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United States Design Patent

Ledford et al.

(10)

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(45)

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(54) FLOW STRAIGHTENER

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(73) Assignee: Turtle Pump Company, Florissant, CO (US)

(**) Term: 15 Years

(21) Appl. No.: 29/950,909

(22) Filed: Jul. 5, 2024

Related U.S. Application Data

(63) Continuation-in-part of application No. 18/326,352, filed on May 31, 2023, now Pat. No. 12,071,954.

(51) LOC (15) Cl. 23-01

(52) U.S. Cl. USPC D23/262; D23/269; D23/260

(58) Field of Classification Search USPC D23/259–264, 206, 207, 209, 213, 227, D23/229, 230, 235, 237, 244, 249, 253, (Continued)

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Primary Examiner — Jennifer Rivard

Assistant Examiner — Jonathan E Fiencke

(57) CLAIM

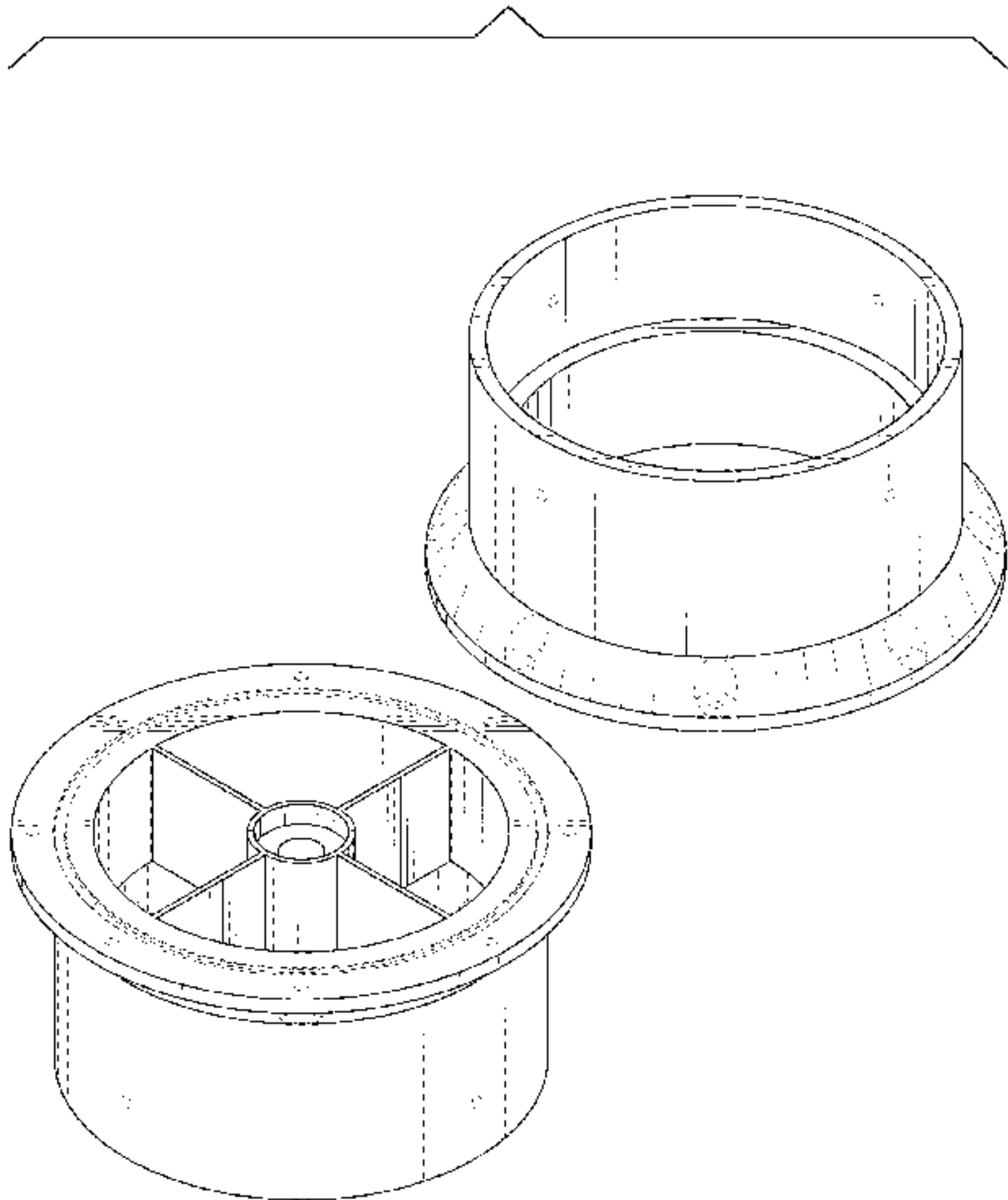
The ornamental design for a flow straightener, as shown and described.

DESCRIPTION

FIG. 1 is a top-front-left perspective view of a flow straightener in a separated state showing my new design; FIG. 2 is a bottom-rear-right perspective view thereof; FIG. 3 is a front elevational view thereof; FIG. 4 is a rear elevational view thereof; FIG. 5 is a top plan view thereof; FIG. 6 is a bottom plan view thereof; FIG. 7 is a right elevational view thereof; FIG. 8 is a left elevational view thereof; FIG. 9 is a top-front-left perspective view thereof, wherein the flow straightener is shown assembled; FIG. 10 is a bottom-rear-right perspective view thereof; FIG. 11 is a front elevational view thereof; FIG. 12 is a cross-sectional view taken along line 12-12 in FIG. 11; FIG. 13 is a top-front-left perspective view thereof, wherein the flow straightener is shown assembled using fasteners; FIG. 14 is a bottom-rear-right perspective view thereof; FIG. 15 is a front elevational view thereof; FIG. 16 is a cross-sectional view taken along line 16-16 in FIG. 15; FIG. 17 is a reduced top-front-left perspective view thereof, wherein the assembled flow straightener is shown connecting pieces of tubing; FIG. 18 is a reduced bottom-rear-right perspective view thereof; FIG. 19 is a reduced top-front-left perspective view thereof, wherein the assembled flow straightener is shown connecting a tee connector and a venturi fitting; and, FIG. 20 is a reduced bottom-rear-right perspective view thereof.

The broken lines showing orifices in FIGS. 1-20, the broken lines showing an annular groove in FIGS. 1, 2, 5, 6, 12, and 16, the broken lines showing fasteners in FIGS. 13-20, and the broken lines showing ball-bearings in FIGS. 14 and 16 depict portions of the flow straightener that form no part of

(Continued)



the claimed design. The broken lines showing pieces of tubing in FIGS. 17-20, and the broken lines showing a connector and a fitting in FIGS. 19 and 20 illustrate the environment of the flow straightener and form no part of the claimed design.

1 Claim, 20 Drawing Sheets

(58) Field of Classification Search

USPC D23/266-269, 307, 332, 341, 354, 363,
D23/386; D8/2, 341, 343, 349, 374-375,
D8/381-383, 397-399; D7/553.6, 554.2,
D7/665, 667; D12/204, 207-208;
D6/301, 313, 325, 328, 512, 545, 682.3,
D6/702, 708.11
CPC E03C 1/023; E03C 2001/026; F04D 29/00;
F04D 29/40; F04D 29/052; F04D 29/04;
F04D 13/06

See application file for complete search history.

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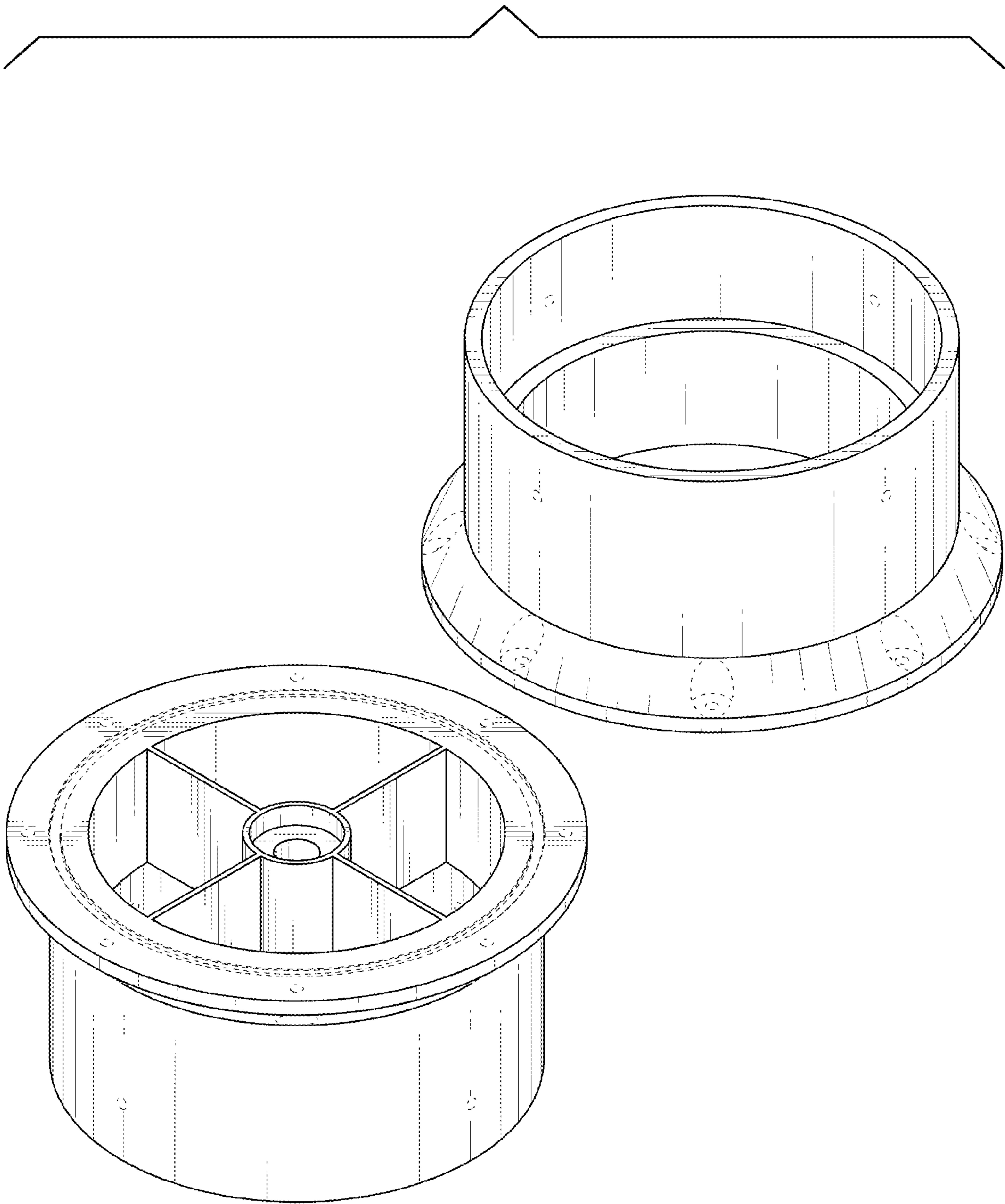


FIG. 1

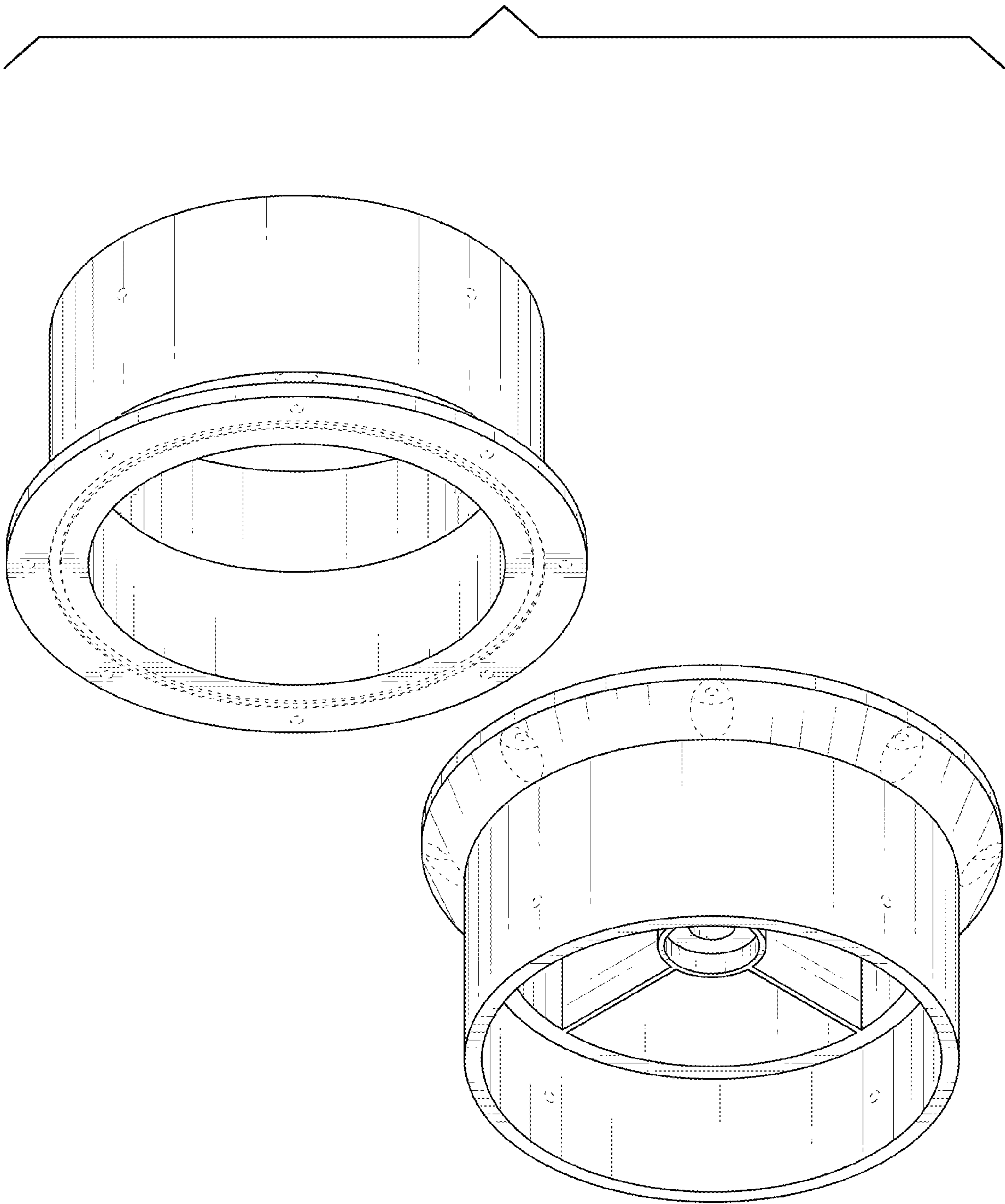


FIG. 2

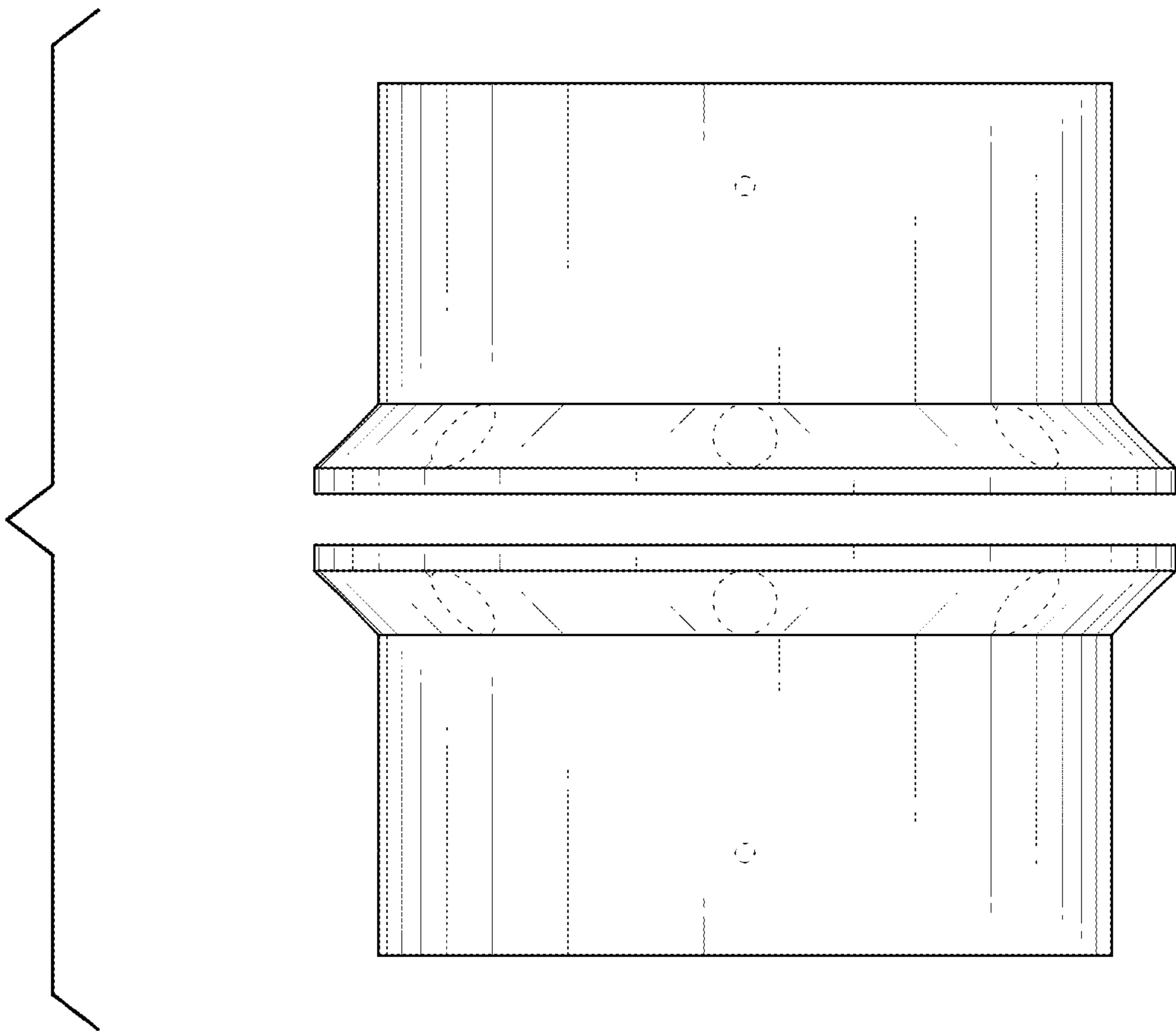


FIG. 3

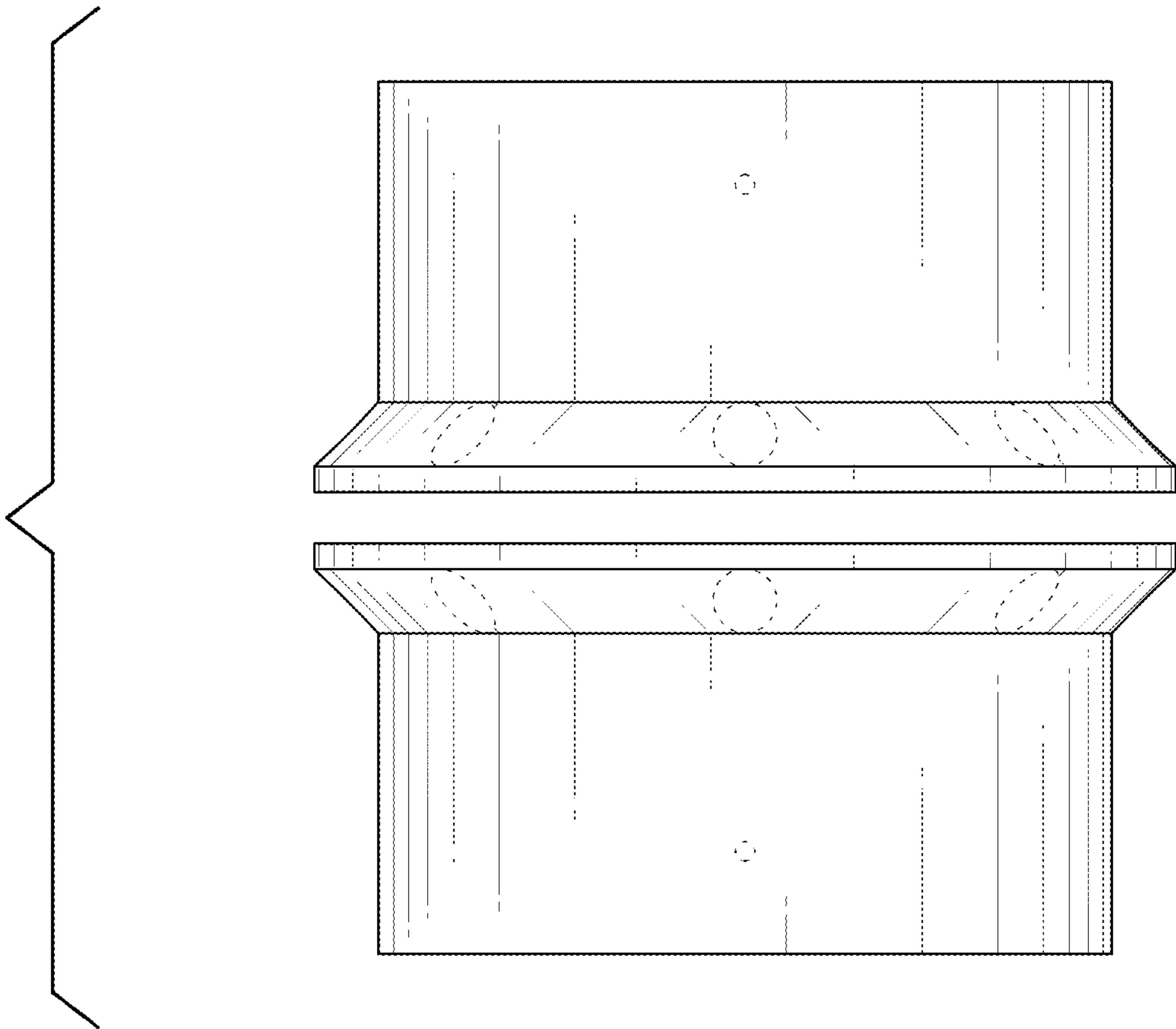


FIG. 4

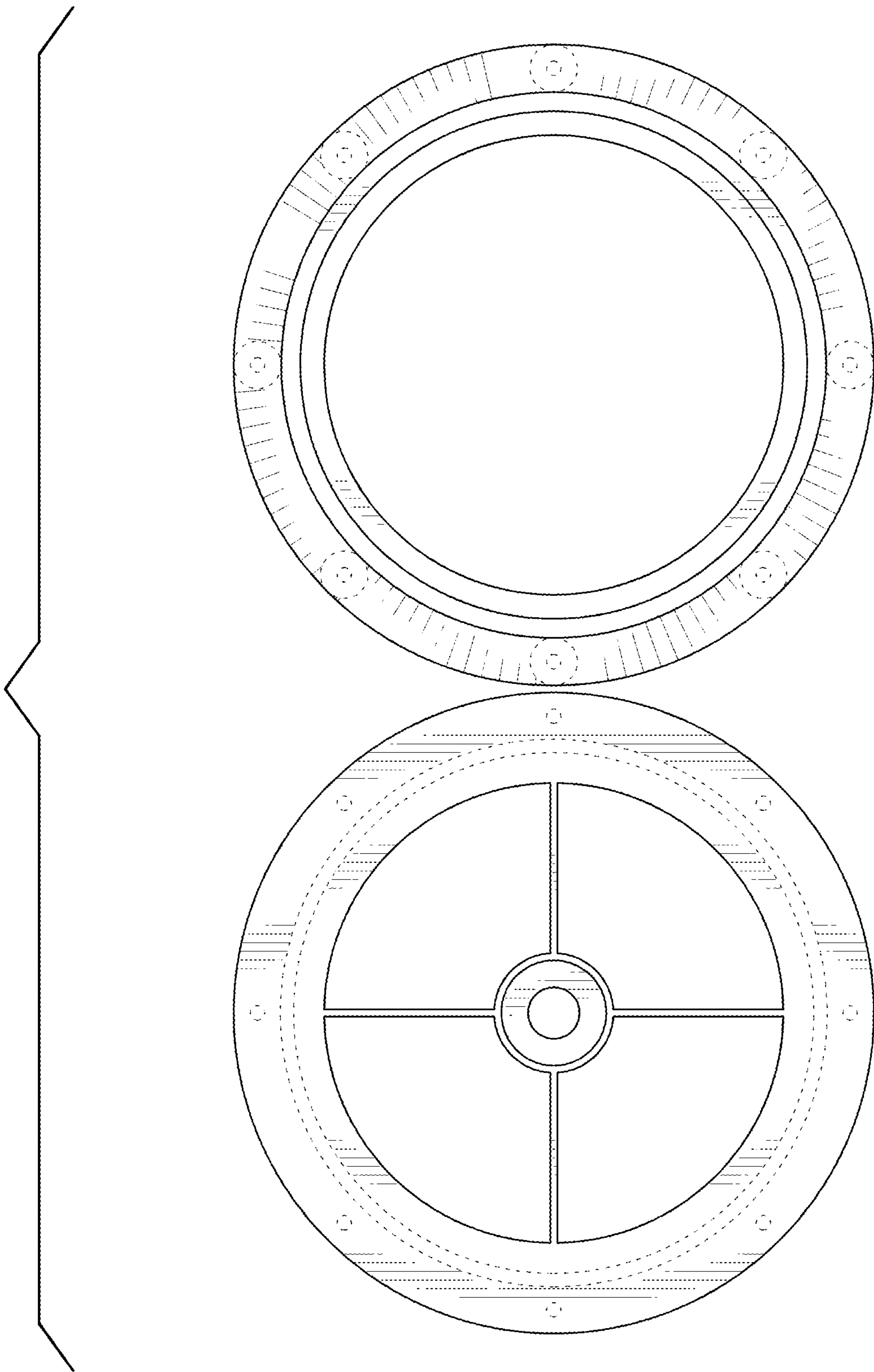


FIG. 5

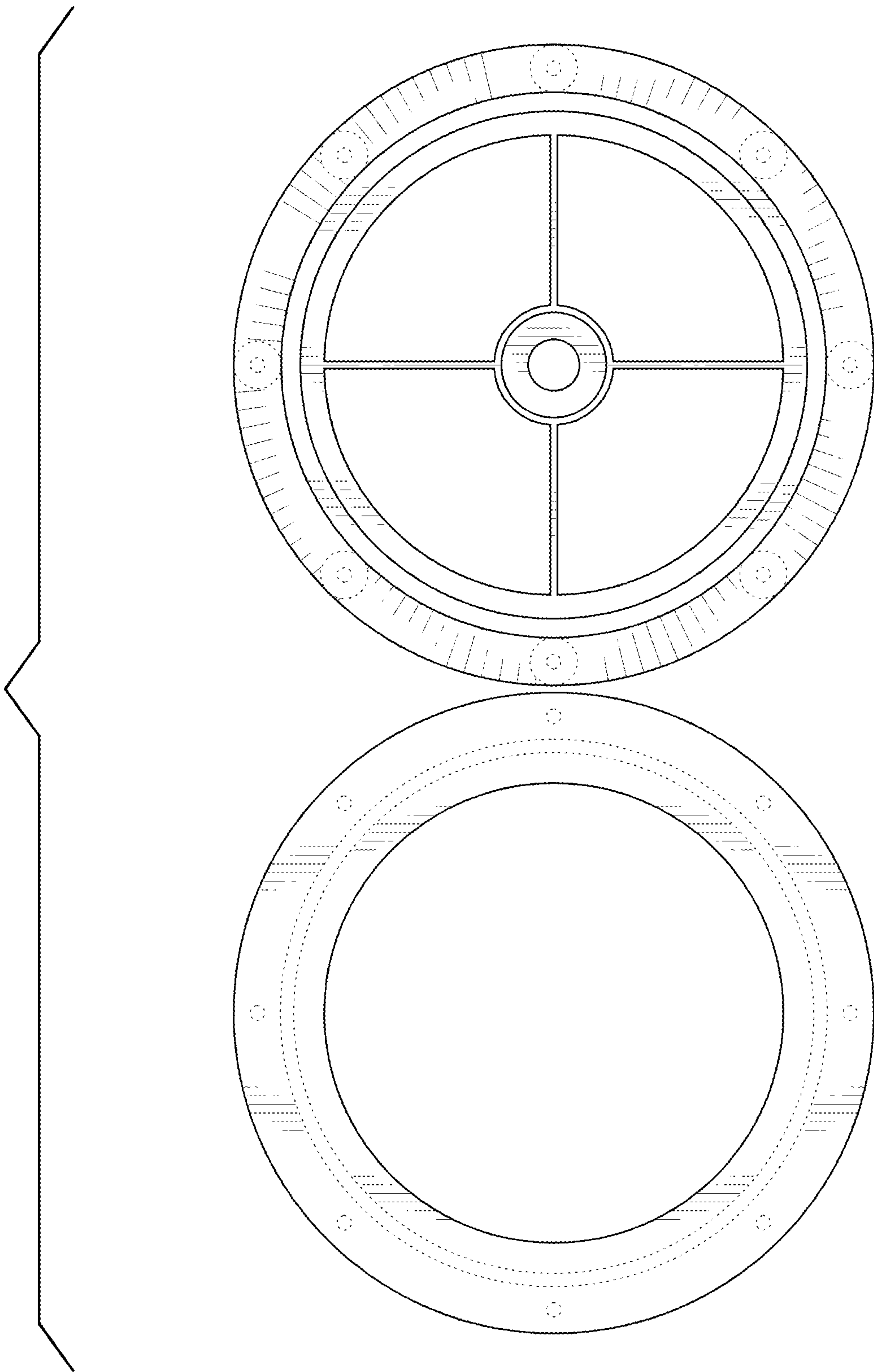


FIG. 6

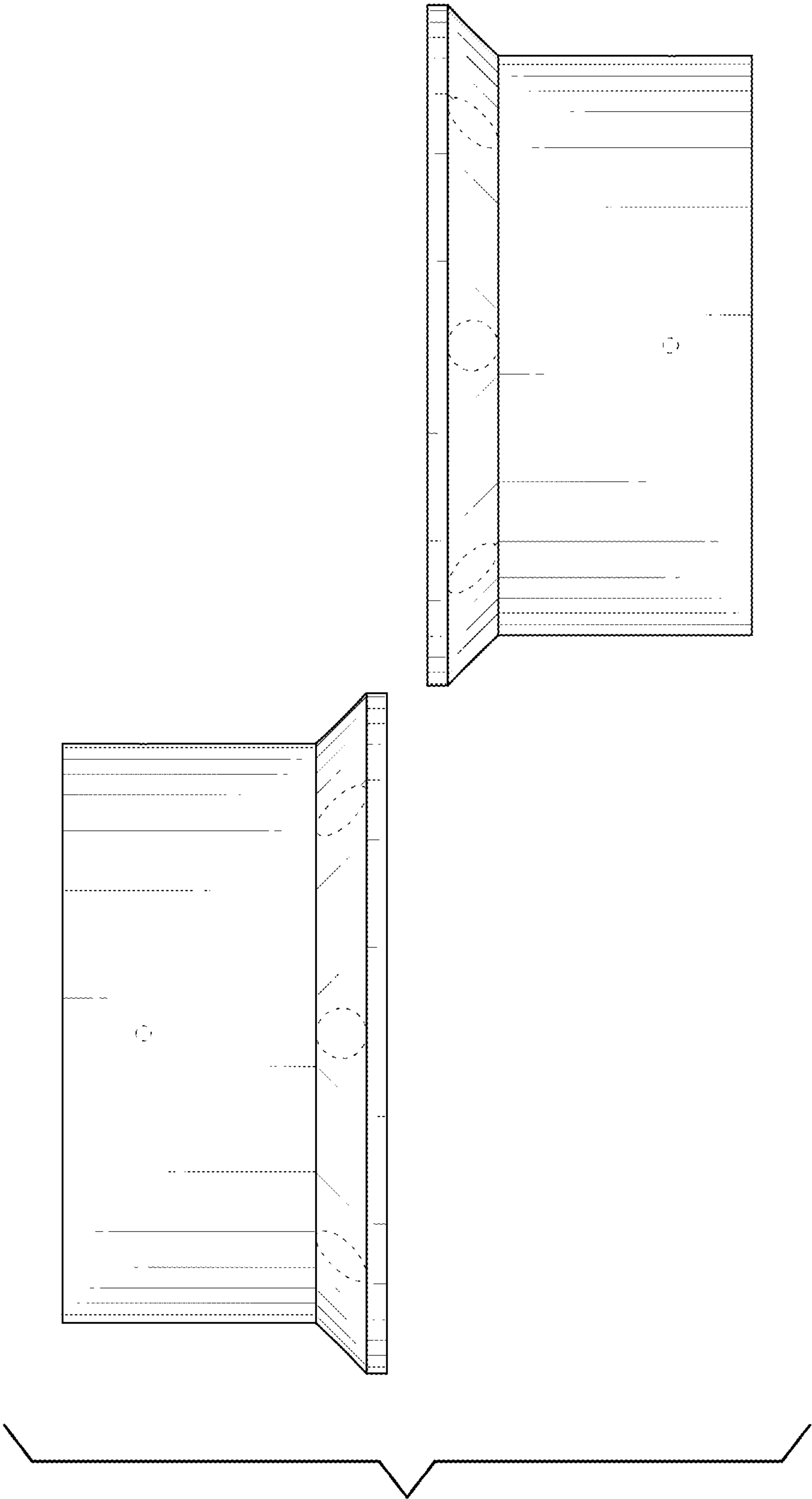


FIG. 7

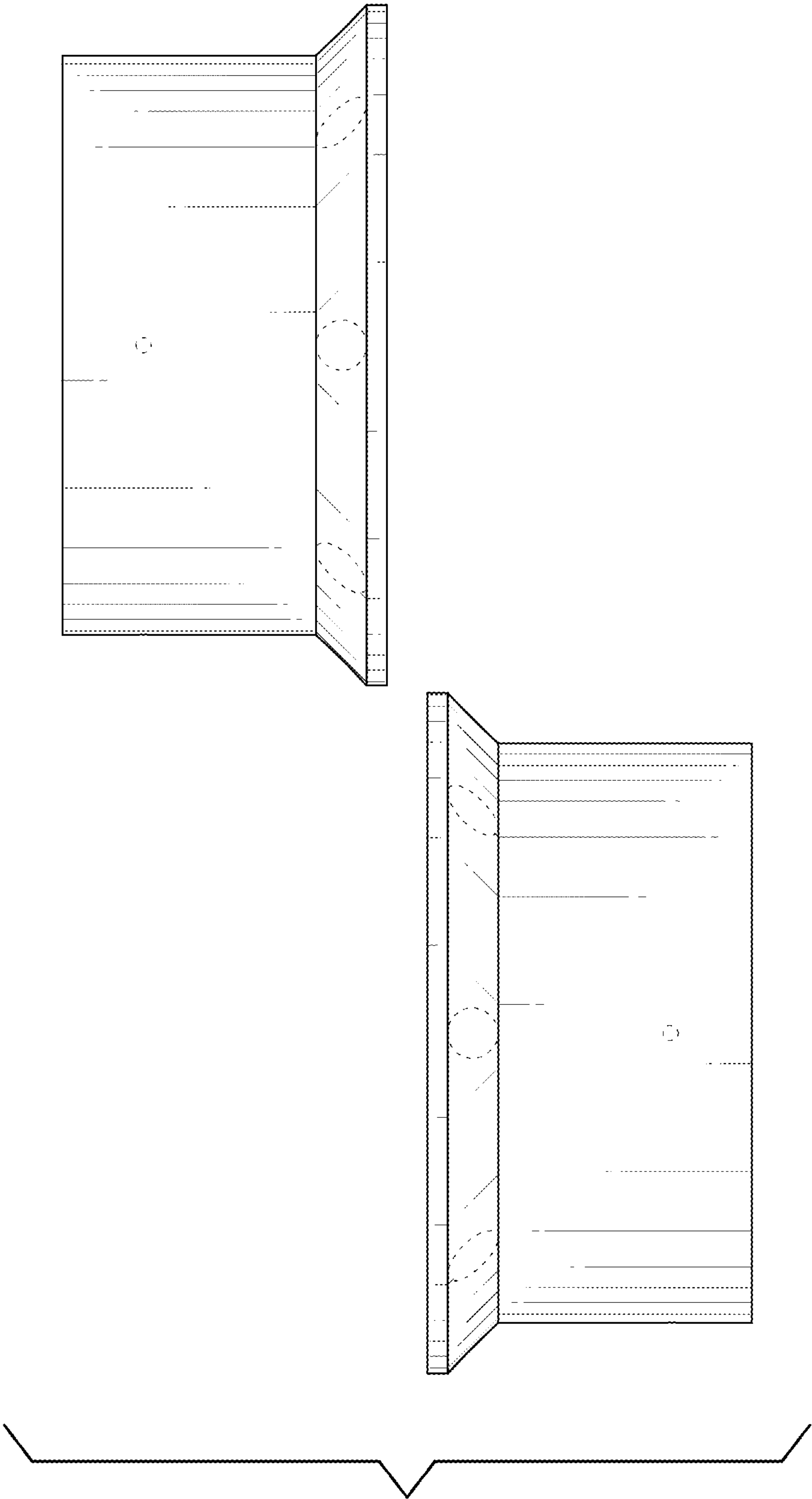


FIG. 8

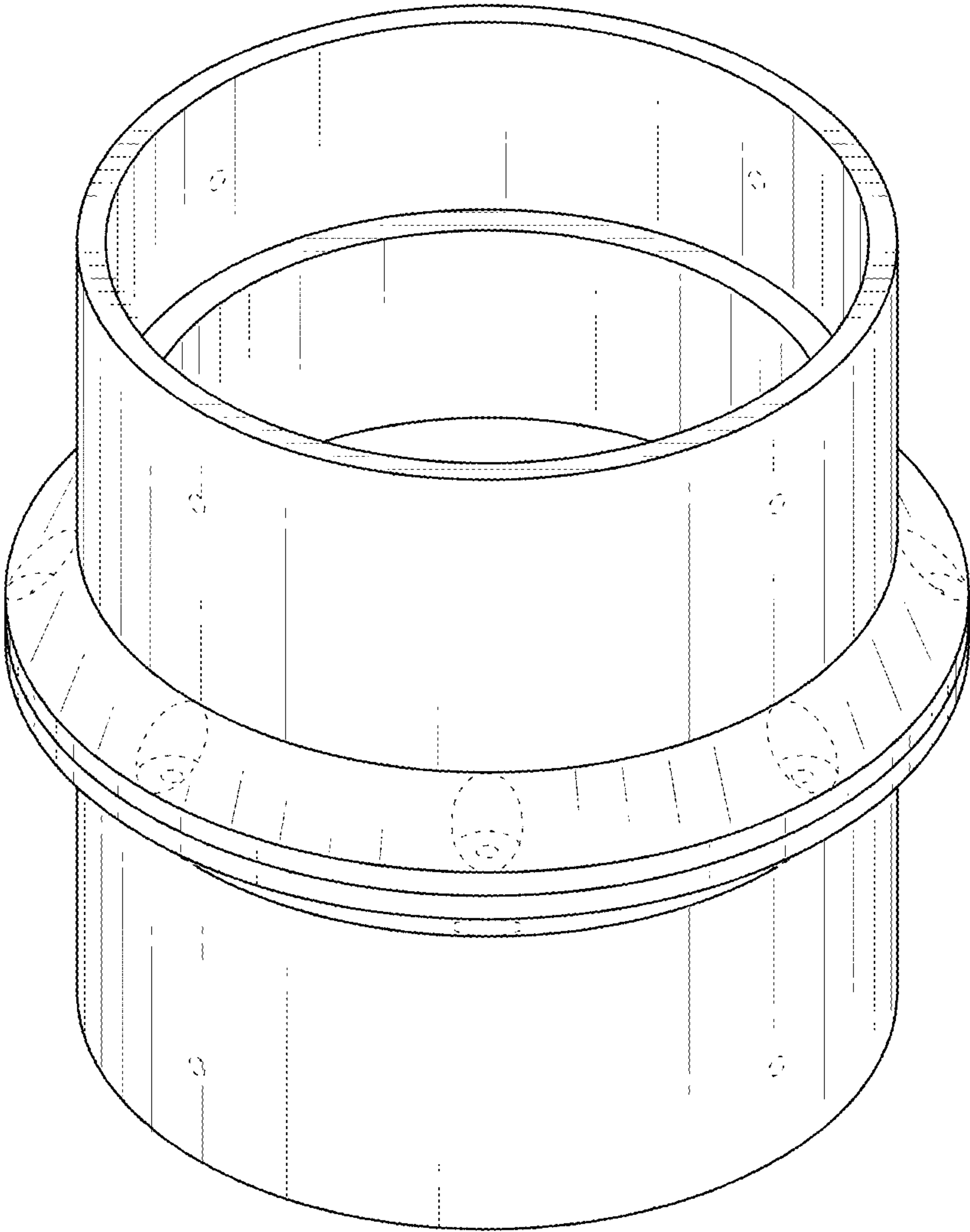


FIG. 9

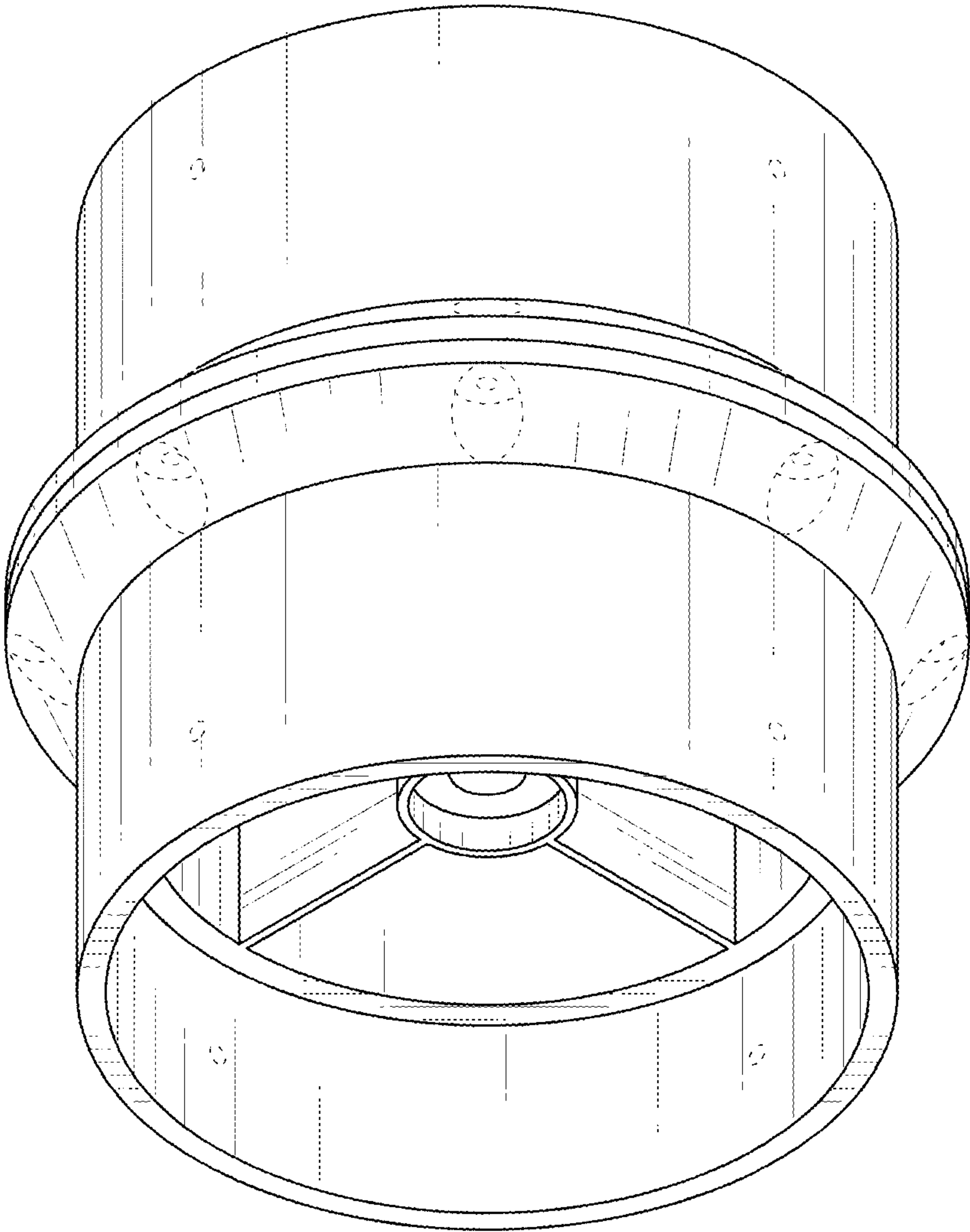


FIG. 10

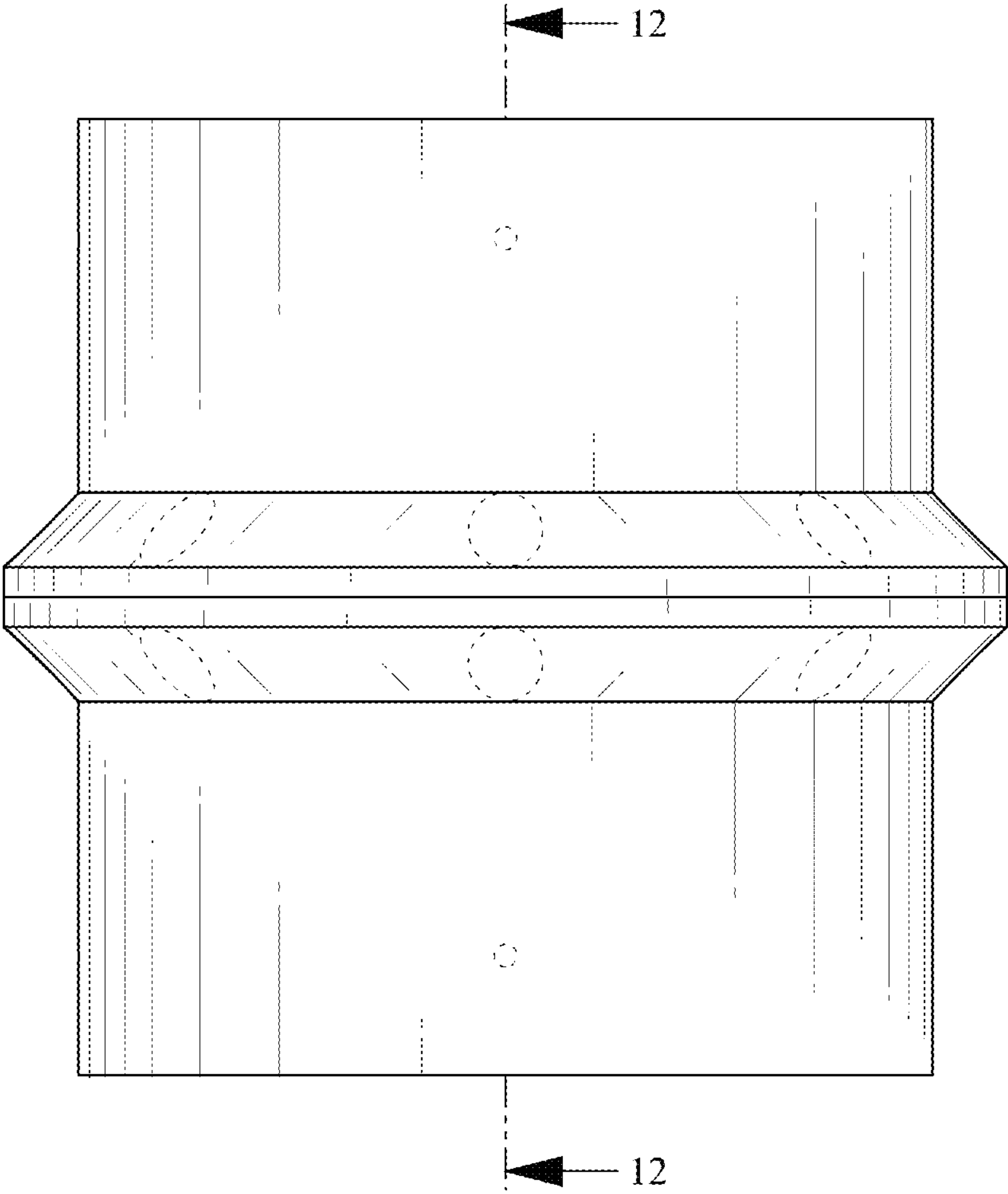


FIG. 11

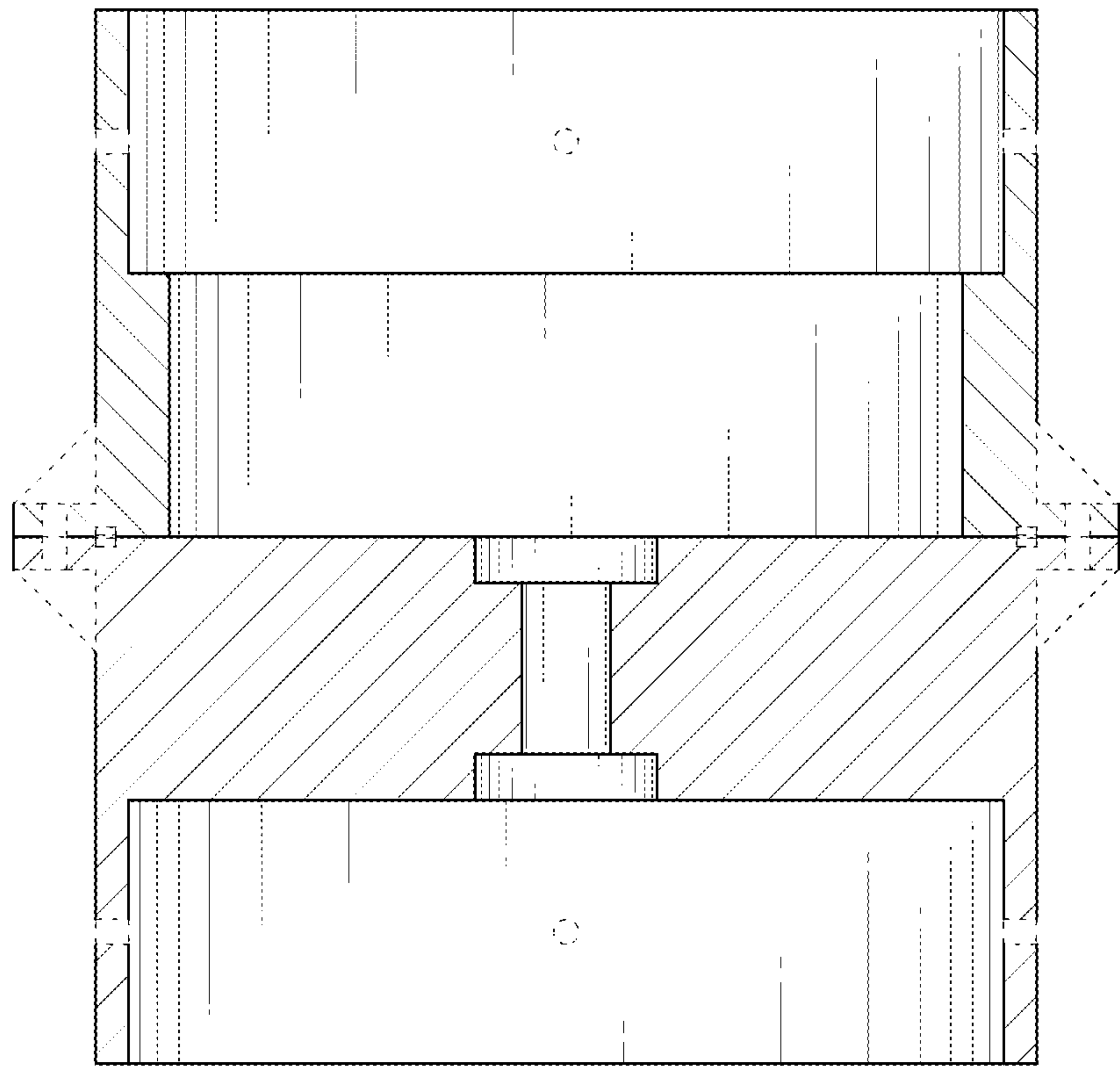


FIG. 12

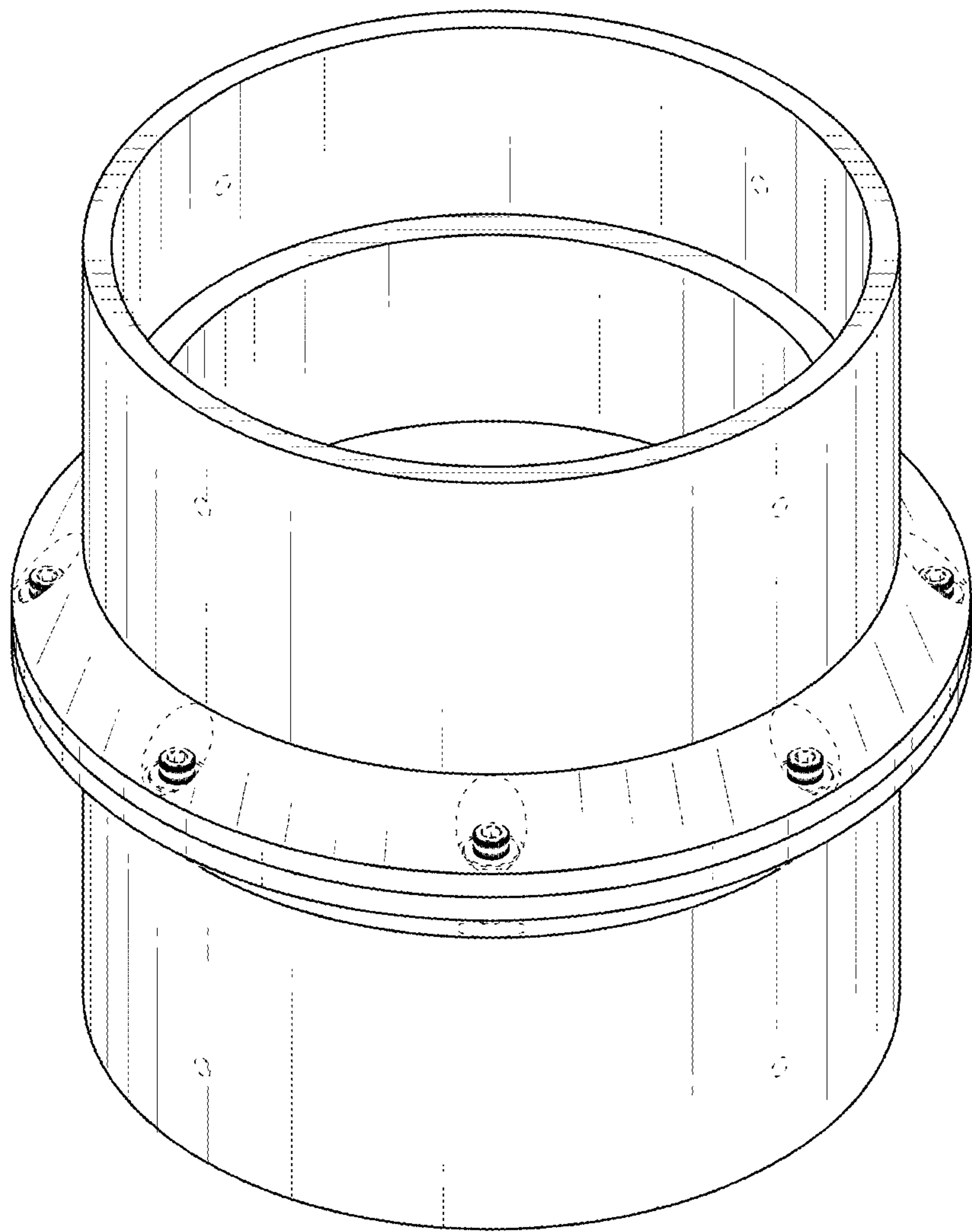


FIG. 13

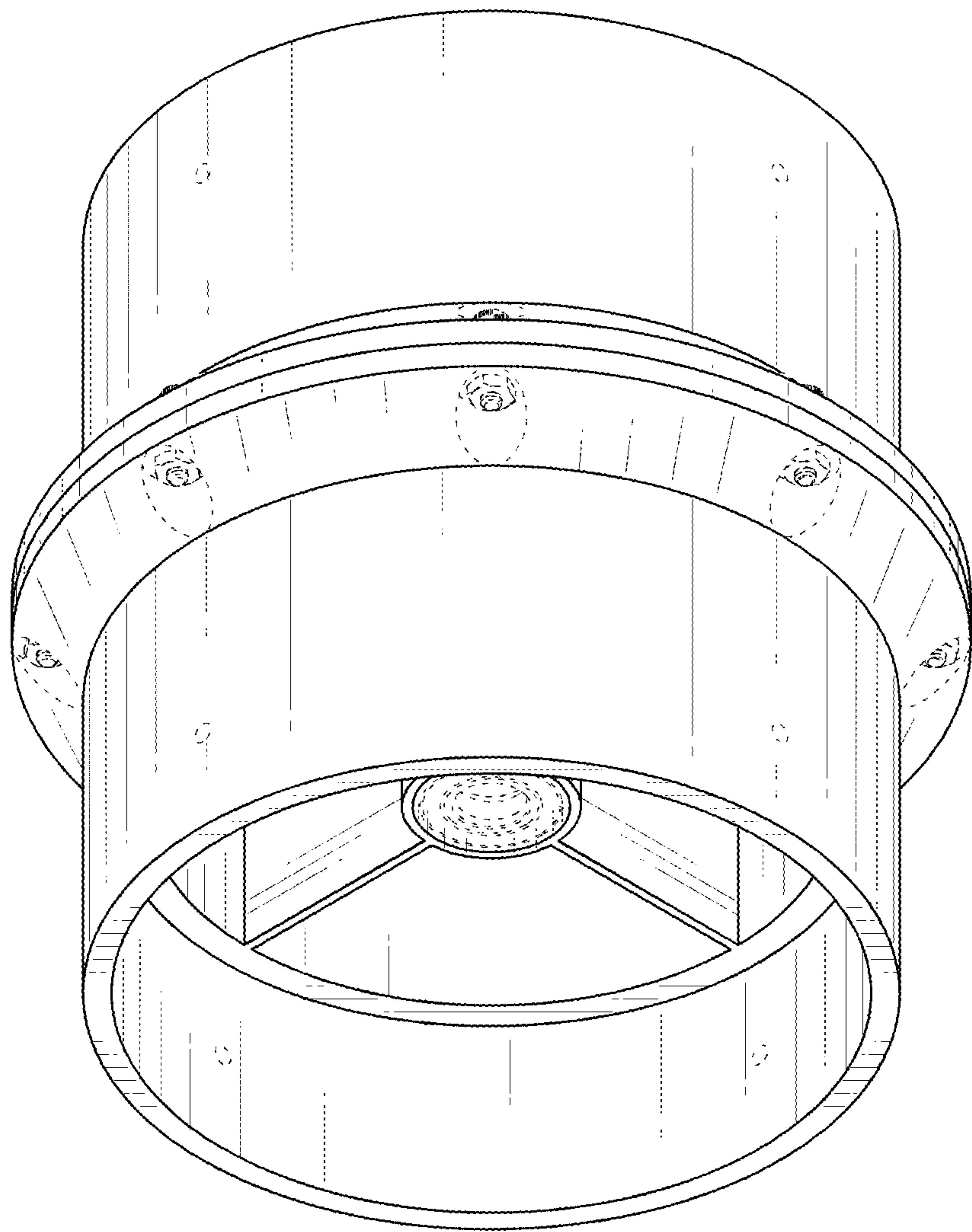


FIG. 14

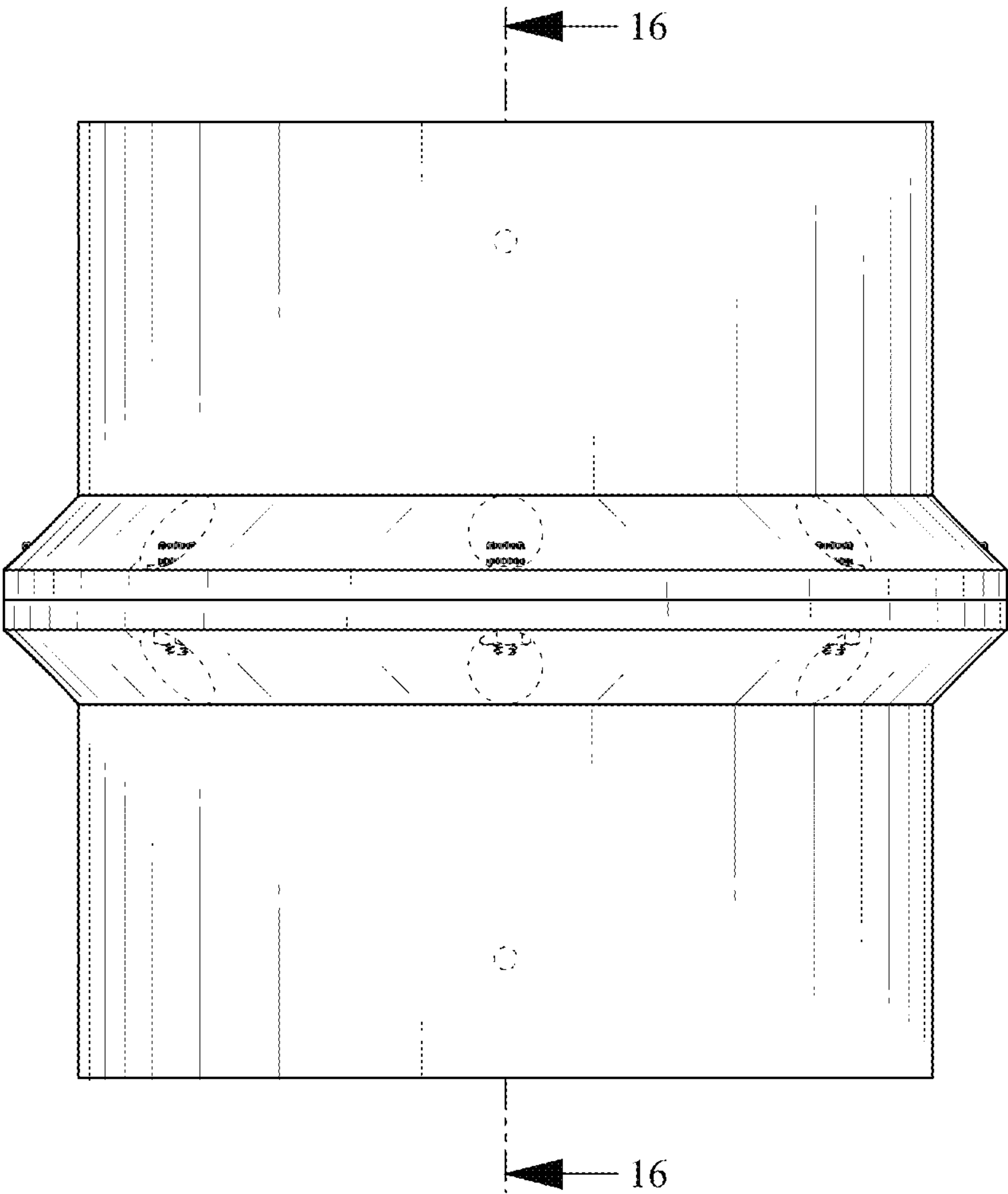


FIG. 15

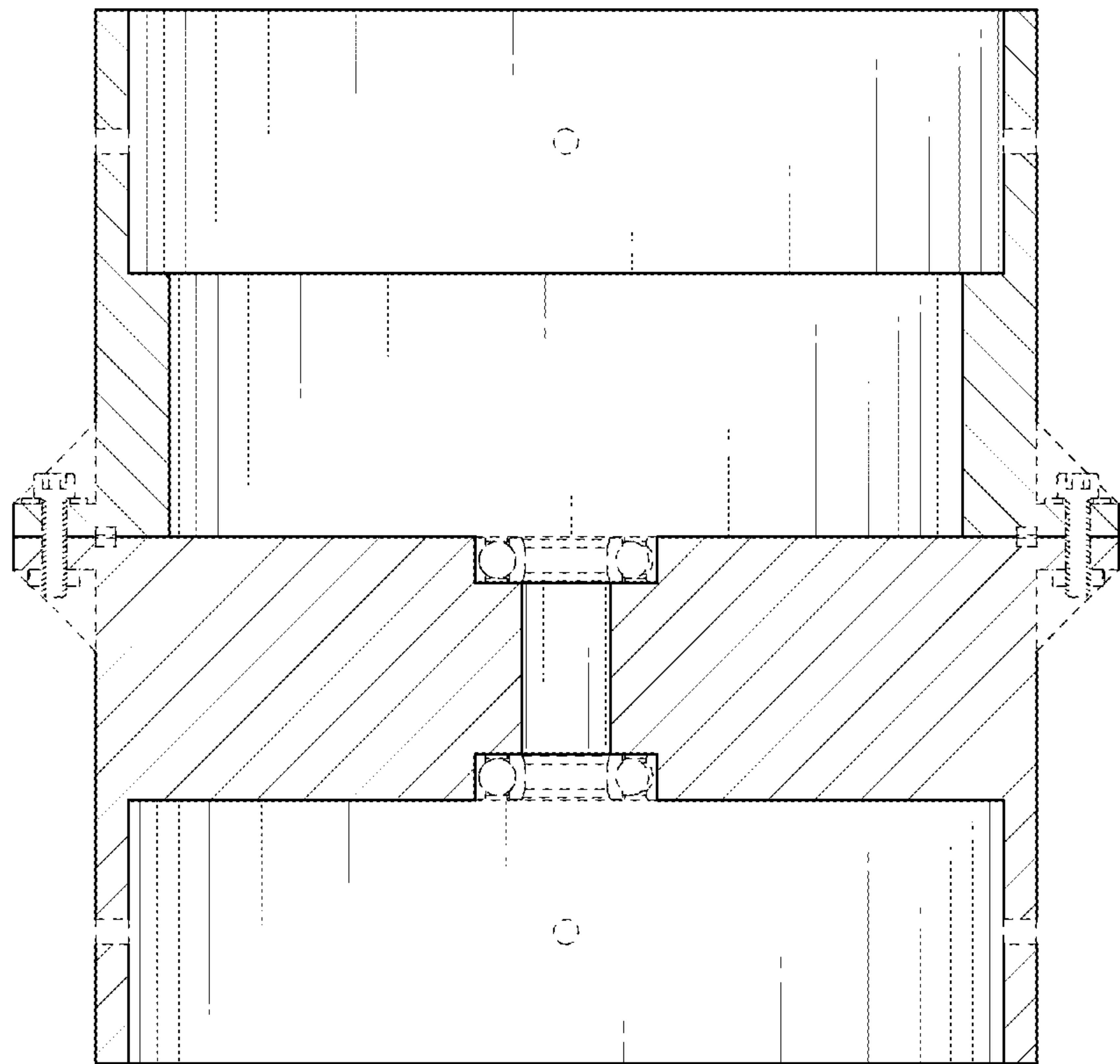


FIG. 16

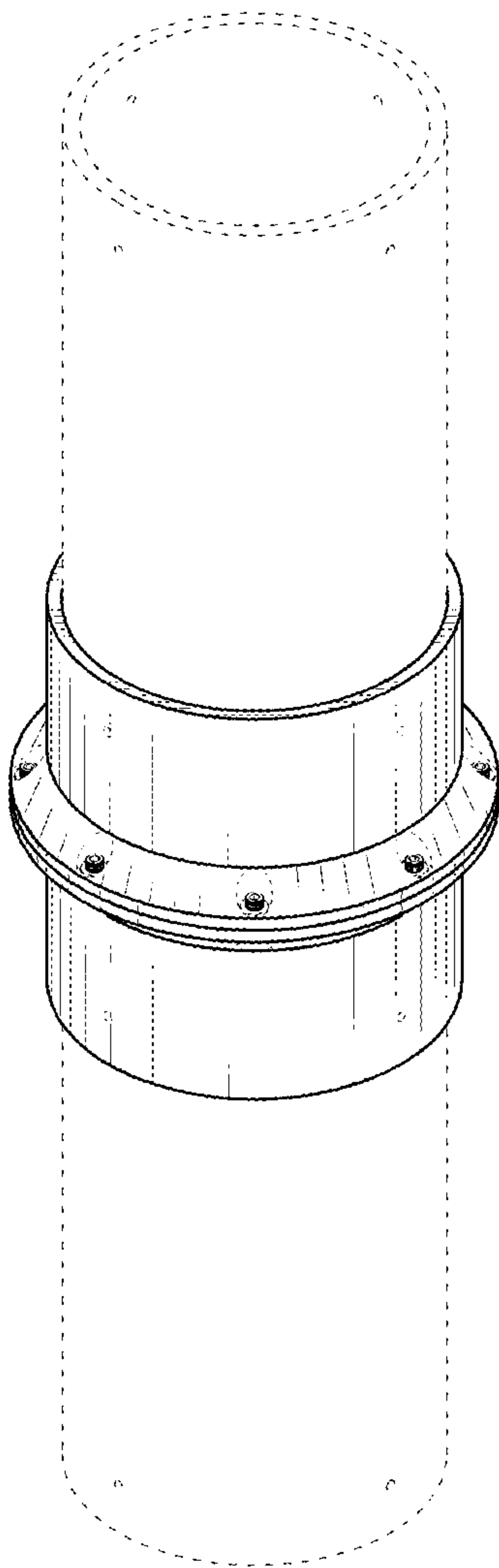


FIG. 17

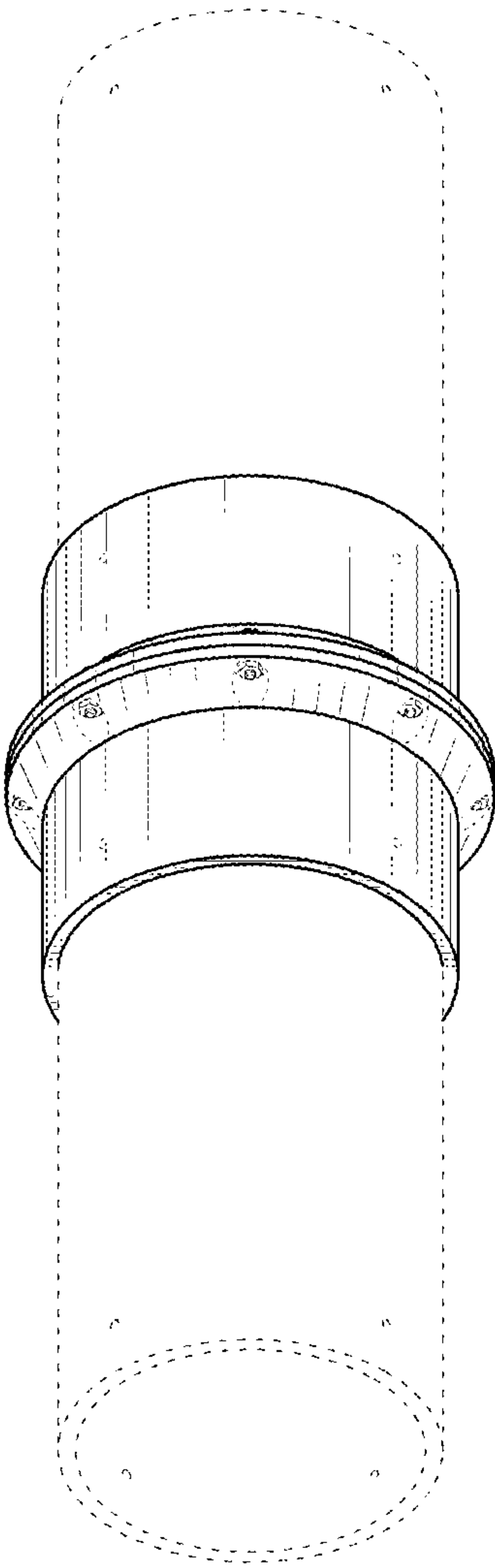


FIG. 18

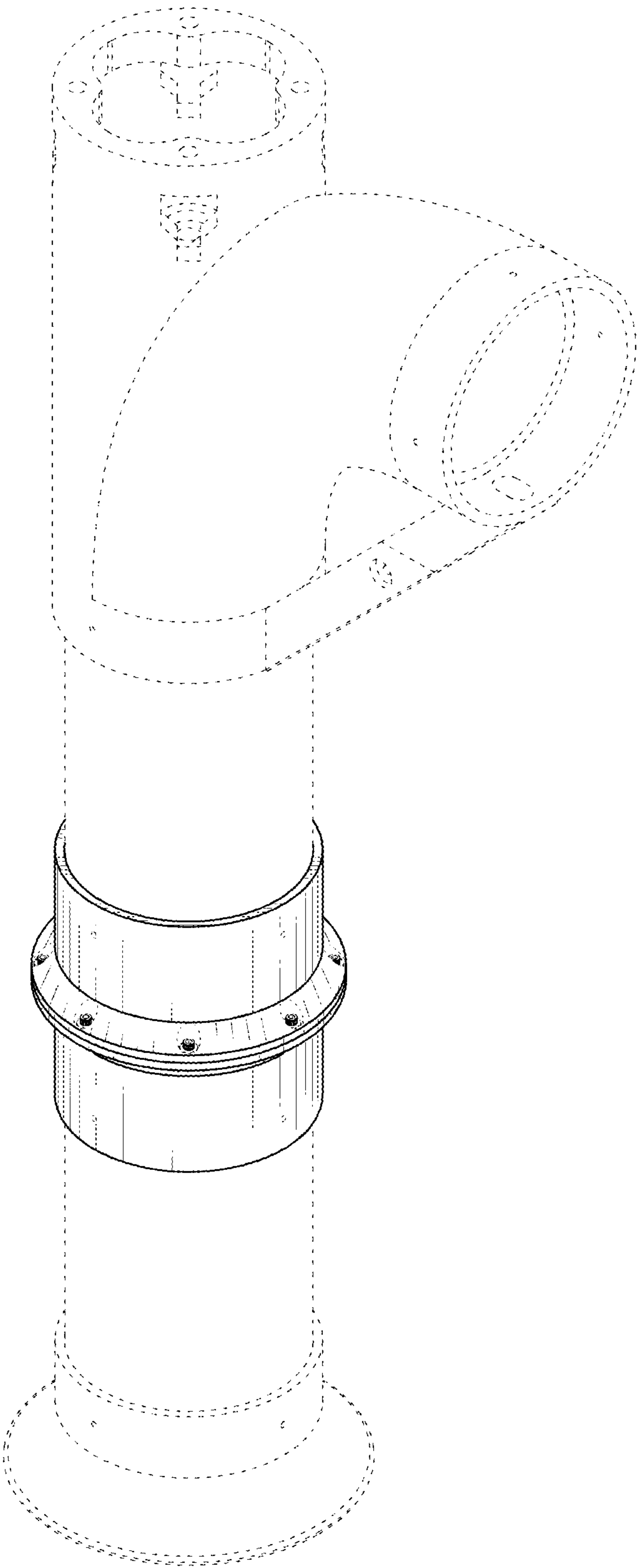


FIG. 19

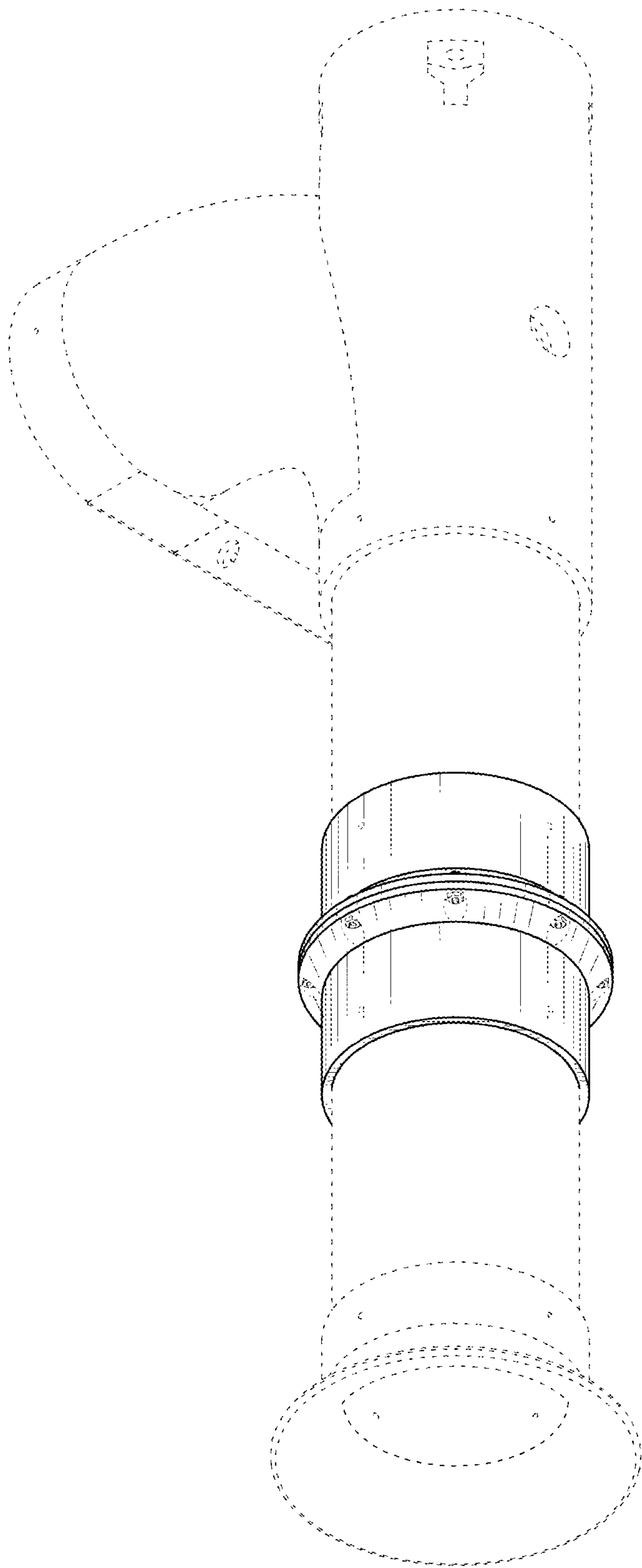


FIG. 20