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

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(54) **FILTER ASSEMBLY**

6,966,443 B1 * 11/2005 Ridge 210/446
D535,750 S * 1/2007 Clawson D24/162
D569,685 S * 5/2008 Liu D7/398

(75) Inventors: **Todd Taylor**, Cambridge, MA (US);
Christopher Barmore, Cambridge, MA
(US); **Rob Colonna**, Boston, MA (US)

(Continued)

(73) Assignee: **EMD Millipore Corporation**, Billerica,
MA (US)

FOREIGN PATENT DOCUMENTS

WO 03/049831 A2 6/2003
WO 2004/101151 A1 11/2004

(**) Term: **14 Years**

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(Continued)

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Primary Examiner — T. Chase Nelson

(51) **LOC (9) Cl.** **24-01**

Assistant Examiner — Ania Aman

(52) **U.S. Cl.**

(74) *Attorney, Agent, or Firm* — Niels, Lemack & Frame,
LLC

USPC **D24/162**

(58) **Field of Classification Search** D24/162,
D24/164, 169; D23/209; 210/198.2, 444-446,
210/455

(57) **CLAIM**

The ornamental design for a filter assembly, as shown and
described.

See application file for complete search history.

DESCRIPTION

(56) **References Cited**

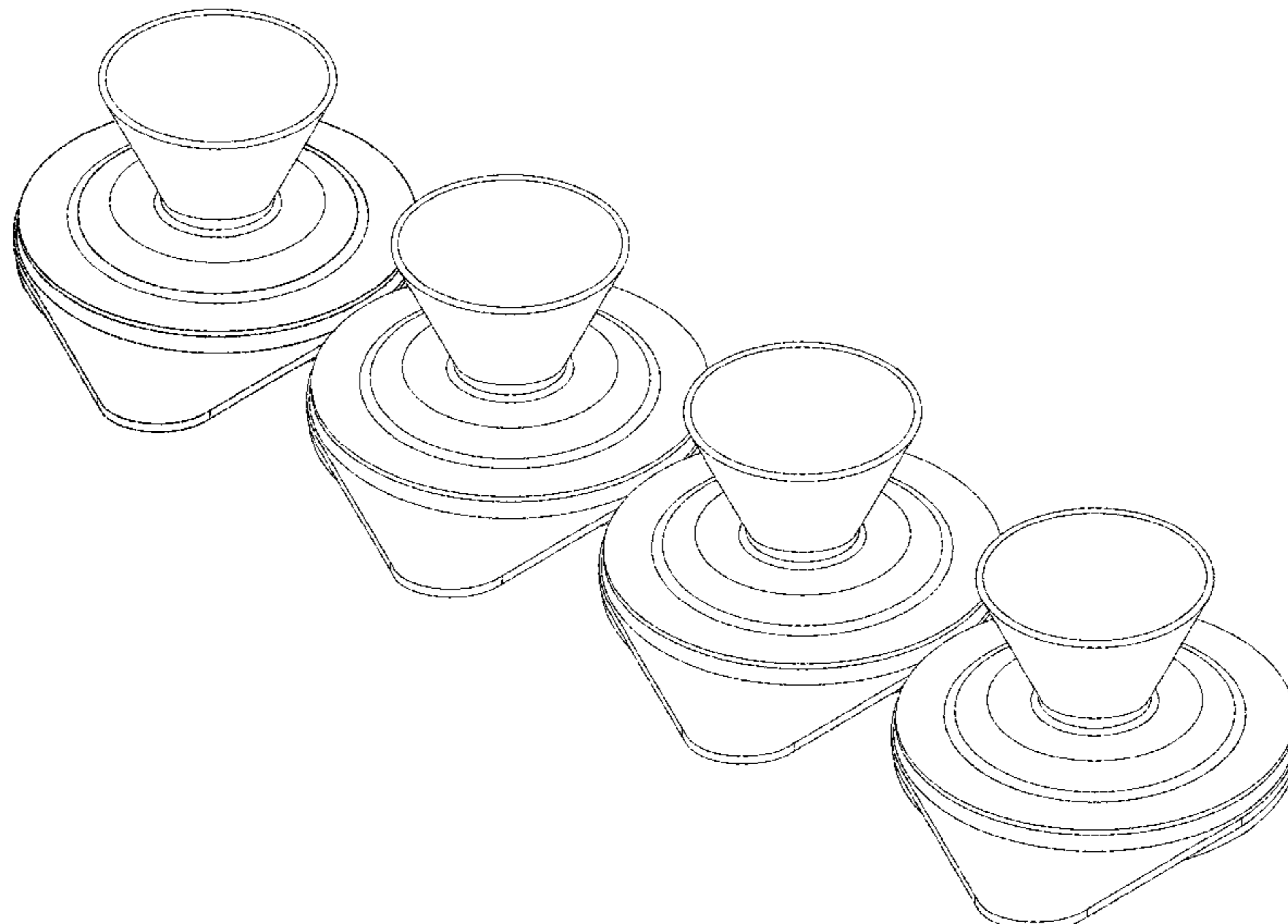
U.S. PATENT DOCUMENTS

D263,078 S * 2/1982 Eddleman et al. D24/162
4,444,661 A * 4/1984 Jackson et al. 210/446
D285,487 S * 9/1986 Tjernagel D24/232
4,948,442 A 8/1990 Manns
4,948,564 A 8/1990 Root et al.
5,141,719 A 8/1992 Fernwood et al.
5,223,133 A 6/1993 Clark et al.
5,230,727 A * 7/1993 Pound et al. 55/492
5,620,663 A 4/1997 Aysta et al.
5,648,271 A 7/1997 Kempe
6,131,573 A * 10/2000 Brown 128/205.27
D441,449 S * 5/2001 Gaskell D24/162
6,338,802 B1 1/2002 Bodner et al.
6,419,827 B1 7/2002 Sandell et al.
6,627,072 B1 * 9/2003 Ridge 210/149
6,864,100 B1 3/2005 Ribbe et al.
6,878,343 B2 4/2005 Sklar et al.

FIG. 1 is a first perspective view of the filter assembly;
FIG. 2 is a side view of the filter assembly (the opposite side
view is identical);
FIG. 3 is a bottom view of the filter assembly;
FIG. 4 is a top view of the filter assembly;
FIG. 5 is a second perspective view of the filter assembly;
FIG. 6 is a cross-sectional view of the filter assembly along
lines 6-6 of FIG. 2; and,
FIG. 7 is a front view of the filter assembly.

A filter assembly for sample preparation, particularly sample
preparation suited for HPLC analysis. The filter assembly
includes multiple filters, each with an integrated funnel and
seal. Each filter can be separated from the assembly, and can
be used in conjunction with a manifold, to filter a sample into
a container such as a vial that is in liquid-receiving commu-
nication with the filter.

1 Claim, 7 Drawing Sheets



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U.S. PATENT DOCUMENTS

7,588,728	B2	9/2009	Clark et al.
RE42,231	E	3/2011	Spurgeon
2002/0150505	A1	10/2002	Reed et al.
2003/0057148	A1	3/2003	Zuk, Jr.
2004/0005608	A1	1/2004	Saghbini et al.
2005/0019775	A1	1/2005	Alderborn et al.
2005/0051471	A1	3/2005	Lane et al.
2005/0130196	A1	6/2005	Hofstadler et al.
2005/0178216	A1	8/2005	Pitt et al.
2012/0297899	A1	11/2012	Scott et al.

OTHER PUBLICATIONS

Pall Life Sciences, May 2003, AcroPrep 24 Filtration System Product Information, 4 pages.
International Search Report/Written Opinion mailed Apr. 19, 2012 in co-pending PCT application No. PCT/US 11/63644.
Ex Parte Quayle Action mailed Dec. 7, 2012 in co-pending U.S. Appl. No. 29/381,846.

* cited by examiner

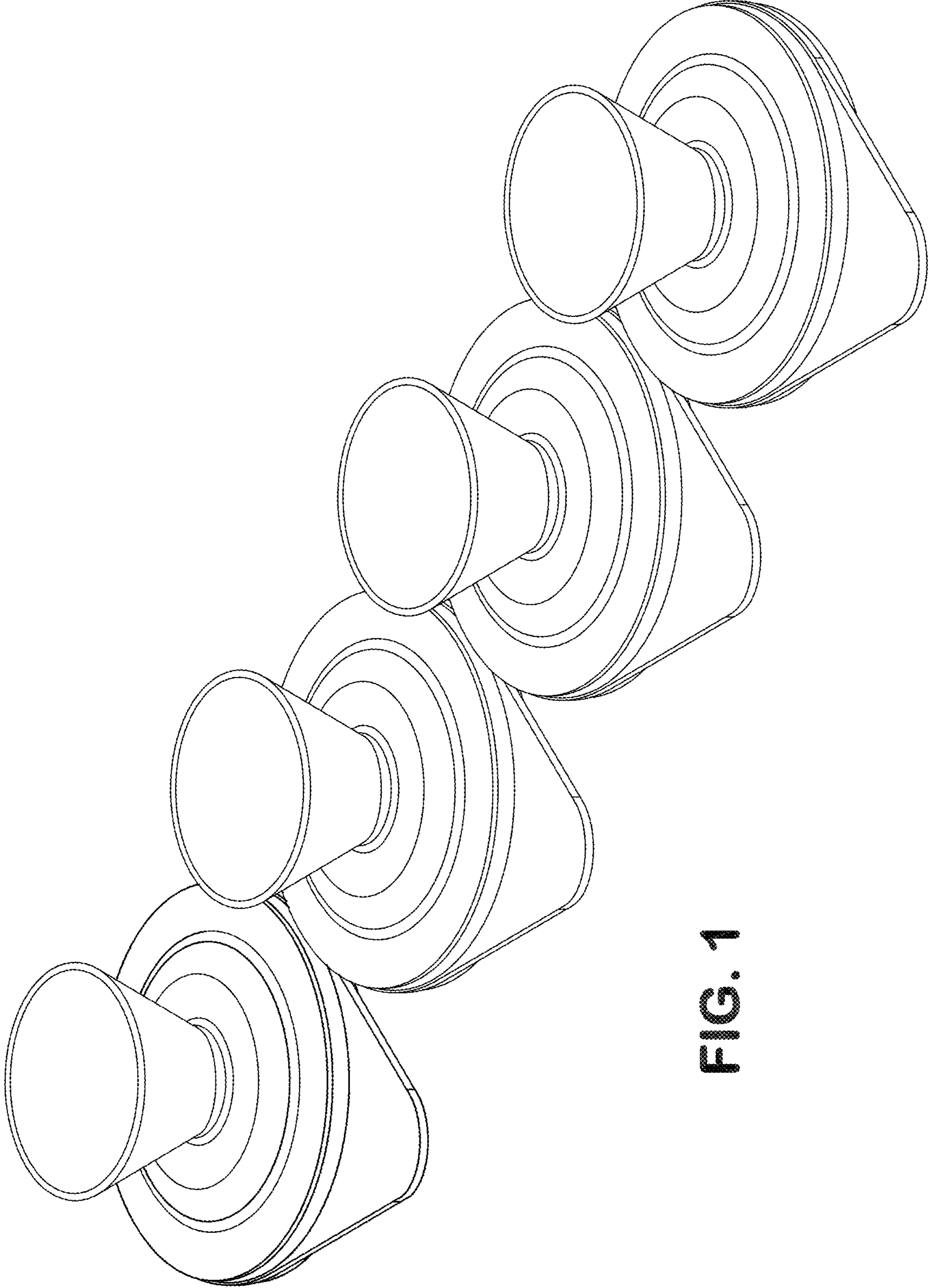


FIG. 1

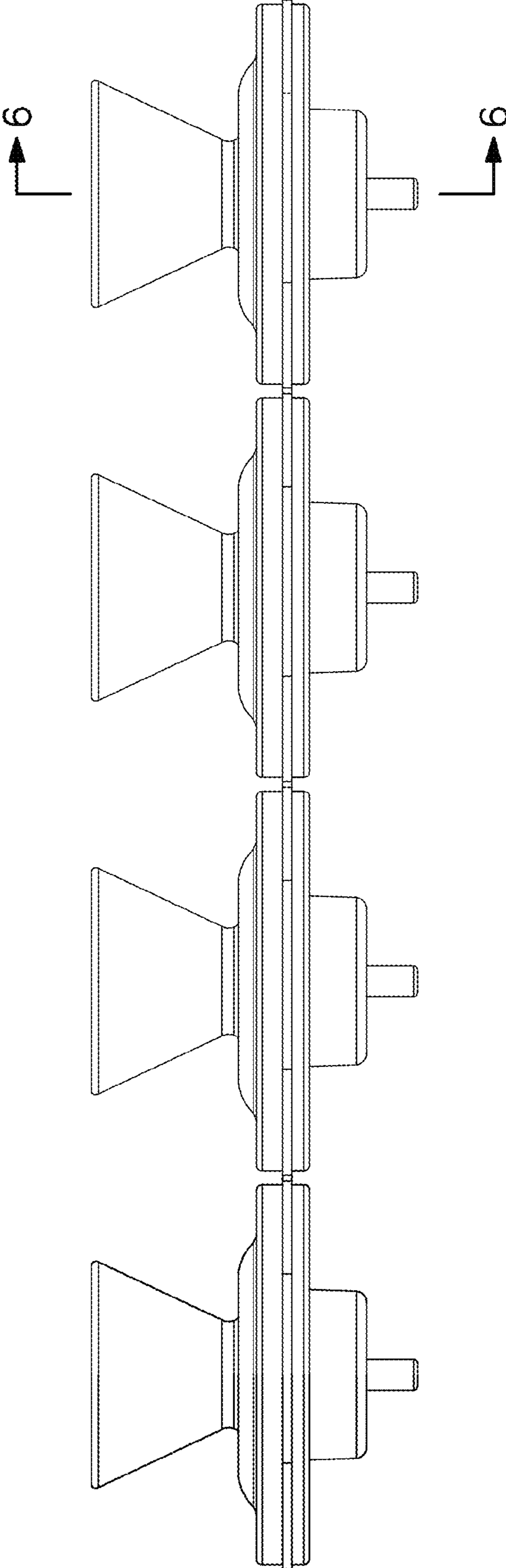


FIG. 2

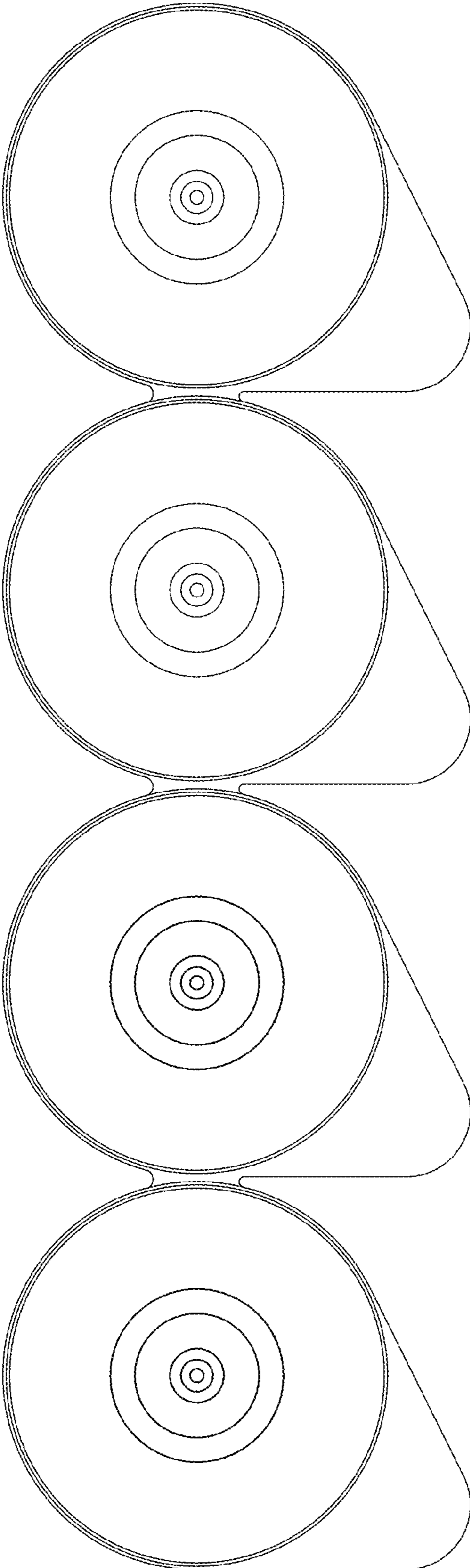


FIG. 3

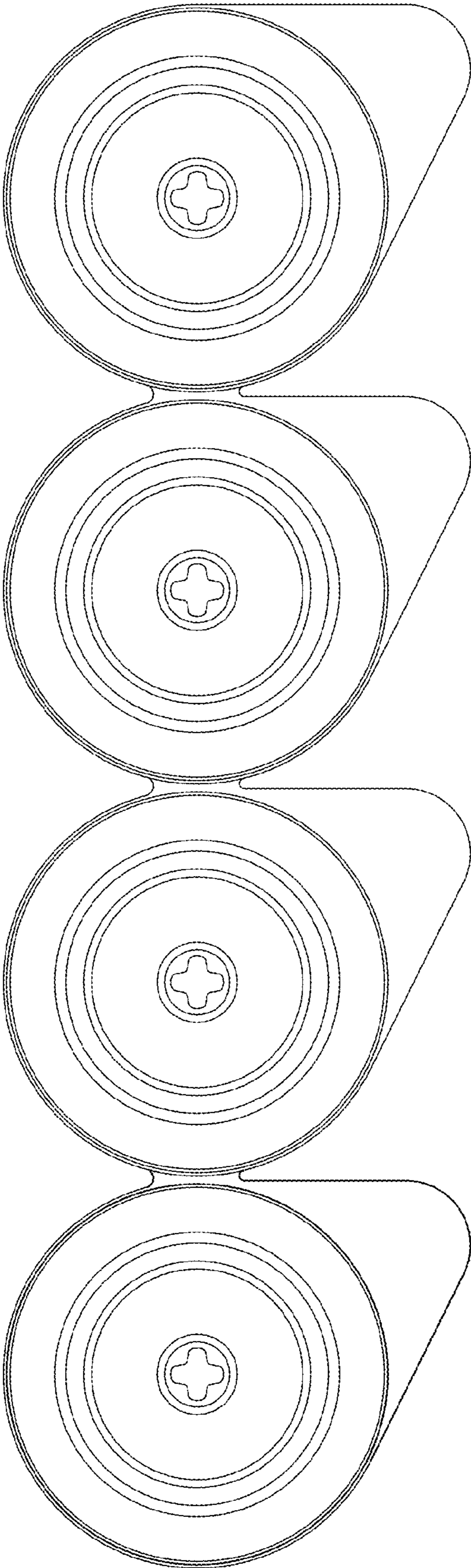


FIG. 4

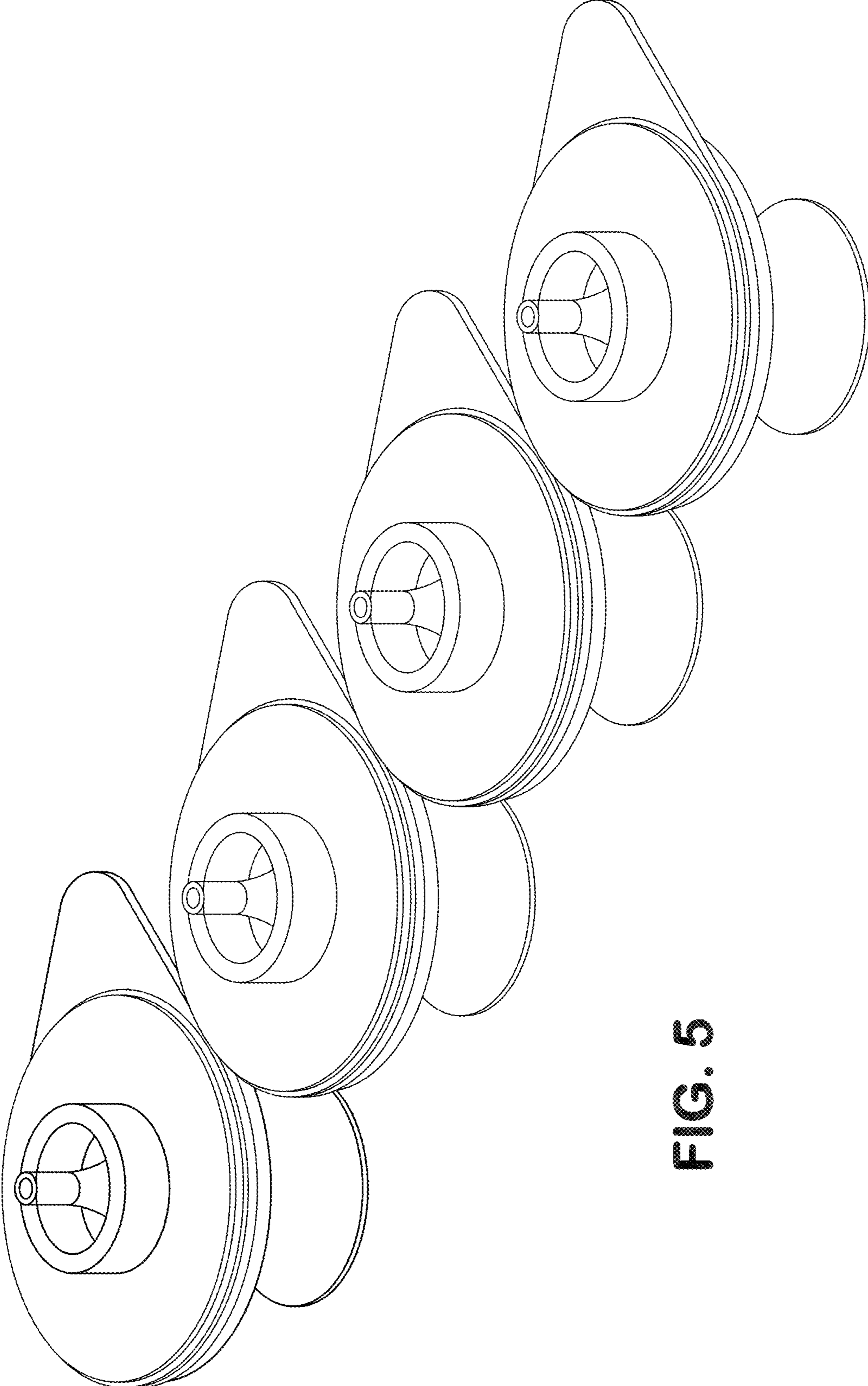


FIG. 5

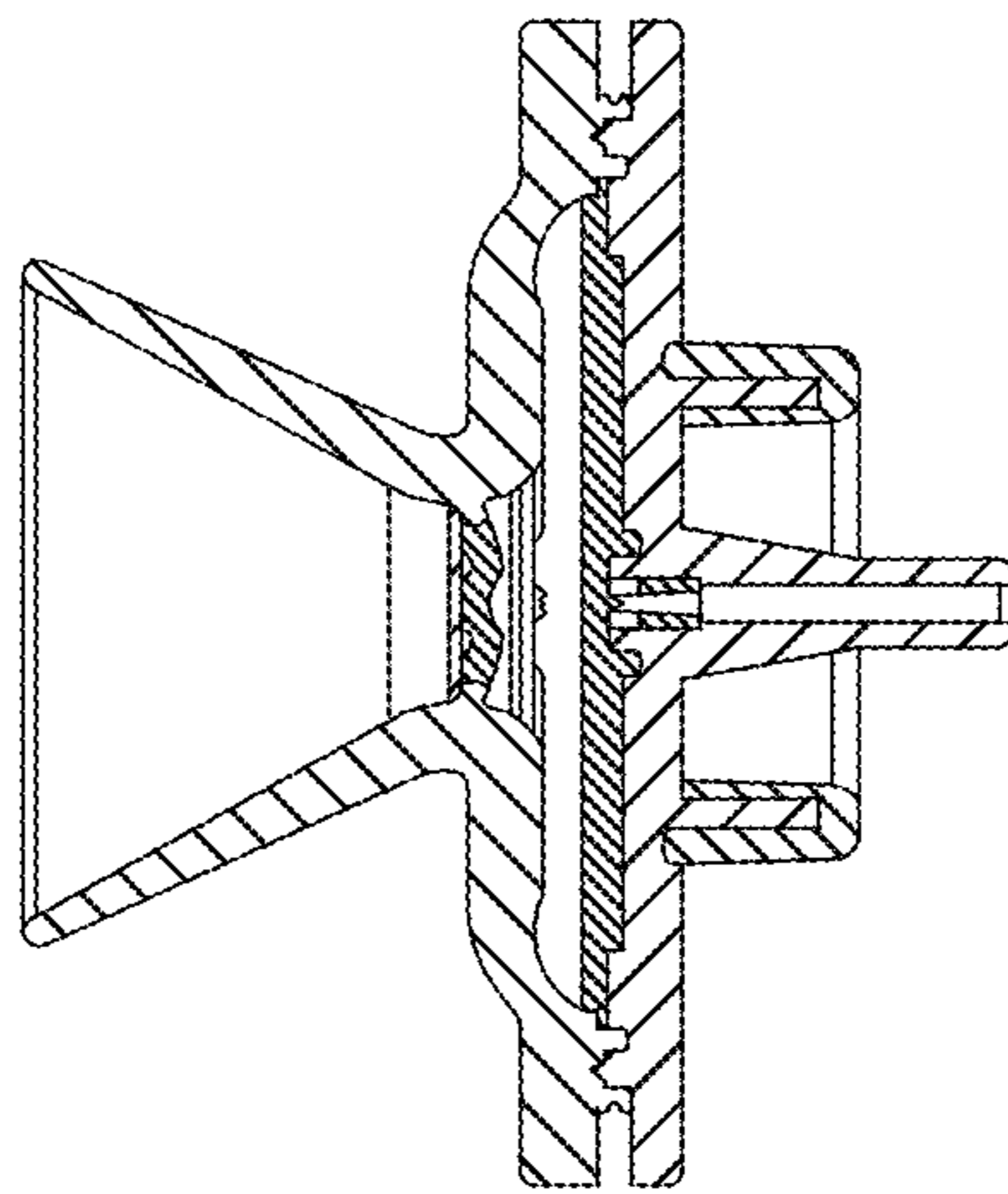


FIG. 6

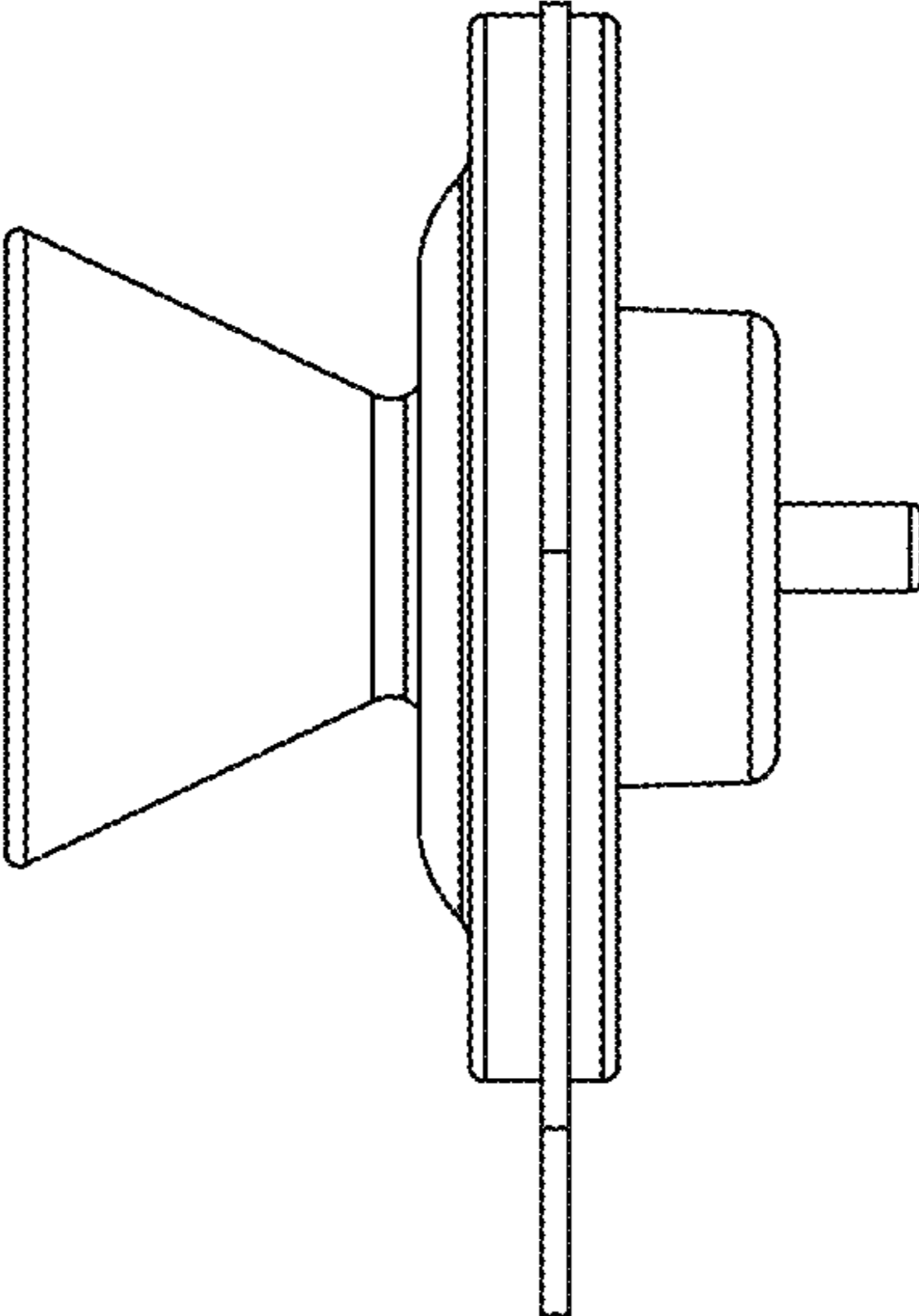


FIG. 7