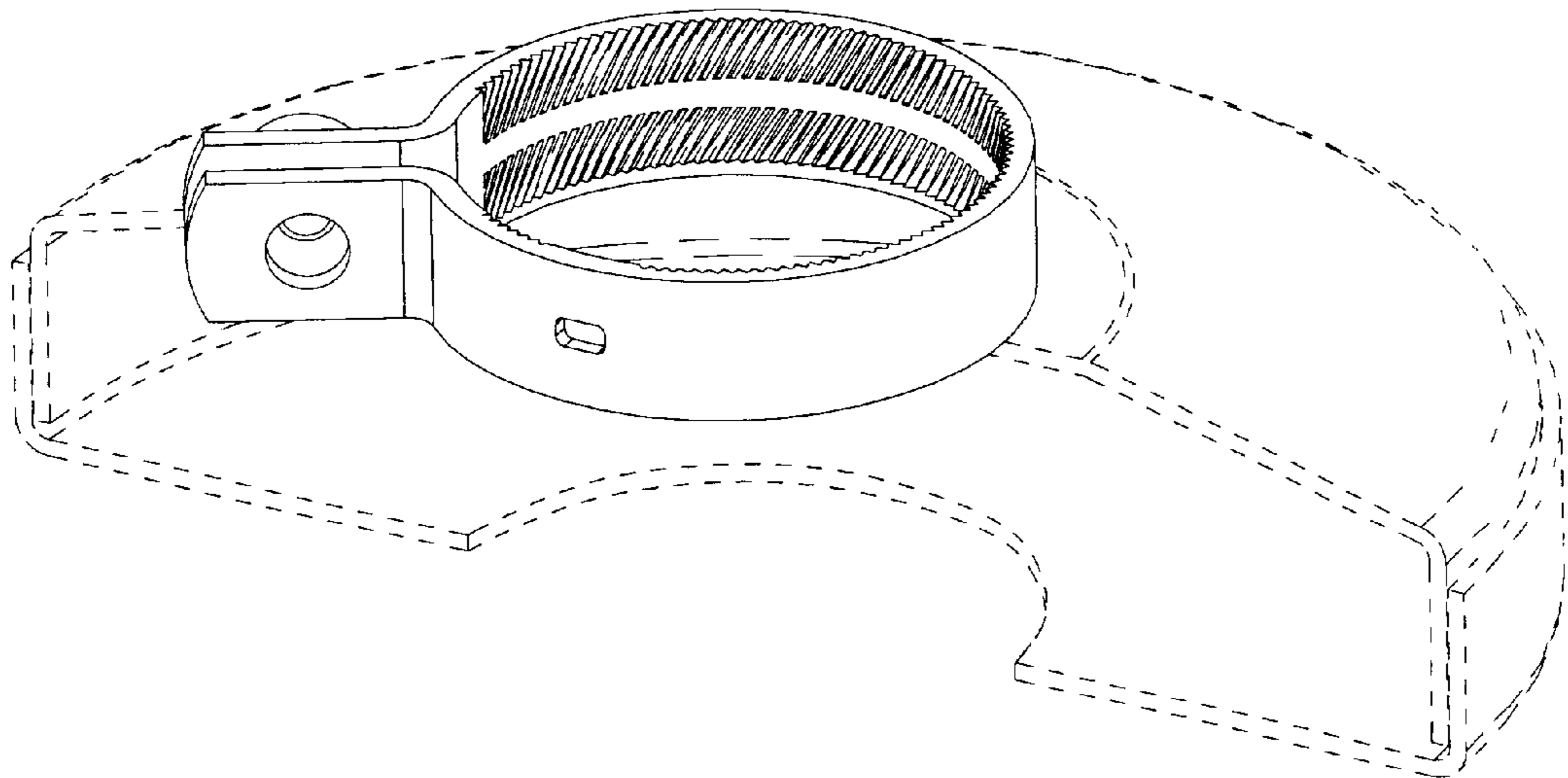


FIG. 4

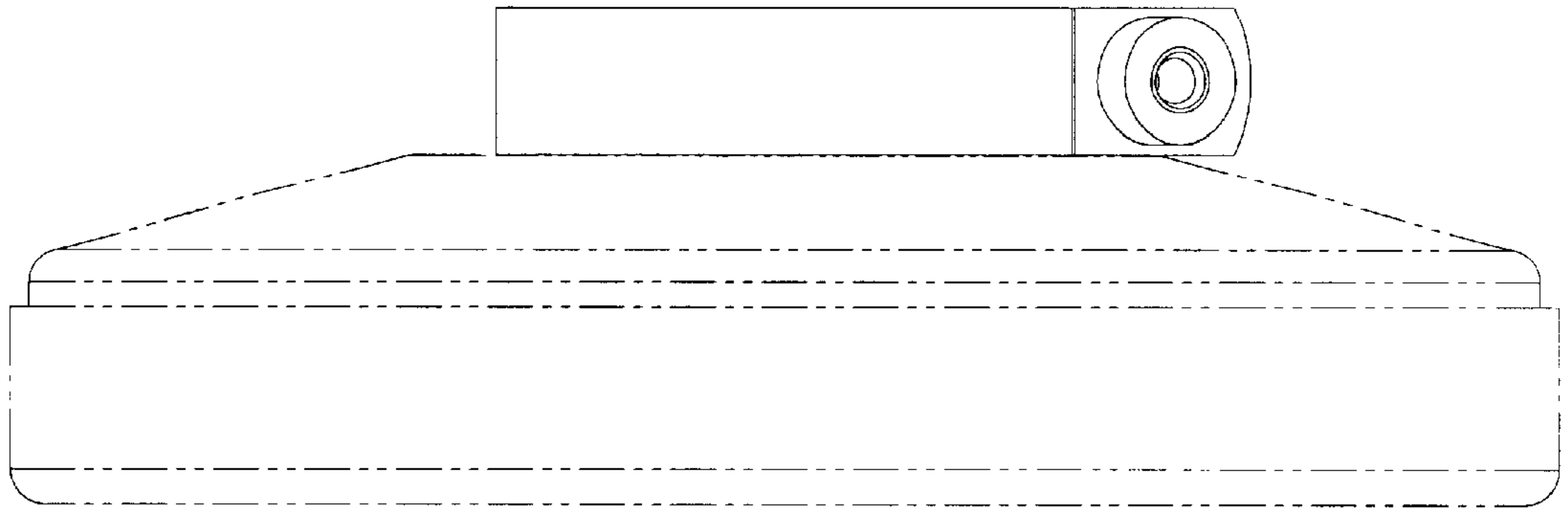


FIG. 3

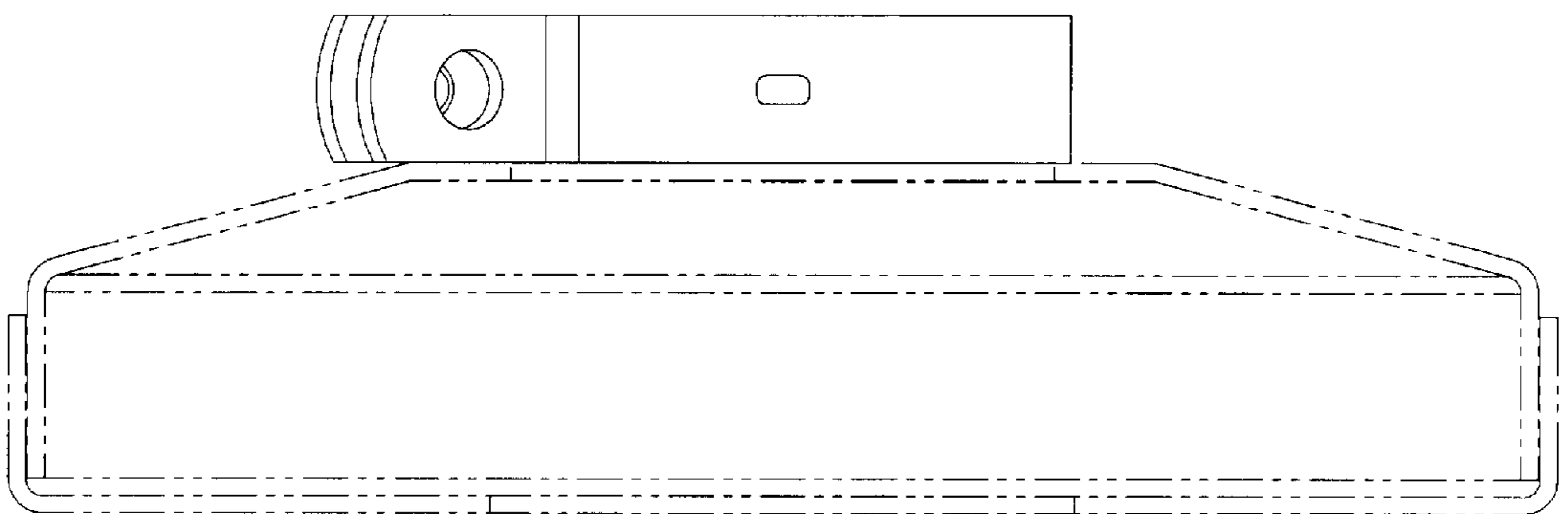


FIG. 6

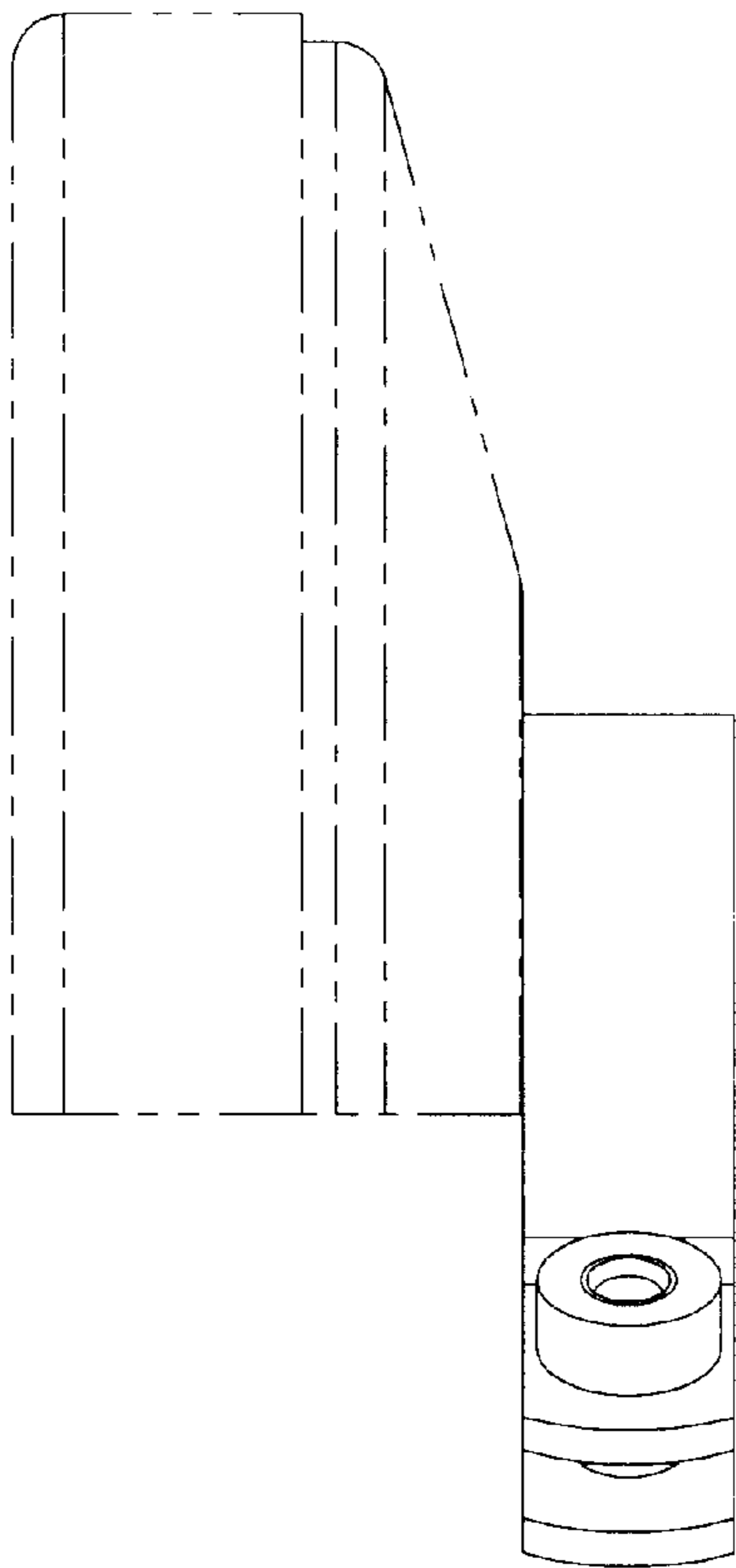


FIG. 5

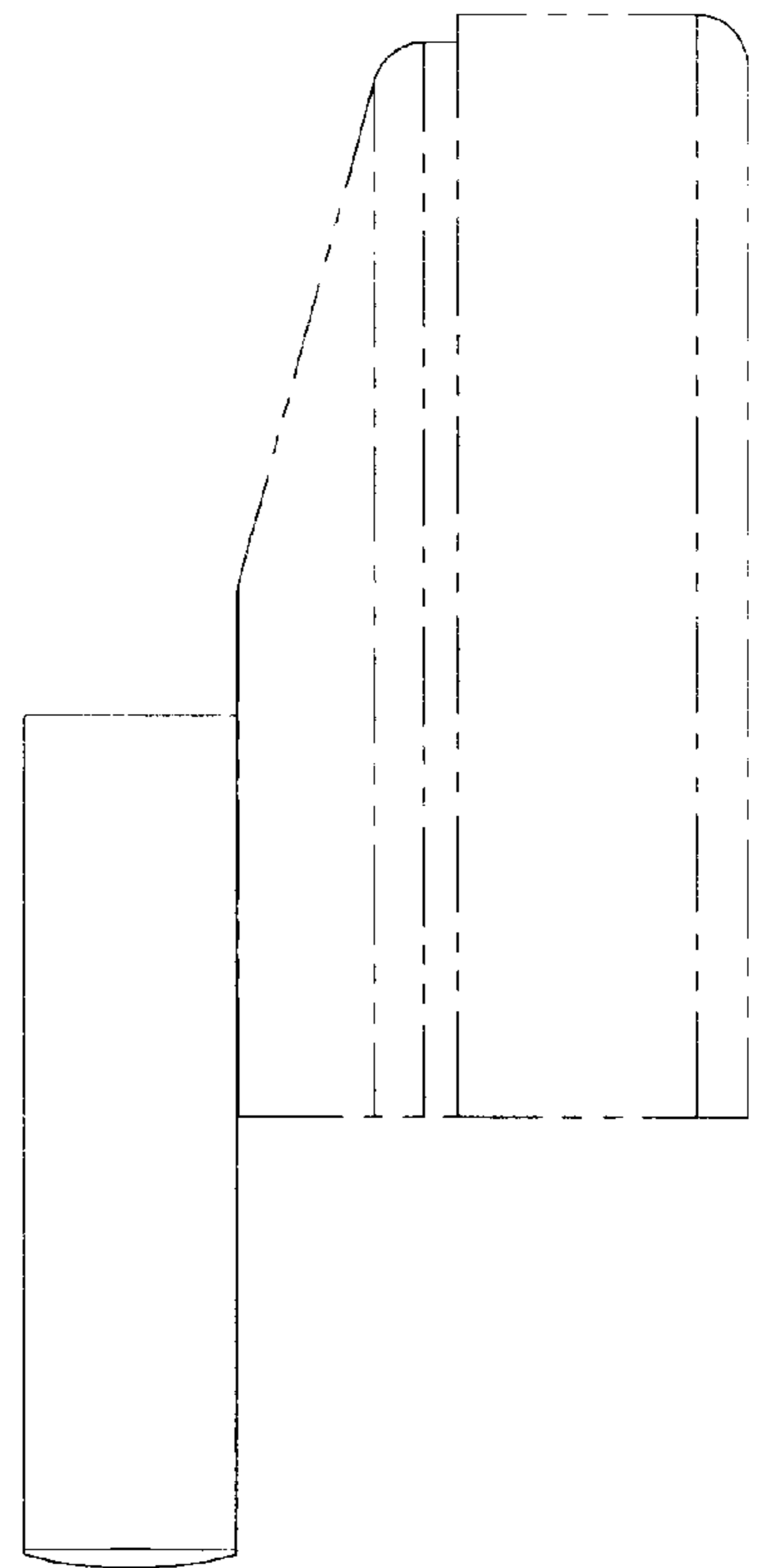


FIG. 7

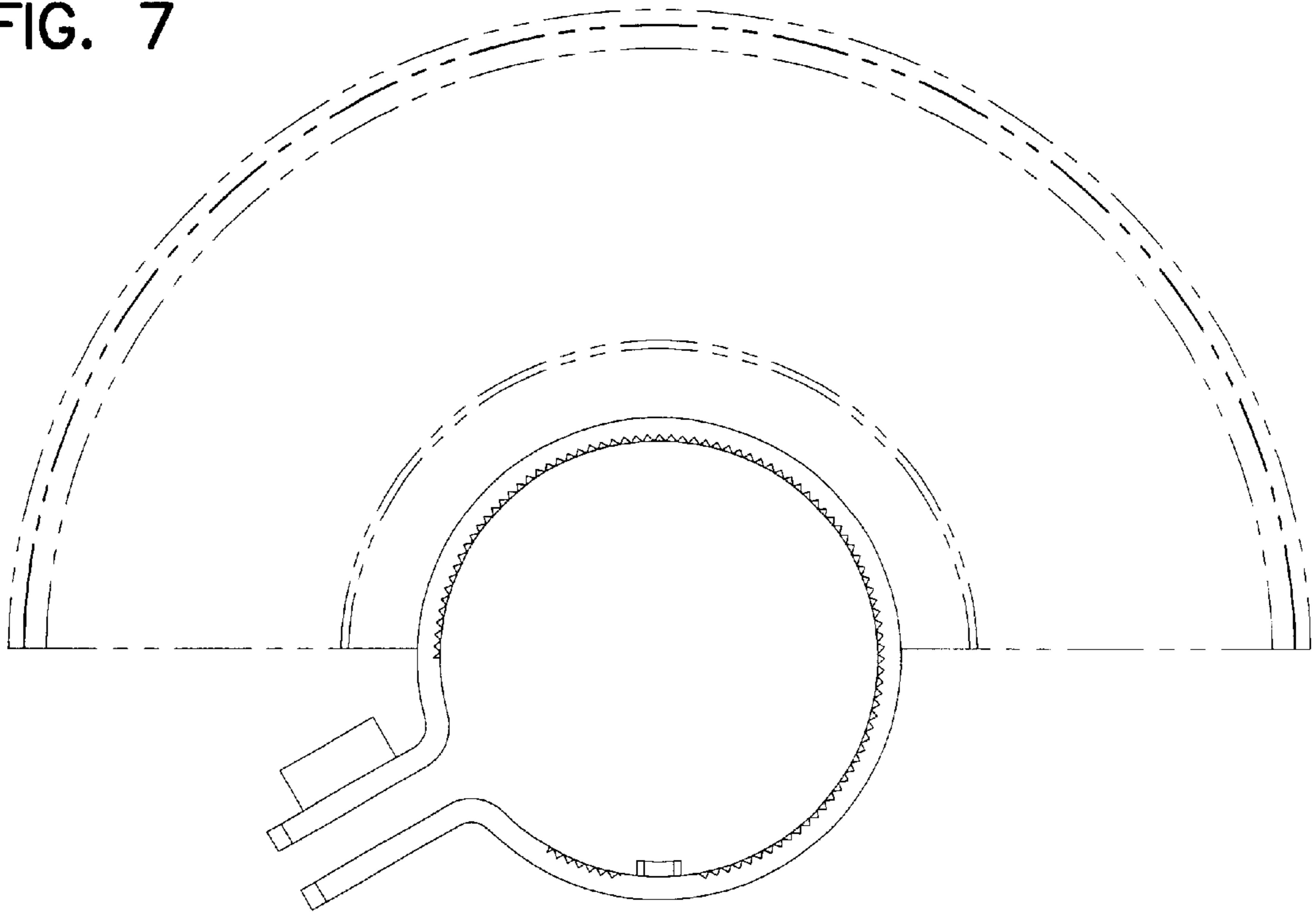


FIG. 8

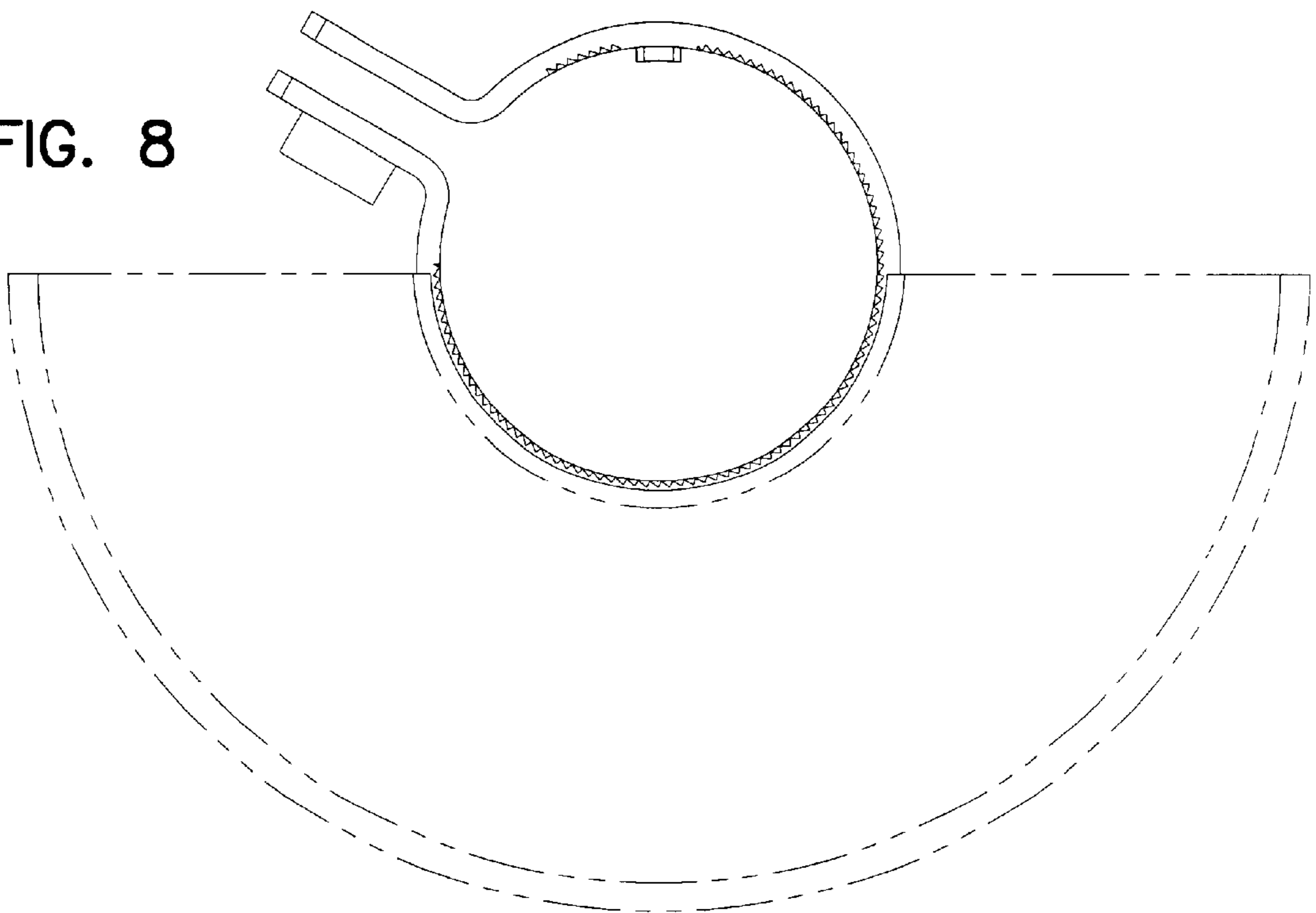


FIG. 10

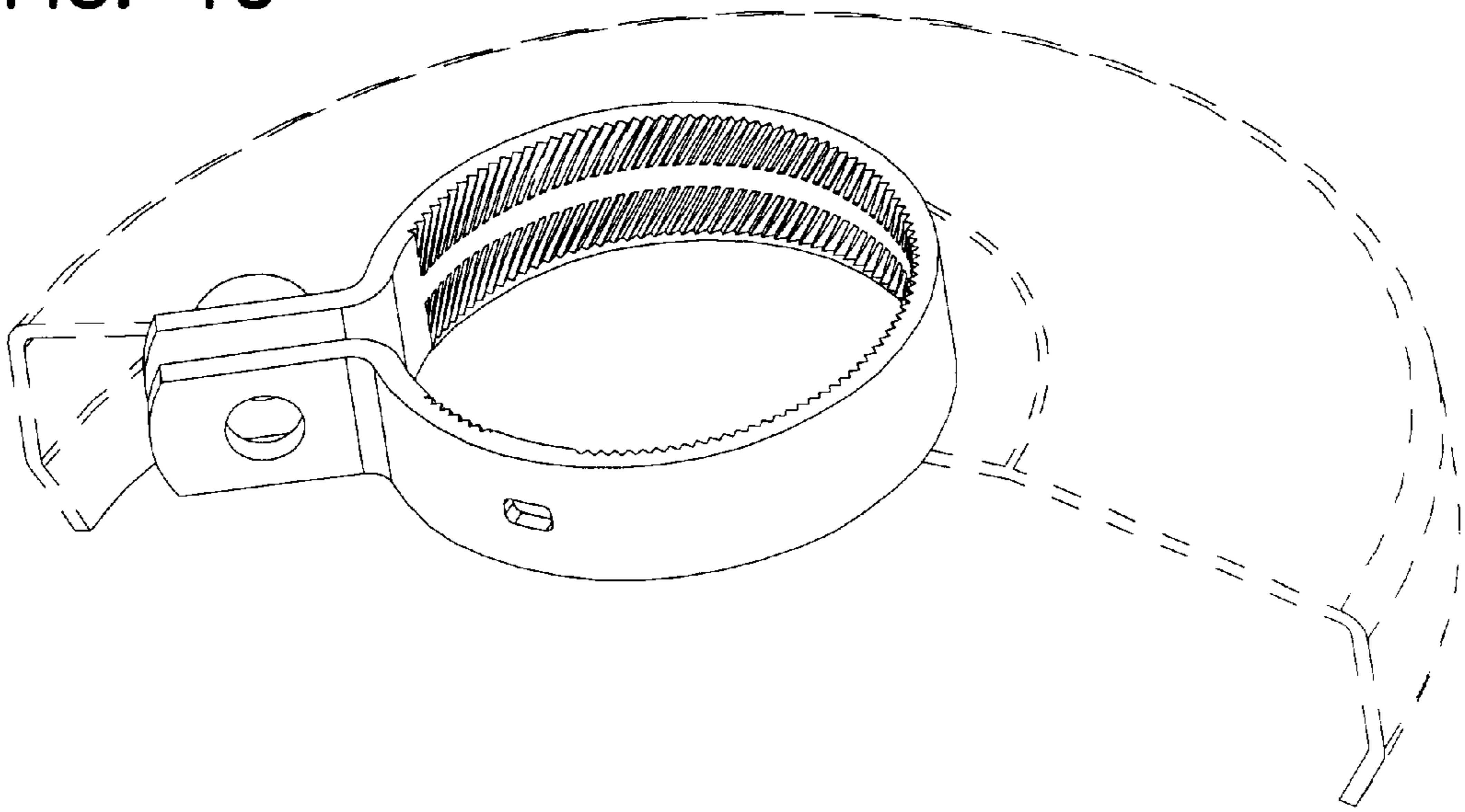


FIG. 9

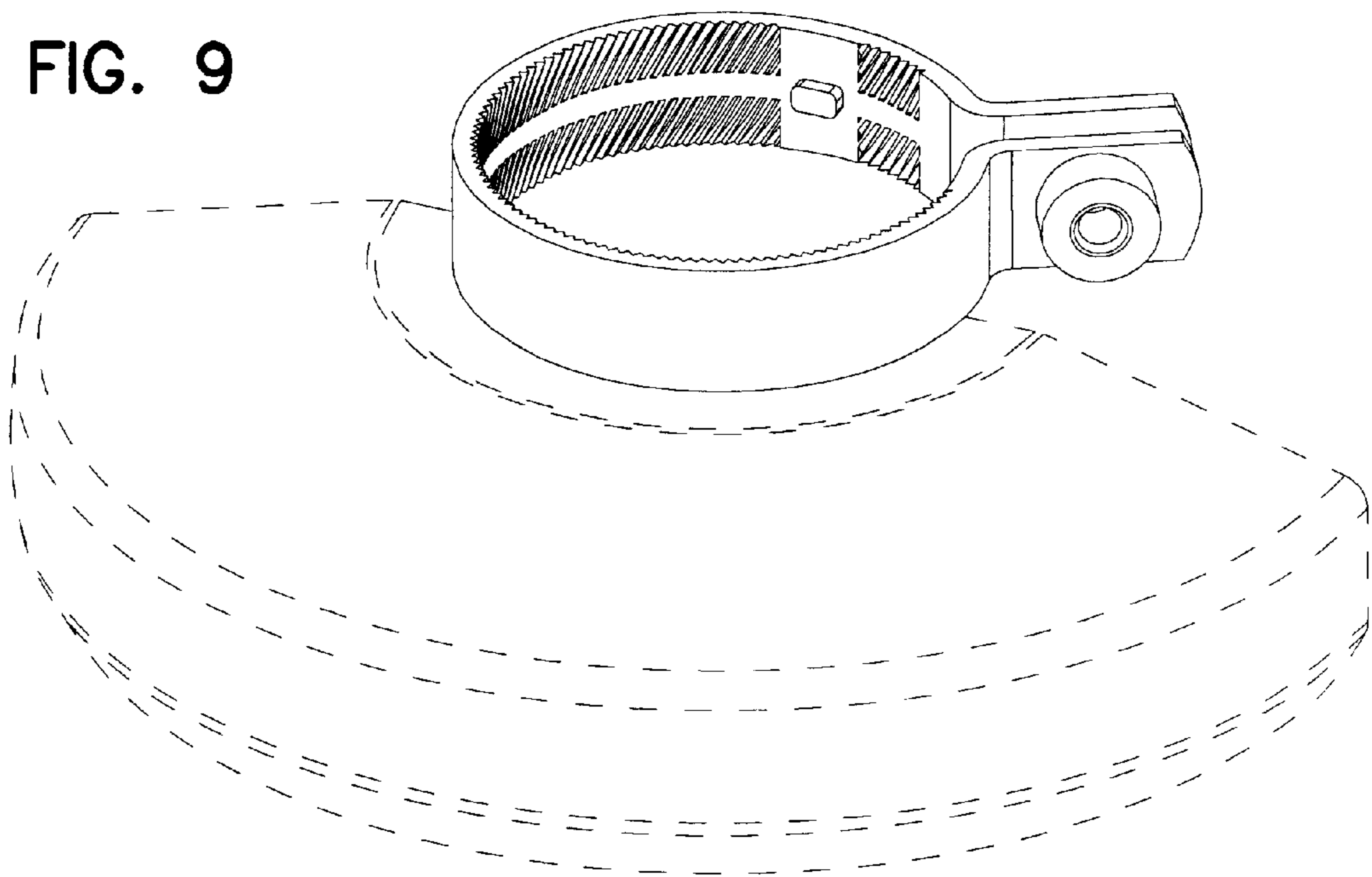


FIG. 11

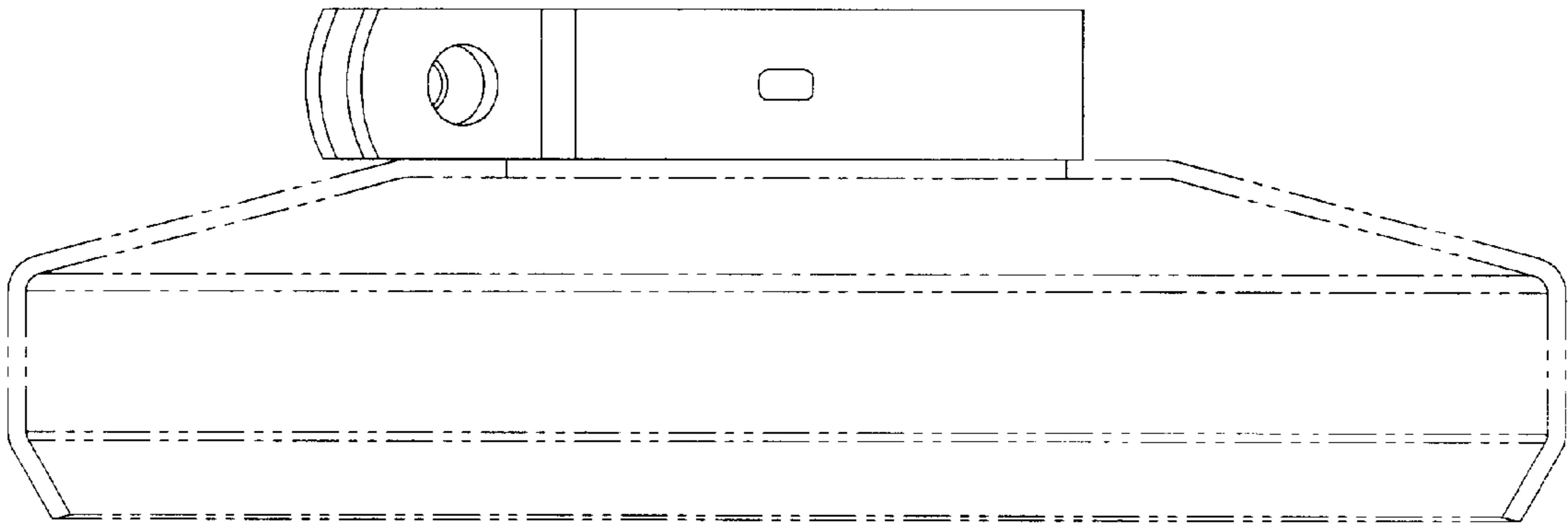


FIG. 12

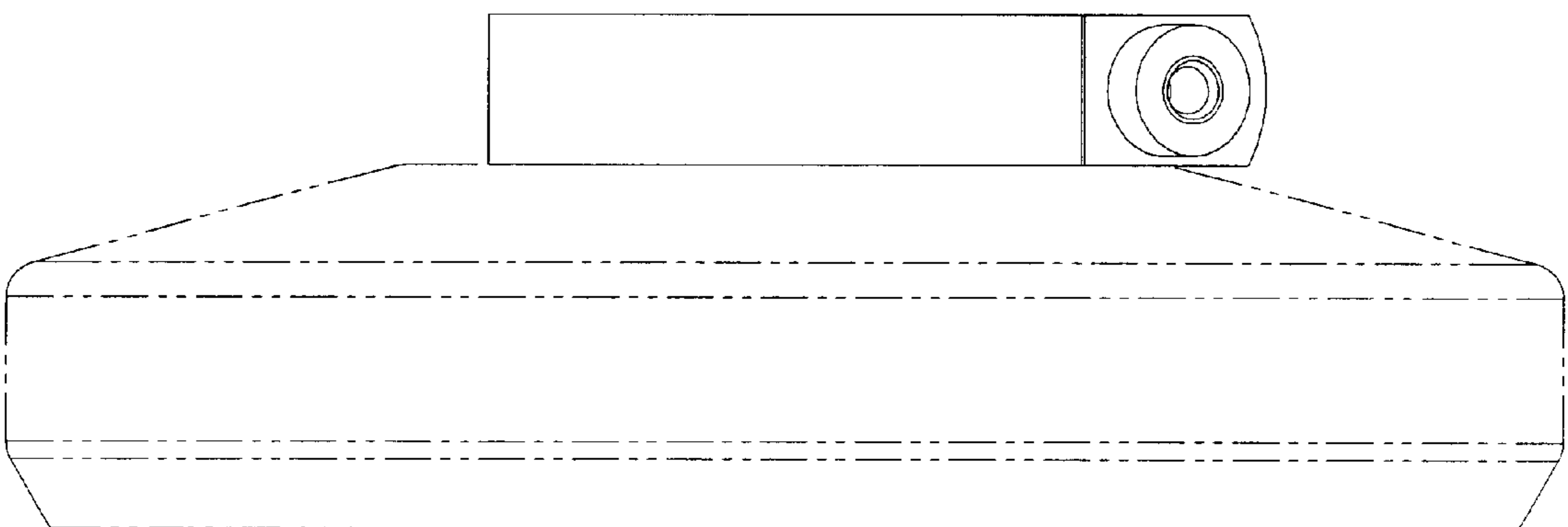


FIG. 14

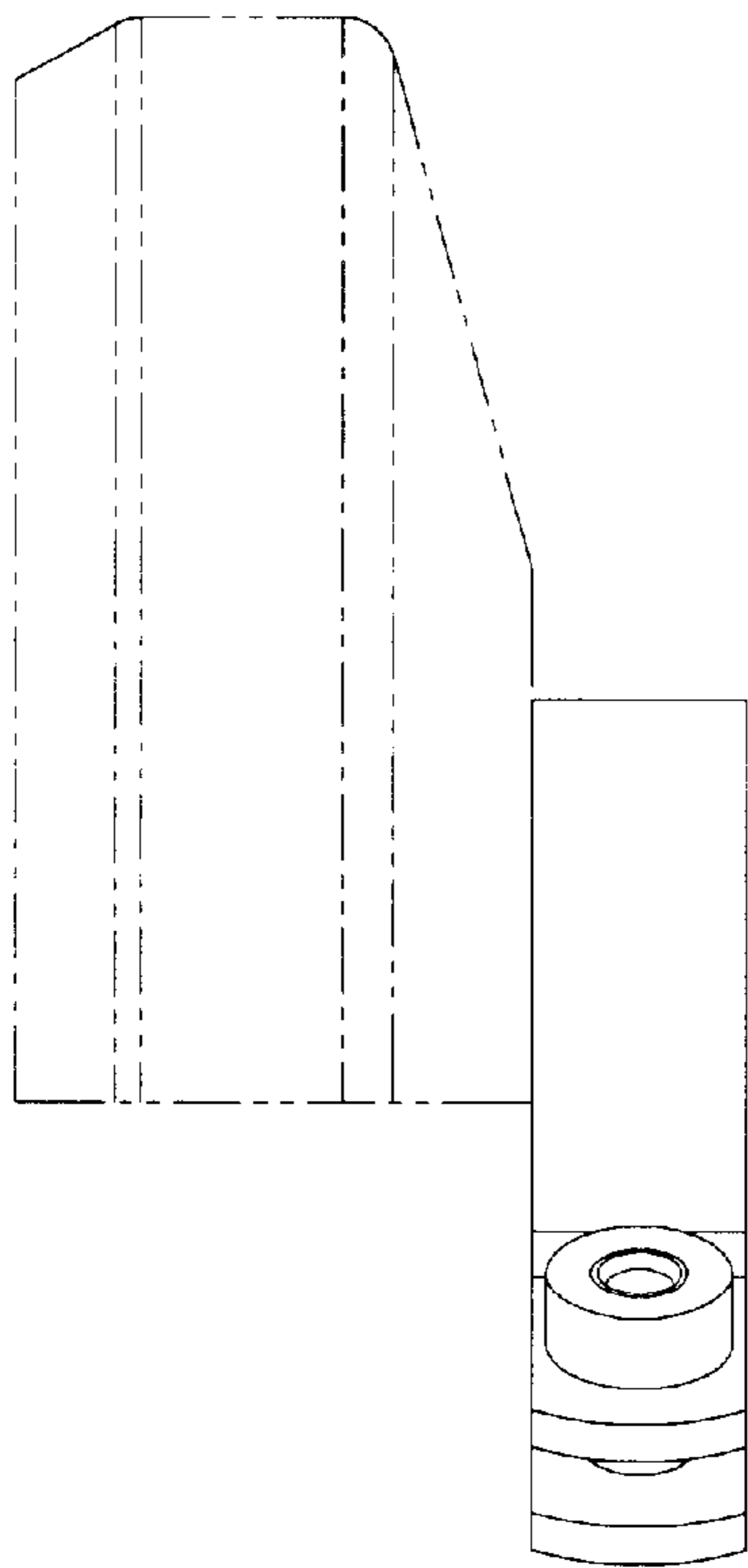


FIG. 13

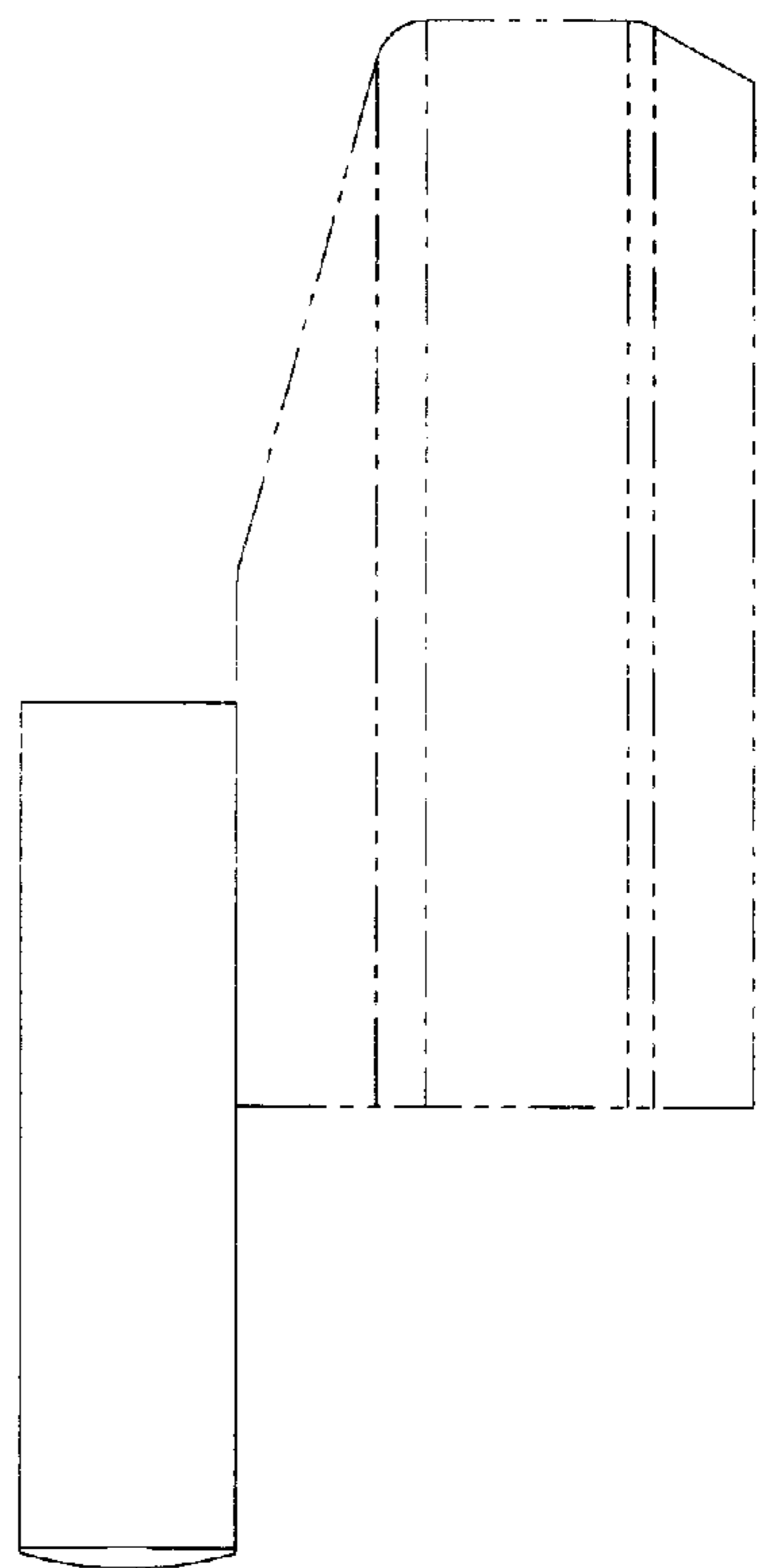


FIG. 15

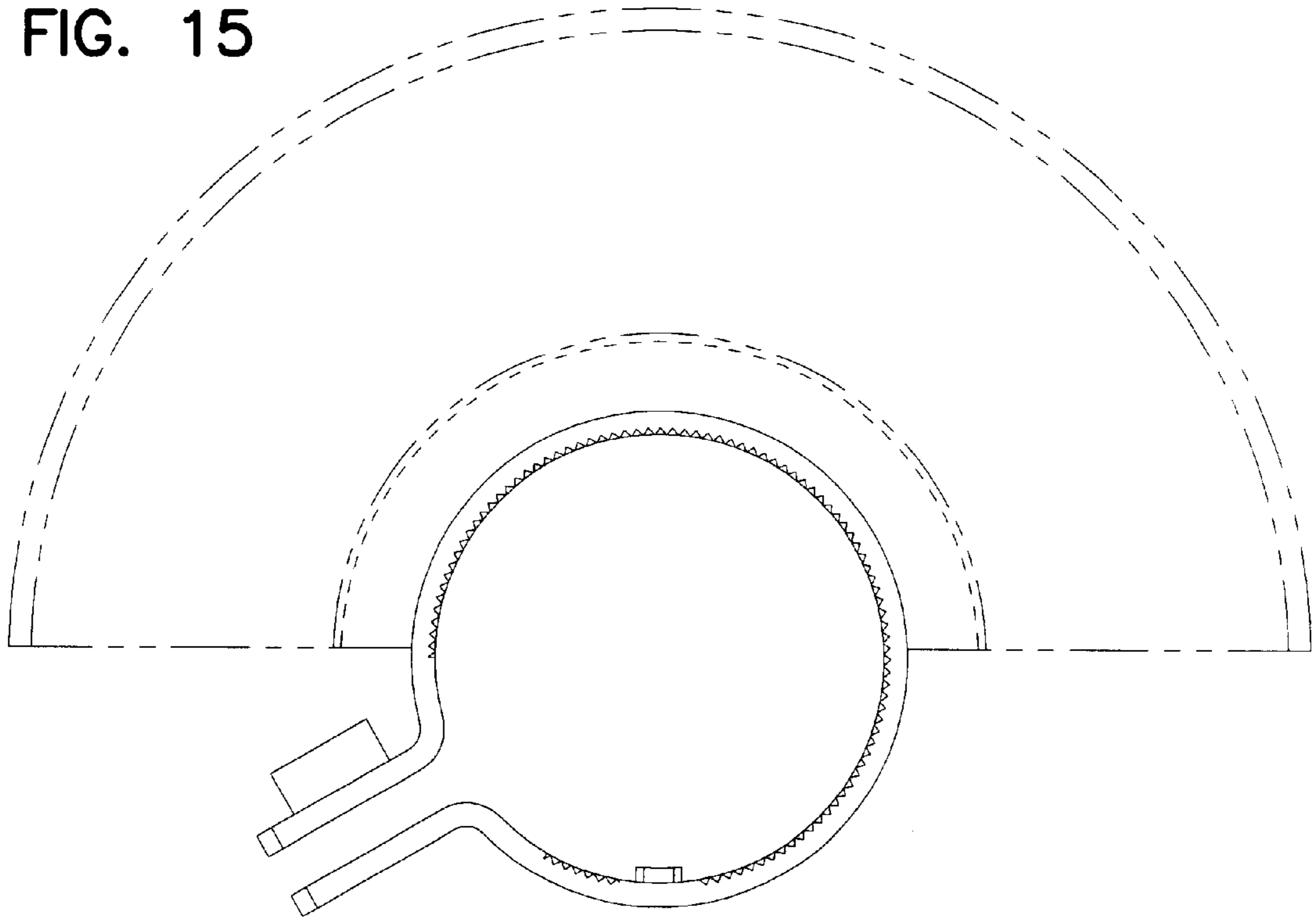


FIG. 16

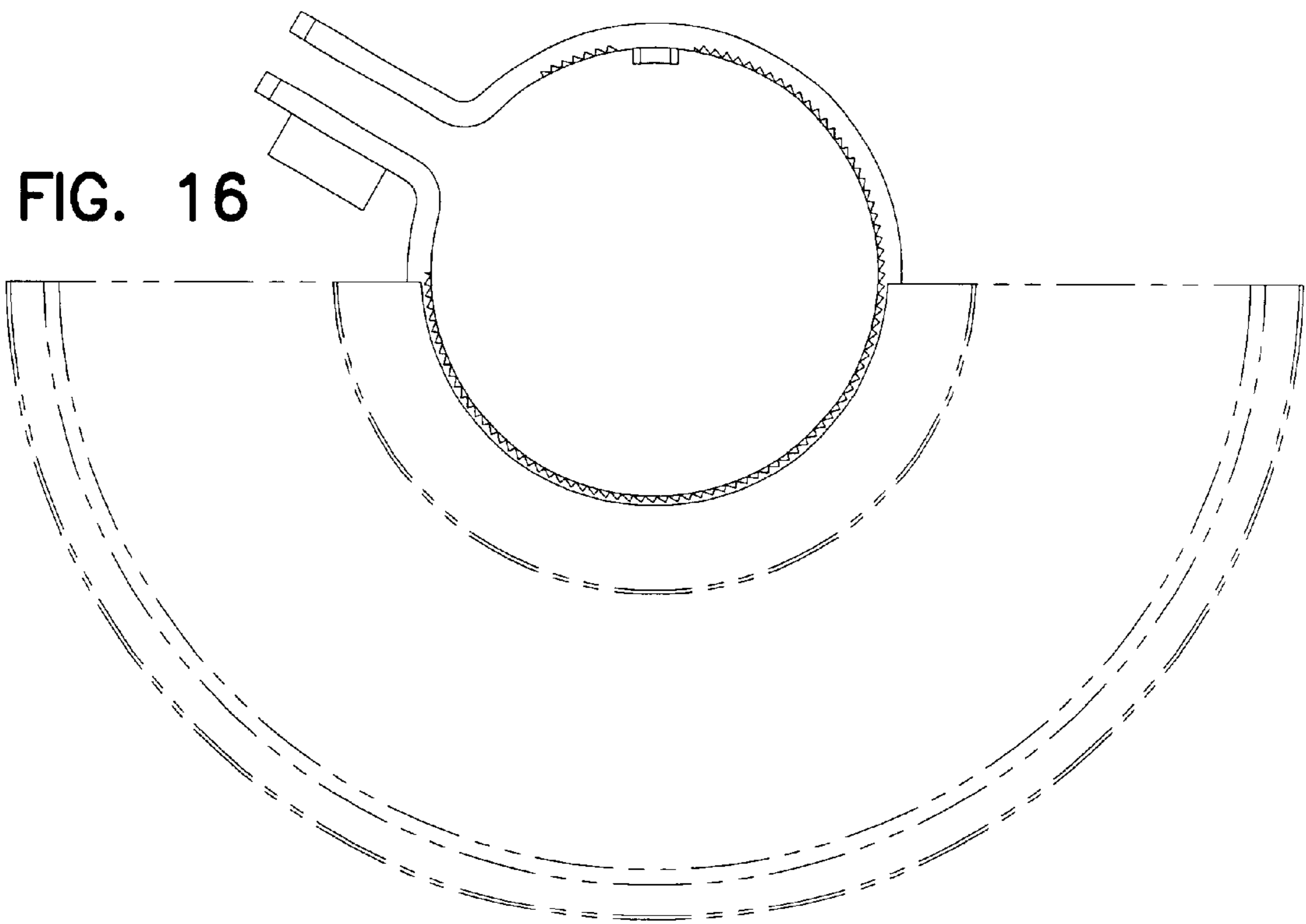


FIG. 18

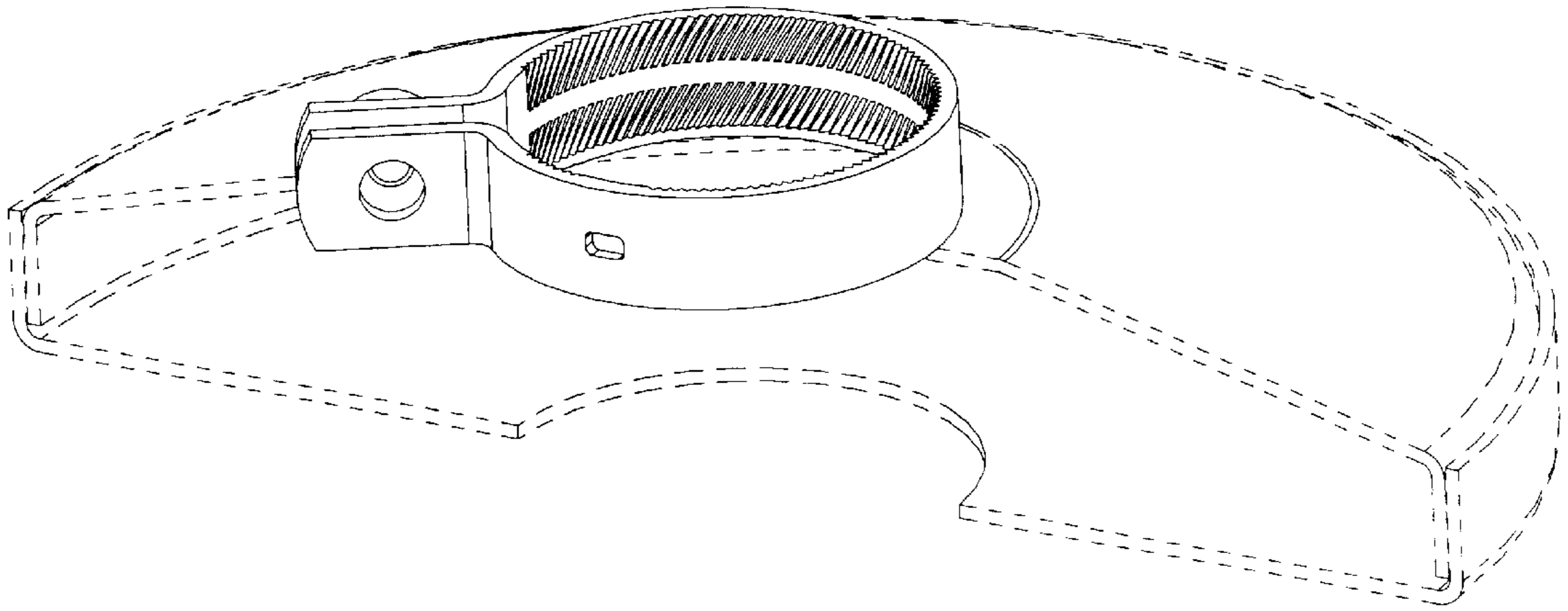


FIG. 17

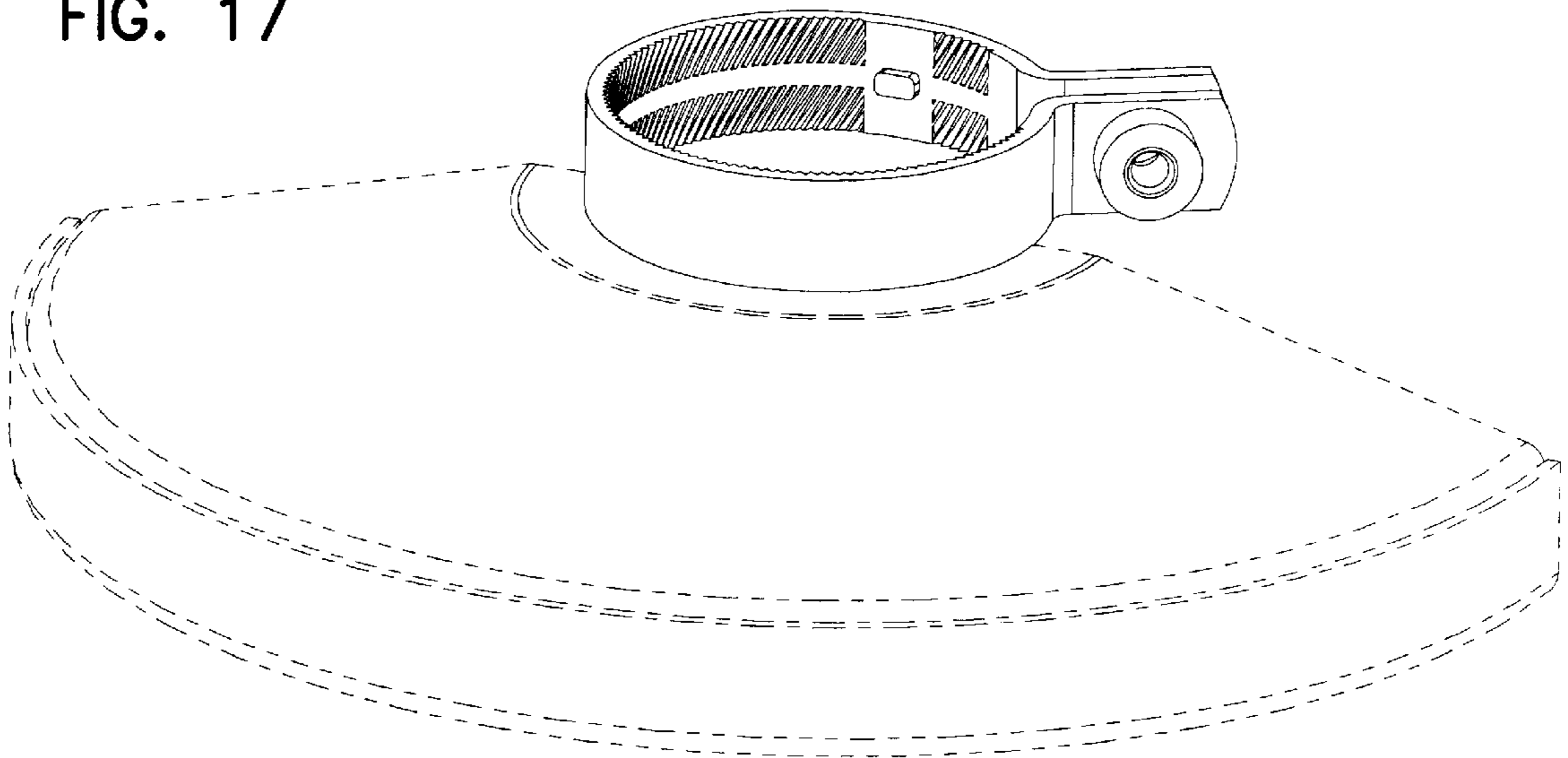


FIG. 19

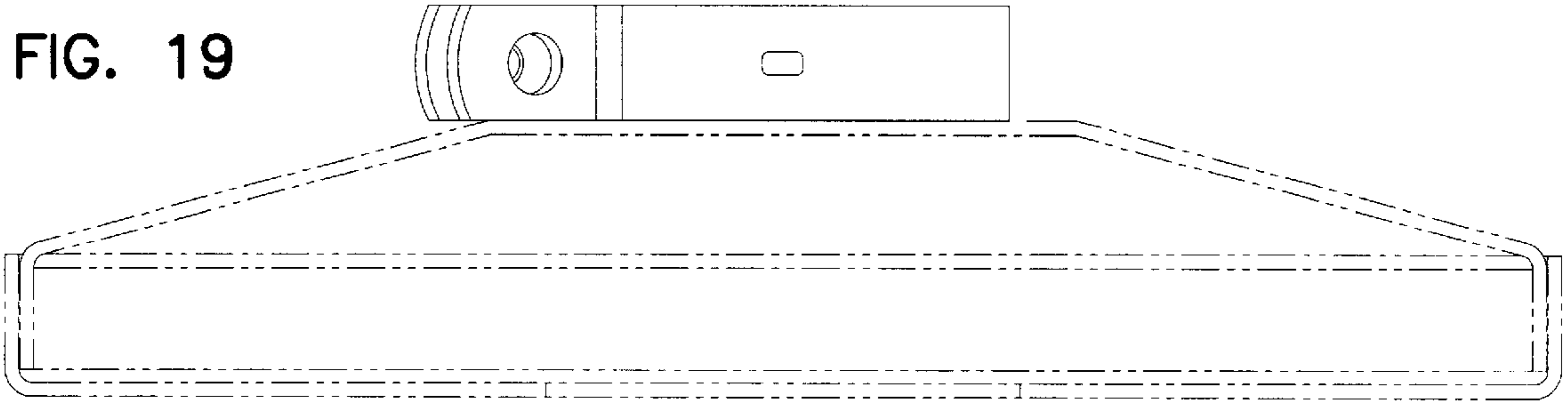


FIG. 20

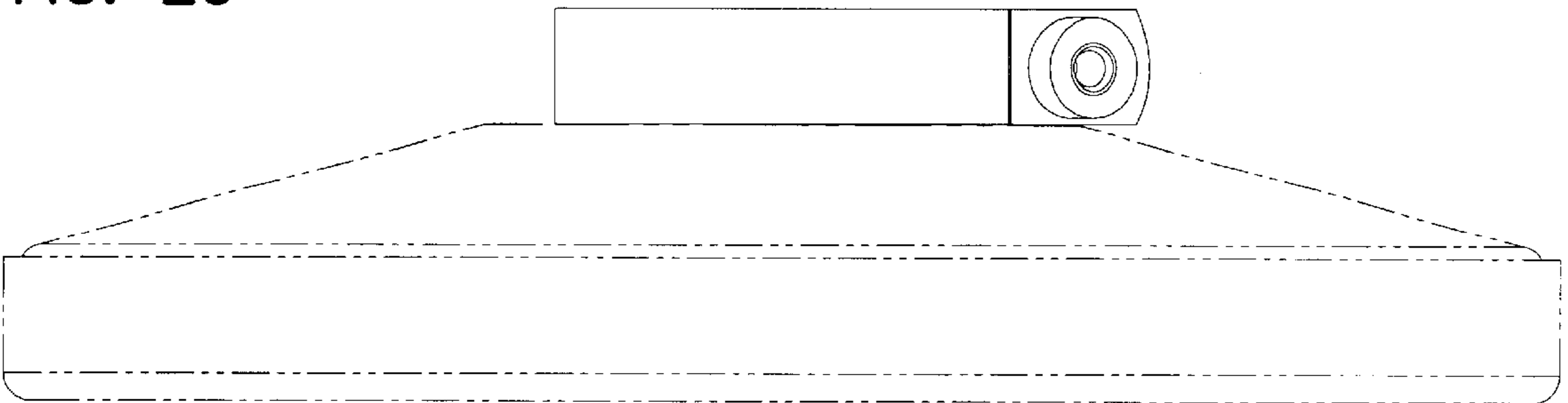


FIG. 22

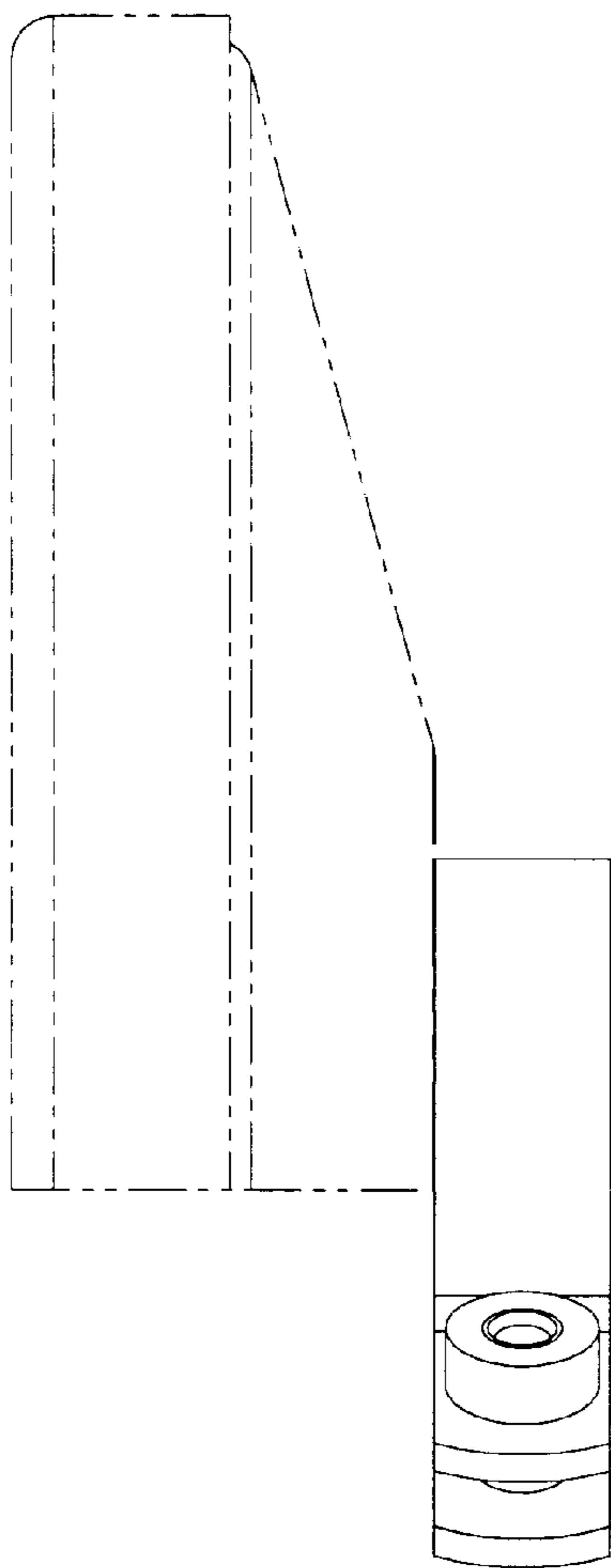


FIG. 21

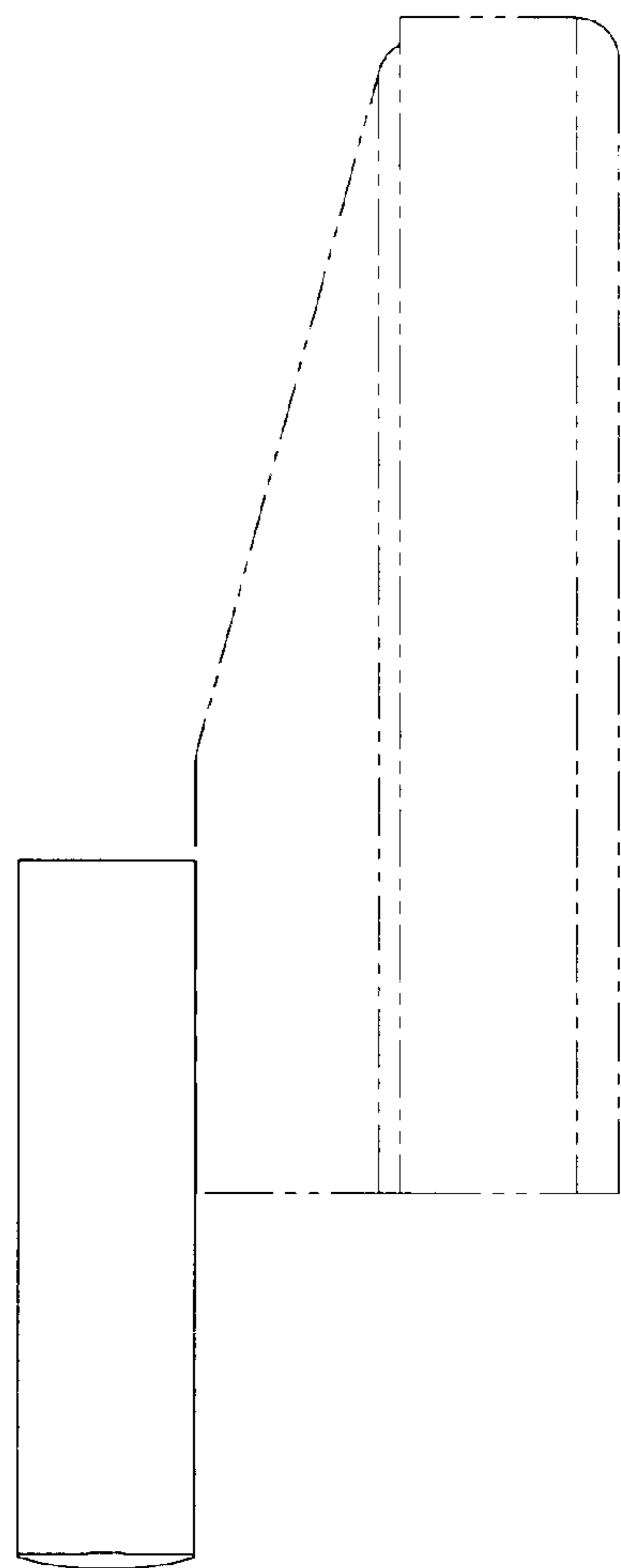


FIG. 23

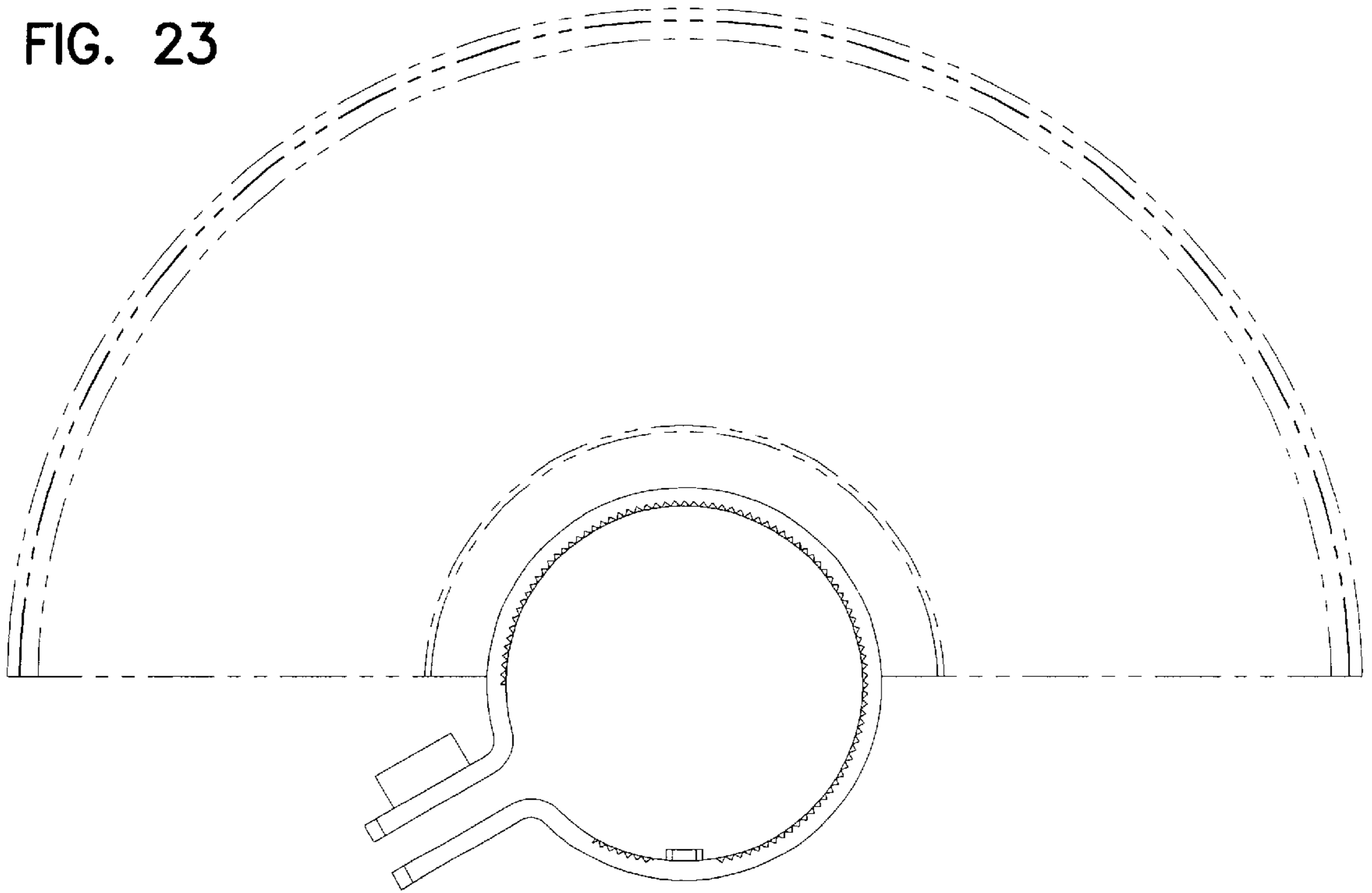


FIG. 24

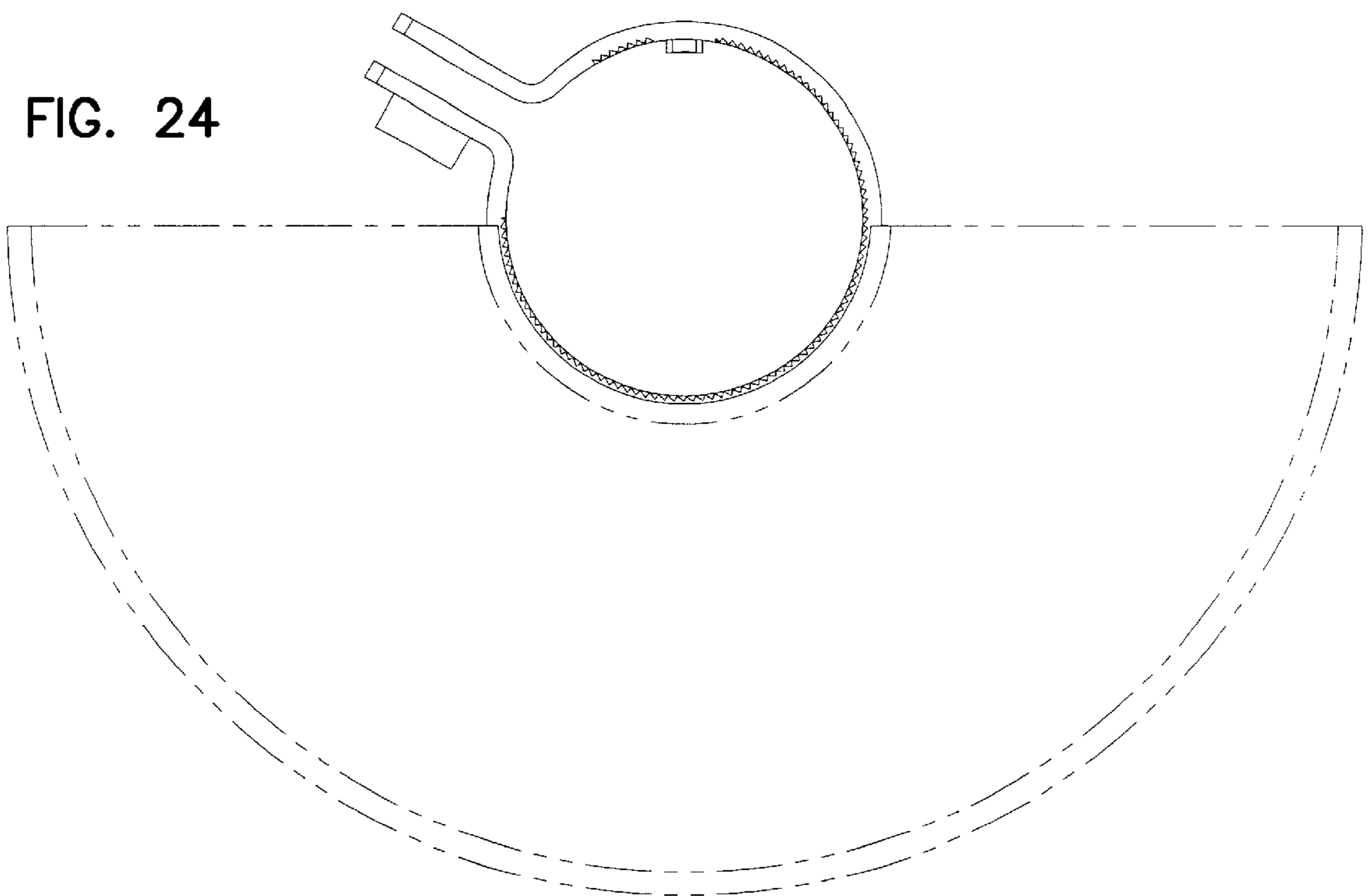


FIG. 25

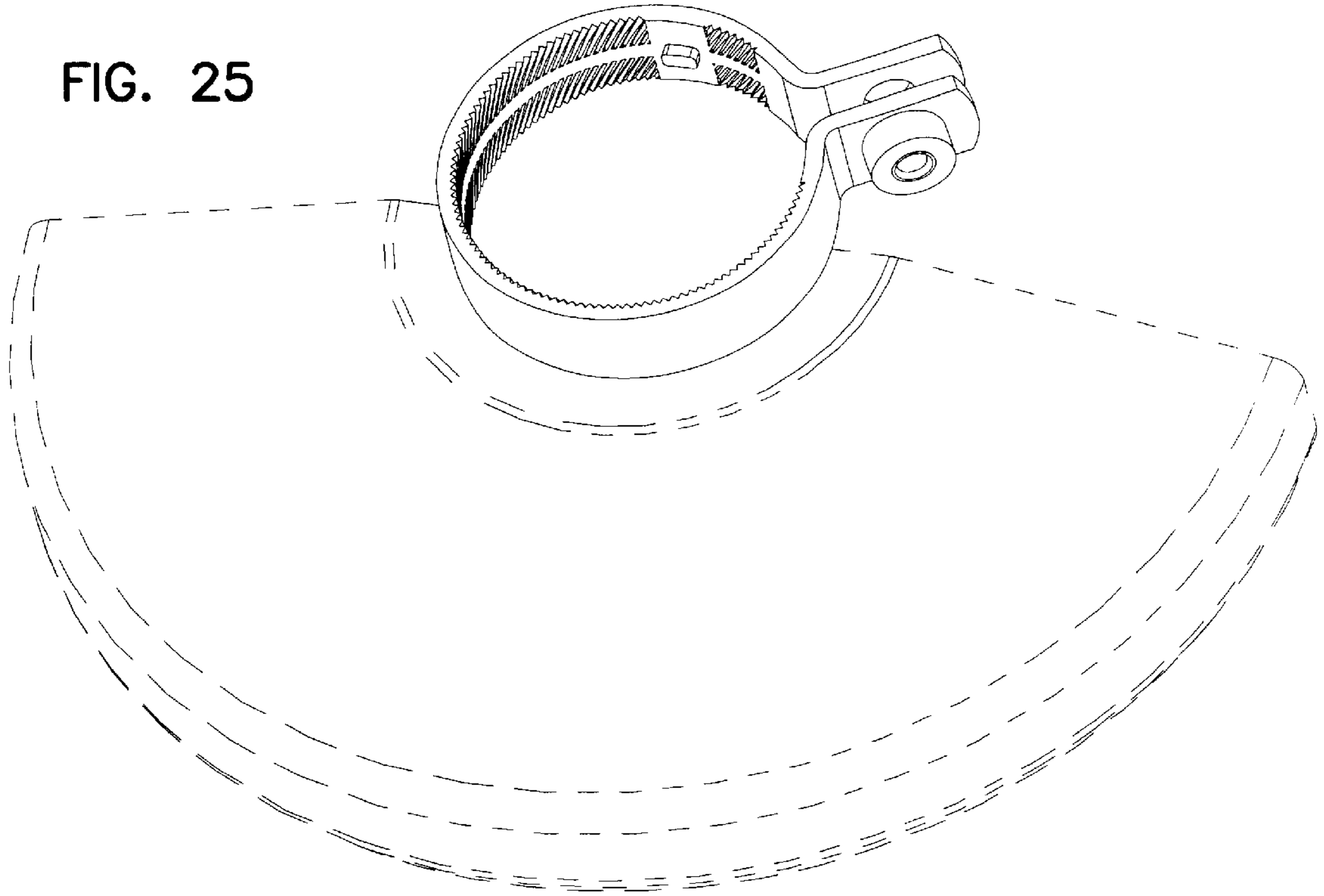


FIG. 26

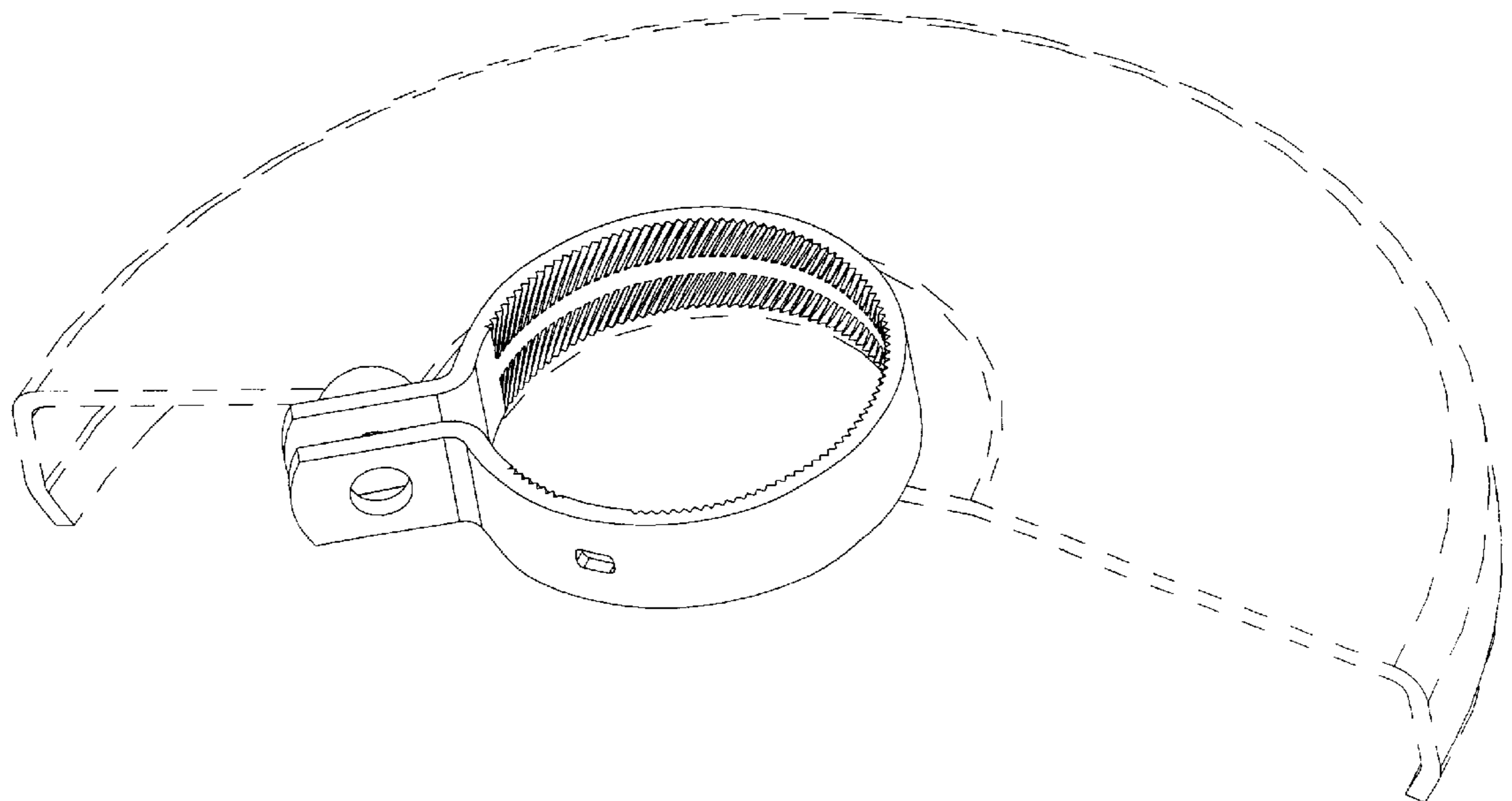


FIG. 27

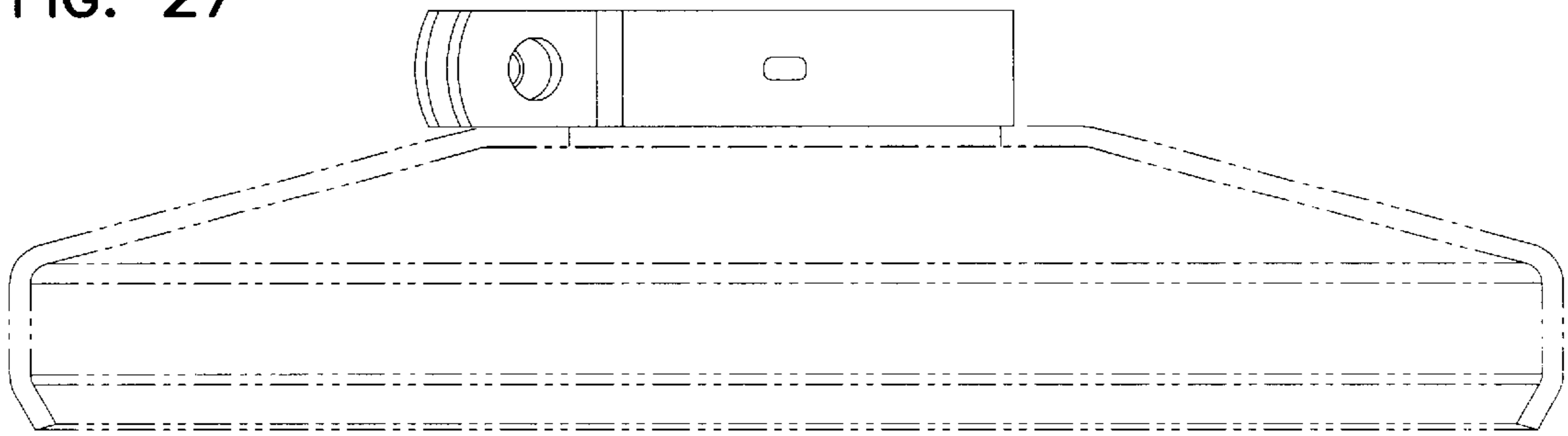


FIG. 28

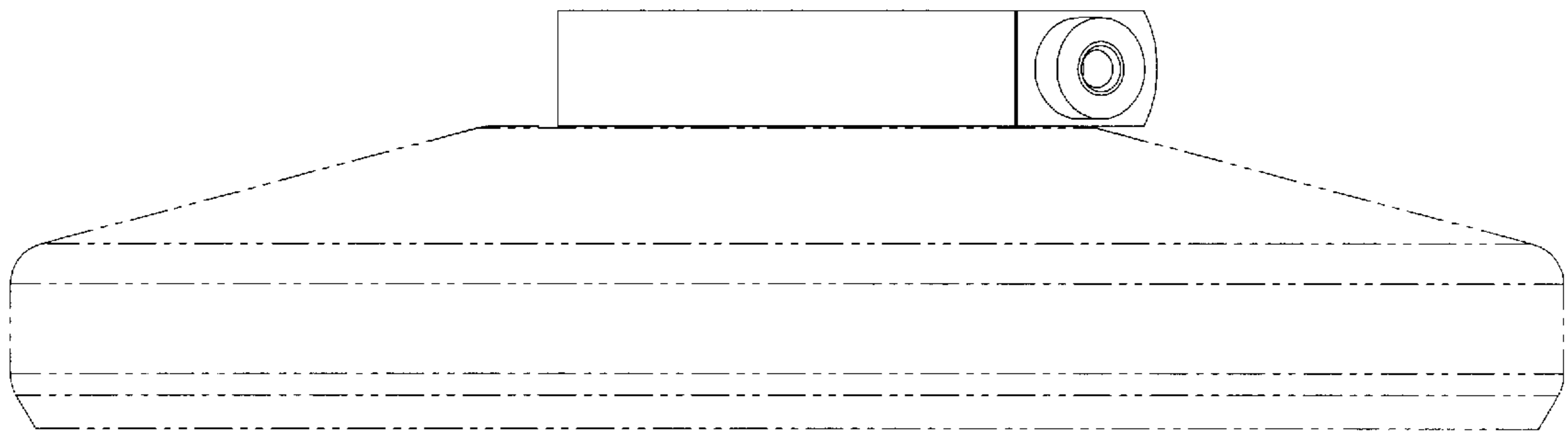


FIG. 30

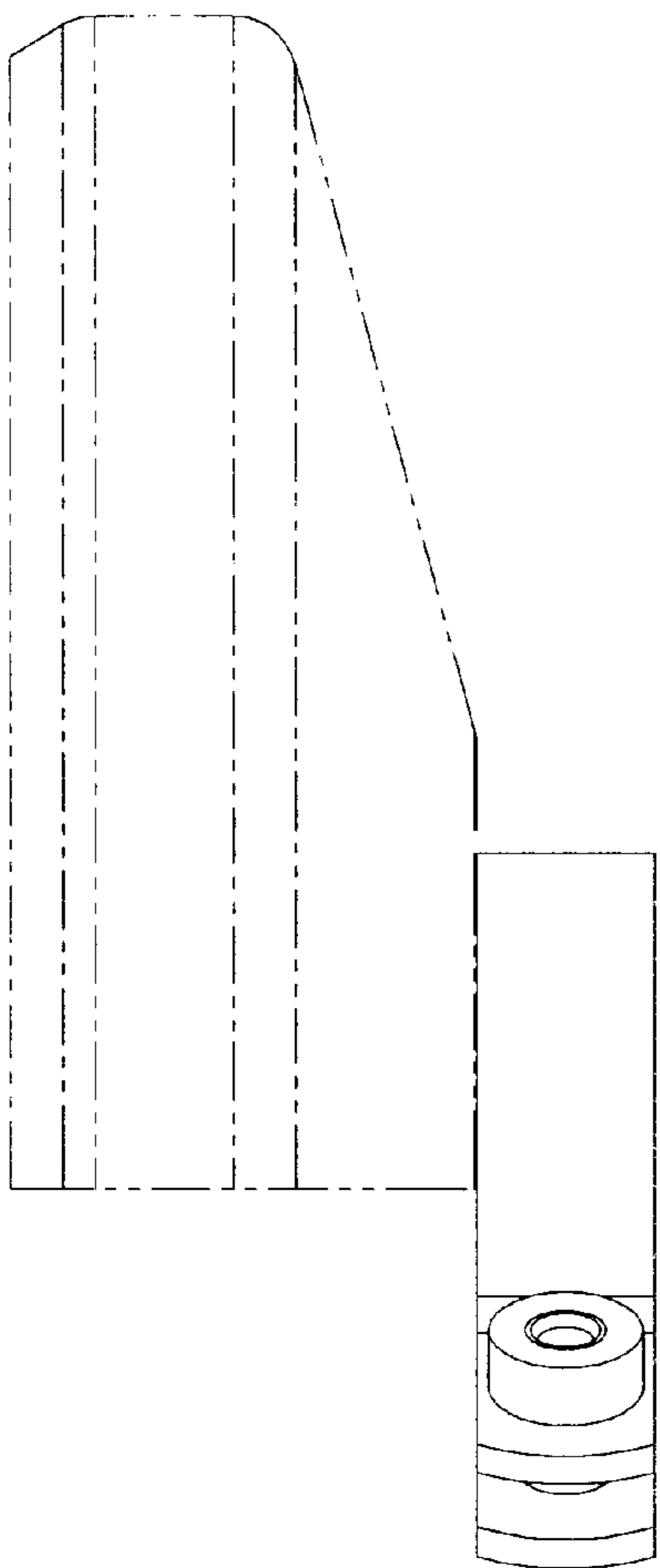


FIG. 29

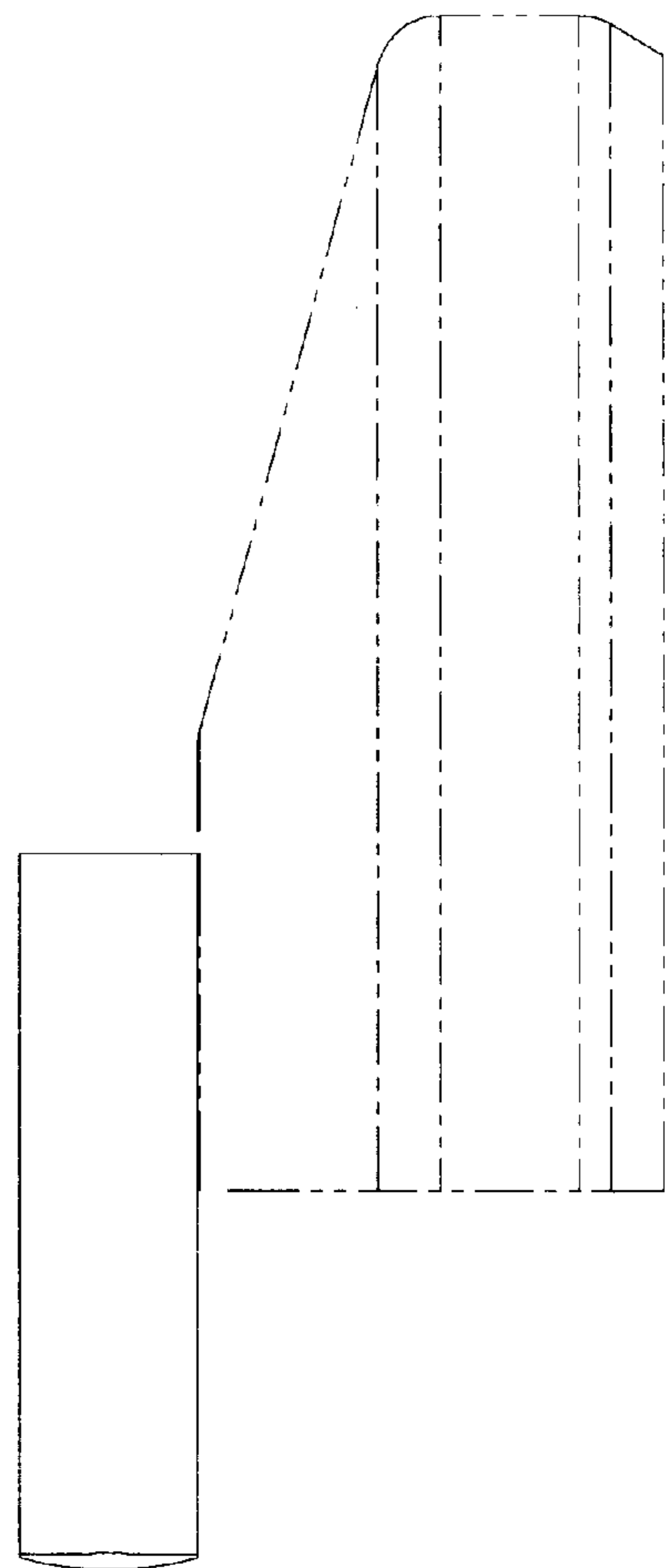


FIG. 31

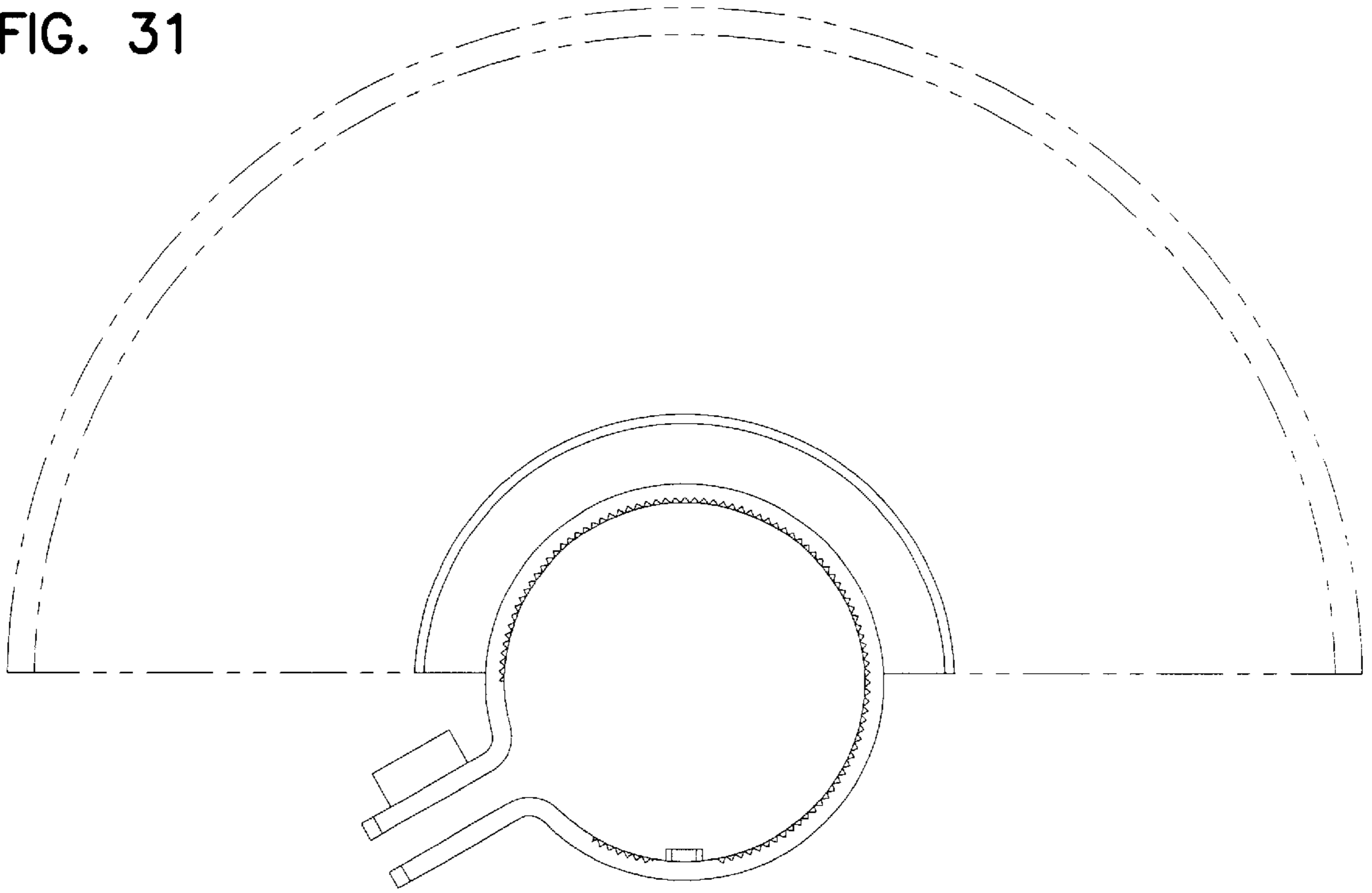


FIG. 32

