



US00D777329S

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

(10) **Patent No.:** **US D777,329 S**  
(45) **Date of Patent:** **\*\* Jan. 24, 2017**

(54) **BONE STAPLE**

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(73) Assignee: **Nextremity Solutions, Inc.**, Warsaw, IN (US)

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

(21) Appl. No.: **29/542,904**

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(51) **LOC (10) Cl.** ..... **24-02**

(52) **U.S. Cl.**  
USPC ..... **D24/155**

(58) **Field of Classification Search**  
USPC ..... **D24/155-157**

(Continued)

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,960,147 A 6/1976 Murray  
4,014,244 A \* 3/1977 Larson ..... F16B 15/06  
411/451.3

(Continued)

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(57) **CLAIM**

The ornamental design for the bone staple, as shown and described.

**DESCRIPTION**

FIG. 1 is a top, front perspective view of the bone staple comprising the new design;

FIG. 2 is a bottom, rear perspective view of the design of FIG. 1;

FIG. 3 is a rear elevational view of the design of FIG. 1;

FIG. 4 is a front elevational view of the design of FIG. 1;

FIG. 5 is a right elevational view of the design of FIG. 1,

wherein the left elevational view is a mirror image thereof;

FIG. 6 is a bottom view of the design of FIG. 1;

FIG. 7 is a top view of the design of FIG. 1;

FIG. 8 is a top, front perspective view of an alternative embodiment of the bone staple of FIG. 1;

FIG. 9 is a bottom, rear perspective of the design of FIG. 8;

FIG. 10 is a rear elevational view of the design of FIG. 8;

FIG. 11 is a front elevational view of the design of FIG. 8;

FIG. 12 is a right elevational view of the design of FIG. 8,

wherein the left elevational view is a mirror image thereof;

FIG. 13 is a bottom view of the design of FIG. 8; and,

FIG. 14 is a top view of the design of FIG. 8;

FIG. 15 is a top, front perspective view of an alternative embodiment of the bone staple of FIG. 1;

FIG. 16 is a bottom, rear perspective of the design of FIG. 15;

FIG. 17 is a rear elevational bottom view of the design of FIG. 15;

FIG. 18 is a front elevational view of the design of FIG. 15;

FIG. 19 is a right elevational view of the design of FIG. 15,

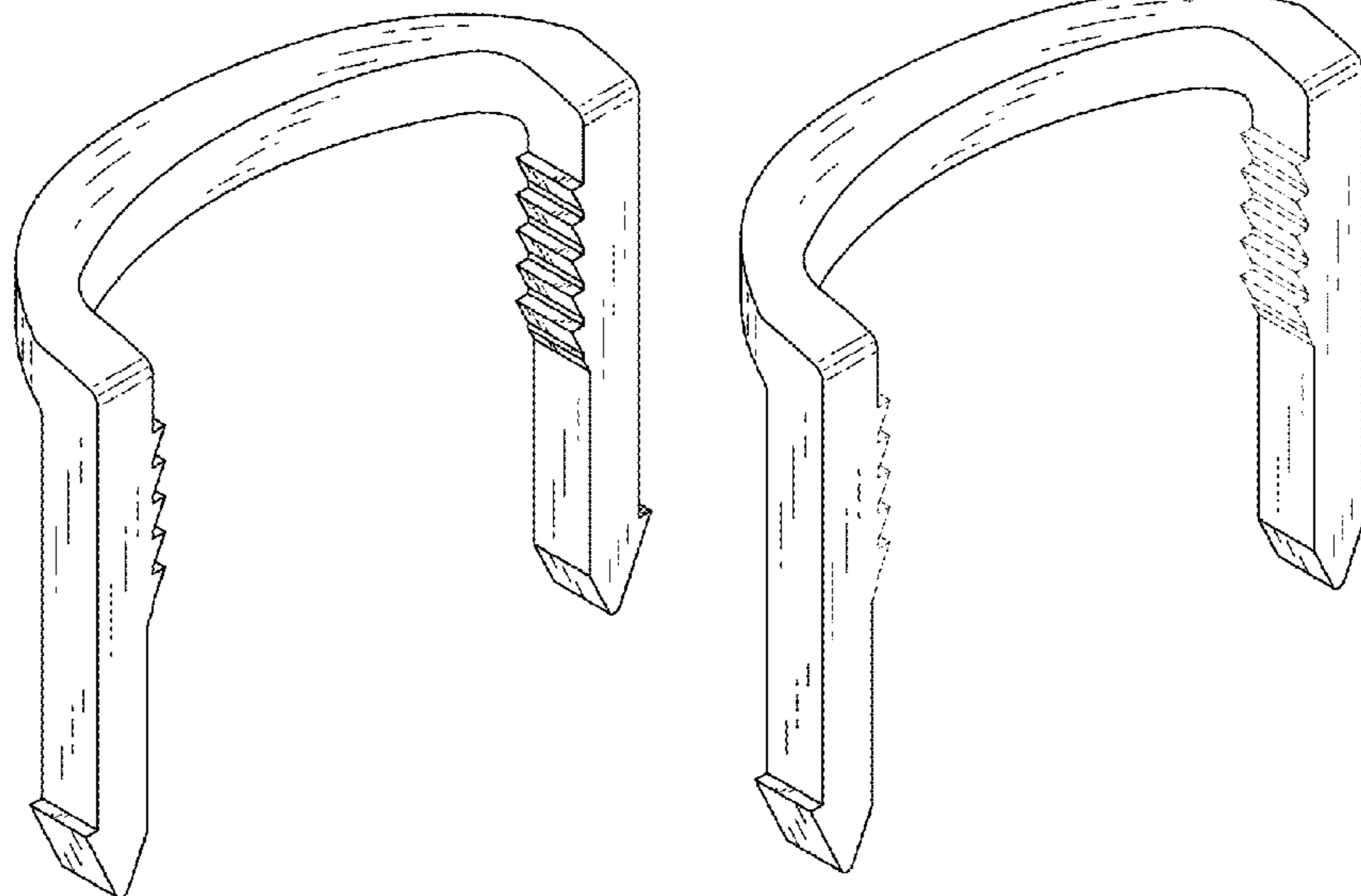
wherein the left elevational view is a mirror image thereof;

FIG. 20 is a bottom view of the design of FIG. 15; and,

FIG. 21 is a top view of the design of FIG. 15.

The broken lines in the figures are directed to the environment and are for illustrative purposes only; the broken lines form no part of the claimed design.

**1 Claim, 9 Drawing Sheets**



(58) **Field of Classification Search**  
 CPC ..... A61B 17/0642; A61B 17/0682; A61B  
 17/0644; F16B 15/06  
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D281,814	S	*	12/1985	Pratt	.....	D24/145
4,570,623	A		2/1986	Ellison et al.		
4,838,254	A		6/1989	Gauthier		
4,848,328	A		7/1989	Laboureau et al.		
5,053,038	A		10/1991	Sheehan		
5,246,443	A		9/1993	Mai		
5,474,557	A		12/1995	Mai		
5,662,655	A		9/1997	Laboureau et al.		
5,788,698	A		8/1998	Savornin		
D418,399	S		1/2000	Tucker		
6,059,787	A		5/2000	Allen		
6,325,805	B1		12/2001	Ogilvie et al.		
6,336,928	B1		1/2002	Guerin et al.		
6,348,054	B1		2/2002	Allen		
D484,032	S	*	12/2003	Del Re	.....	D8/390
6,773,437	B2		8/2004	Ogilvie et al.		
6,783,531	B2		8/2004	Allen		
D572,363	S		7/2008	Menn		
7,398,907	B2	*	7/2008	Racenet	.....	A61B 17/0644 227/176.1

D574,956	S		8/2008	Grim		
D586,915	S		2/2009	Grim		
7,635,367	B2		12/2009	Groiso		
D625,417	S	*	10/2010	Fox	.....	D24/171
8,235,995	B2		8/2012	Focht et al.		
D691,720	S		10/2013	Cheney et al.		
D698,021	S		1/2014	Nering et al.		
8,679,123	B2		3/2014	Kinmon et al.		
D705,930	S		5/2014	Cheney		
D706,927	S		6/2014	Cheney et al.		
D707,357	S		6/2014	Cheney et al.		
D717,951	S		11/2014	Cheney et al.		
8,894,669	B2		11/2014	Nering et al.		
9,017,331	B2	*	4/2015	Fox	.....	A61B 17/0642 606/75
9,055,945	B2		6/2015	Mikszta et al.		
9,107,661	B2	*	8/2015	Euteneuer	.....	A61B 17/0642
9,271,726	B2	*	3/2016	Euteneuer	.....	A61B 17/0642
9,295,463	B2	*	3/2016	Viola	.....	A61B 17/0057
9,402,624	B1	*	8/2016	Scott	.....	A61B 17/0642
2004/0138705	A1		7/2004	Heino et al.		
2007/0093839	A1		4/2007	Beckendorf et al.		
2013/0030437	A1		1/2013	Fox		
2013/0231667	A1		9/2013	Taylor et al.		
2014/0018809	A1		1/2014	Allen		
2014/0276830	A1		9/2014	Cheney		
2015/0080919	A1		3/2015	Nering et al.		

\* cited by examiner

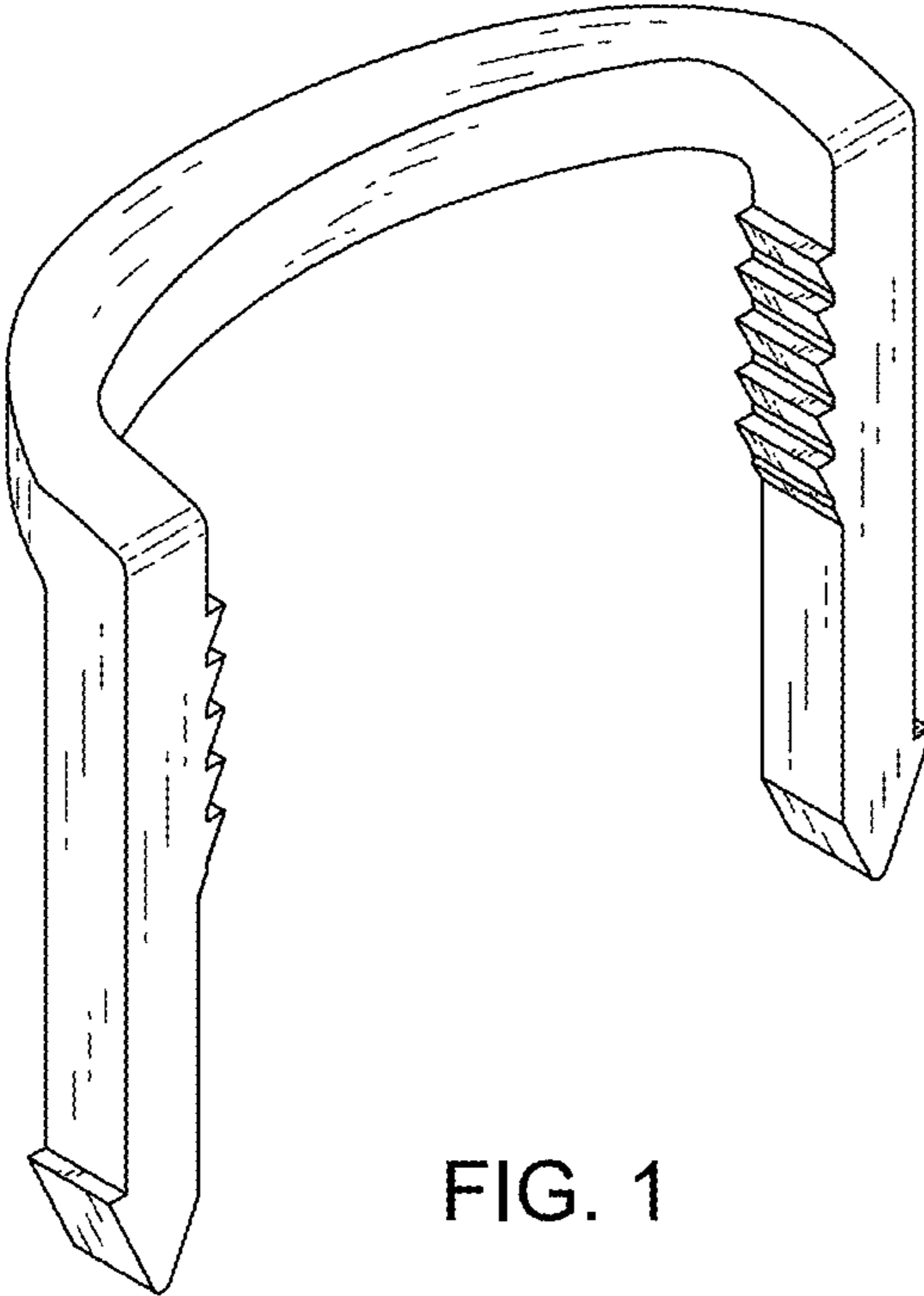


FIG. 1

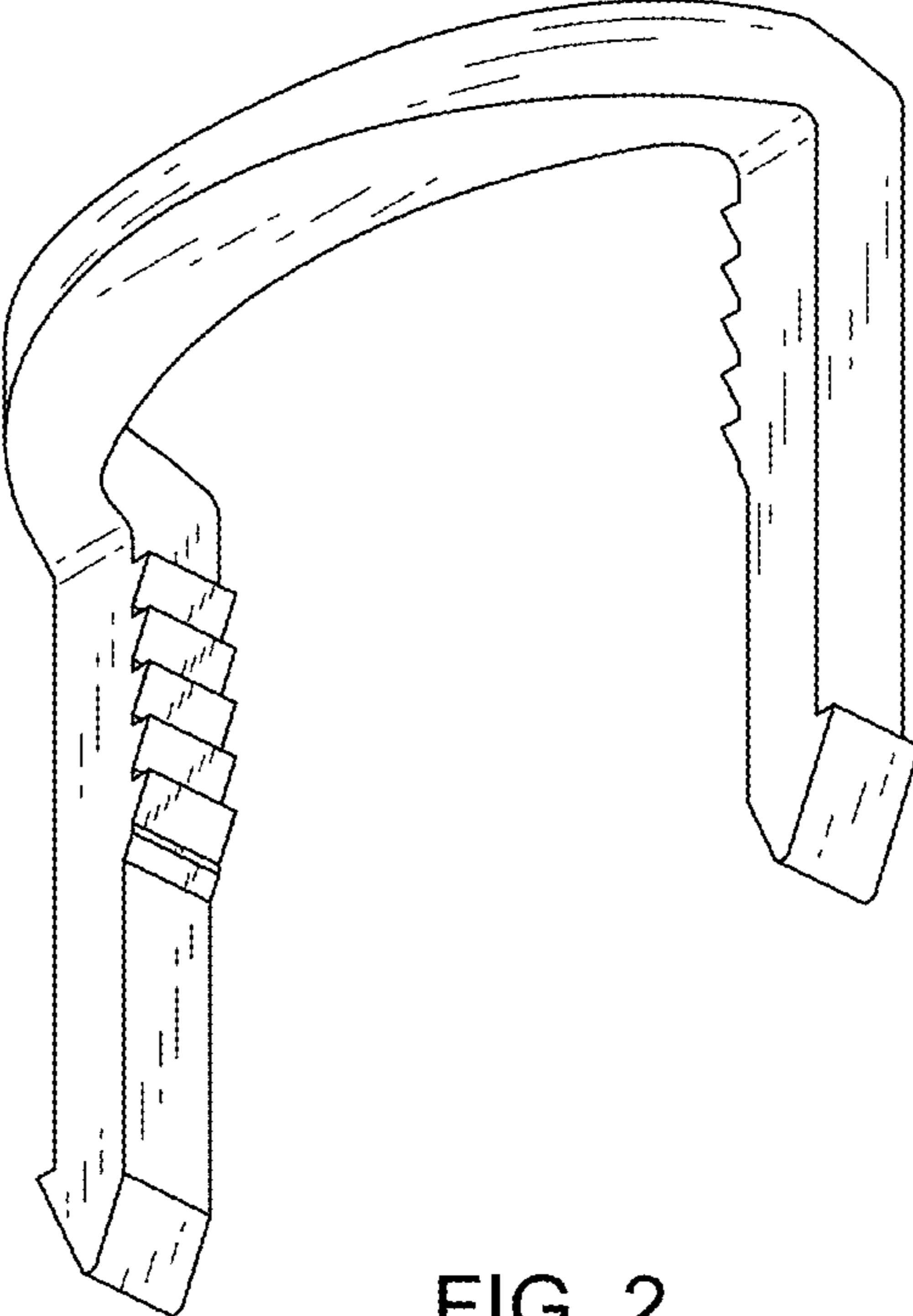


FIG. 2

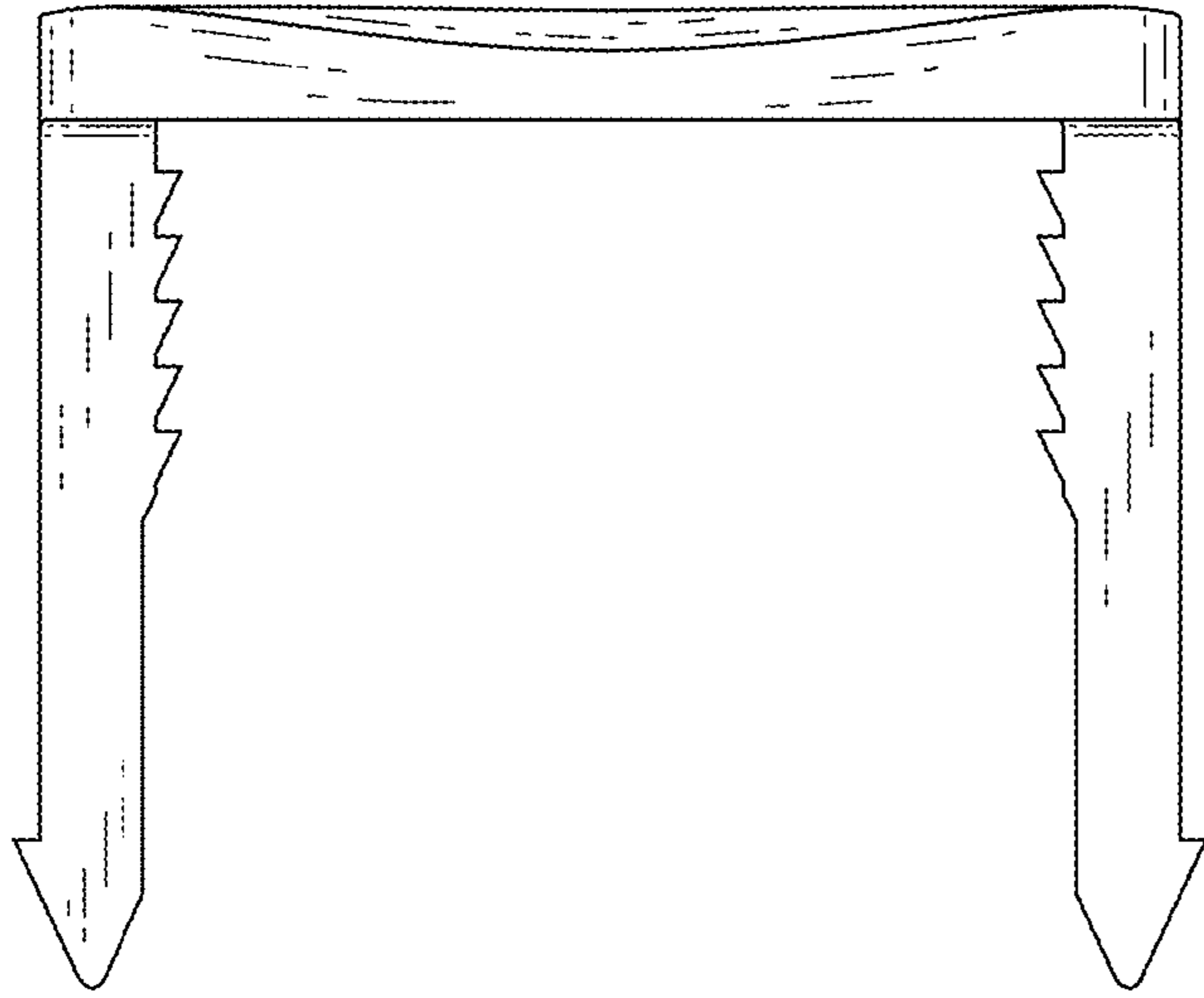


FIG. 3

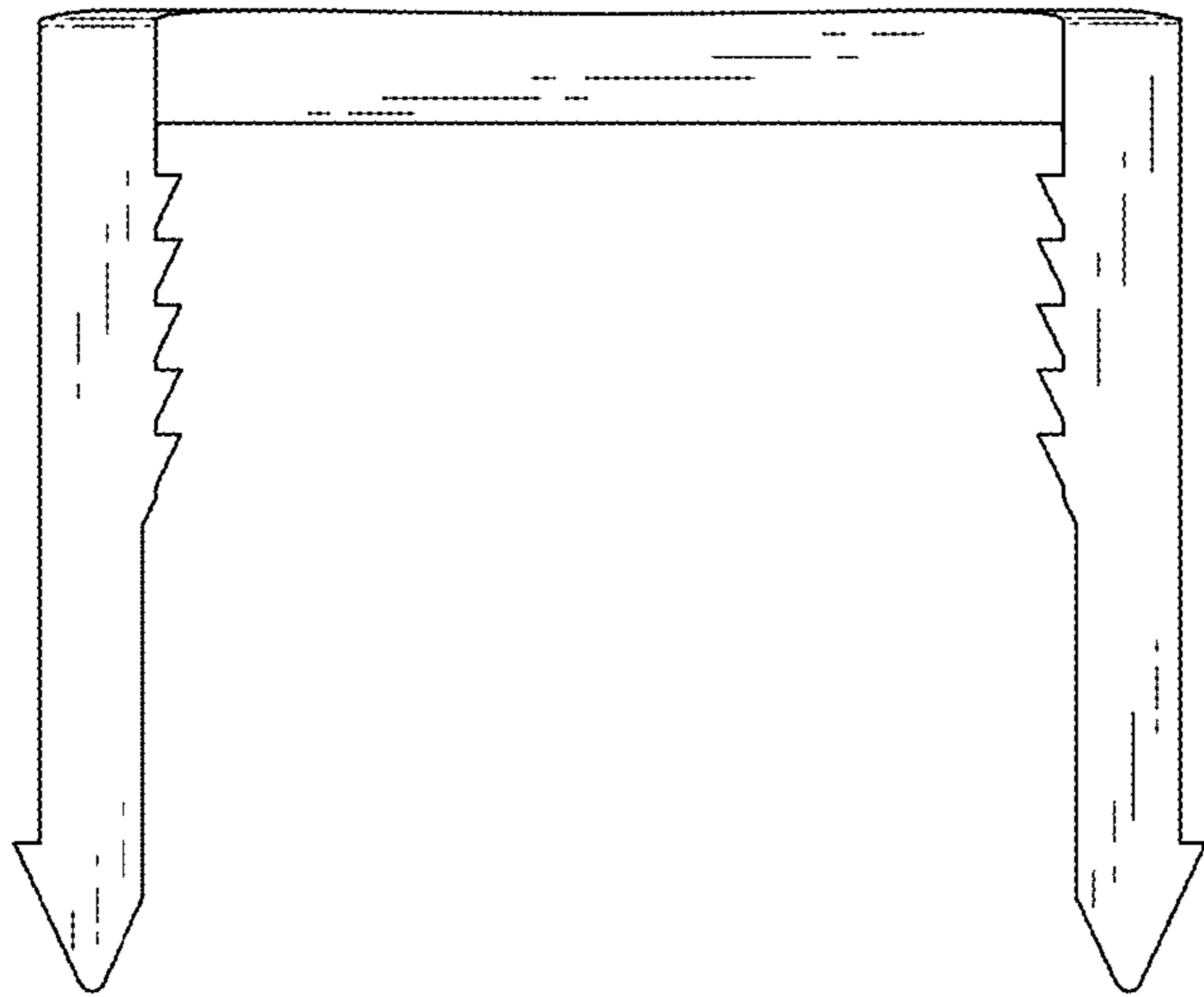


FIG. 4

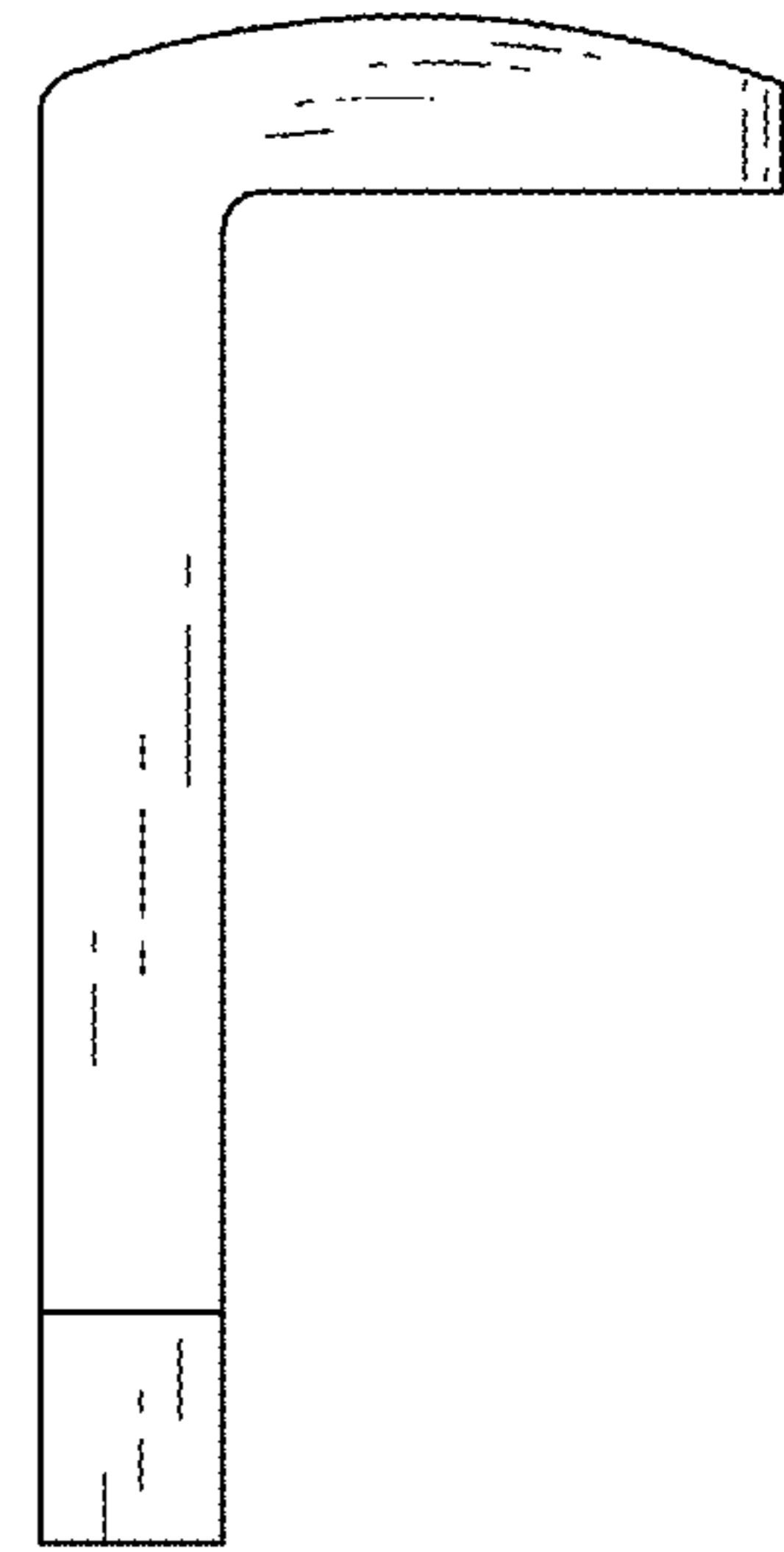


FIG. 5

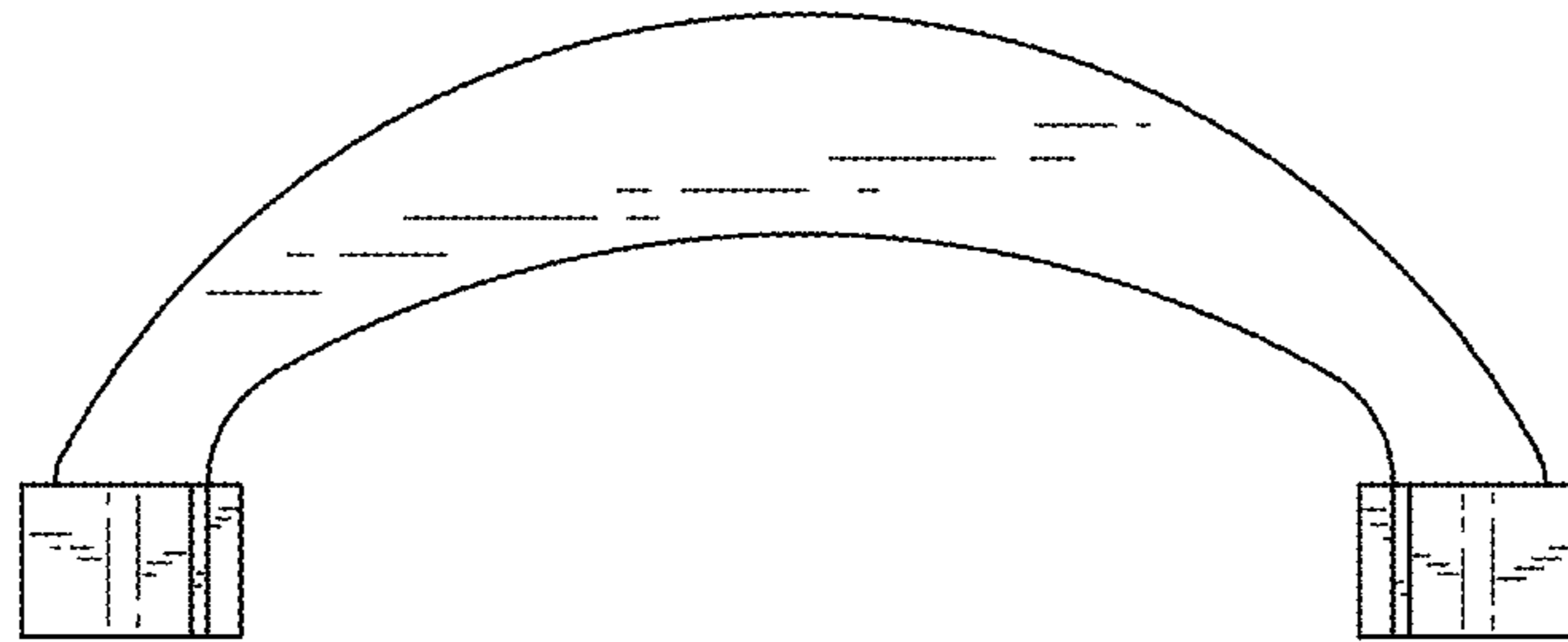


FIG. 6

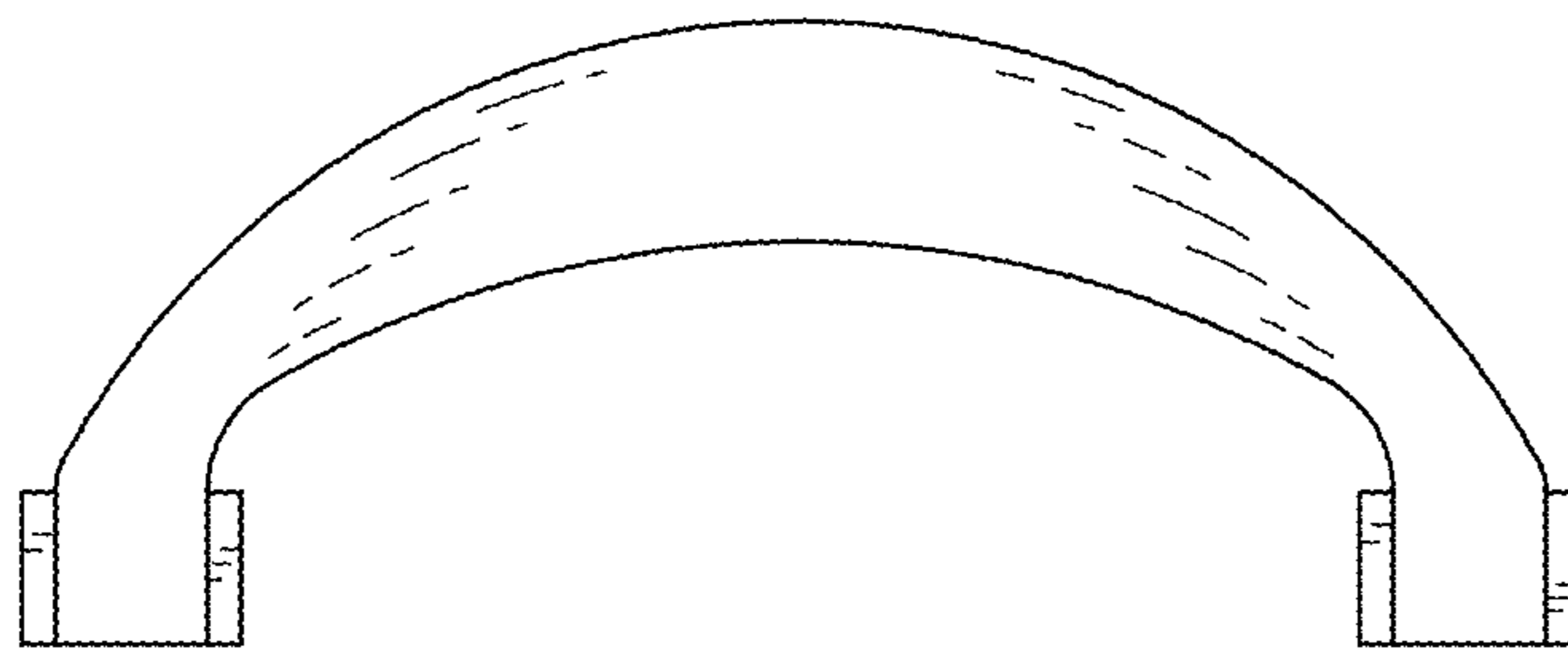


FIG. 7



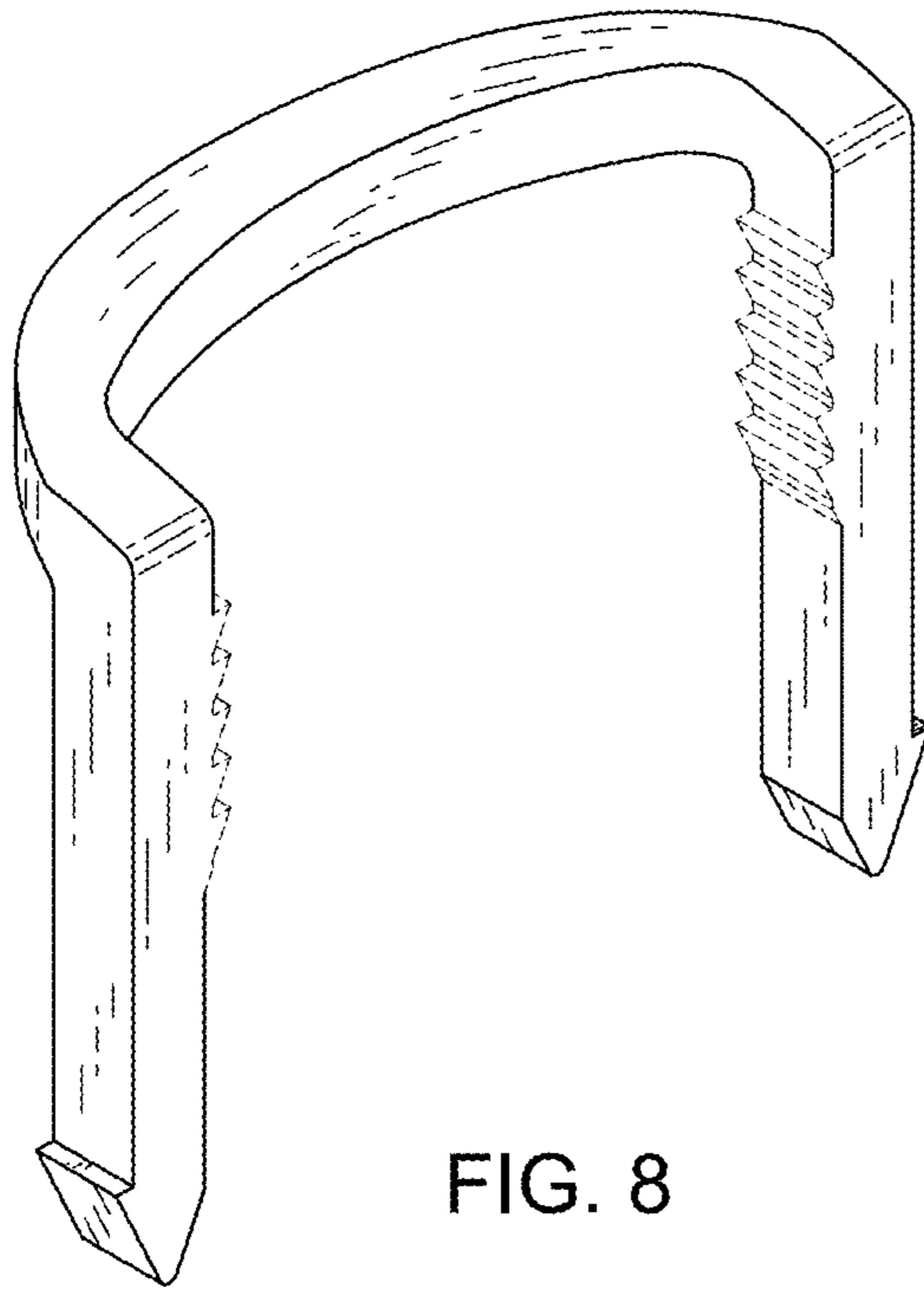


FIG. 8

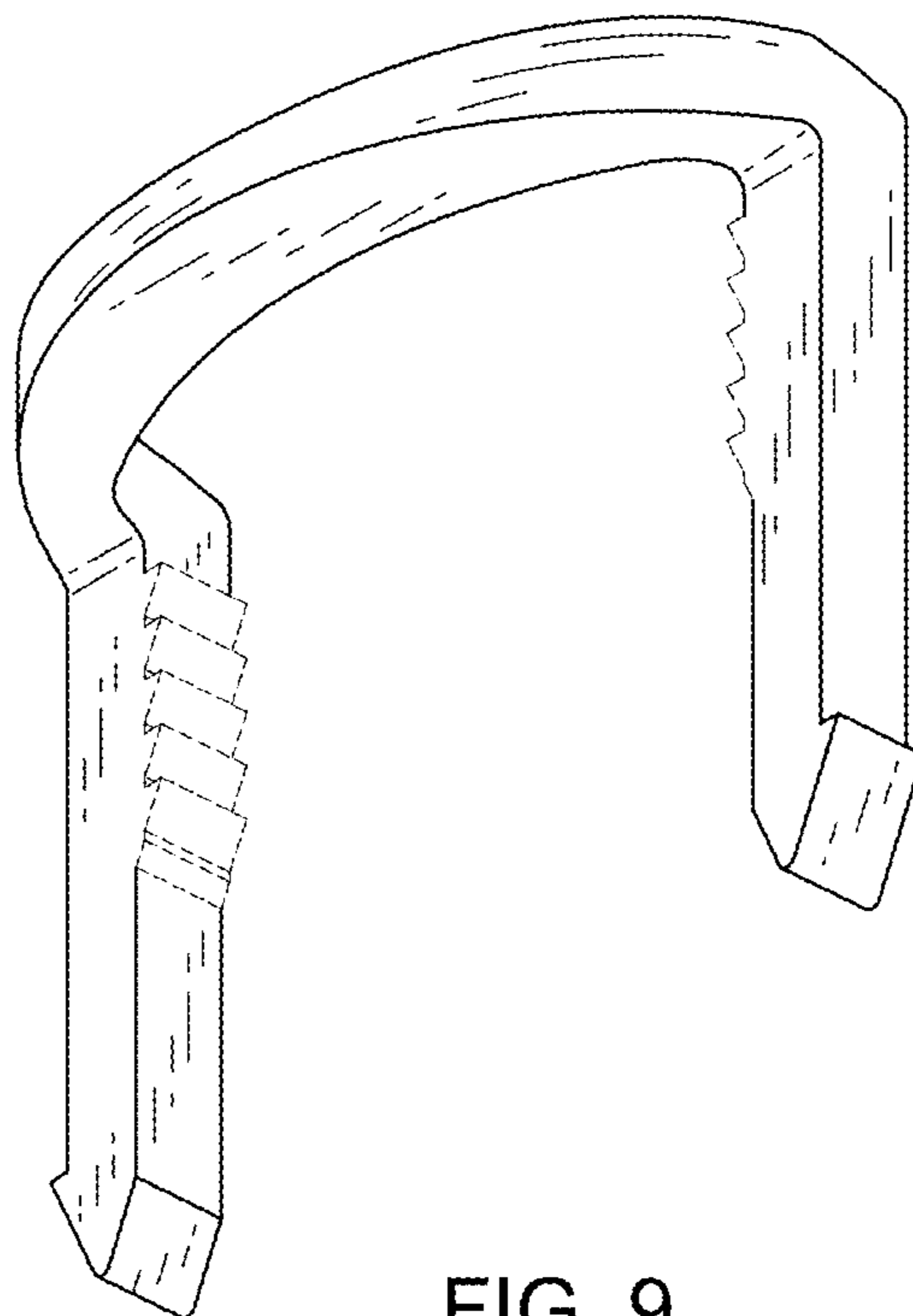


FIG. 9

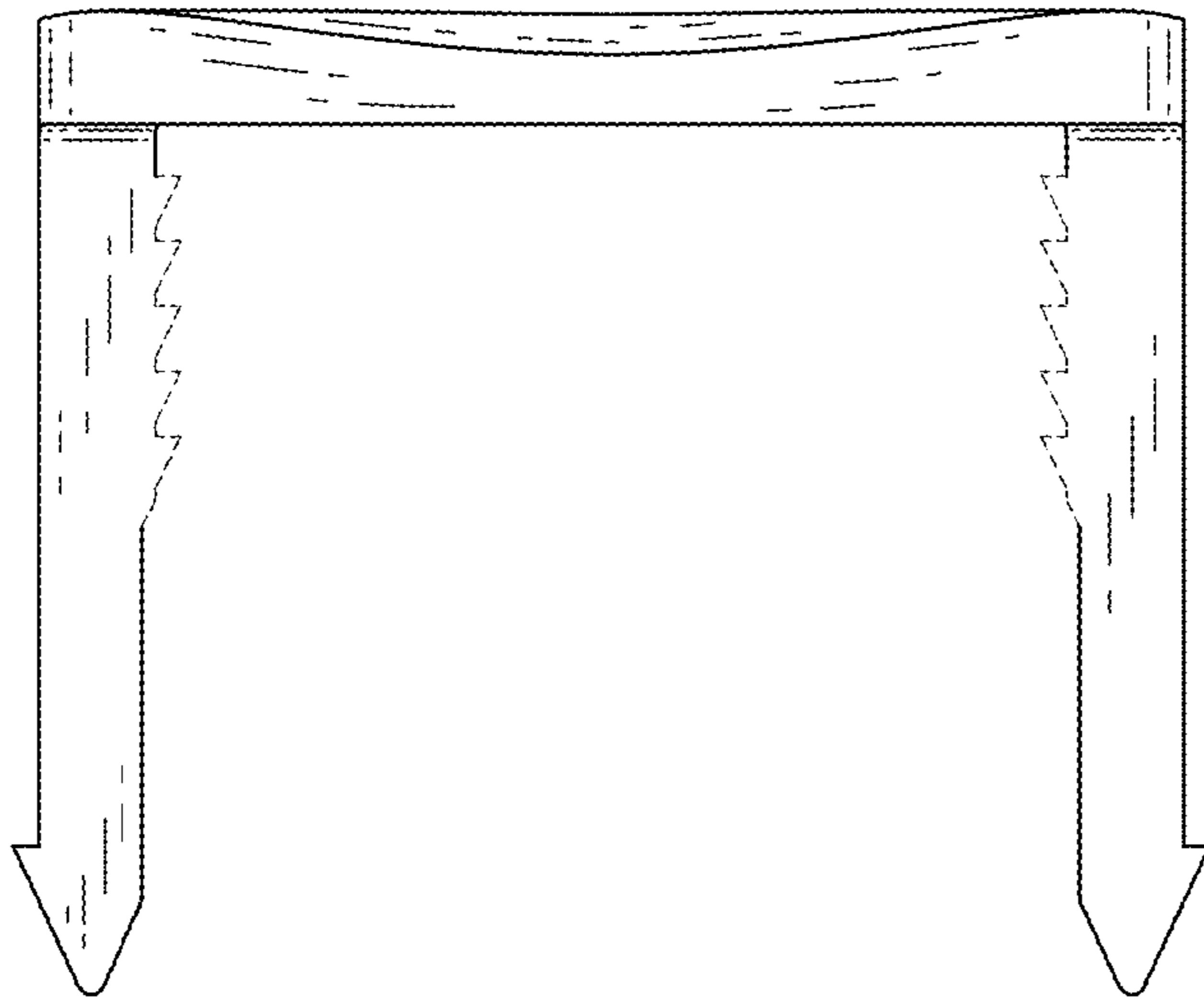


FIG. 10

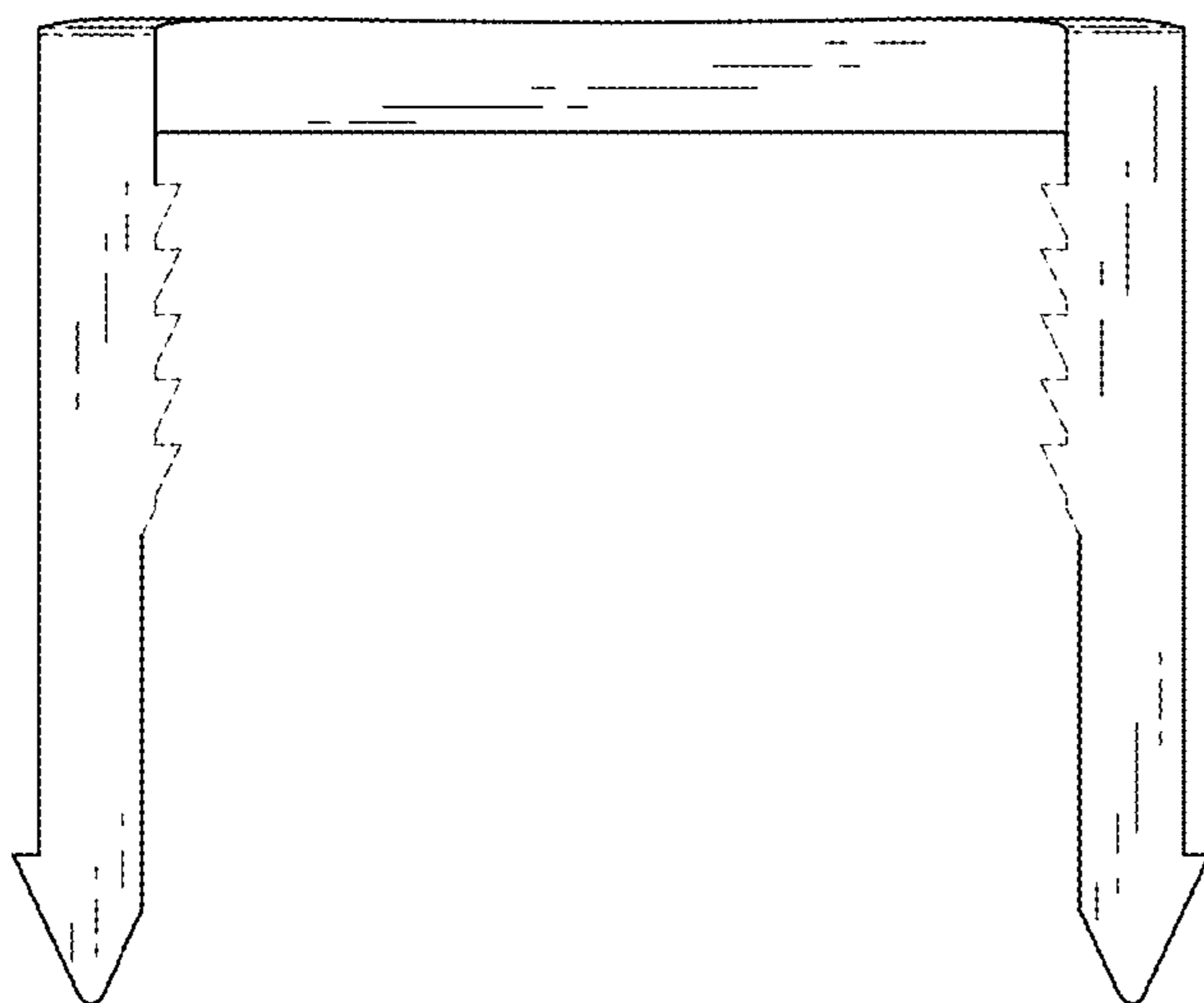


FIG. 11

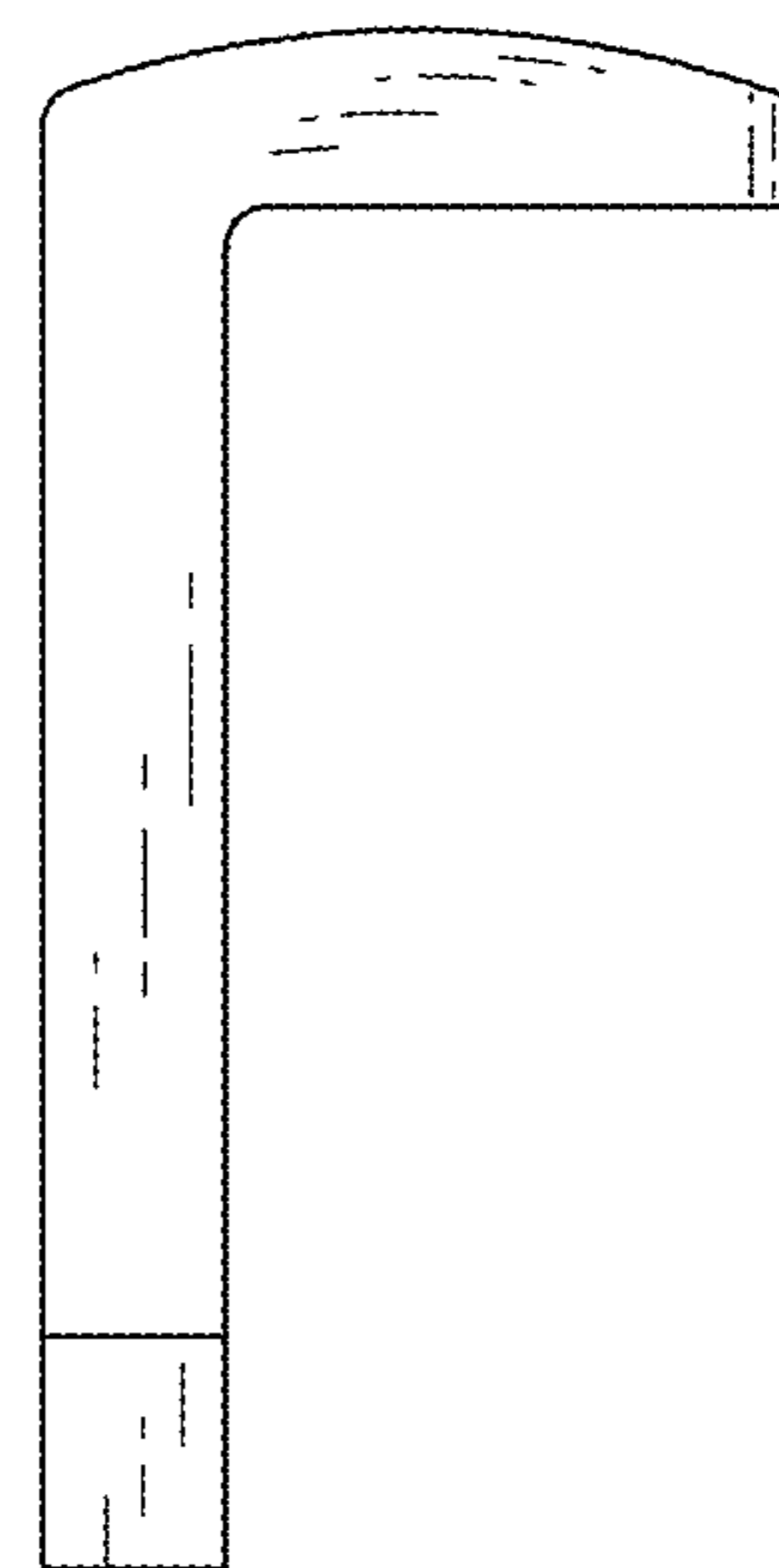


FIG. 12

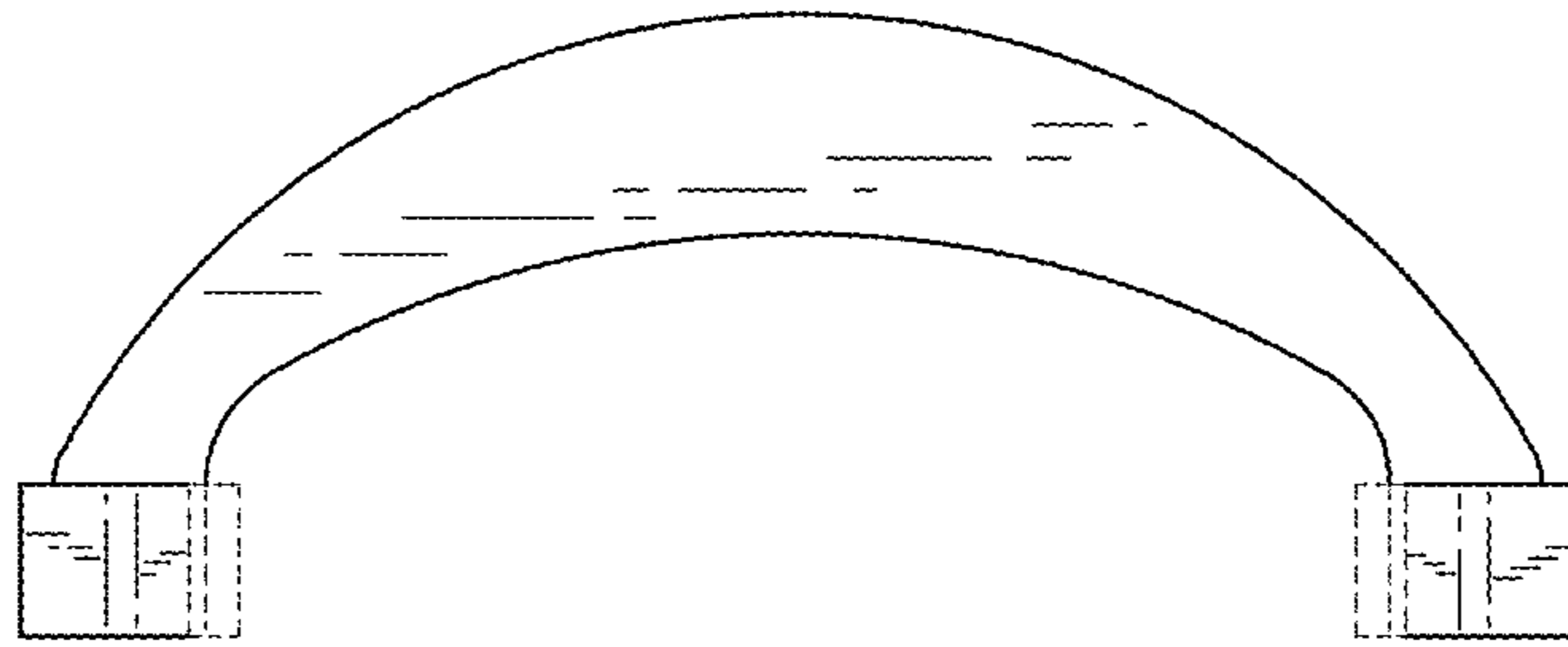


FIG. 13

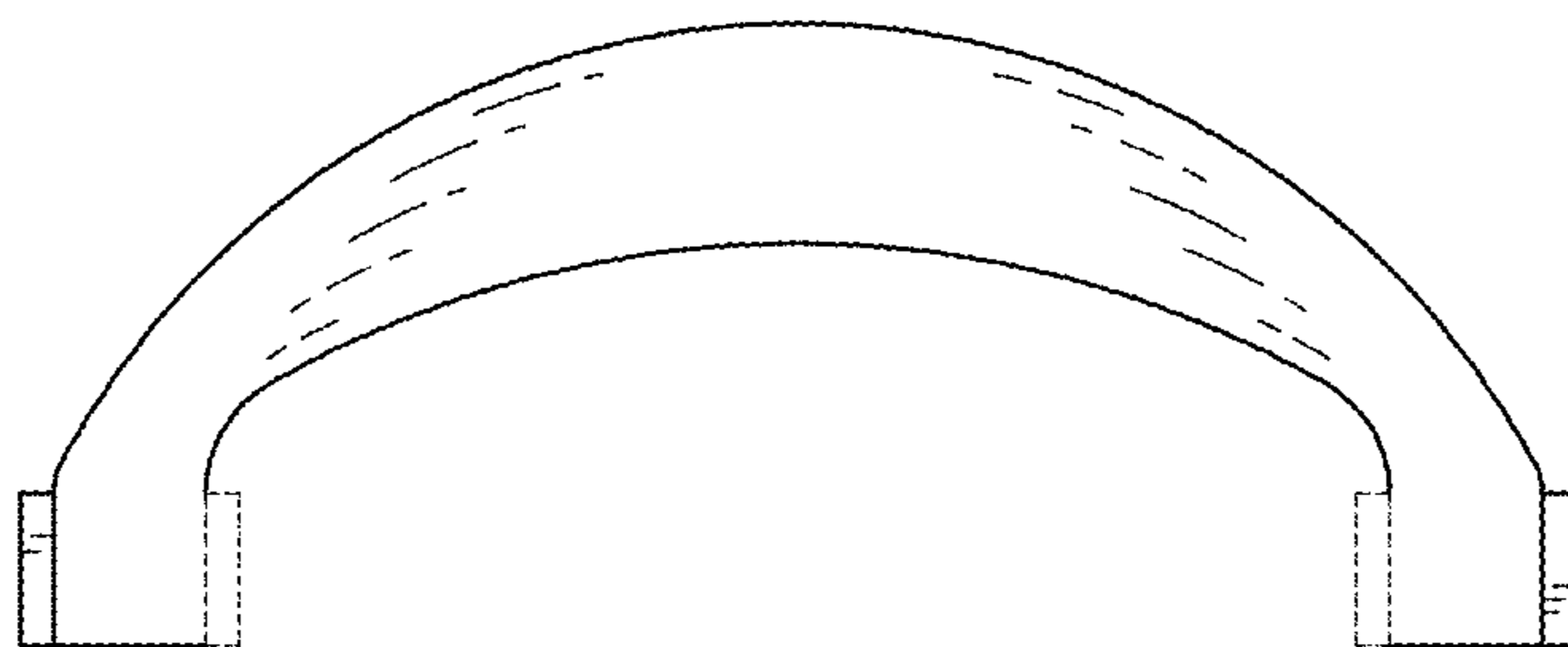


FIG. 14



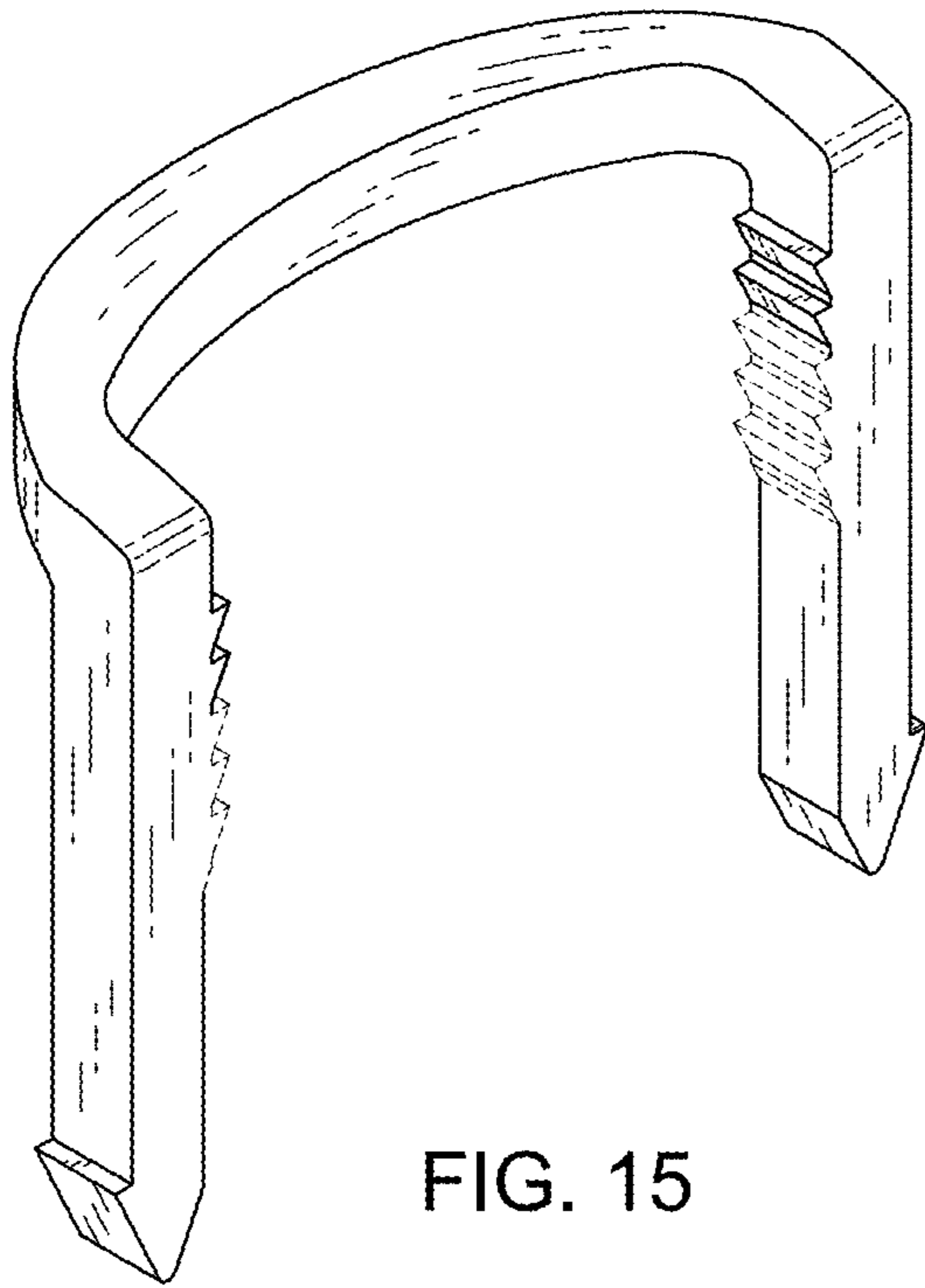


FIG. 15

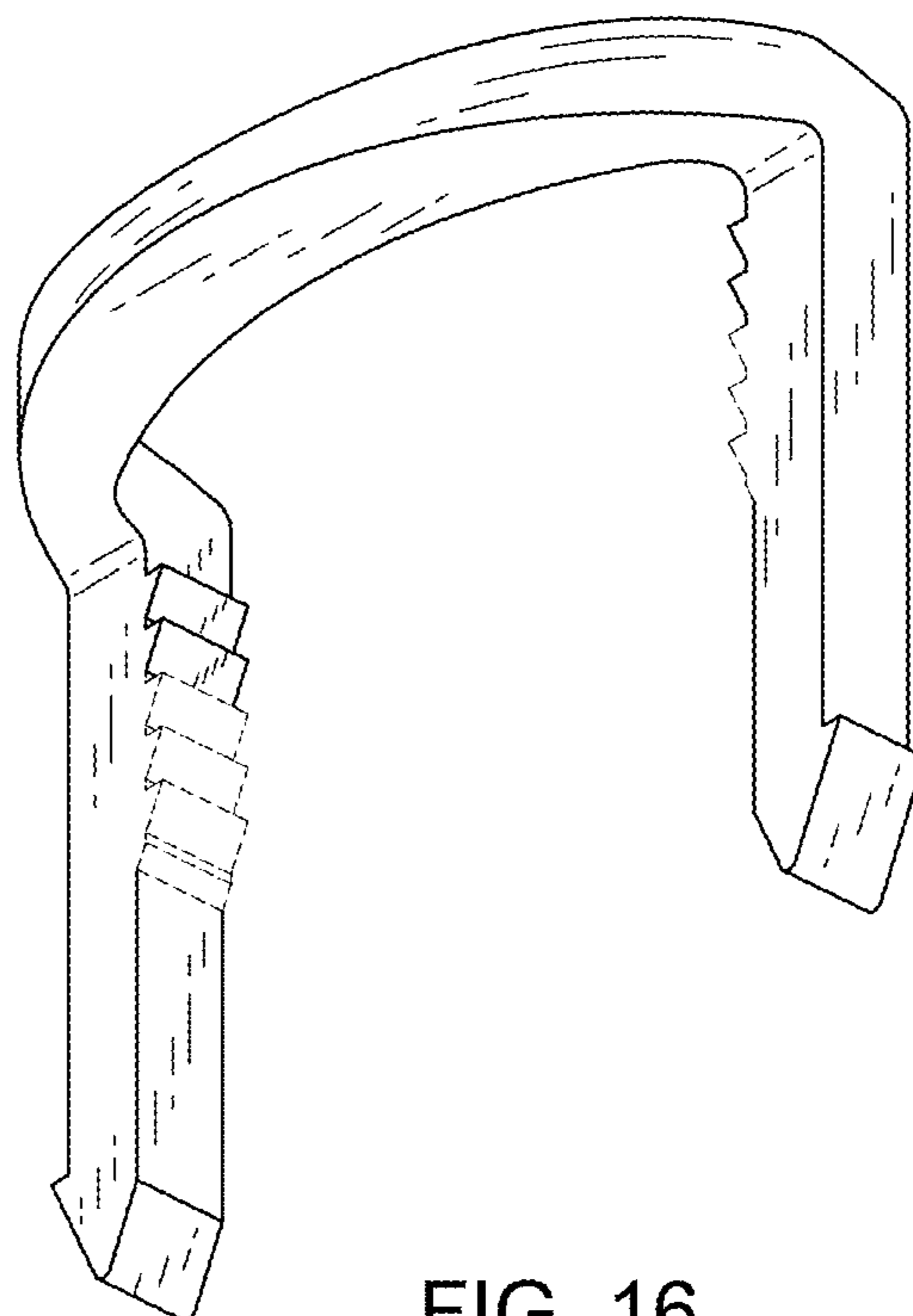


FIG. 16

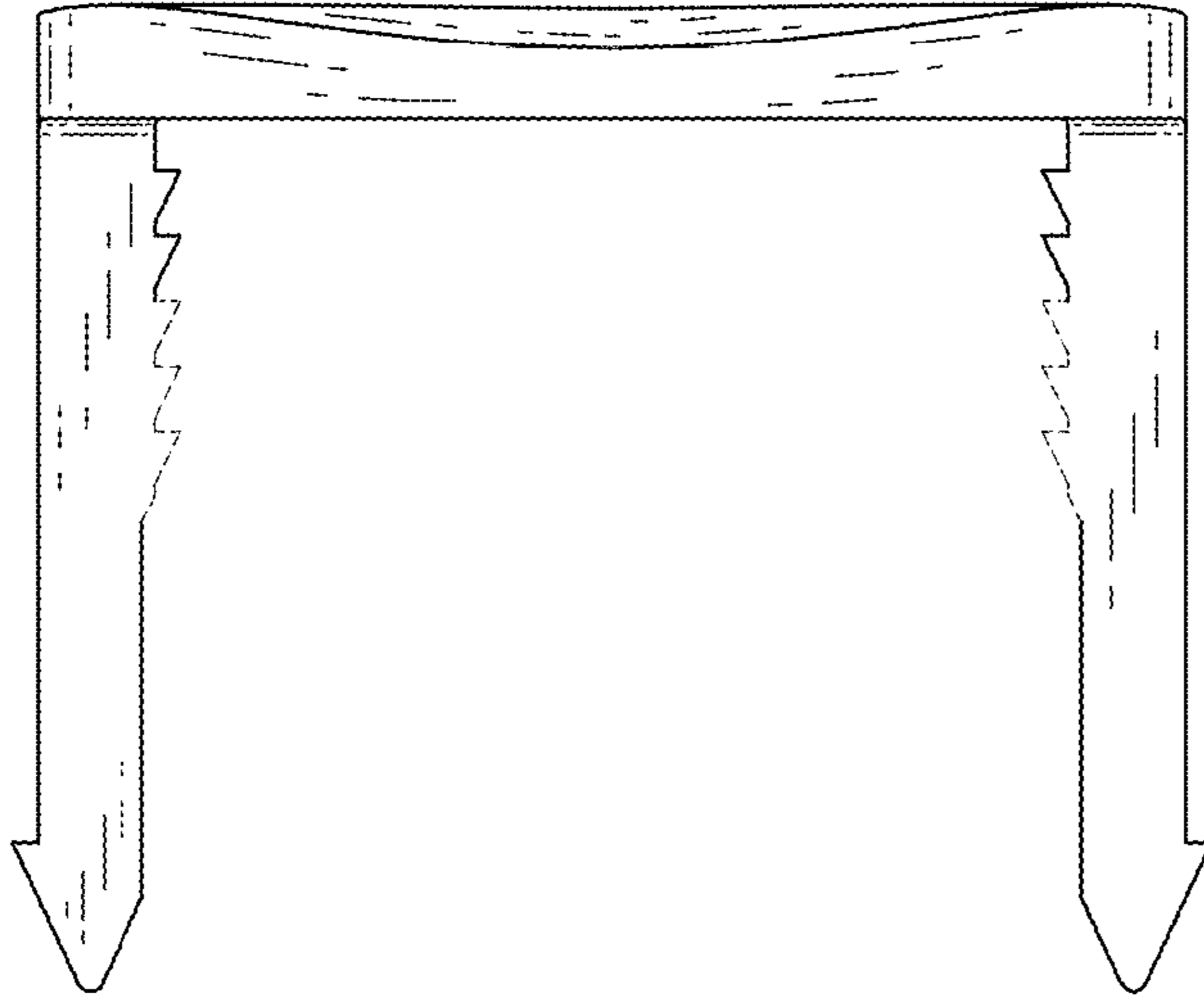


FIG. 17

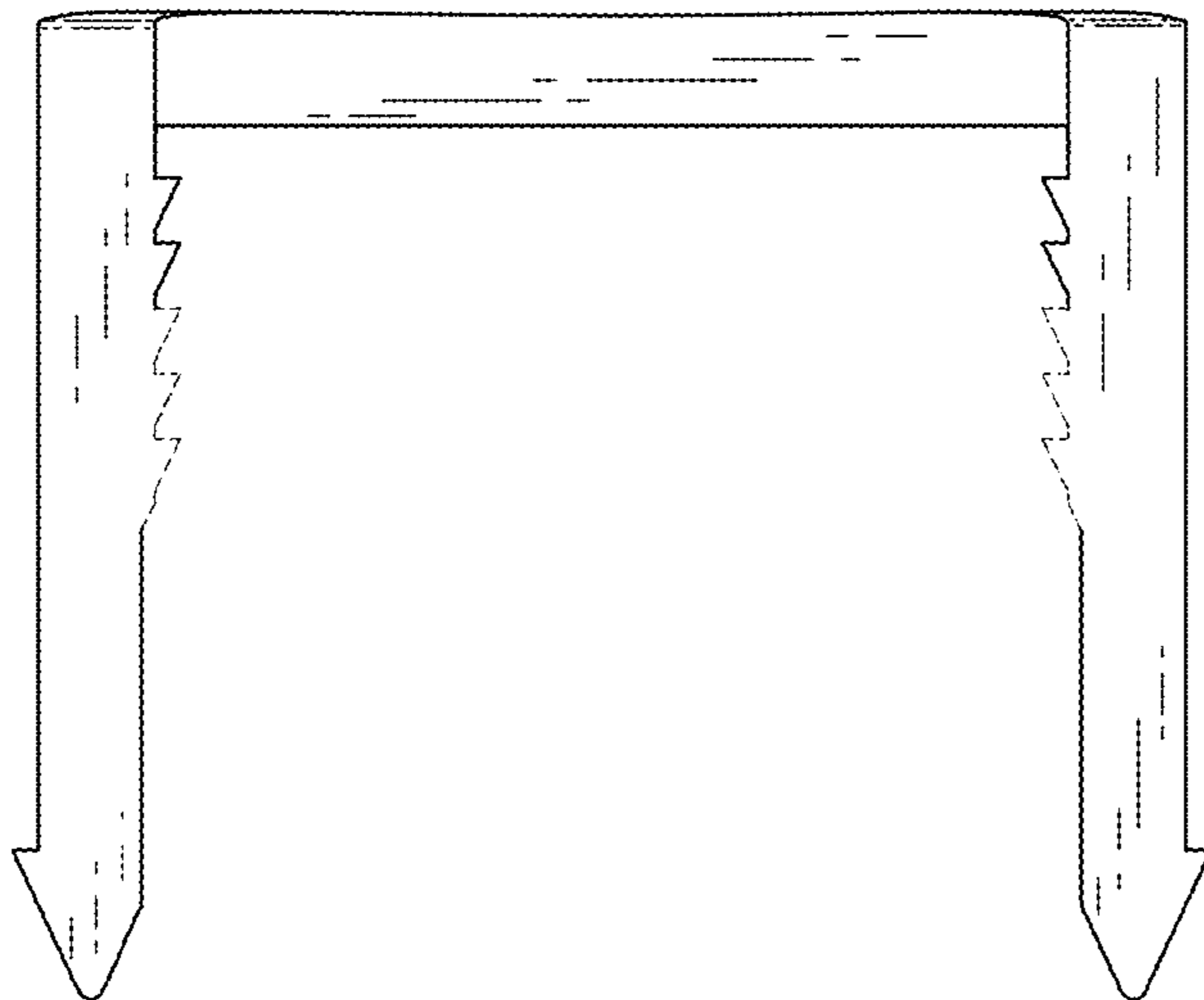


FIG. 18

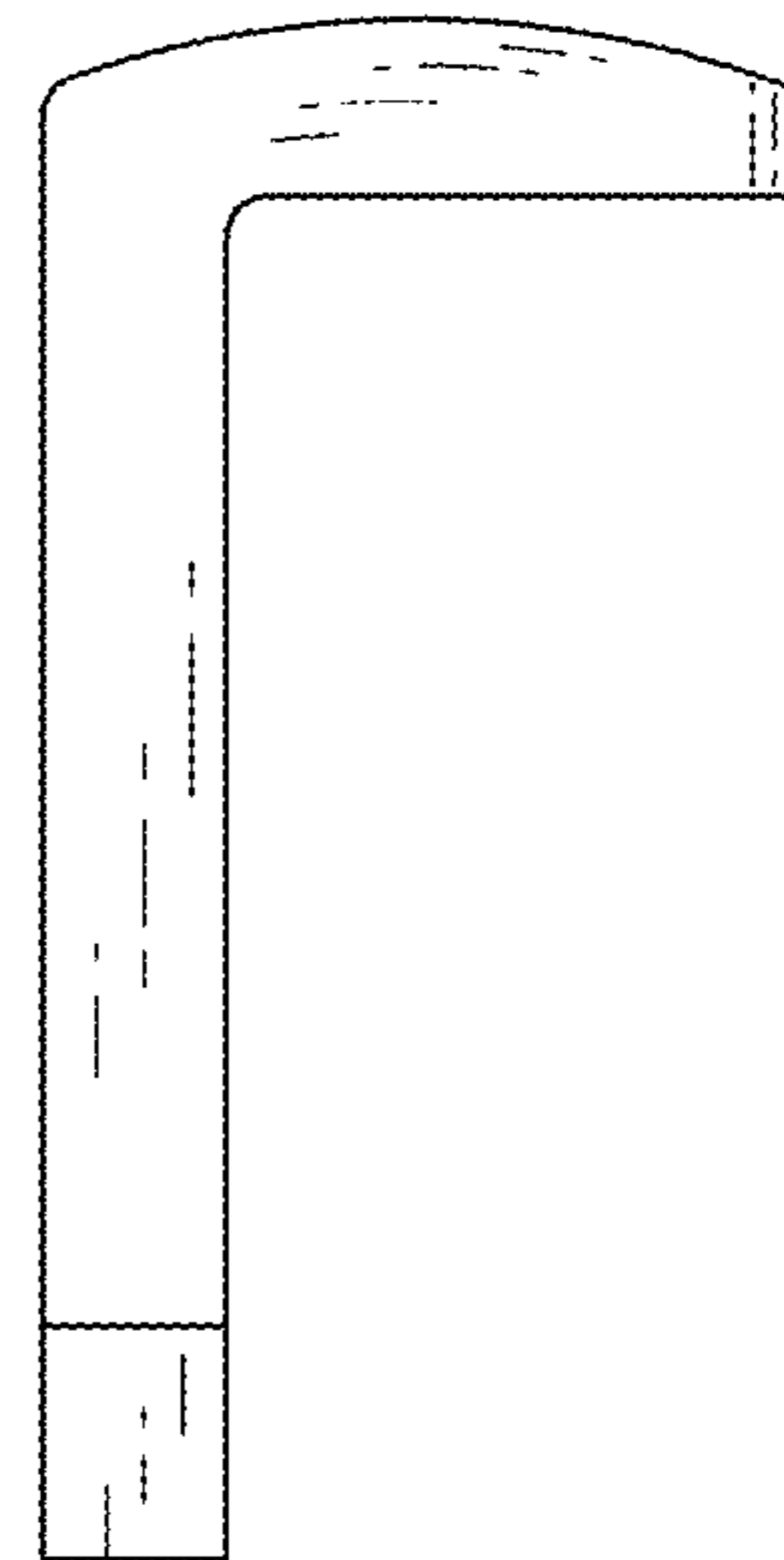


FIG. 19

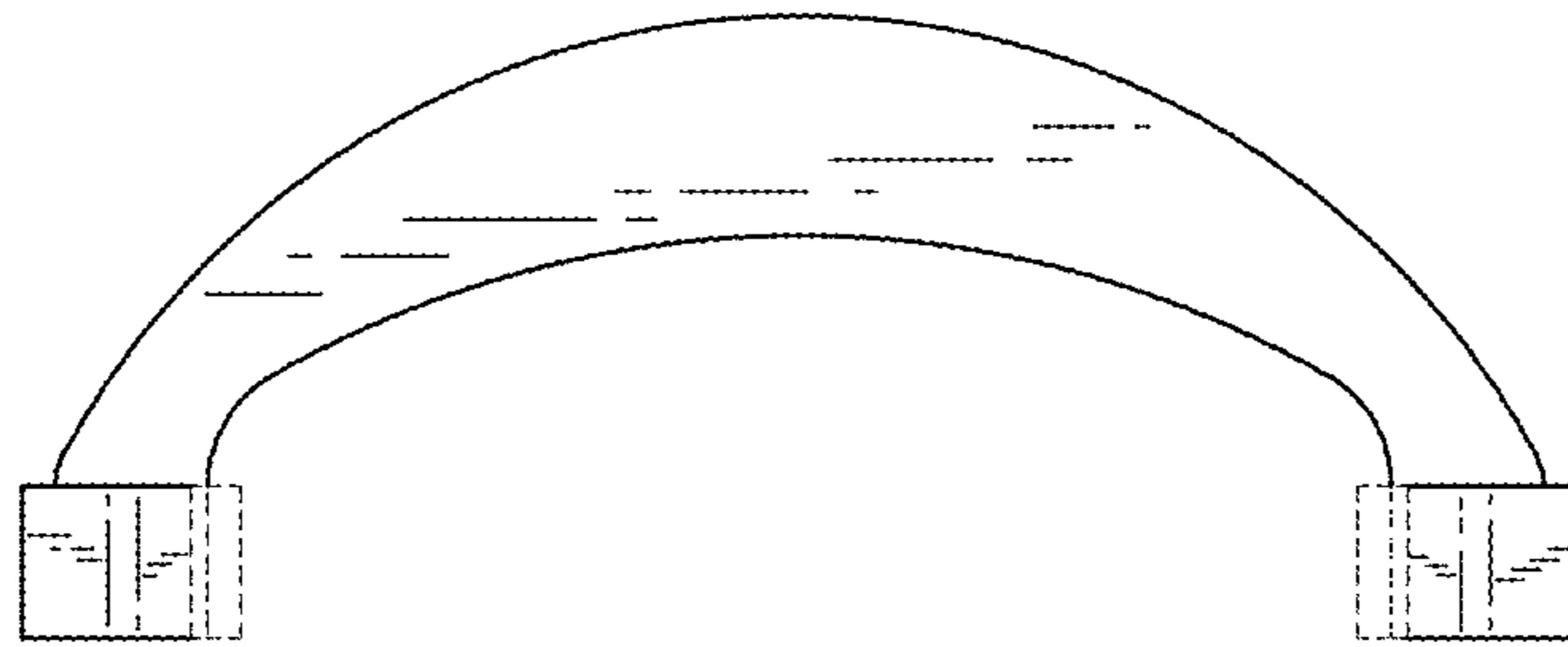


FIG. 20

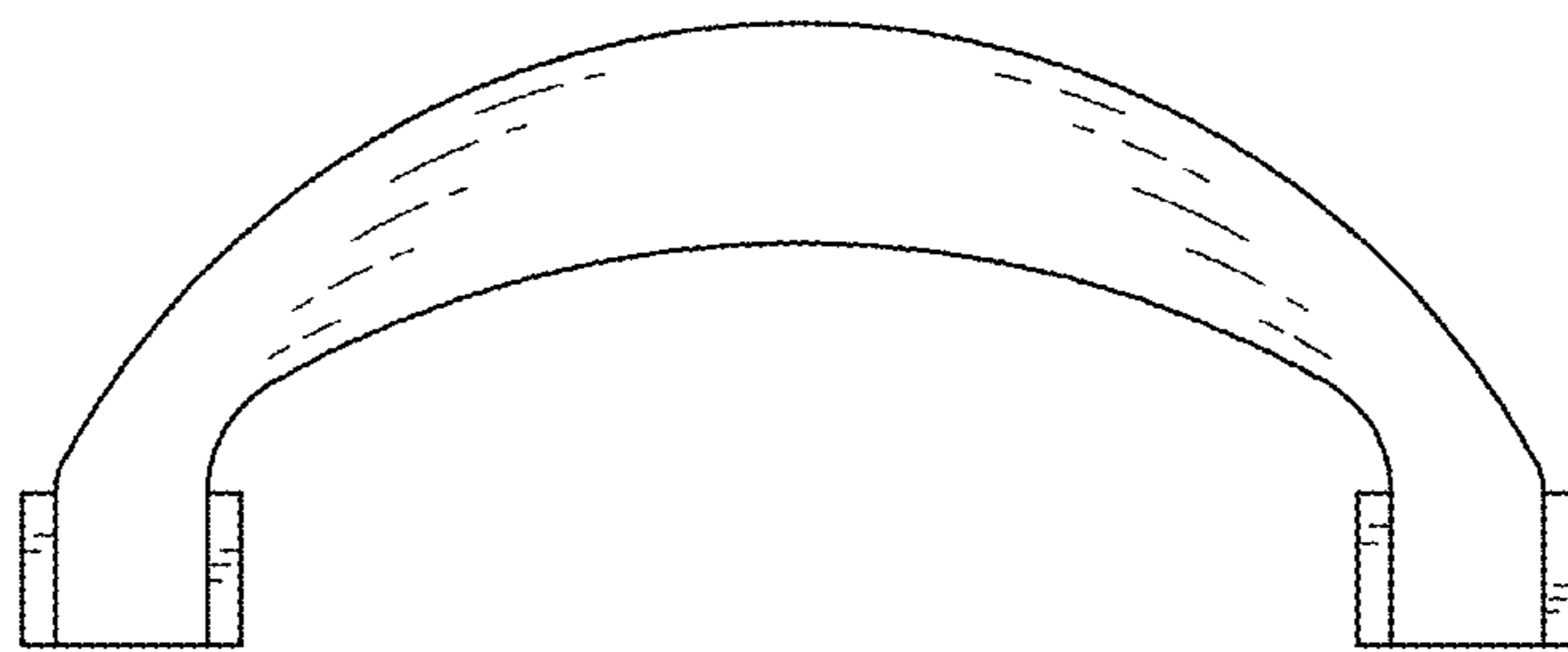


FIG. 21