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(12)

United States Design Patent

Higaki et al.

(10)

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(45)

Date of Patent:

** Jan. 9, 2024

(54) FILTER REGULATOR

FOREIGN PATENT DOCUMENTS

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(73) Assignee: SMC CORPORATION, Tokyo (JP)

(**) Term: 15 Years

JP 899938 S 5/1994

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(57) CLAIM

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

DESCRIPTION

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(22) Filed: Jun. 25, 2020

(30) Foreign Application Priority Data

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Dec. 26, 2019	(JP)	2019-028886

(51) LOC (14) Cl. 15-01

(52) U.S. Cl. D15/5; D23/235

(58) Field of Classification Search

USPC	D15/5, 6, 7; D23/235, 209
CPC	F16N 7/34; F16N 19/00; F16N 7/32

See application file for complete search history.

FIG. 1 is a front, top and left side perspective view of a filter regulator showing a first embodiment of our new design; FIG. 2 is a rear, bottom and right side perspective view thereof; FIG. 3 is a front view thereof; FIG. 4 is a rear view thereof; FIG. 5 is a top plan view thereof; FIG. 6 is a bottom plan view thereof; FIG. 7 is a left side view thereof; FIG. 8 is a right side view thereof; FIG. 9 is a partial cross sectional view taken along the line 9-9 of FIG. 5. FIG. 10 is a front, top and left side perspective view of a filter regulator showing a second embodiment of our new design; FIG. 11 is a rear, bottom and right side perspective view of FIG. 10; FIG. 12 is a front view of FIG. 10; FIG. 13 is a rear view of FIG. 10; FIG. 14 is a top plan view of FIG. 10; FIG. 15 is a bottom plan view of FIG. 10; FIG. 16 is a left side view of FIG. 10; FIG. 17 is a right side view of FIG. 10; and, FIG. 18 is a partial cross sectional view taken along the line 18-18 of FIG. 14. The broken lines depict portions of the filter regulator that form no part of the claimed design.

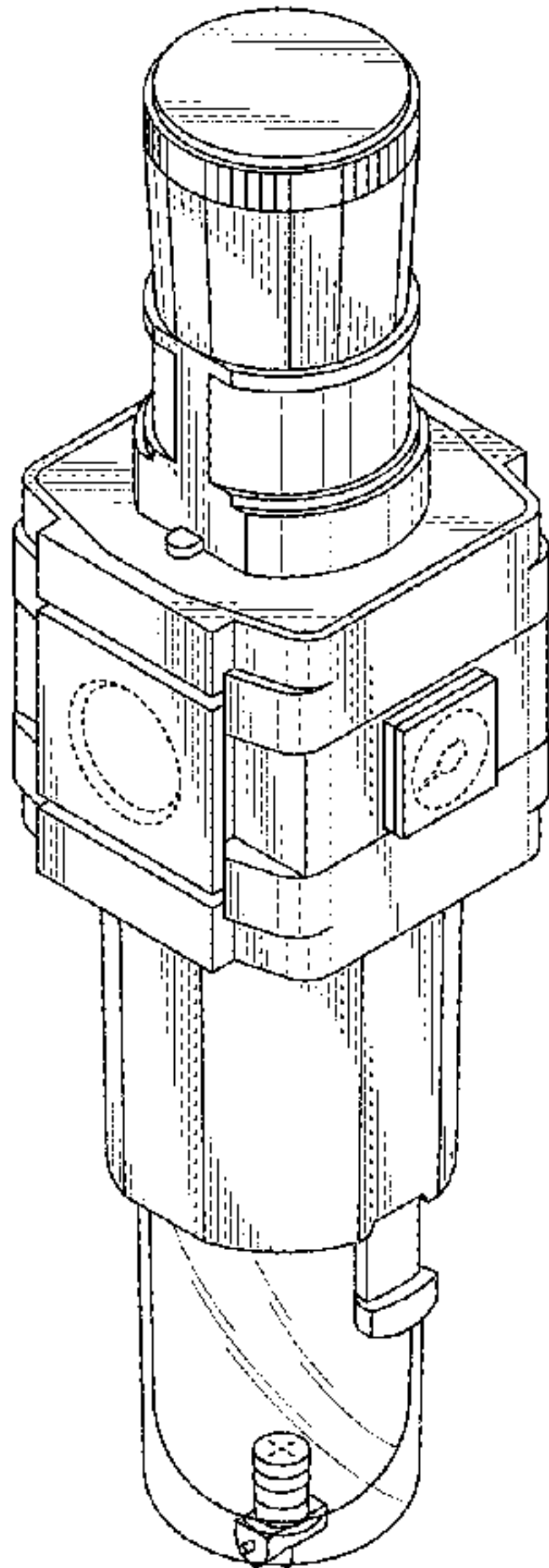
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1 Claim, 18 Drawing Sheets



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FIG. 1

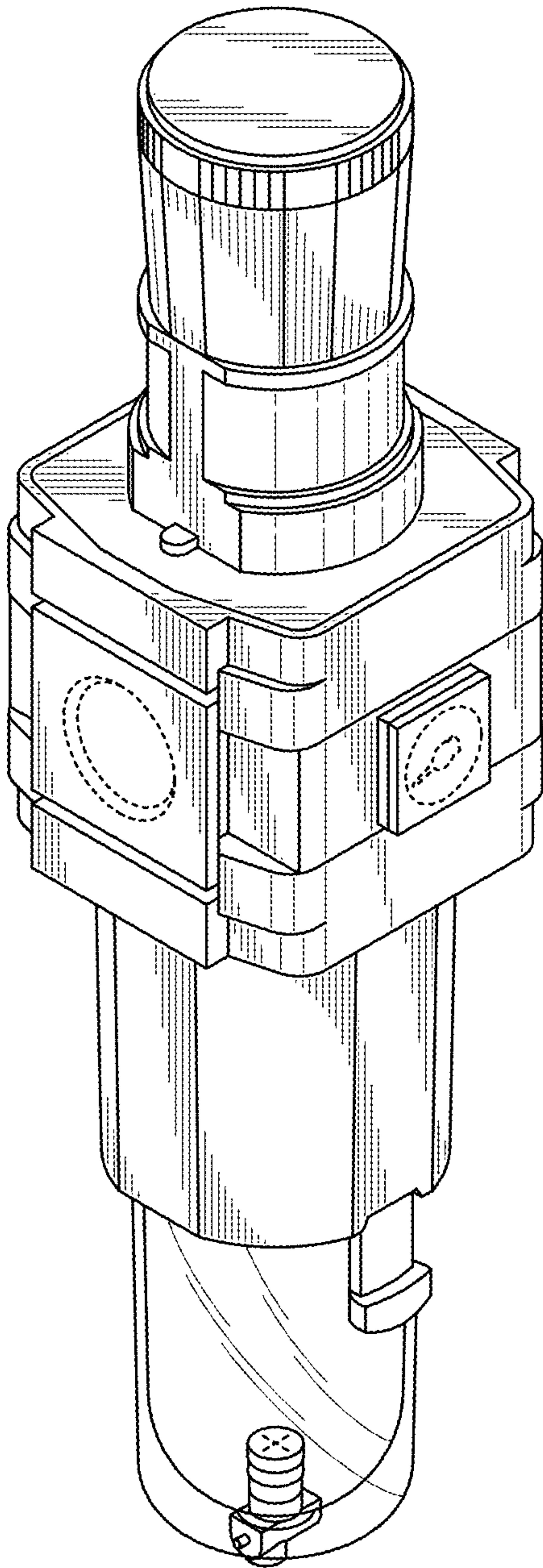


FIG. 2

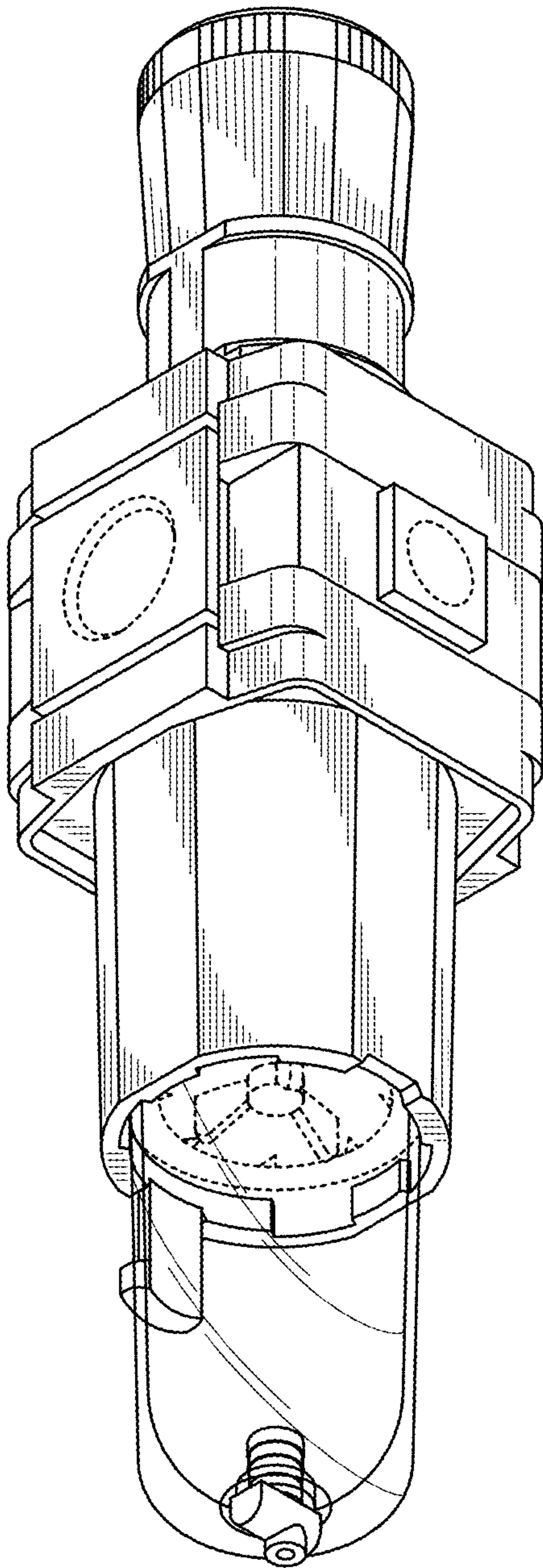


FIG. 3

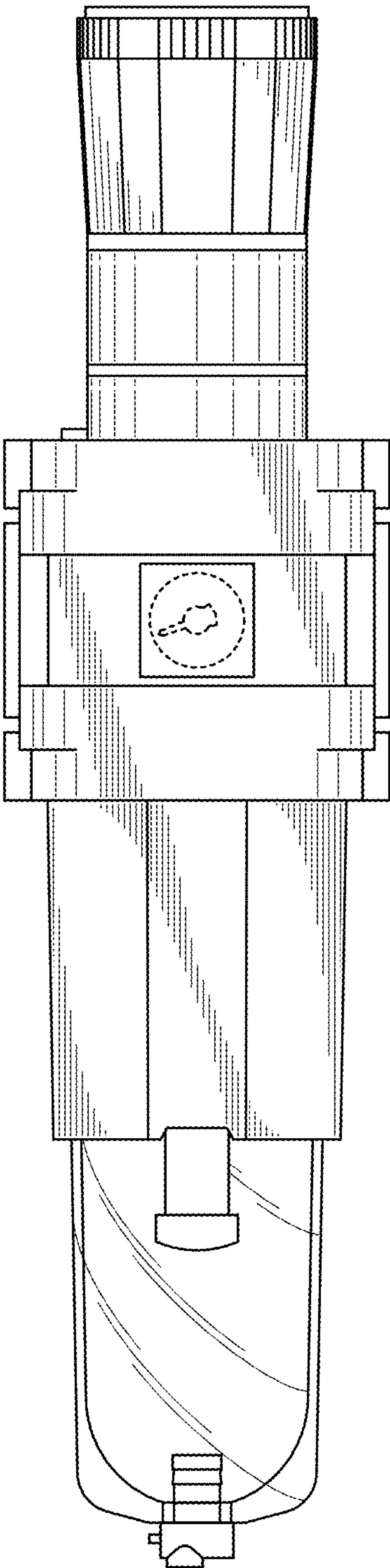


FIG. 4

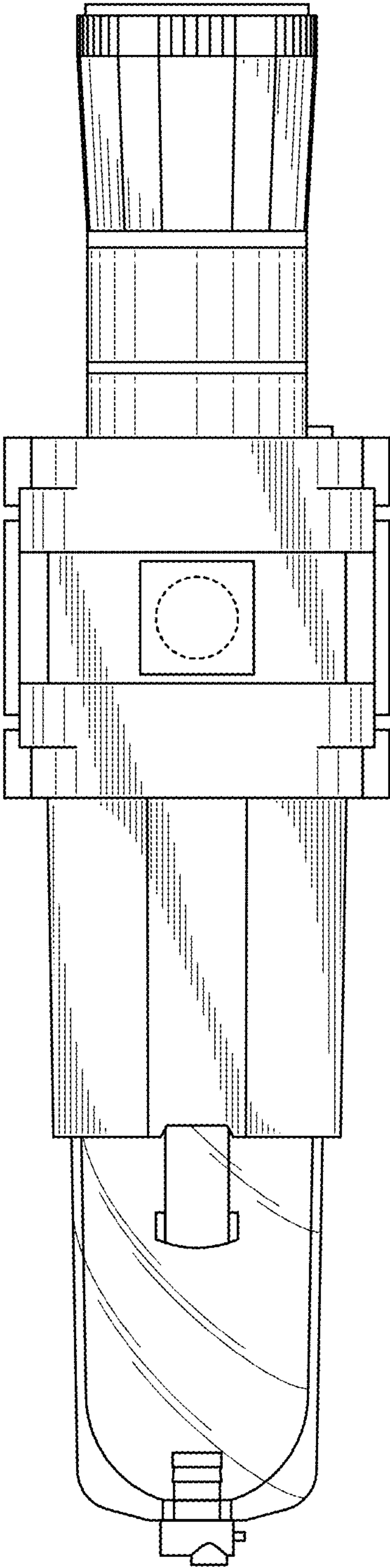


FIG. 5

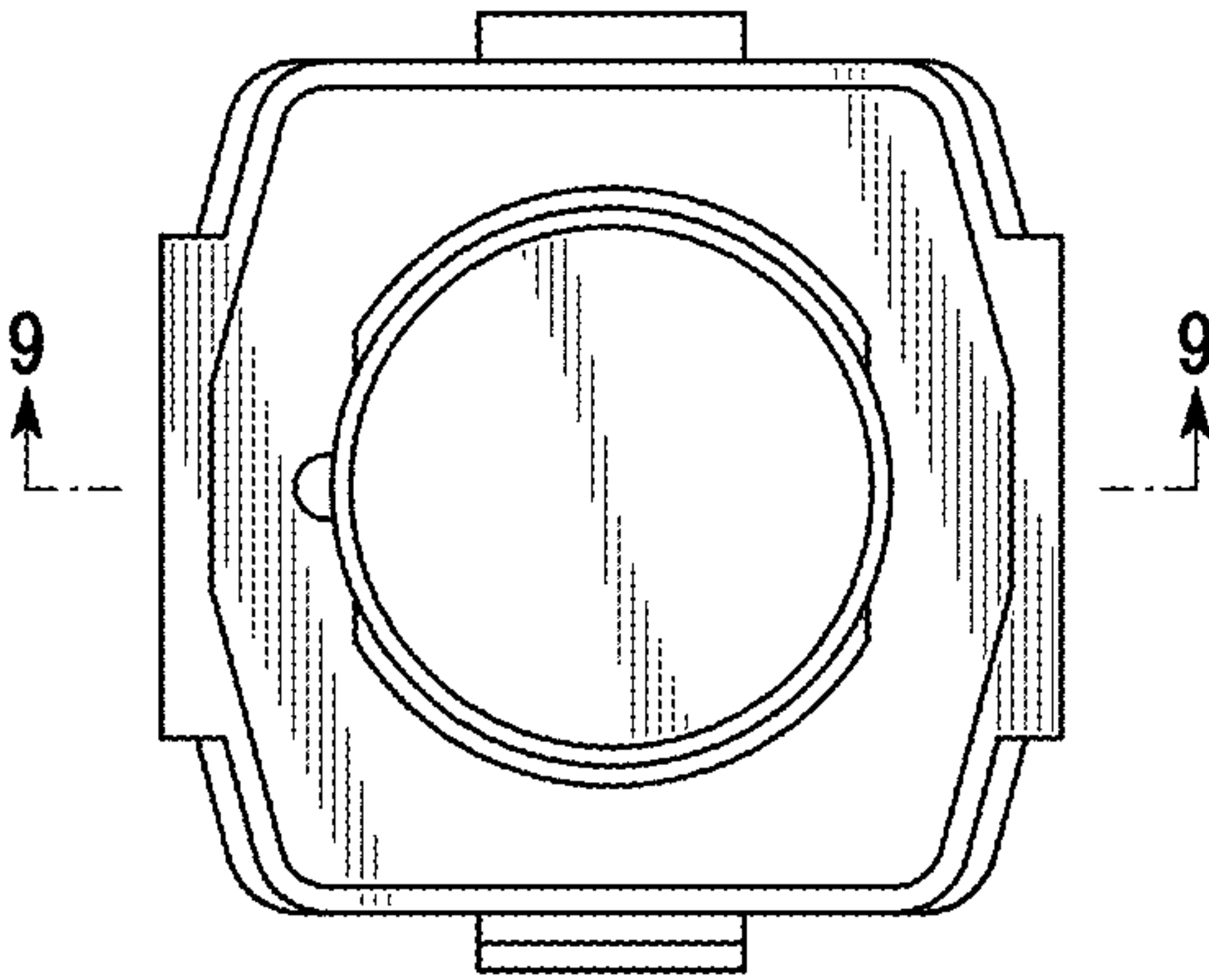


FIG. 6

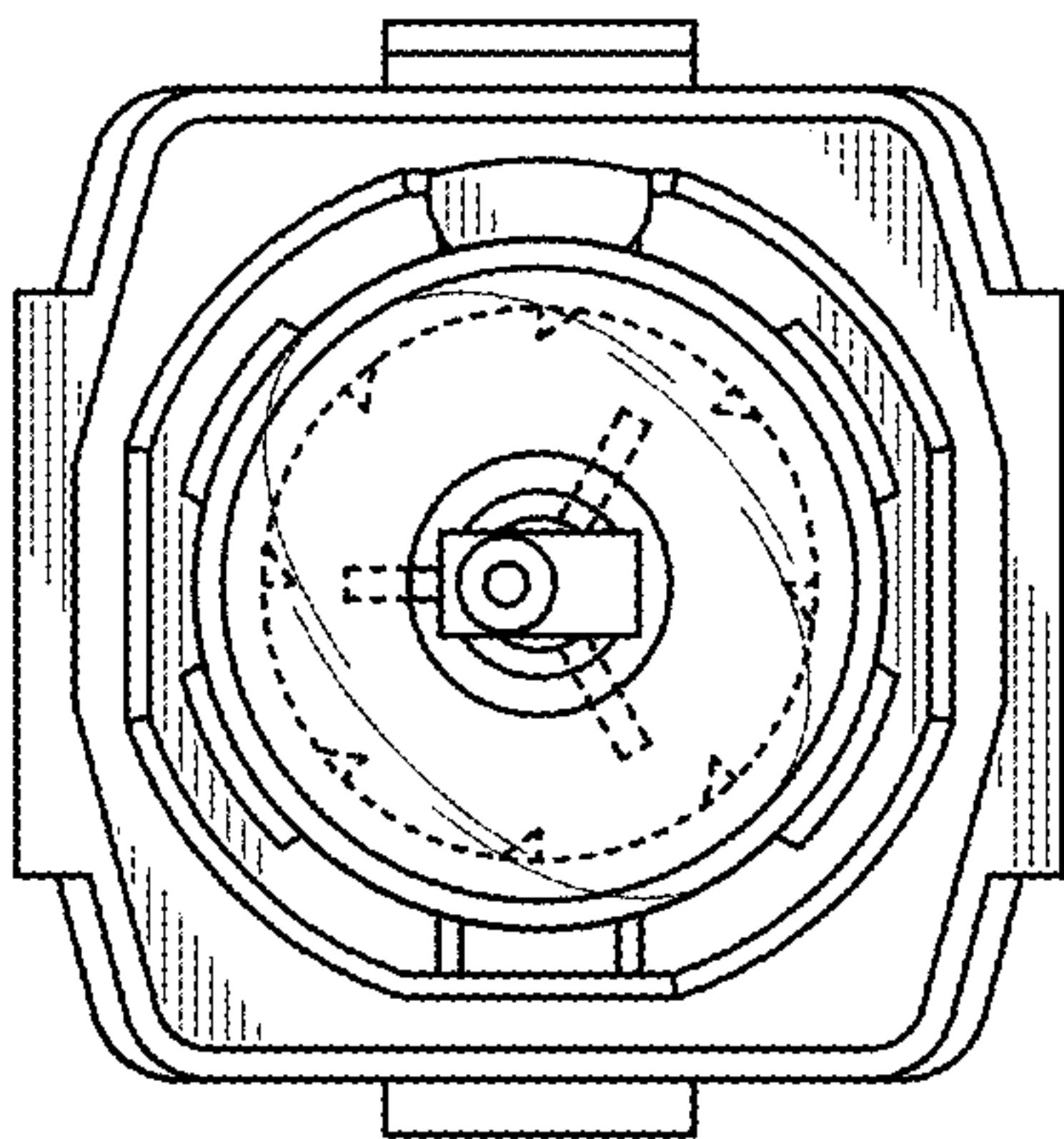


FIG. 7

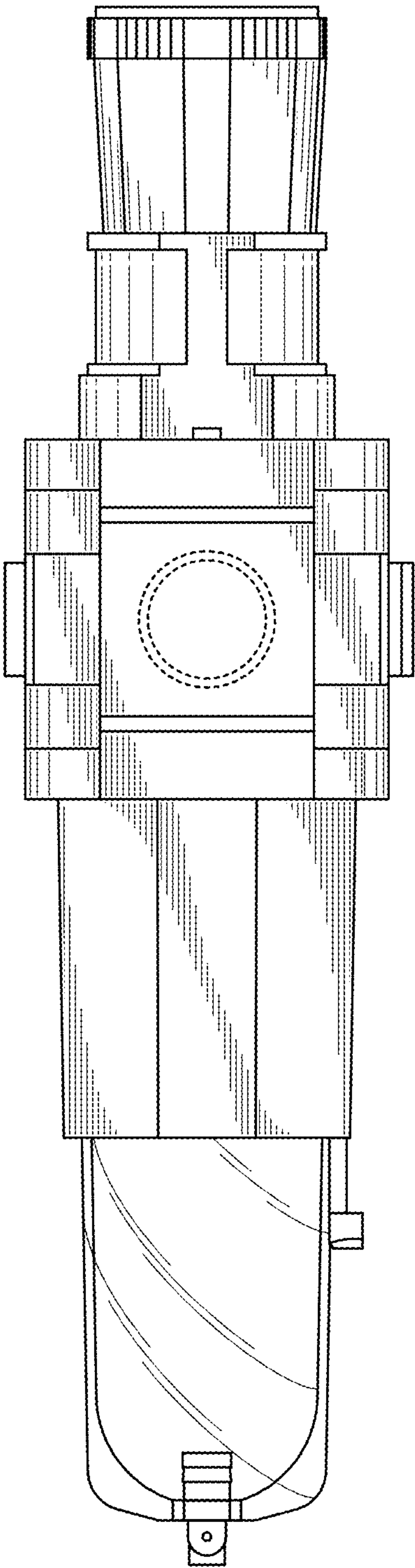


FIG. 8

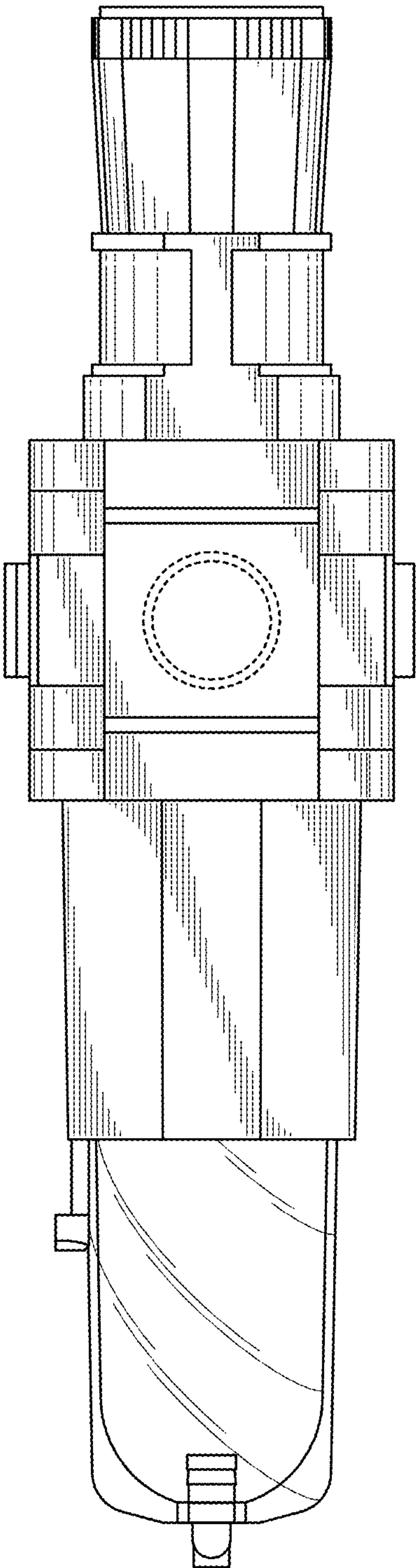


FIG. 9

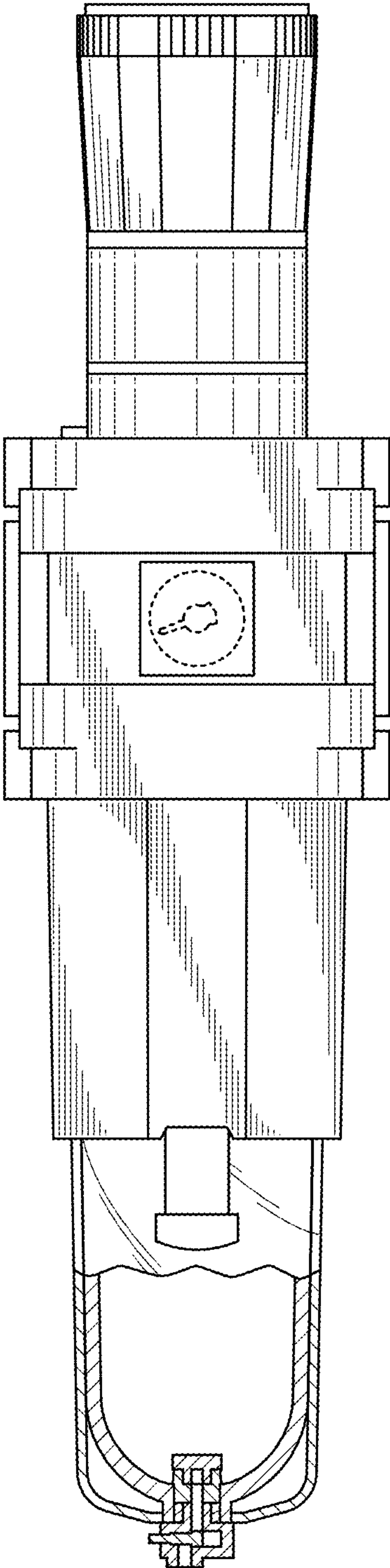


FIG. 10

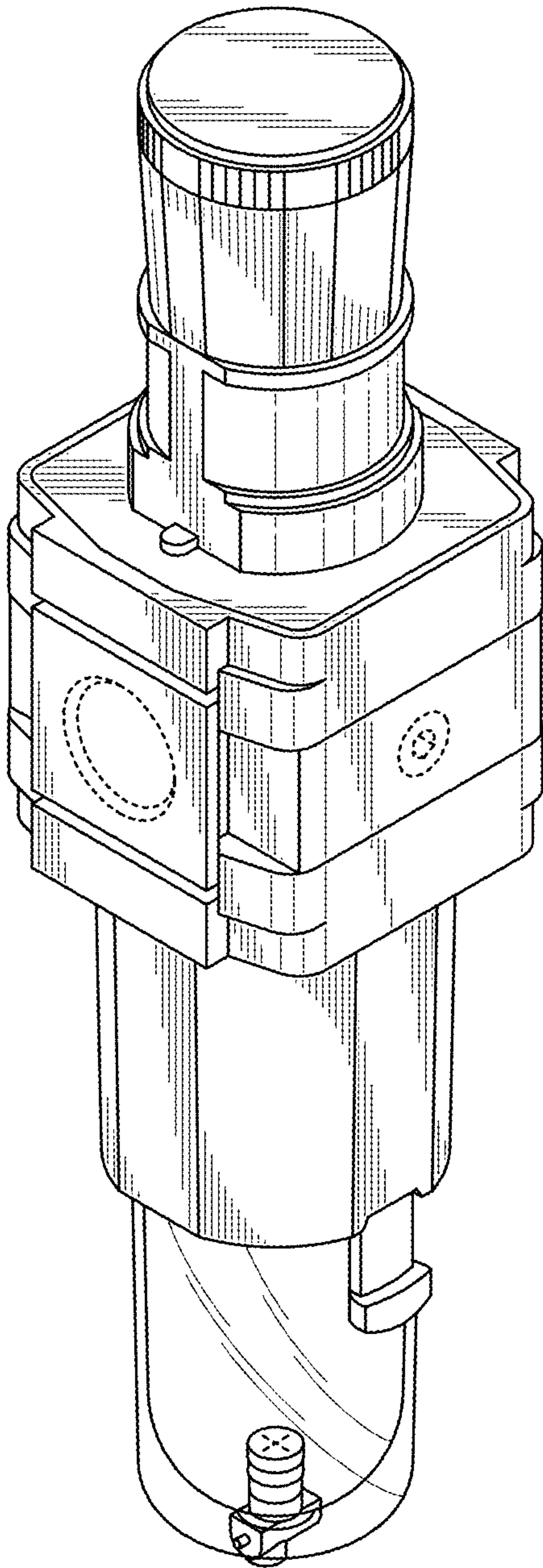


FIG. 11

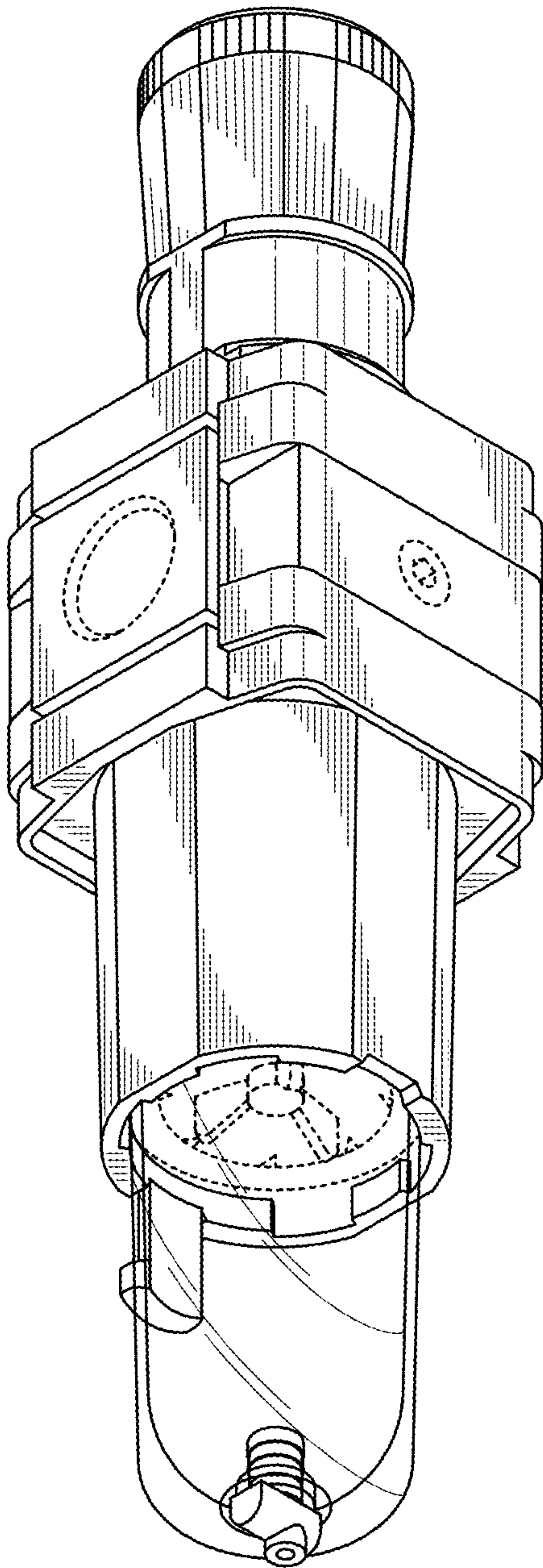


FIG. 12

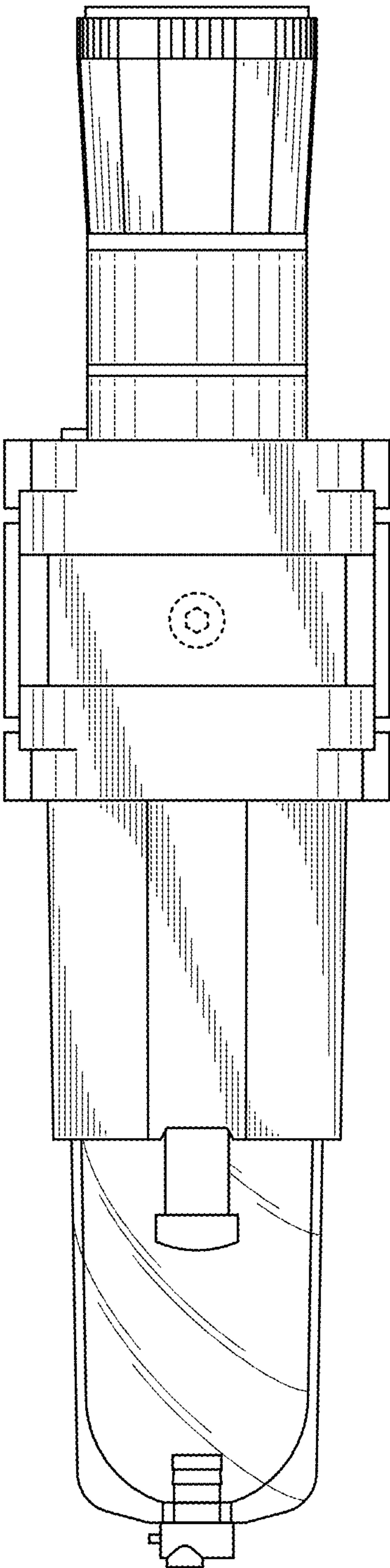


FIG. 13

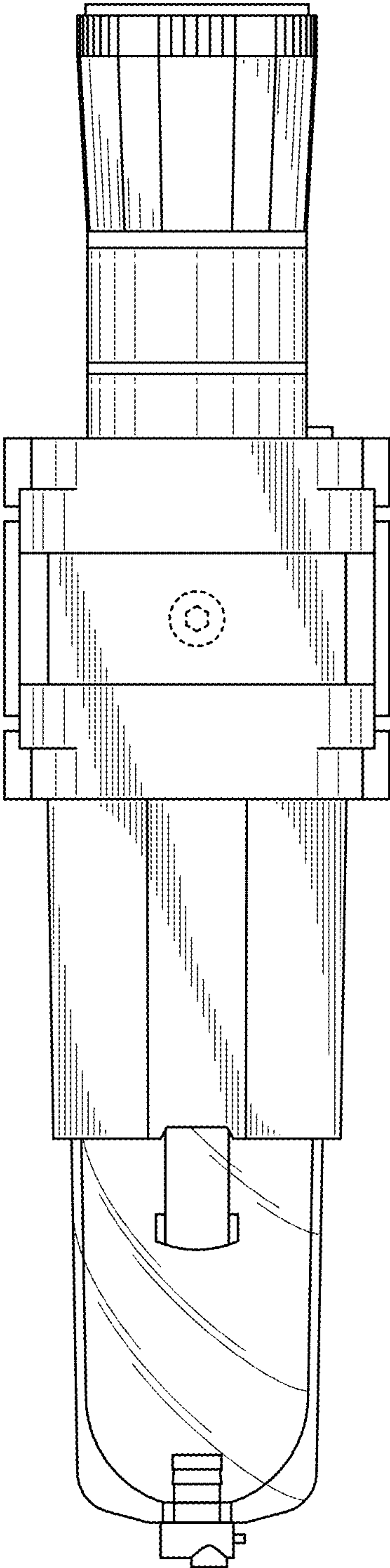


FIG. 14

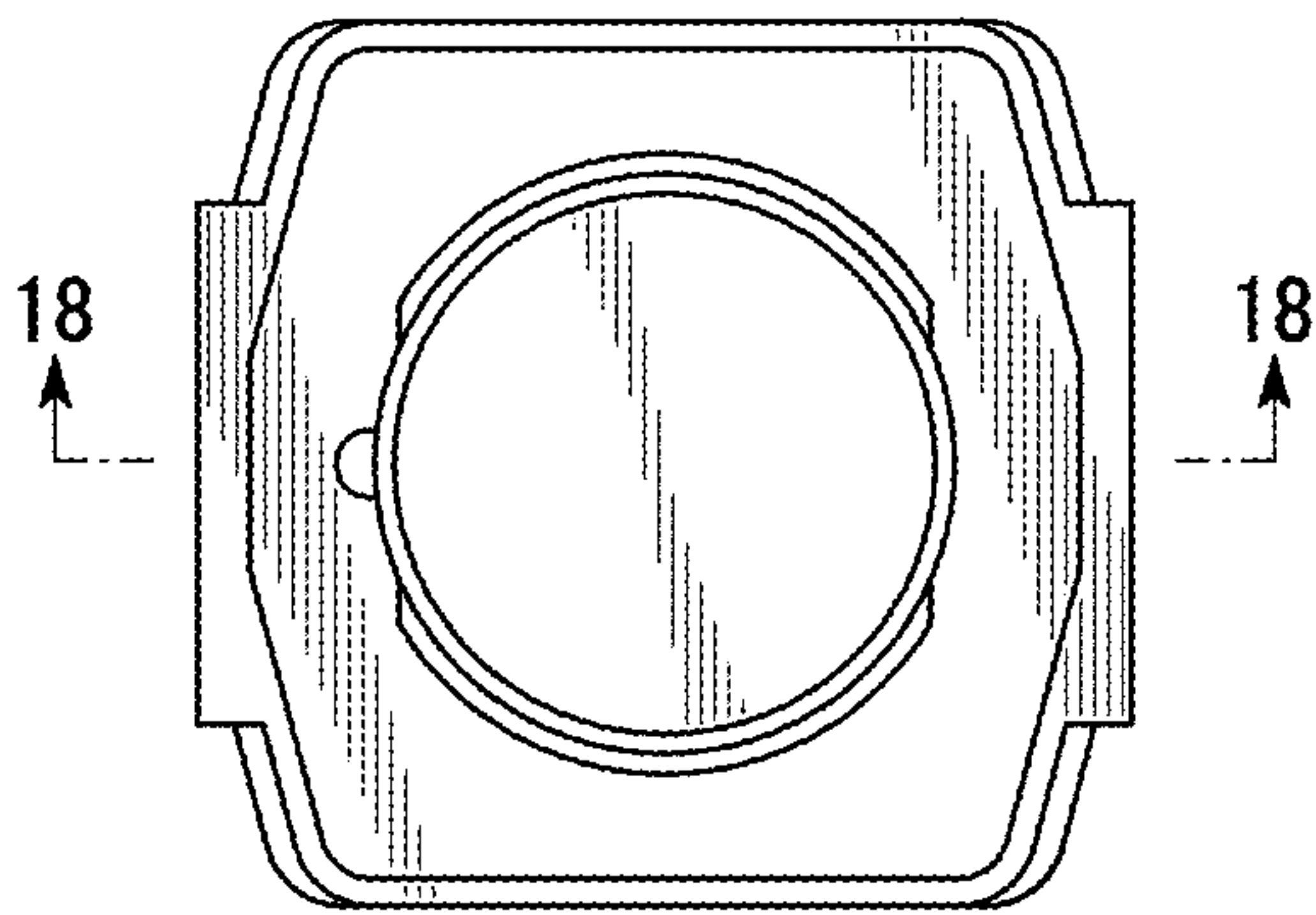


FIG. 15

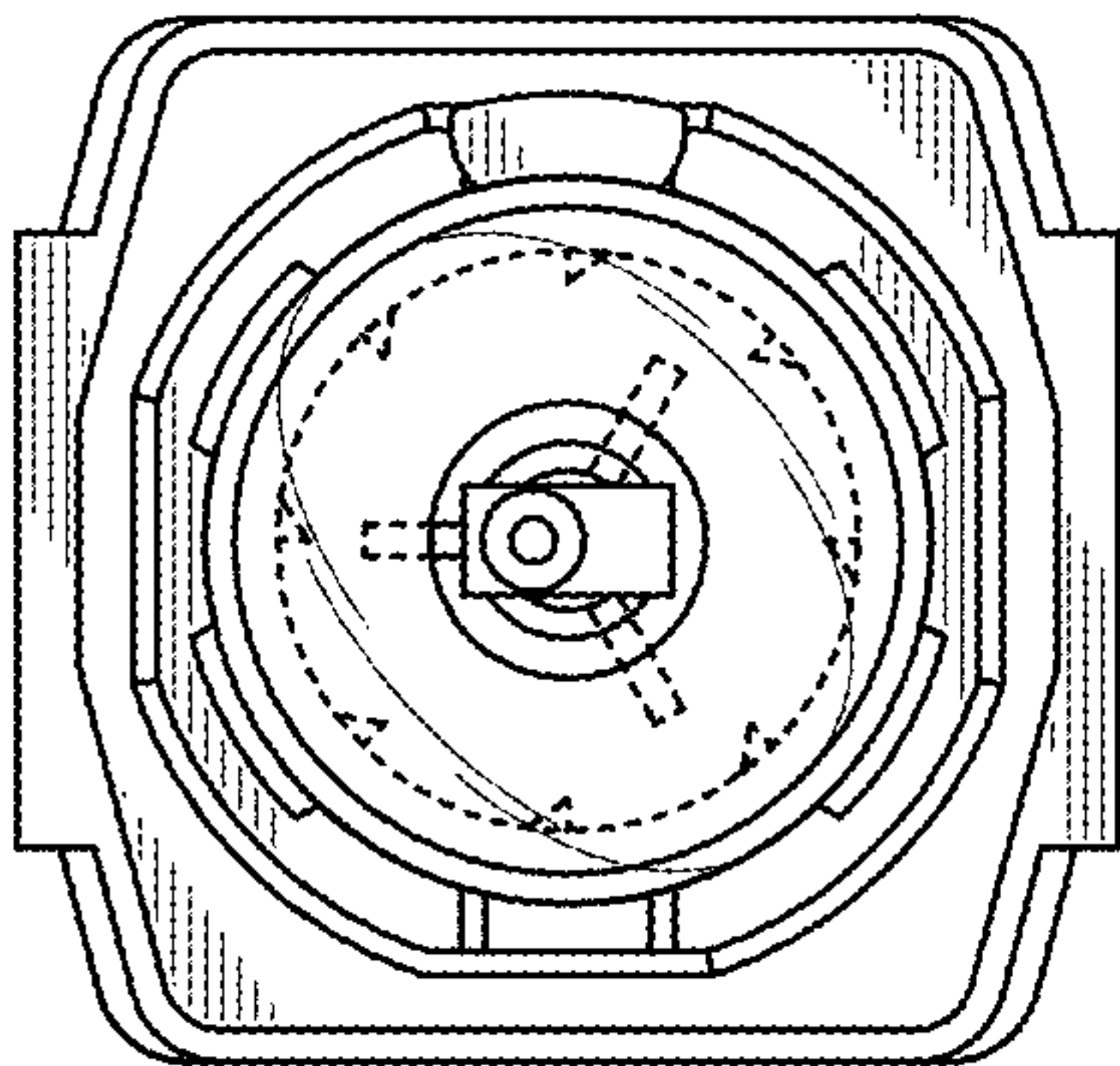


FIG. 16

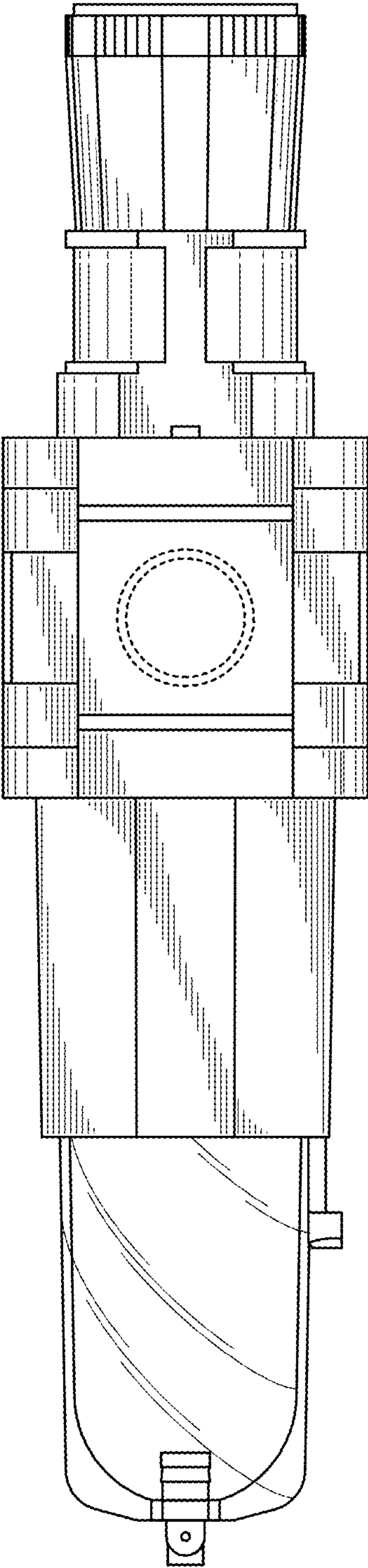


FIG. 17

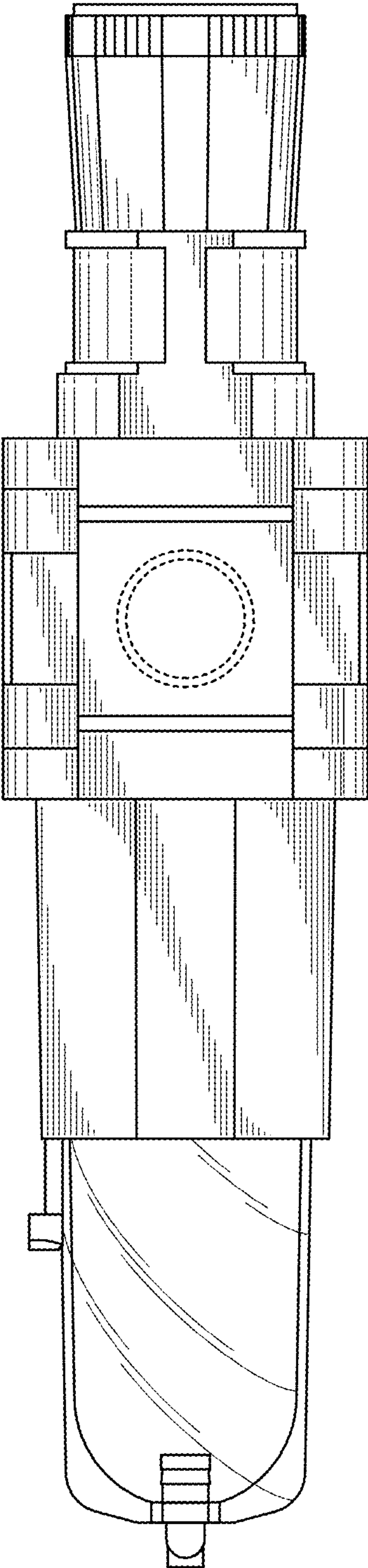


FIG. 18

