



US00D782692S

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

(10) **Patent No.:** **US D782,692 S**
(45) **Date of Patent:** **** Mar. 28, 2017**

(54) **MIXING NOZZLE FOR DENTAL IMPRESSION MATERIAL**
(71) Applicant: **3M INNOVATIVE PROPERTIES COMPANY**, St. Paul, MN (US)
(72) Inventor: **Takekazu Osada**, Tokyo (JP)
(73) Assignee: **3M Innovative Properties Company**, St. Paul, MN (US)

D472,323 S * 3/2003 Sand D24/220
D483,495 S * 12/2003 Sand D24/220
7,320,541 B2 * 1/2008 Wagner B01F 7/00141
222/145.6
D571,479 S 6/2008 Wagner
D571,927 S 6/2008 Wagner
D606,663 S * 12/2009 Tien D24/220
D607,476 S * 1/2010 Saul D15/138
D617,001 S * 6/2010 Lee D24/220
7,731,413 B2 * 6/2010 Busin B01F 5/0619
222/145.6
7,771,110 B2 * 8/2010 Wang B01F 5/0615
366/155.1
D691,281 S 10/2013 Walter et al.
(Continued)

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

(21) Appl. No.: **29/528,210**

(22) Filed: **May 27, 2015**

(30) **Foreign Application Priority Data**

Nov. 28, 2014 (JP) 2014-026726

(51) **LOC (10) Cl.** **24-00**

(52) **U.S. Cl.**
USPC **D24/220**

(58) **Field of Classification Search**
USPC D24/220, 130; D15/138; 1/1; 366/155.1,
366/172.1, 307; 222/145.6, 137
CPC B01F 5/0615; B01F 7/00141; B01F 7/00125;
B01F 15/0201; B01F 5/0619; A61C
9/0026; A61C 5/064
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,249,862 A * 10/1993 Herold A61C 5/064
222/137
6,244,740 B1 * 6/2001 Wagner A61C 5/064
222/145.6
6,443,612 B1 * 9/2002 Keller B01F 7/00141
222/145.6

FOREIGN PATENT DOCUMENTS

CA 153792 6/2014
DE 4235736 3/1994
(Continued)

Primary Examiner — Rhea Shields

(57) **CLAIM**

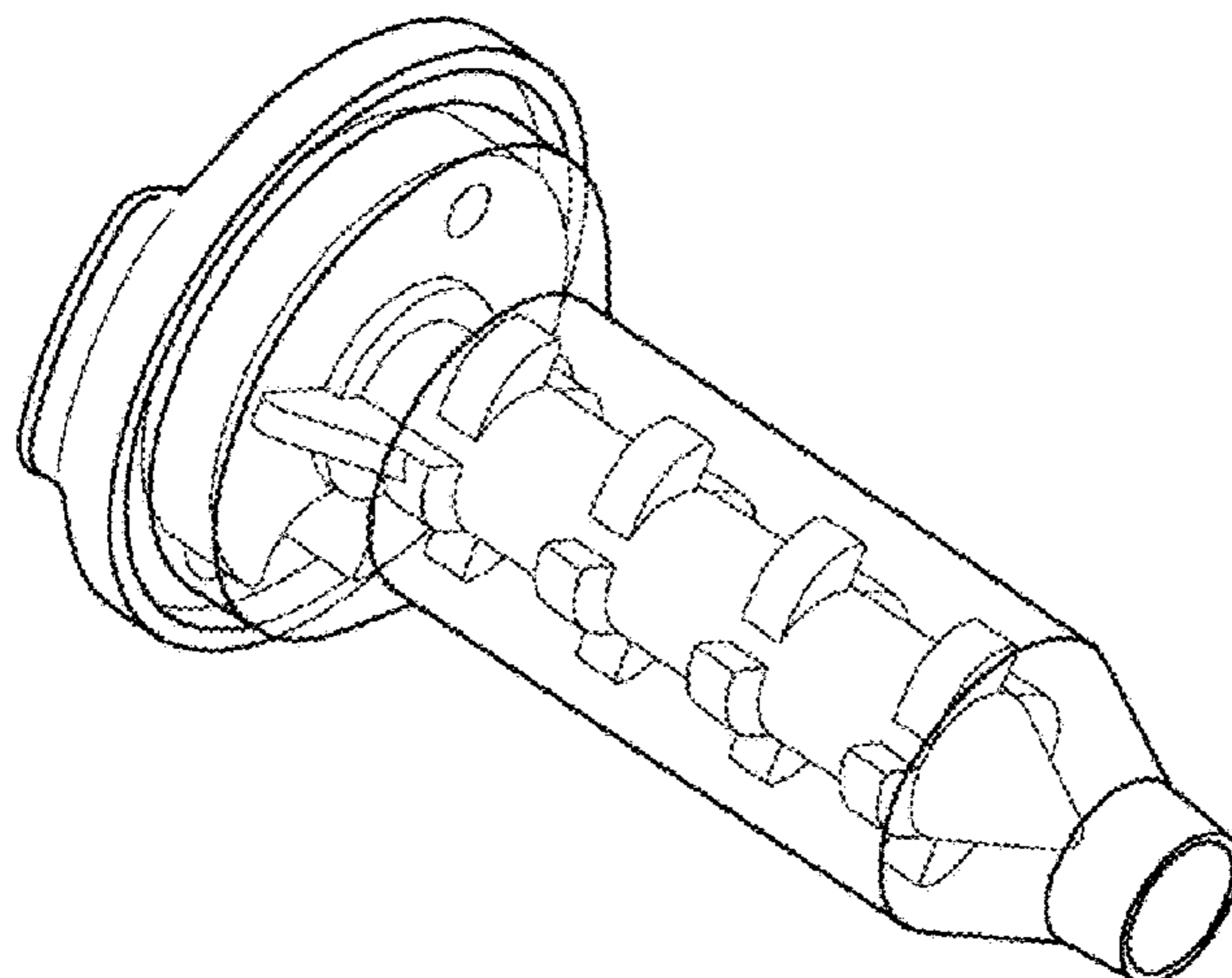
The ornamental design for a mixing nozzle for dental impression material, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a mixing nozzle showing the new design for a mixing nozzle for dental impression material. The outer portion of the nozzle is clear or partially transparent.

FIG. 2 is another perspective view thereof;
FIG. 3 is a front view thereof;
FIG. 4 is a rear view thereof;
FIG. 5 is a top view thereof;
FIG. 6 is a bottom view thereof;
FIG. 7 is a right side view thereof; and,
FIG. 8 is a left side view thereof.

1 Claim, 2 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D693,940	S	11/2013	Walter et al.	
D695,905	S	12/2013	Walter et al.	
D696,416	S	12/2013	Walter et al.	
D696,787	S	12/2013	Walter et al.	
D722,160	S *	2/2015	Armstrong	D24/130
9,301,819	B2 *	4/2016	Jung	A61C 9/0026
2001/0005338	A1 *	6/2001	Muhlbauer	A61C 5/064
				366/307
2003/0137898	A1 *	7/2003	Wagner	B01F 7/00125
				366/172.1
2004/0085854	A1 *	5/2004	Pauser	B01F 15/0201
				366/172.1

FOREIGN PATENT DOCUMENTS

EP	1550829	7/2005
JP	2000-116675	4/2000
JP	1501510 S	5/2014
WO	WO 2011/031440	3/2011

* cited by examiner

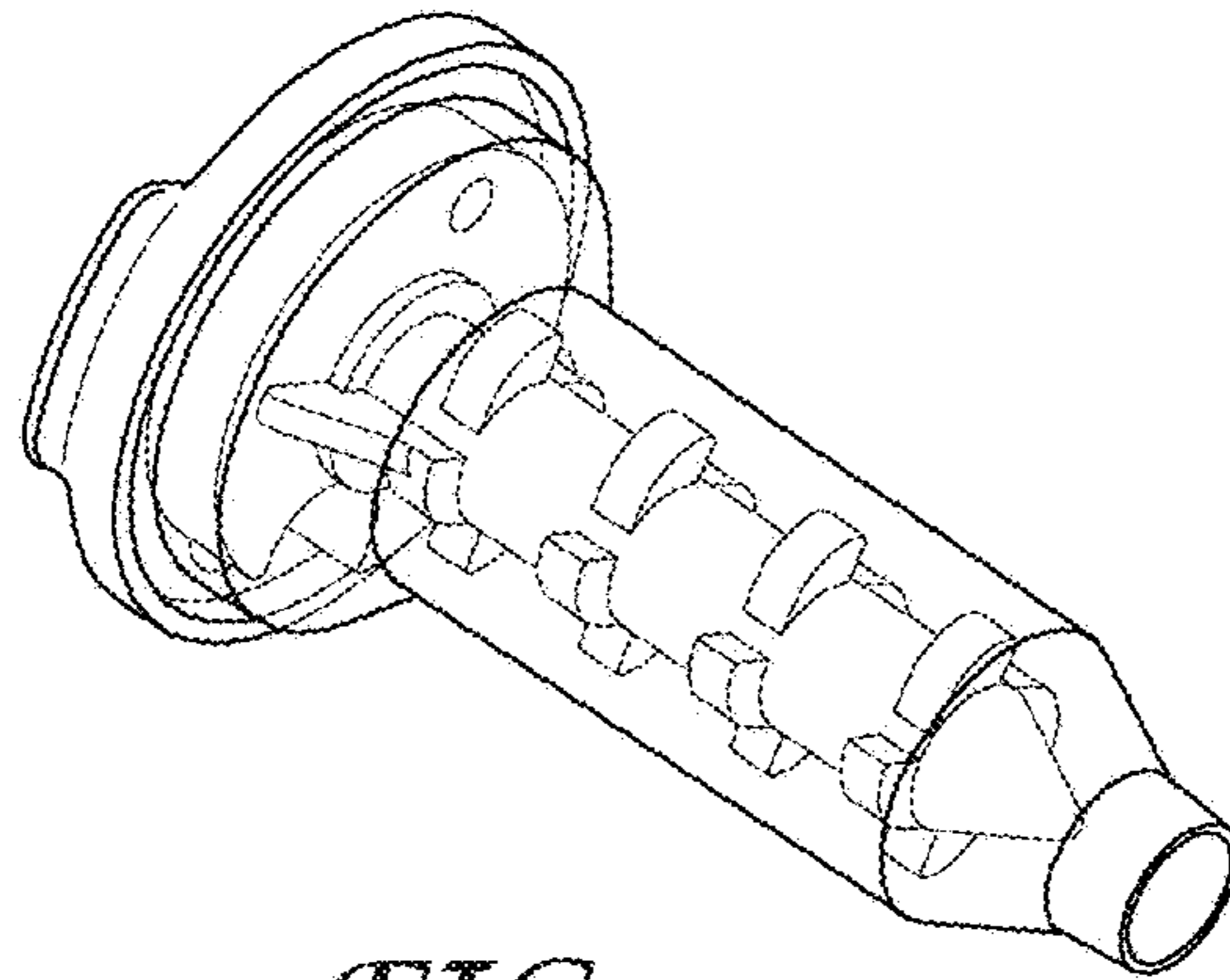


FIG. 1

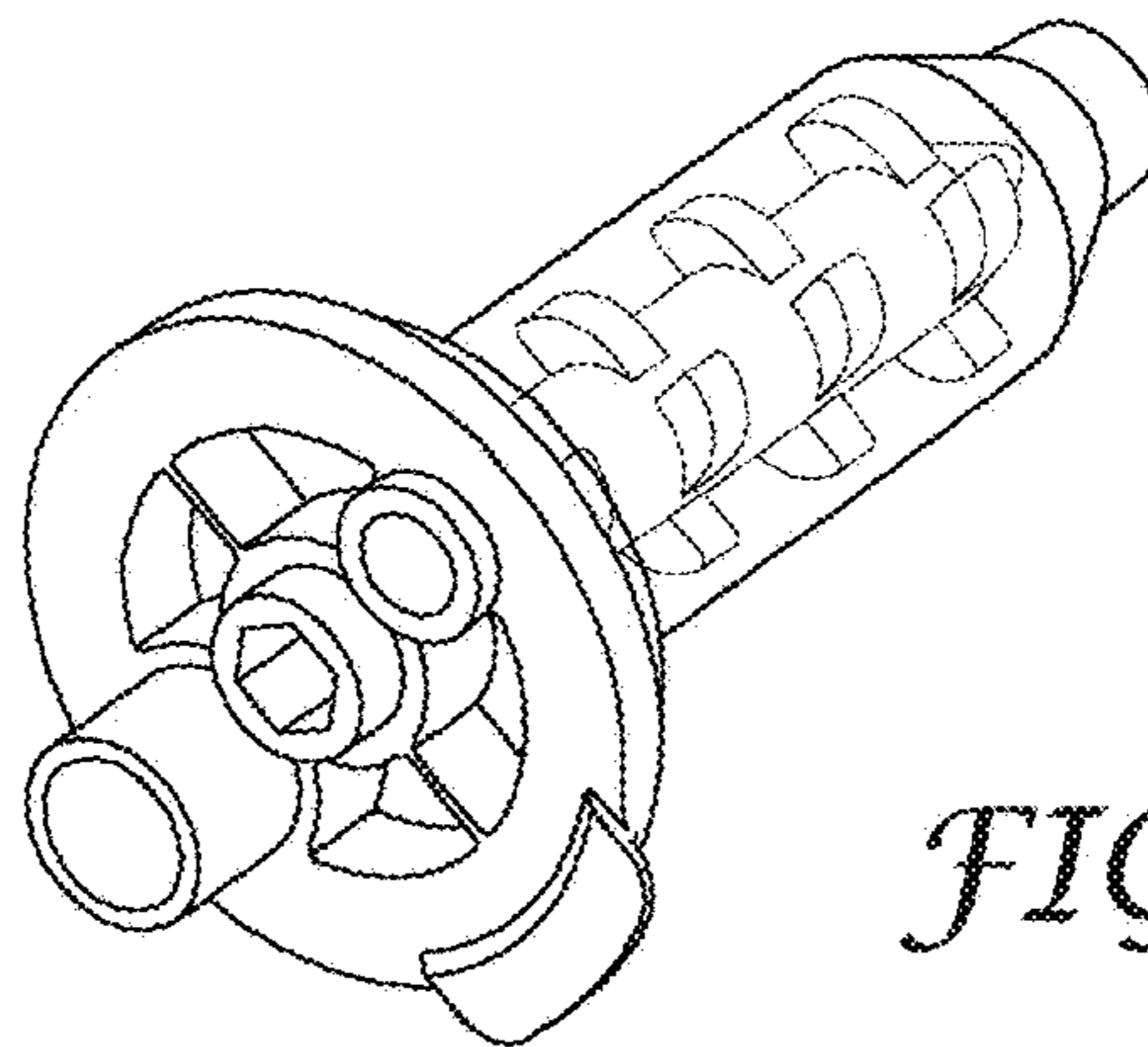


FIG. 2

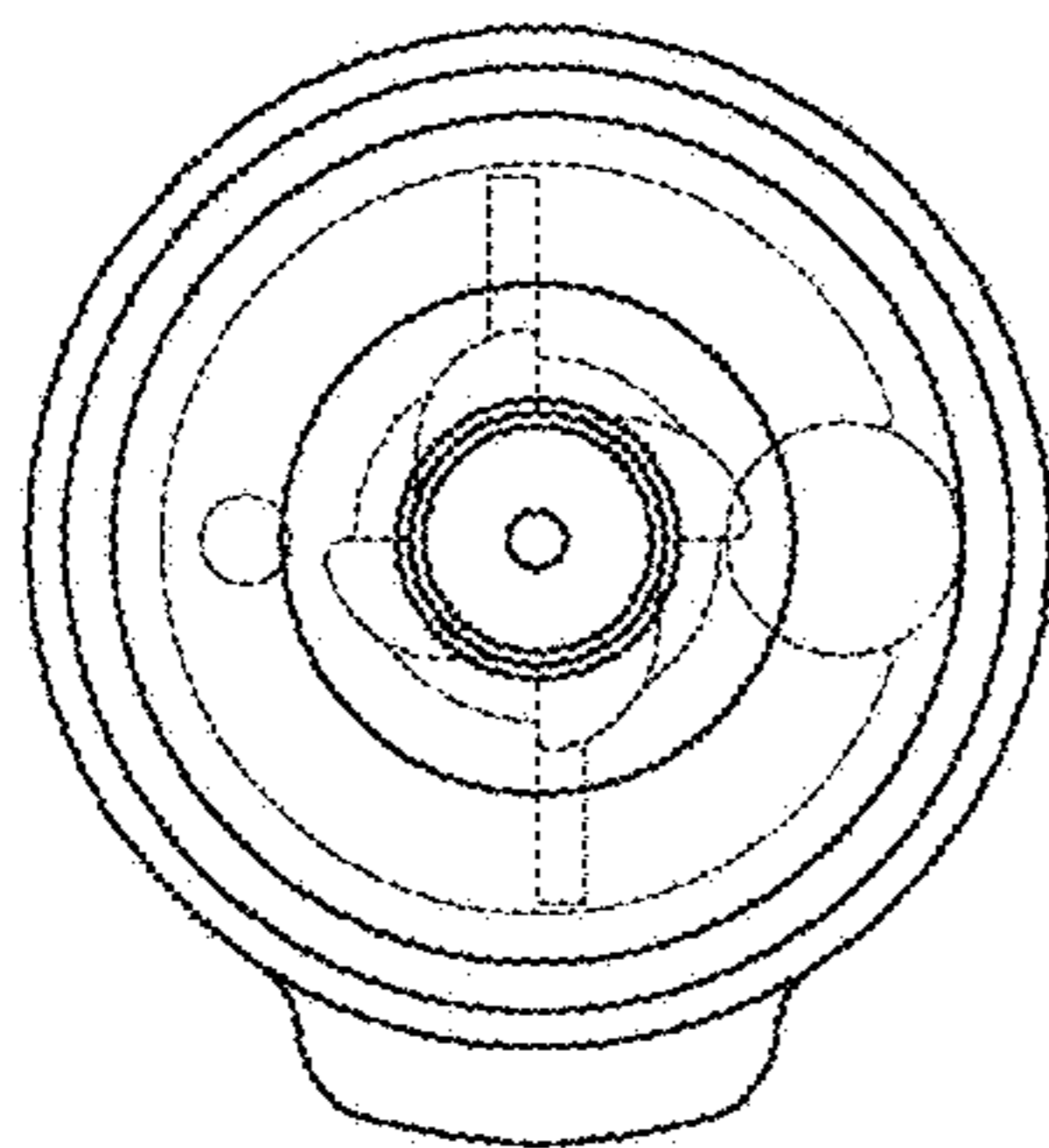


FIG. 3

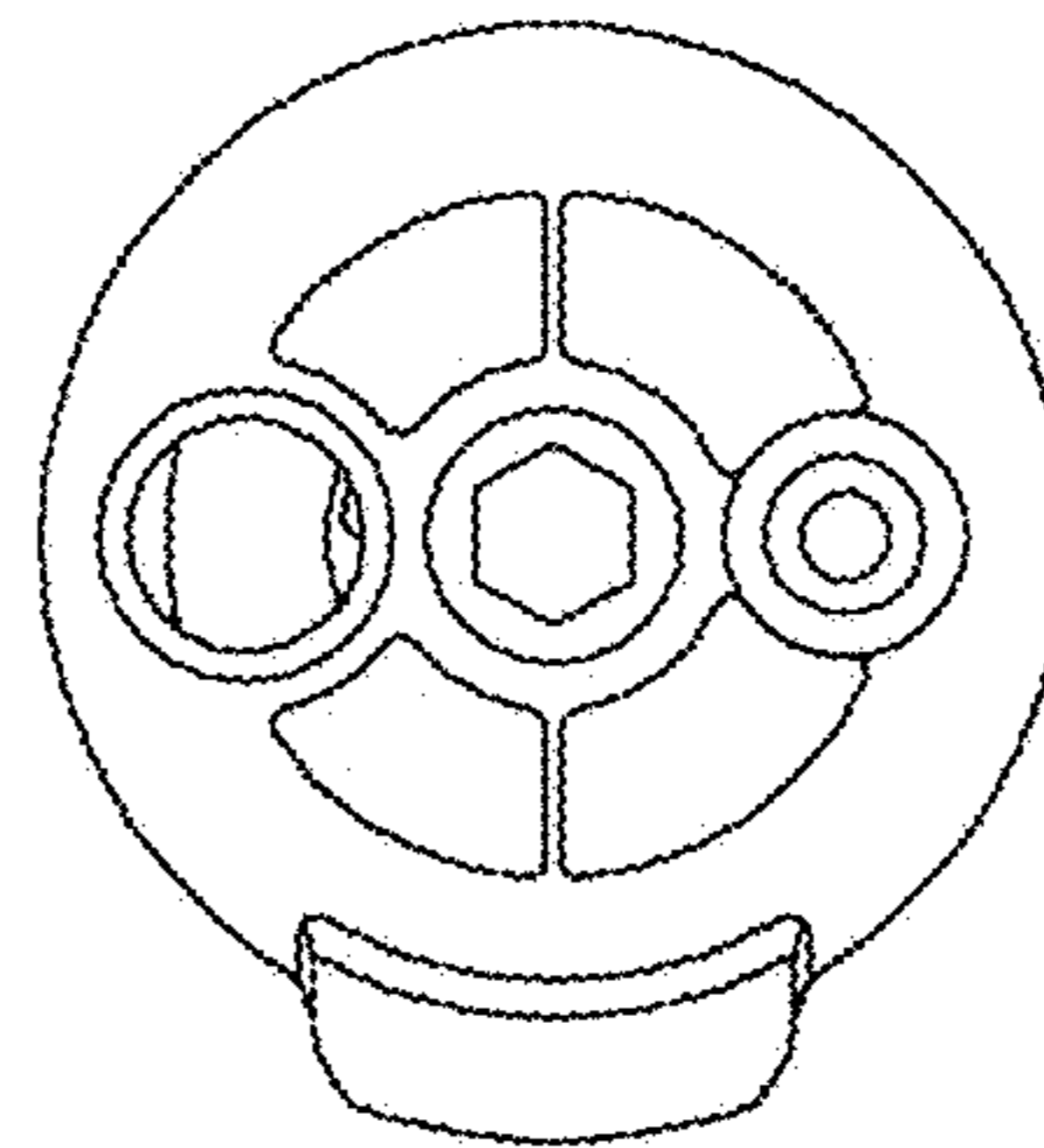


FIG. 4

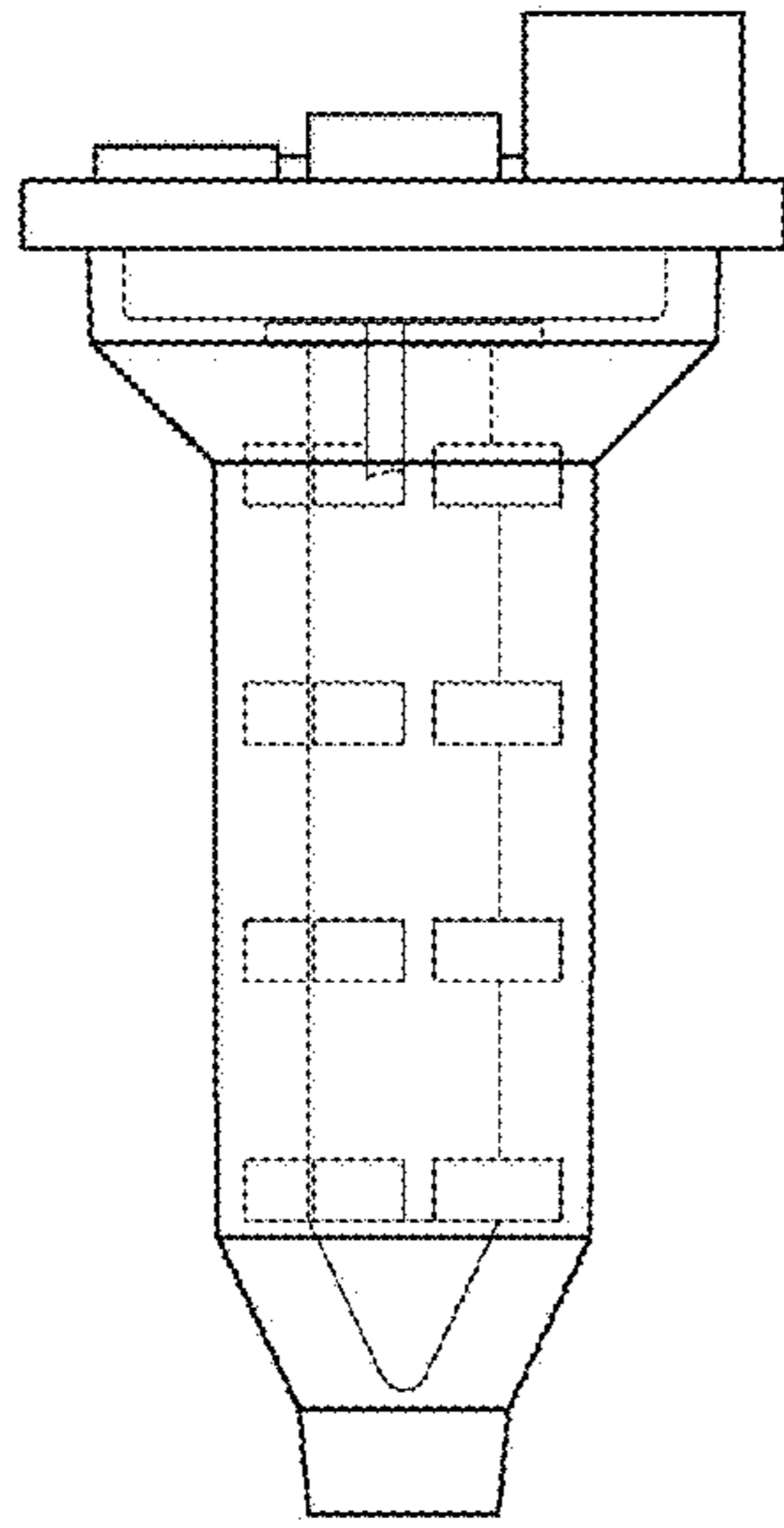


FIG. 5

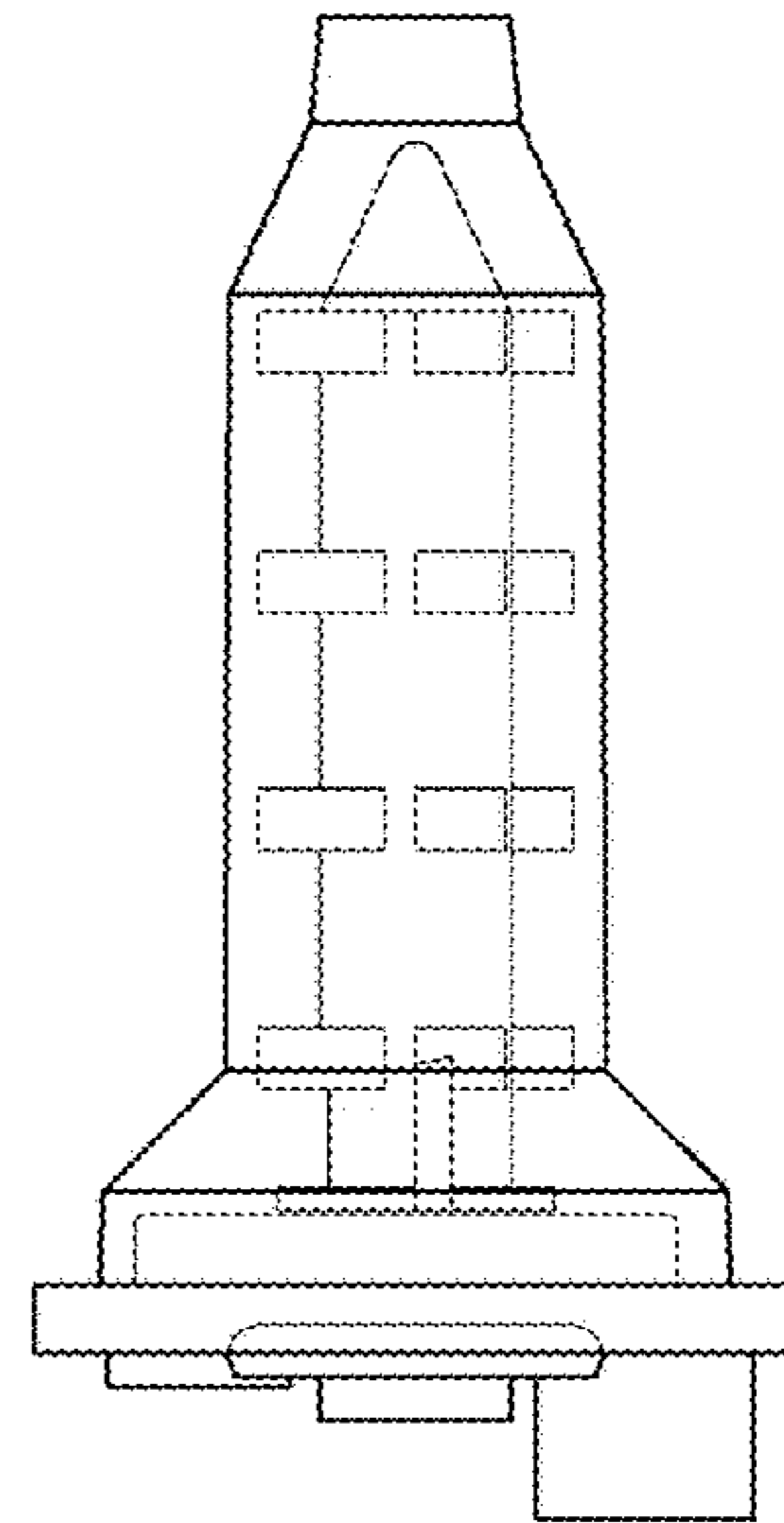


FIG. 6

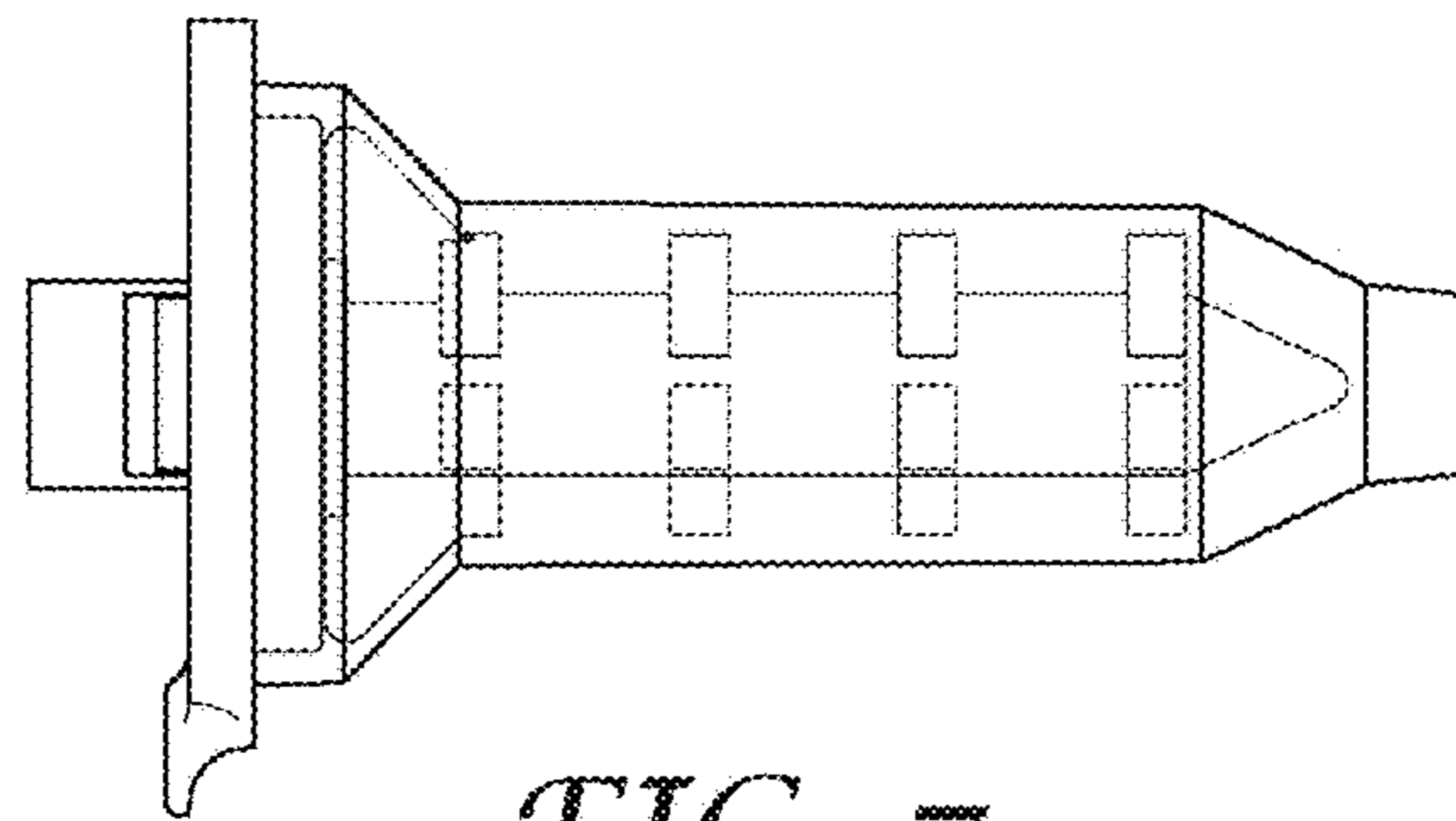


FIG. 7

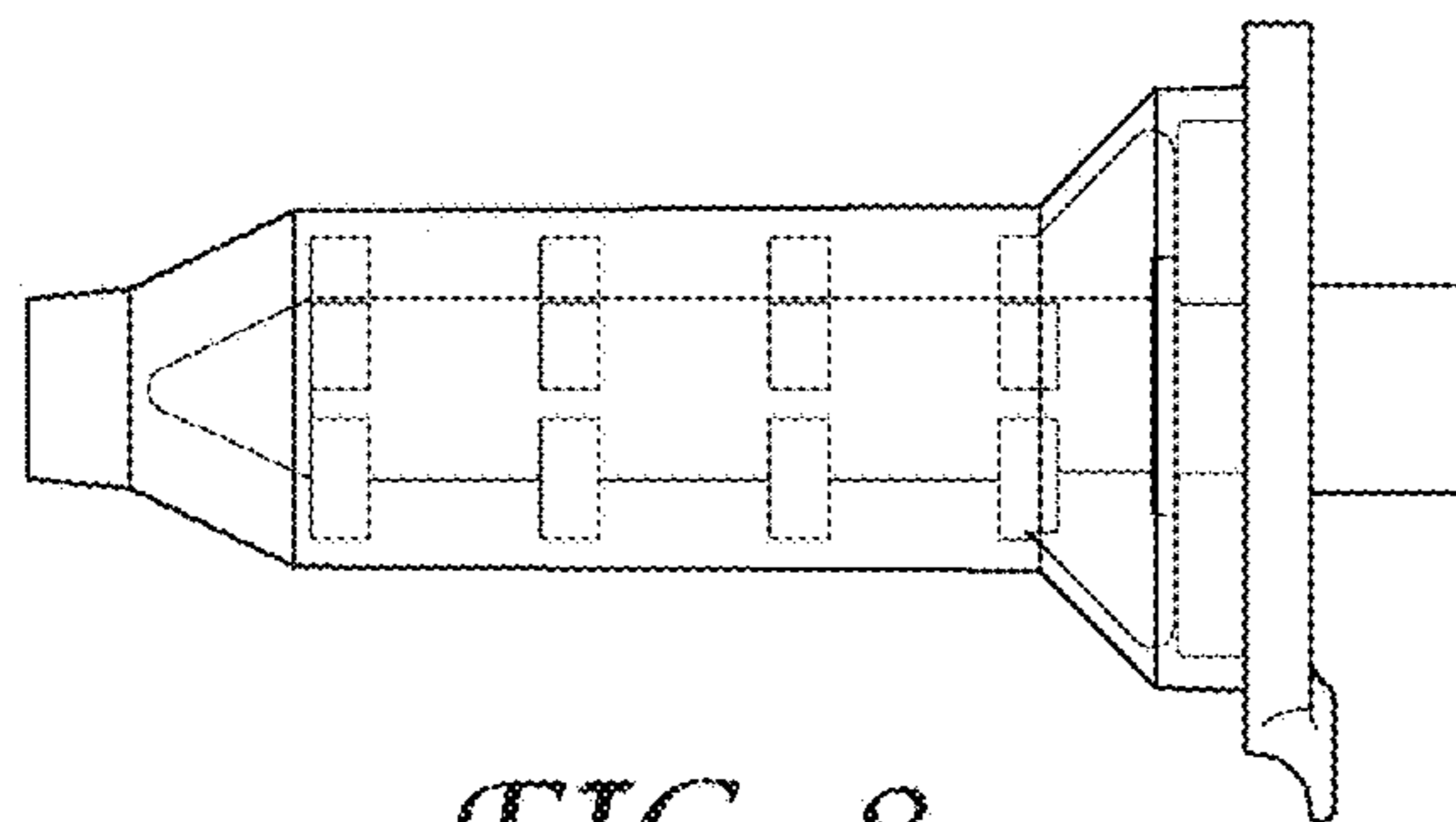


FIG. 8