



US00D875886S

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

(10) **Patent No.:** **US D875,886 S**

(45) **Date of Patent:** **\*\* Feb. 18, 2020**

(54) **SWITCHING VALVE**

**DESCRIPTION**

(71) Applicant: **SMC CORPORATION**, Tokyo (JP)

(72) Inventor: **Akiho Nishimura**, Moriya (JP)

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

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

(21) Appl. No.: **29/623,816**

(22) Filed: **Oct. 27, 2017**

(30) **Foreign Application Priority Data**

Apr. 28, 2017 (CN) ..... 2017 3 0152465

(51) **LOC (12) Cl.** ..... **23-01**

(52) **U.S. Cl.**  
USPC ..... **D23/235**

(58) **Field of Classification Search**  
USPC ..... D23/233–237, 241–249; D10/85;  
251/205, 208, 215, 309–310, 311, 63,  
251/63.5; 137/498, 545, 547, 549, 377  
(Continued)

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*Primary Examiner* — Gino Colan

(74) *Attorney, Agent, or Firm* — Birch, Stewart, Kolasch  
& Birch, LLP

(57) **CLAIM**

The ornamental design for a switching valve, as shown and described.

FIG. 1 is a front, top and left side perspective view of a switching valve showing a first embodiment of my 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 front, top and left side perspective view of a switching valve showing a second embodiment of my new design;

FIG. 10 is a rear, bottom and right side perspective view of FIG. 9;

FIG. 11 is a front view of FIG. 9;

FIG. 12 is a rear view of FIG. 9;

FIG. 13 is a top plan view of FIG. 9;

FIG. 14 is a bottom plan view of FIG. 9;

FIG. 15 is a left side view of FIG. 9;

FIG. 16 is a right side view of FIG. 9;

FIG. 17 is a front, top and left side perspective view of a switching valve showing a third embodiment of my new design;

FIG. 18 is a rear, bottom and right side perspective view of FIG. 17;

FIG. 19 is a front view of FIG. 17;

FIG. 20 is a rear view of FIG. 17;

FIG. 21 is a top plan view of FIG. 17;

FIG. 22 is a bottom plan view of FIG. 17;

FIG. 23 is a left side view of FIG. 17;

FIG. 24 is a right side view of FIG. 17;

FIG. 25 is a front, top and left side perspective view of a switching valve showing a fourth embodiment of my new design;

FIG. 26 is a rear, bottom and right side perspective view of FIG. 25;

FIG. 27 is a front view of FIG. 25;

FIG. 28 is a rear view of FIG. 25;

FIG. 29 is a top plan view of FIG. 25;

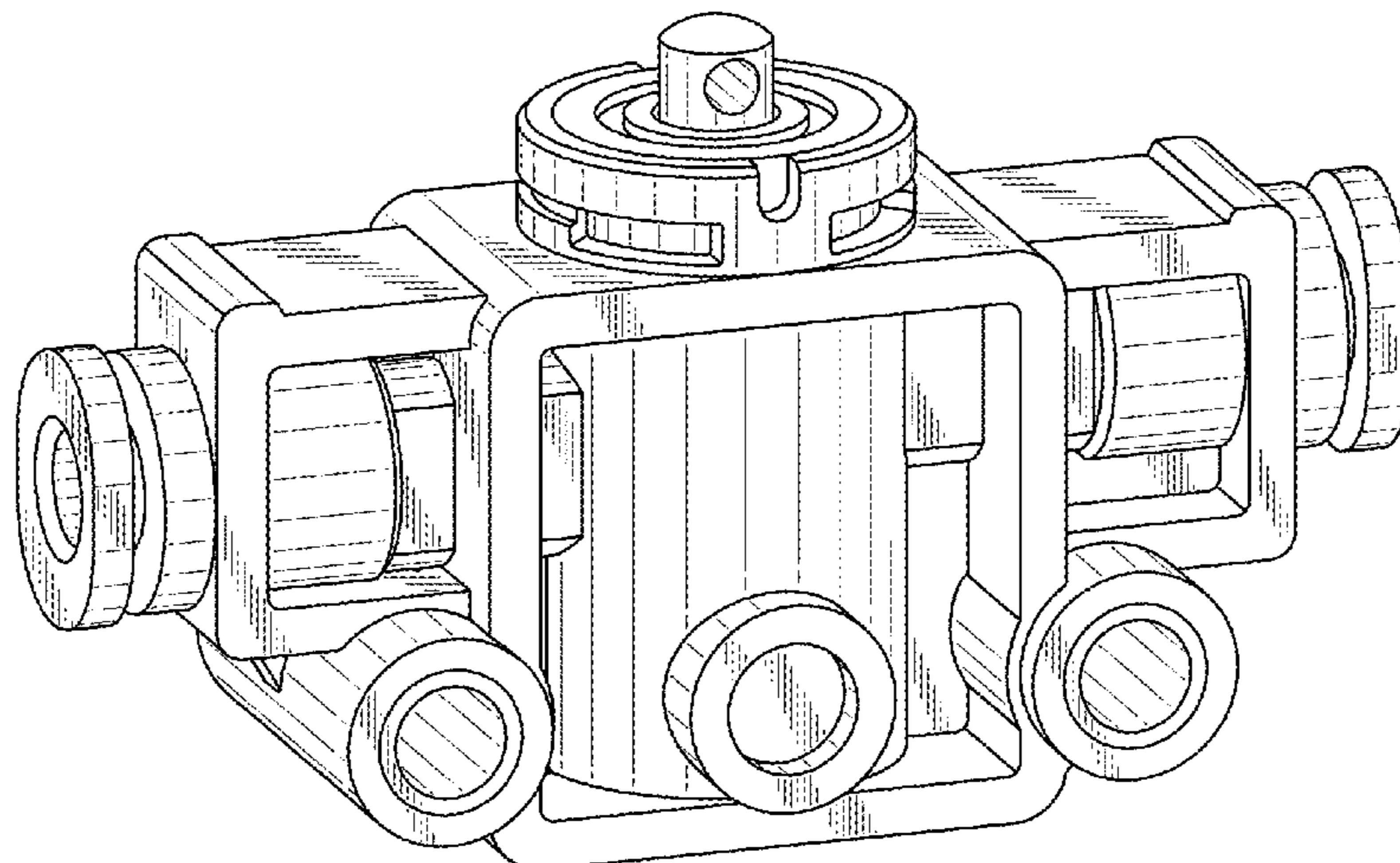
FIG. 30 is a bottom plan view of FIG. 25;

FIG. 31 is a left side view of FIG. 25; and,

FIG. 32 is a right side view of FIG. 25.

The broken lines shown in the figures are included for the purpose of illustrating portions of the switching valve and form no part of the claimed design.

**1 Claim, 32 Drawing Sheets**



(58) **Field of Classification Search**

CPC ..... F16K 11/0743; F16K 11/0716  
See application file for complete search history.

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FIG. 1

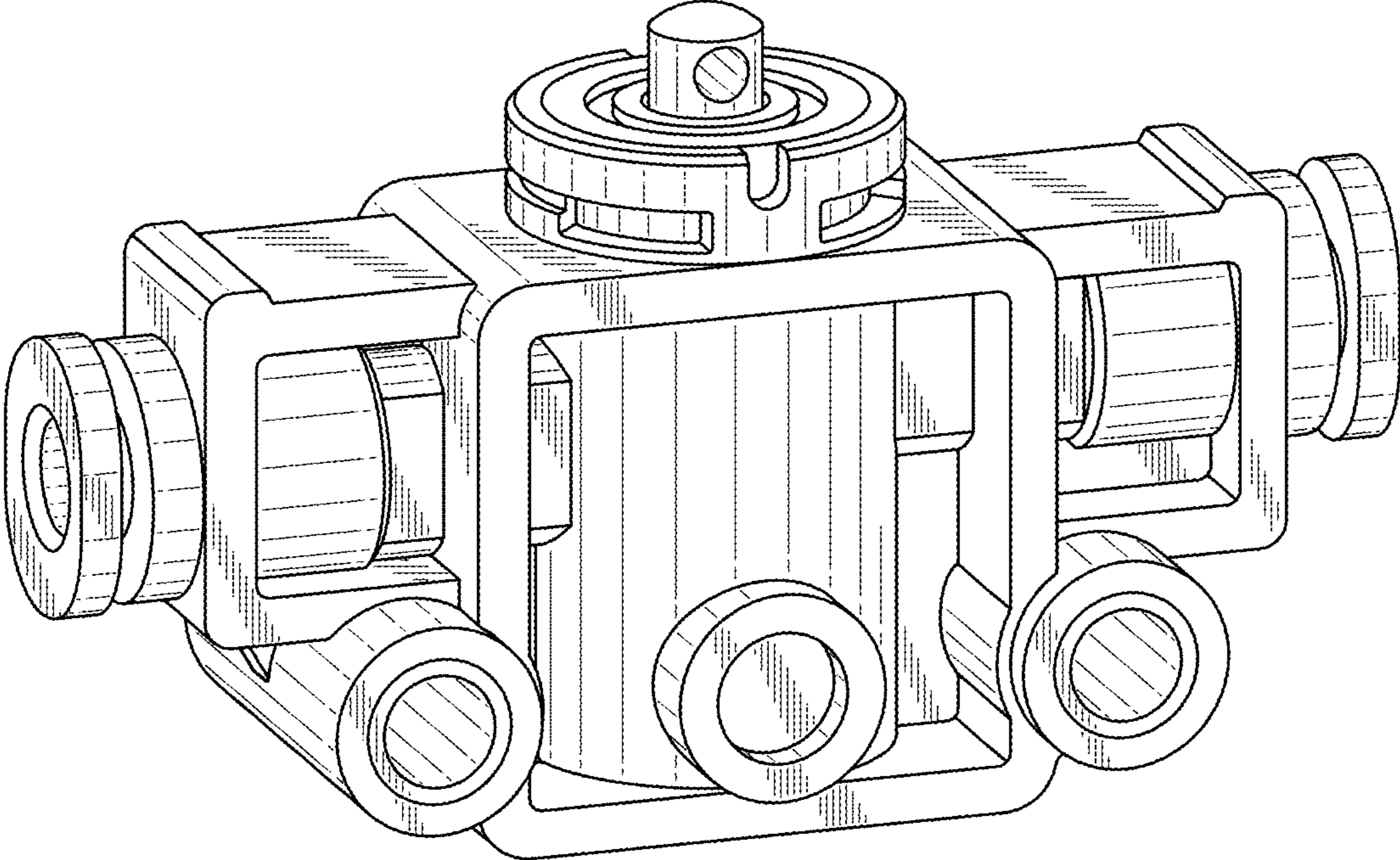


FIG. 2

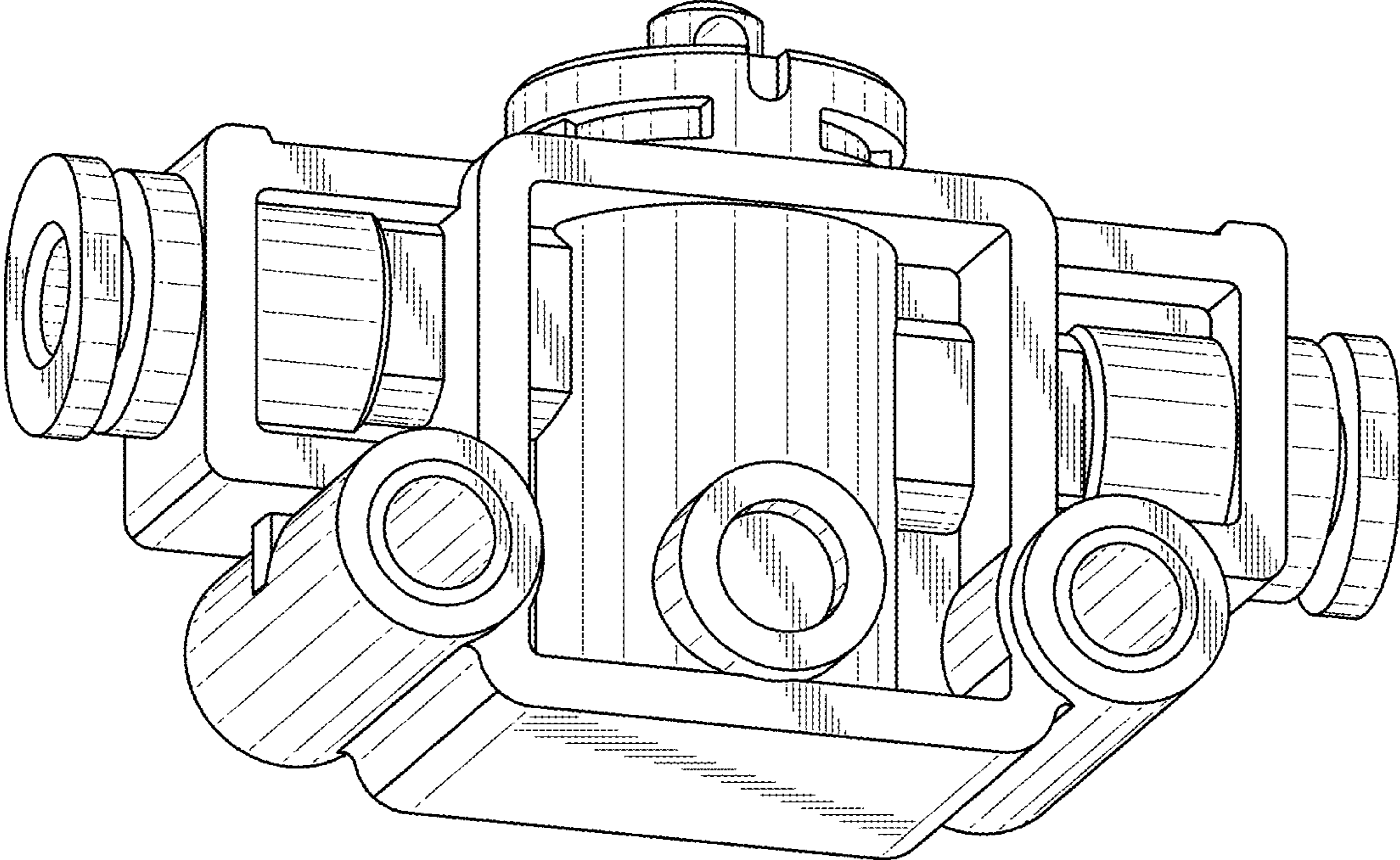


FIG. 3

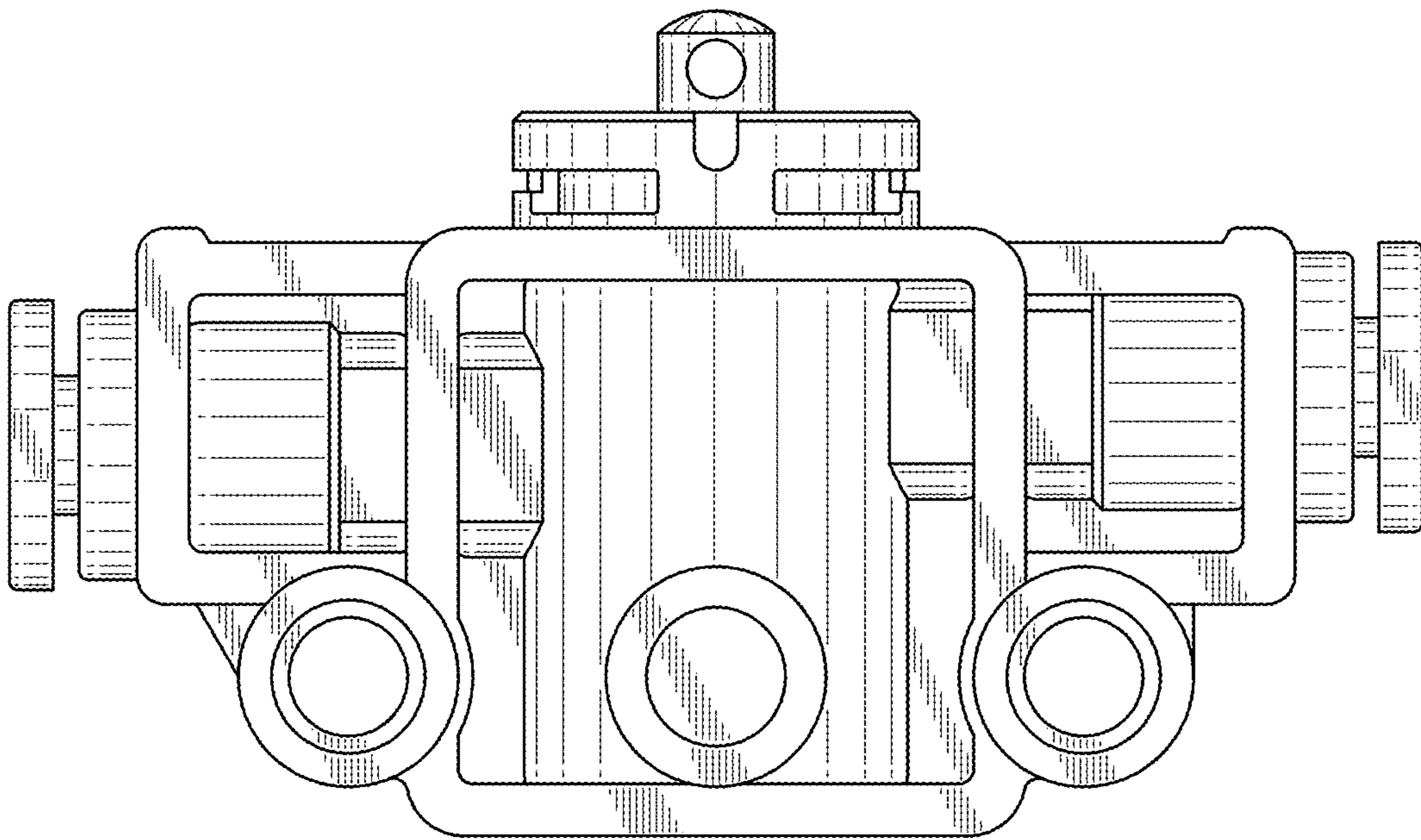


FIG. 4

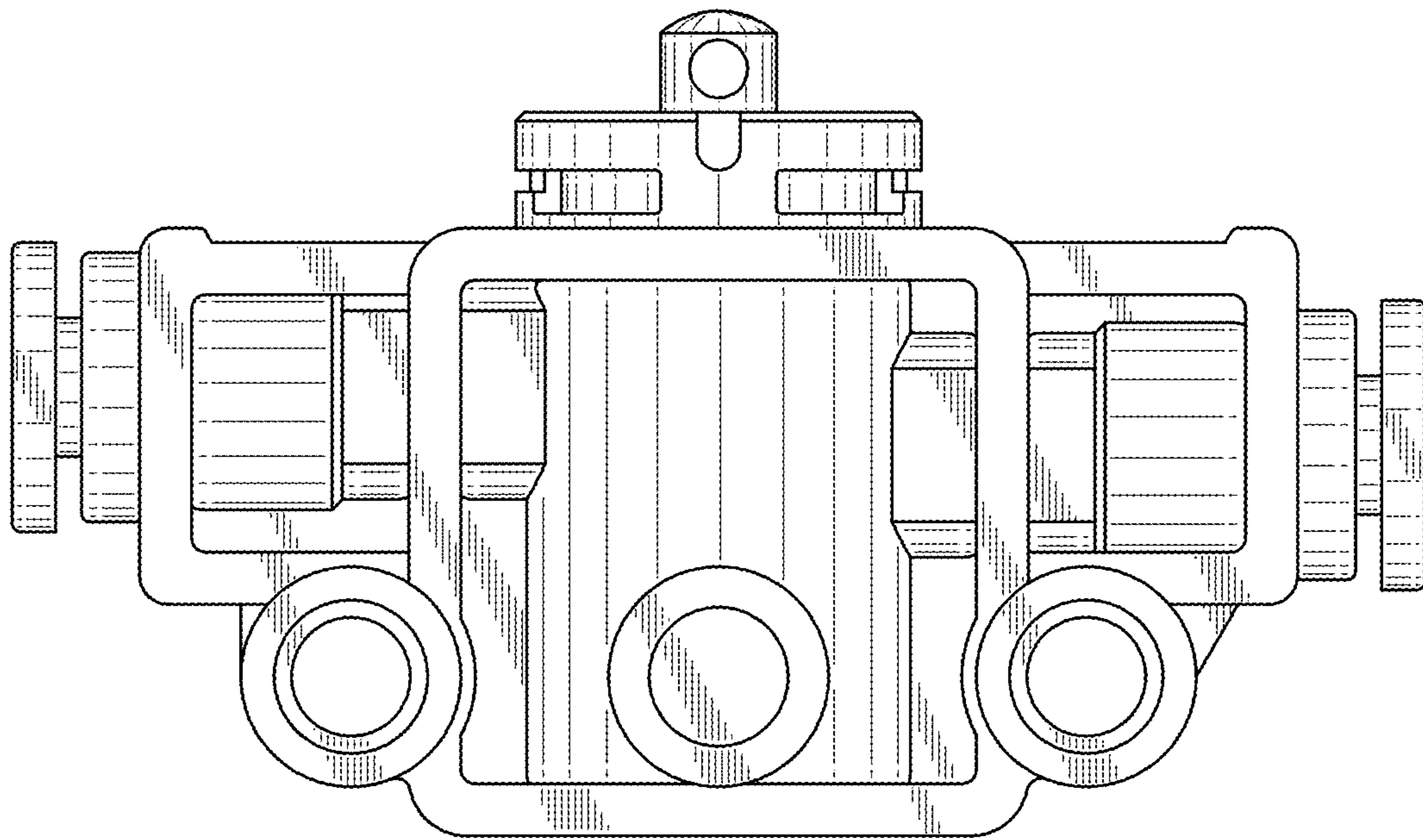


FIG. 5

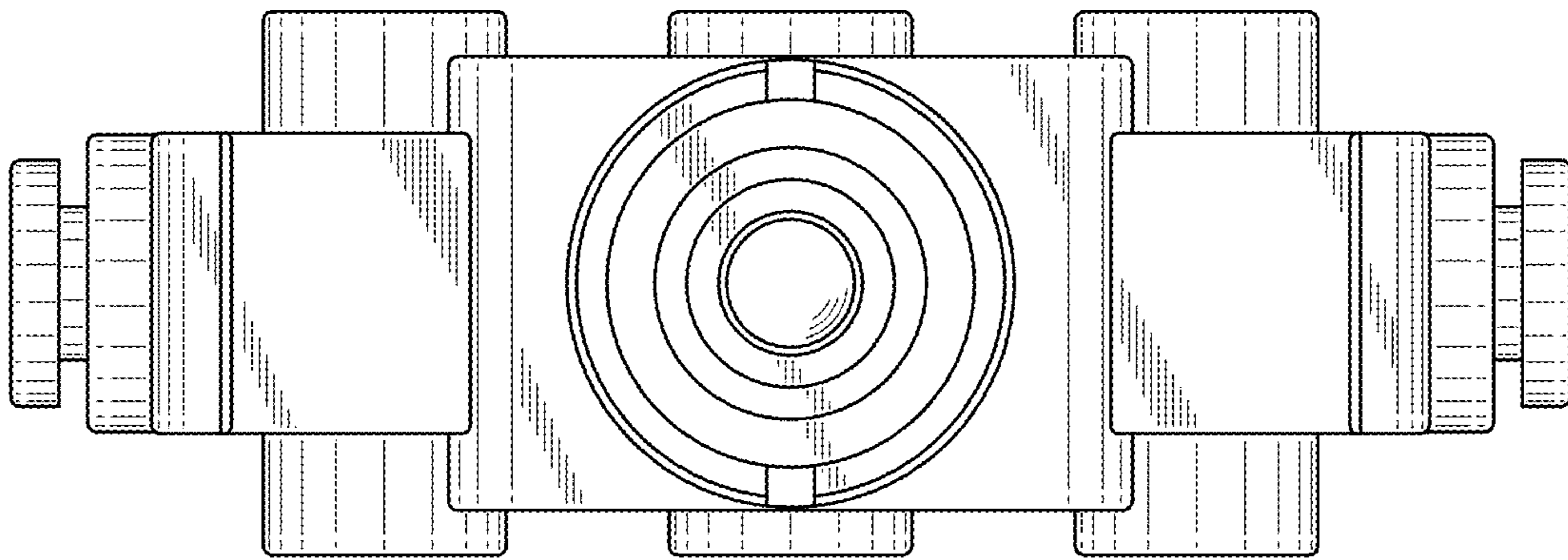


FIG. 6

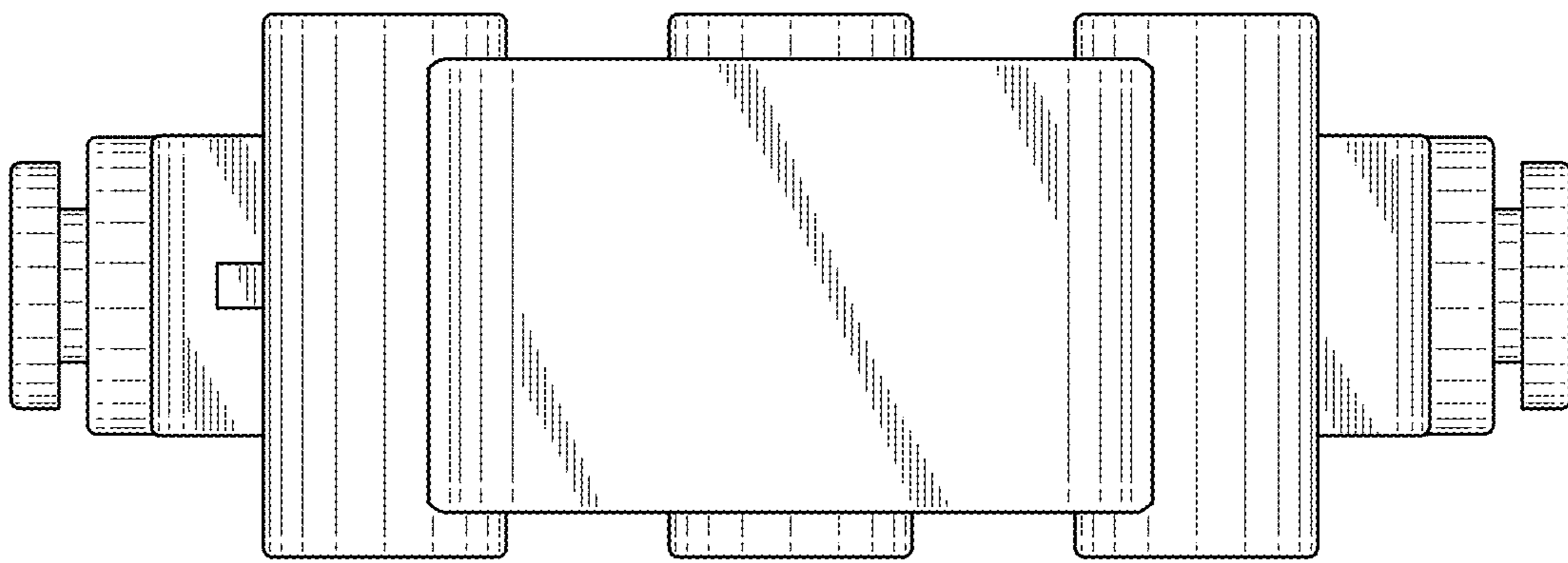




FIG. 7

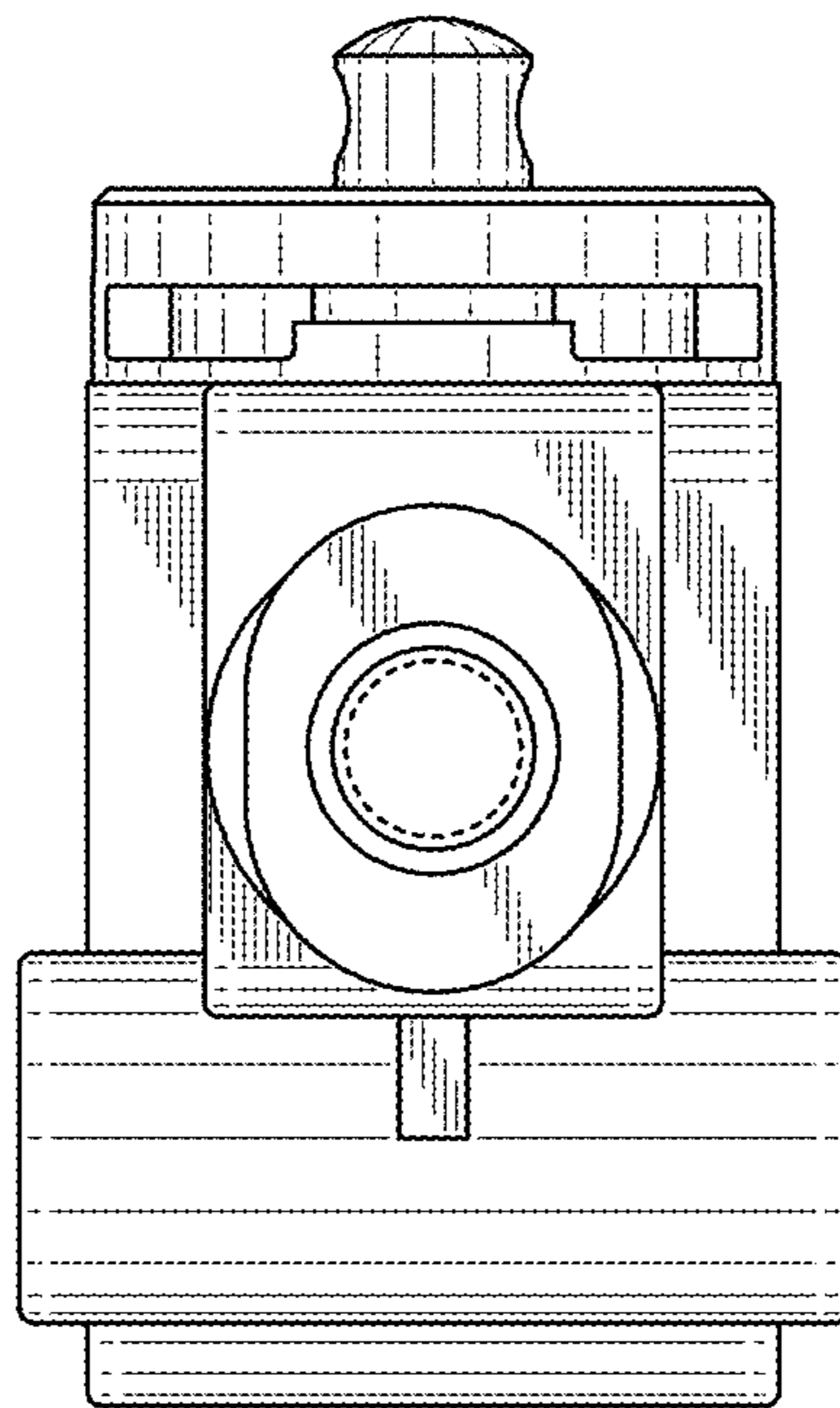


FIG. 8

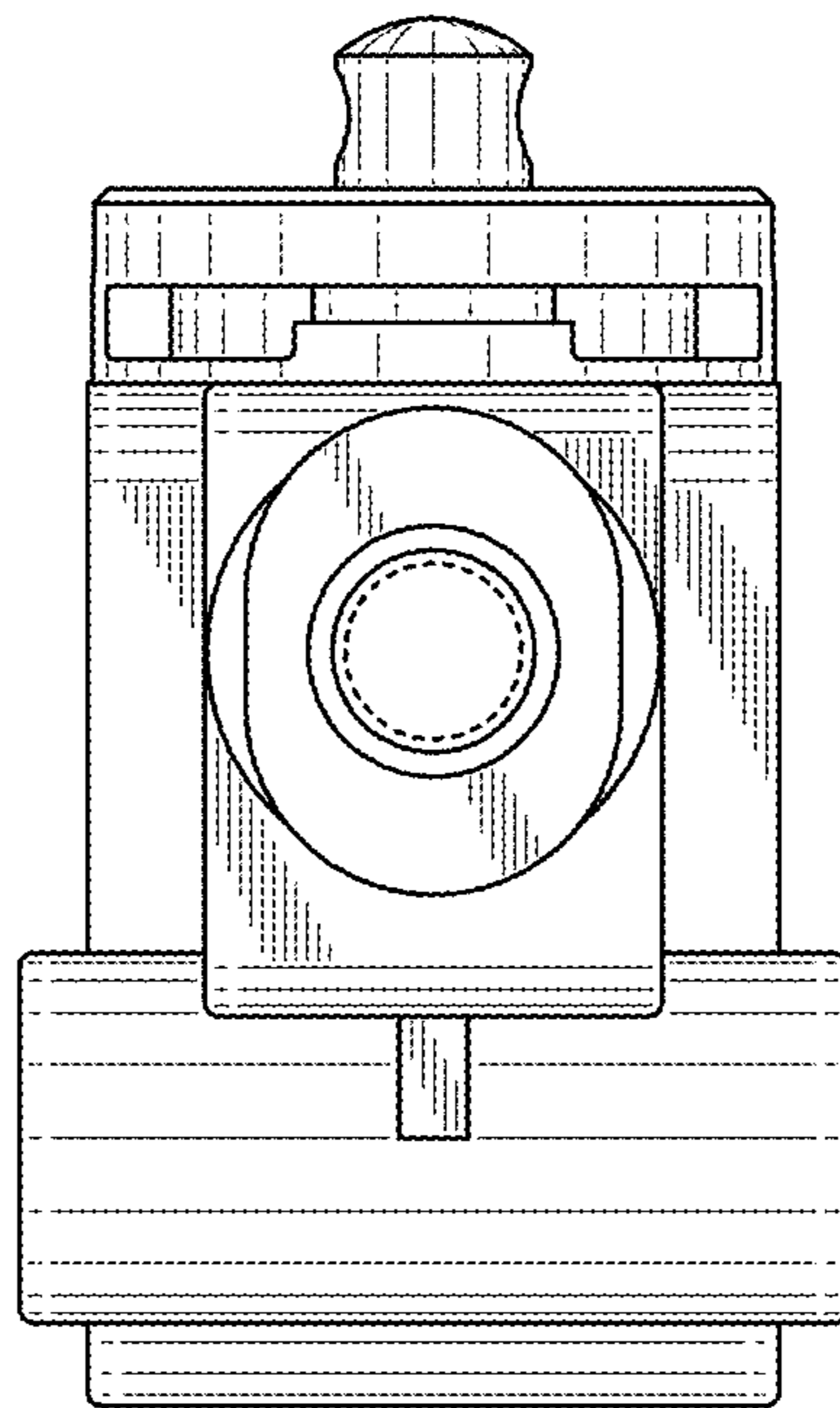


FIG. 9

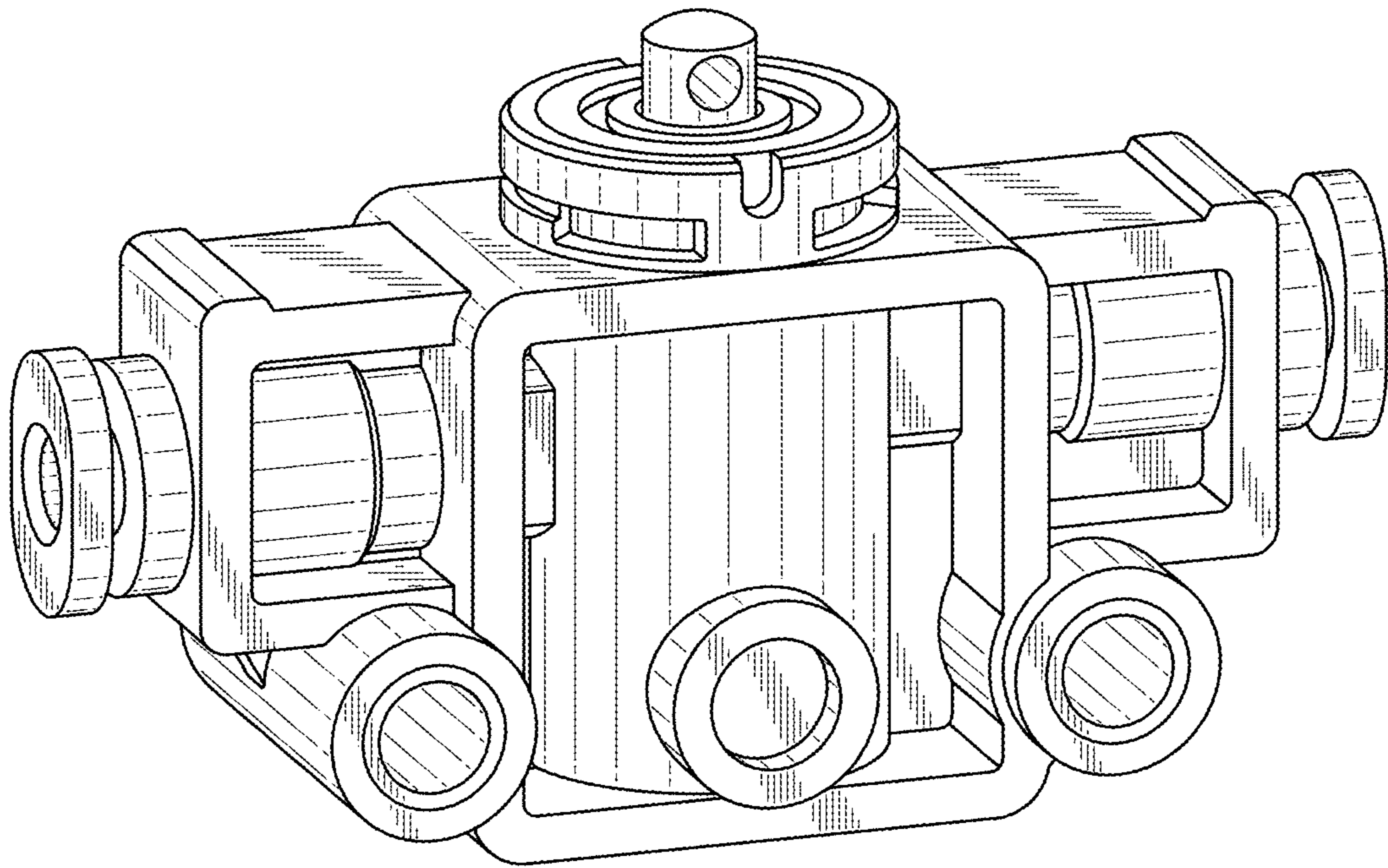


FIG. 10

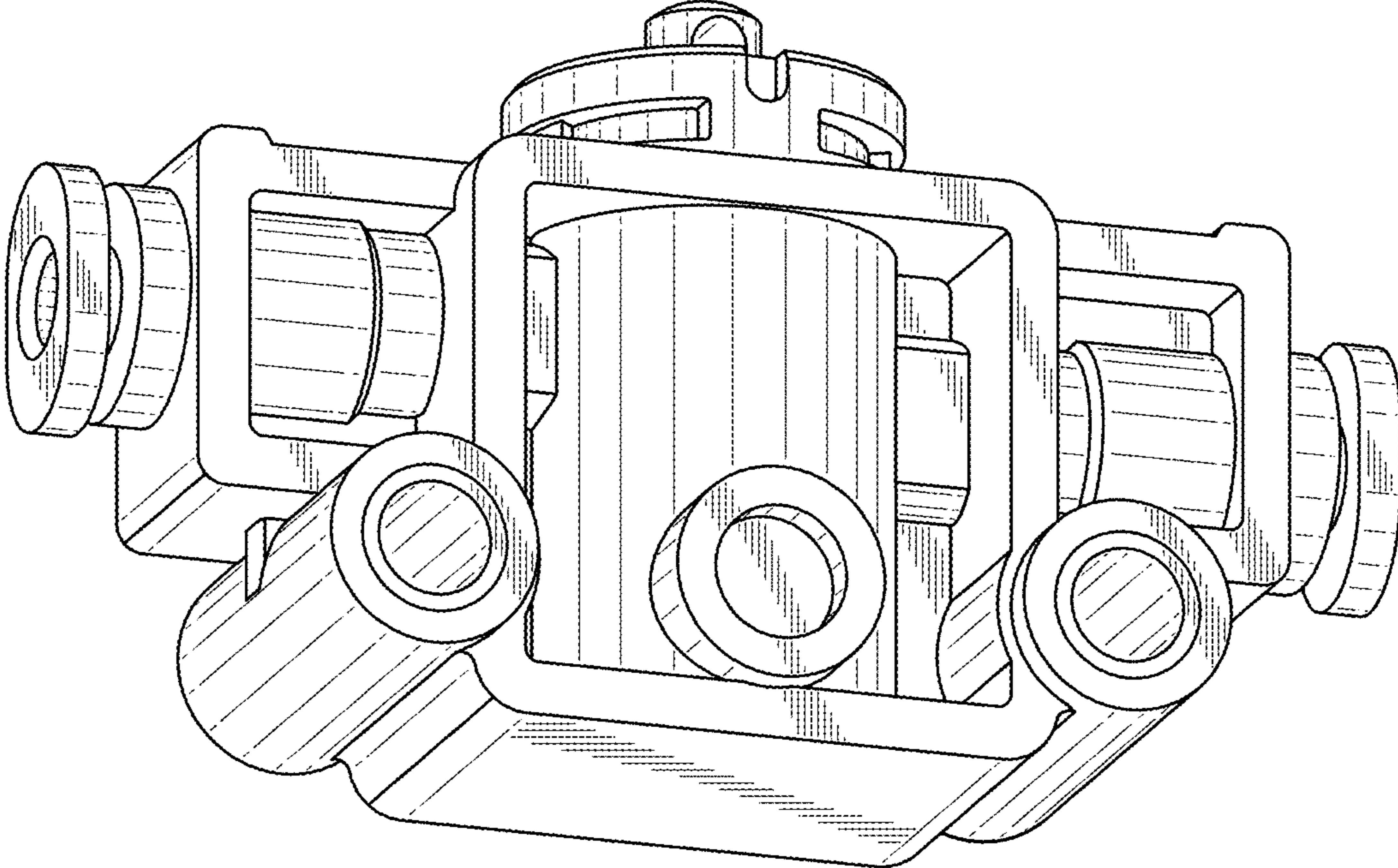


FIG. 11

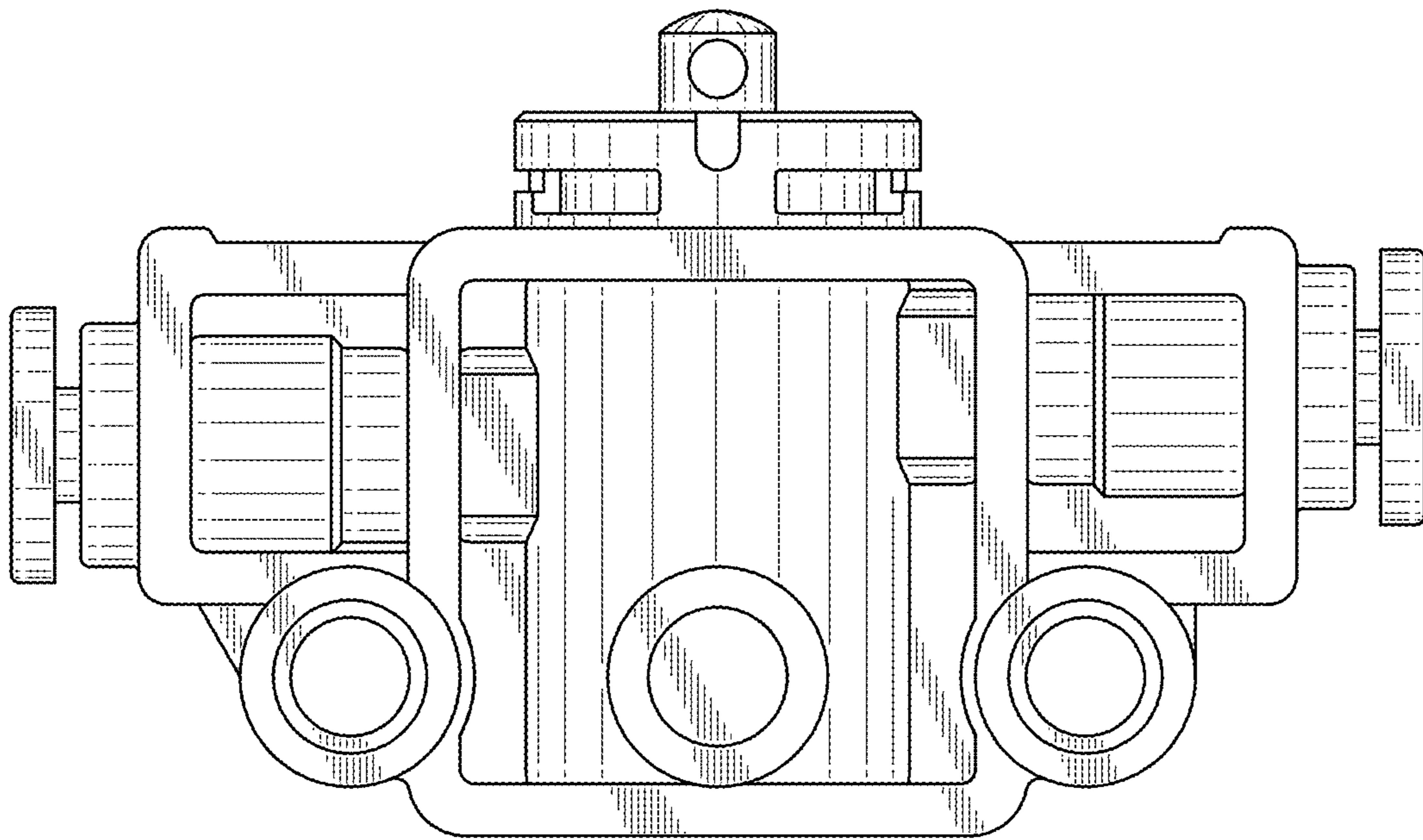


FIG. 12

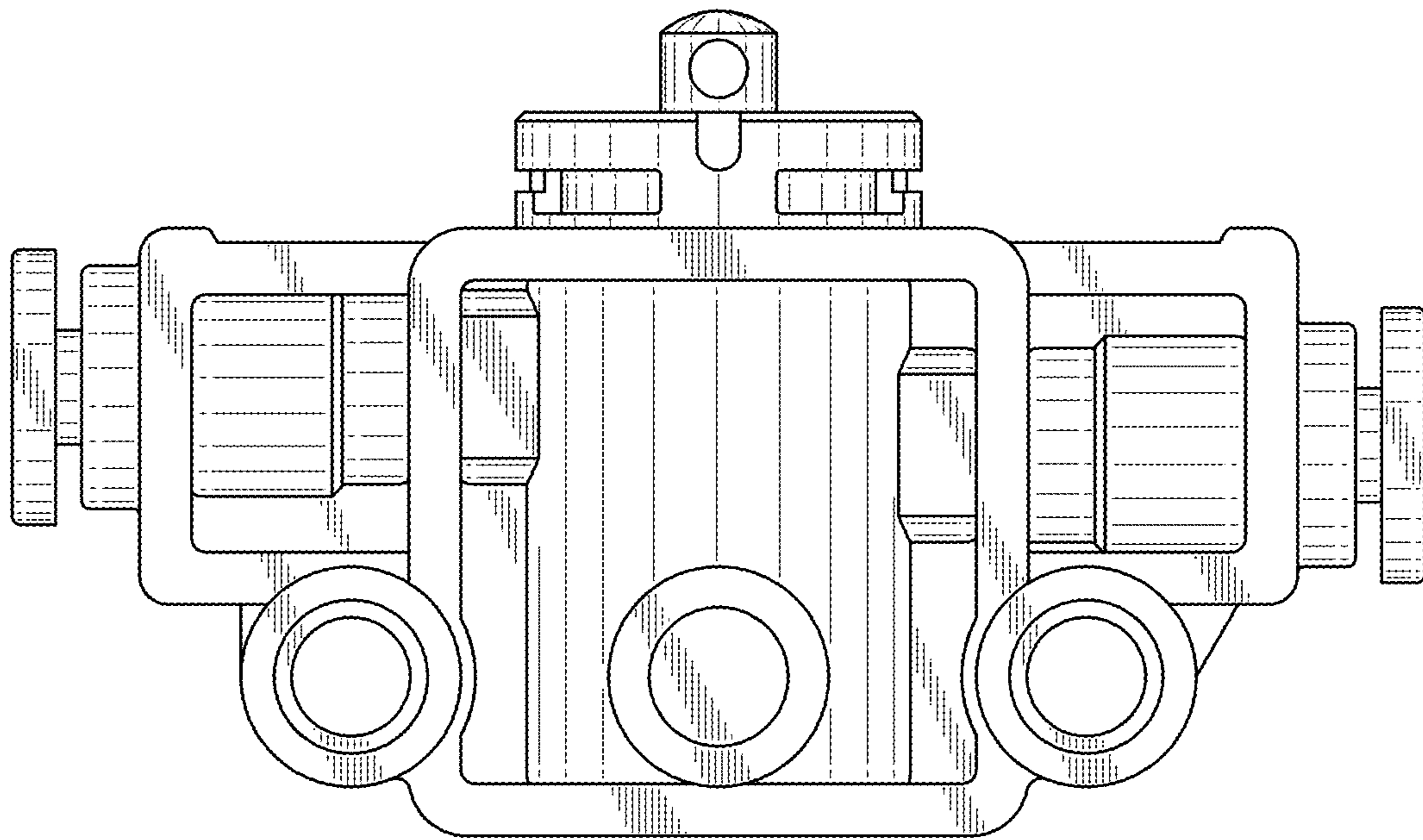


FIG. 13

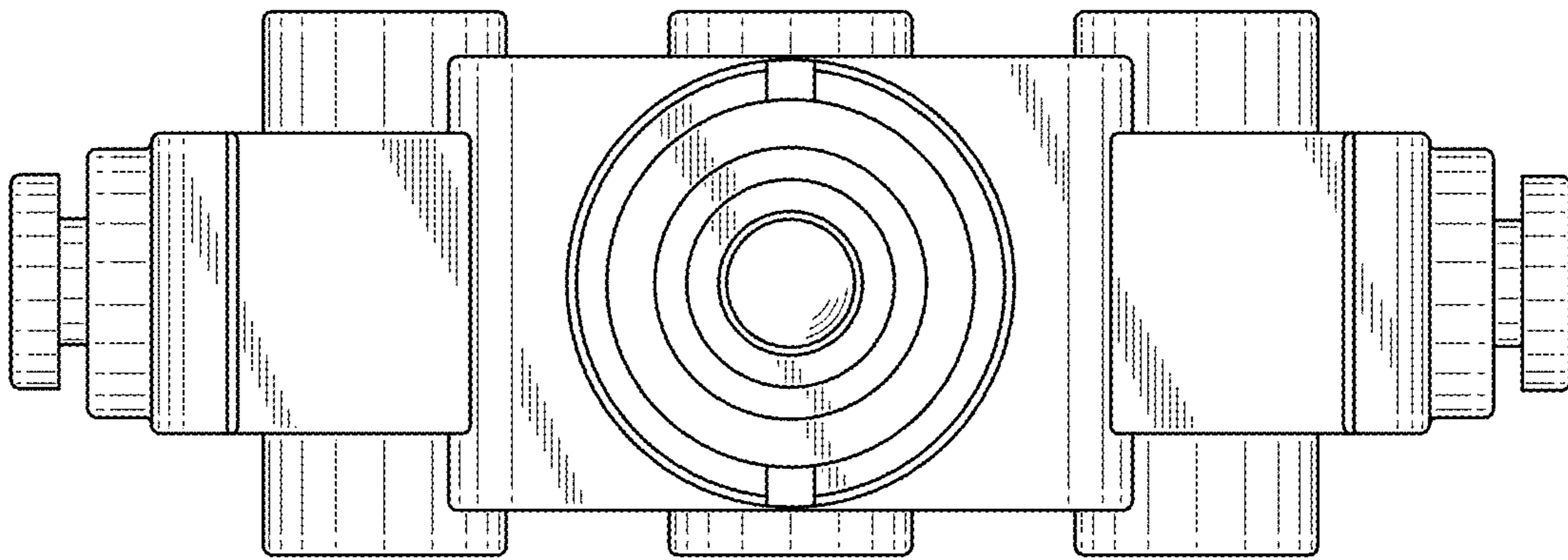


FIG. 14

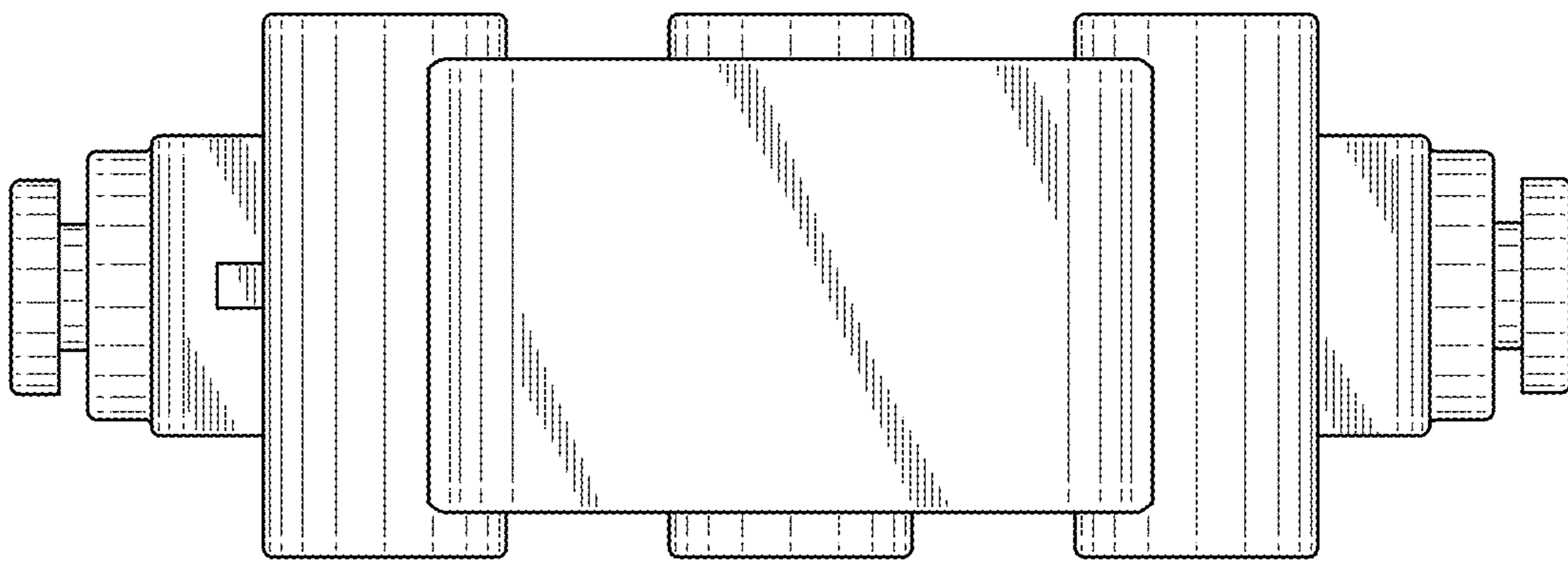




FIG. 15

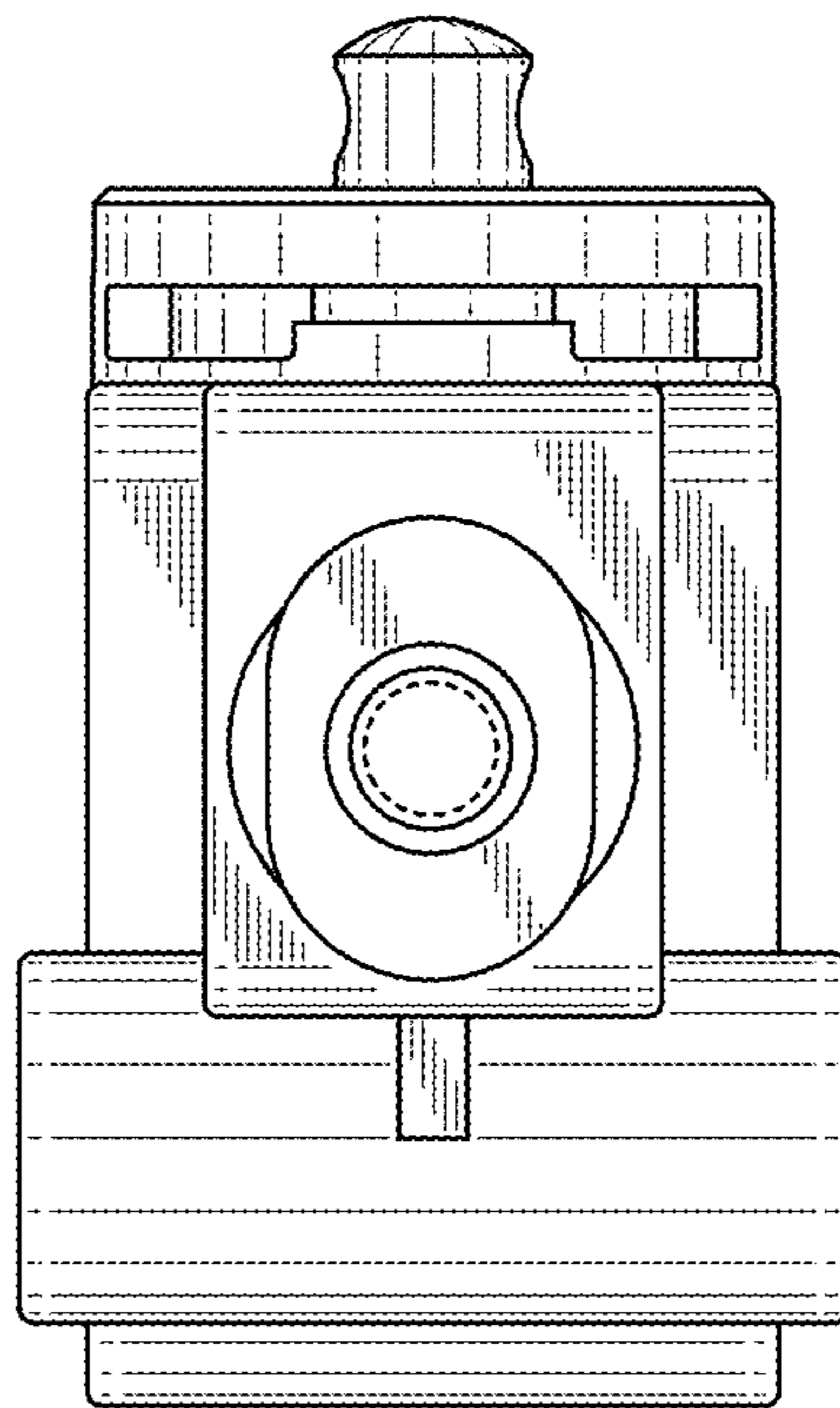


FIG. 16

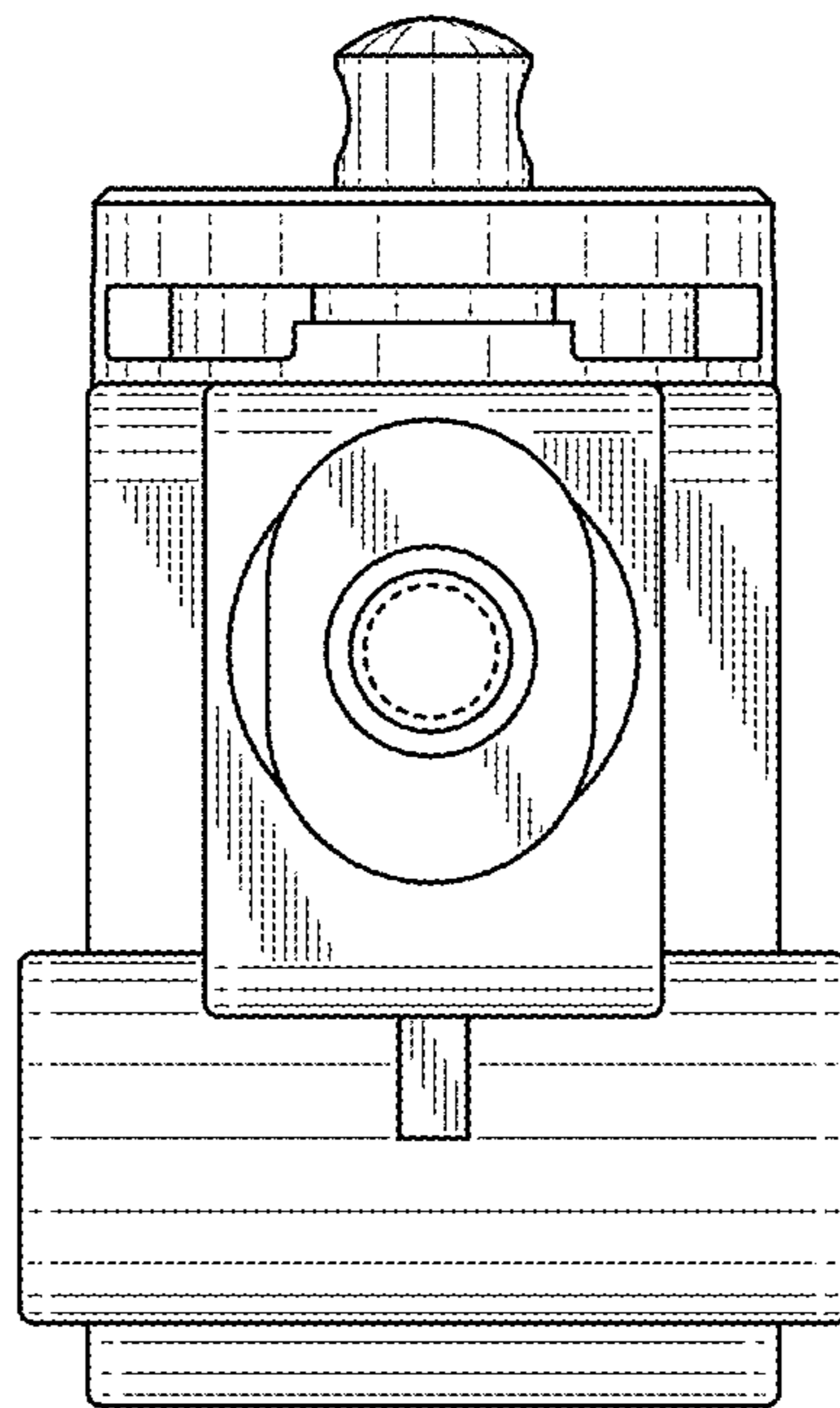


FIG. 17

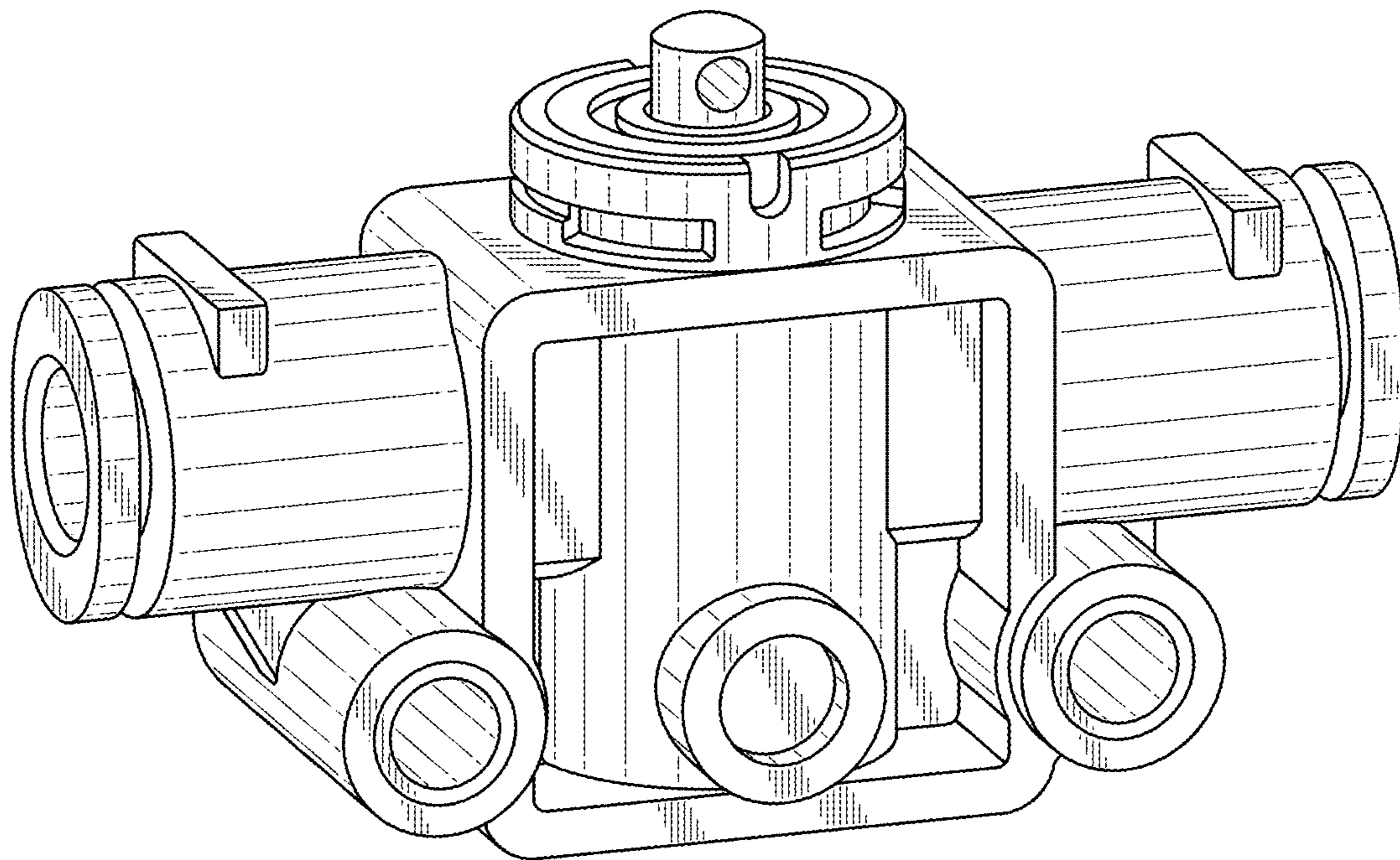


FIG. 18

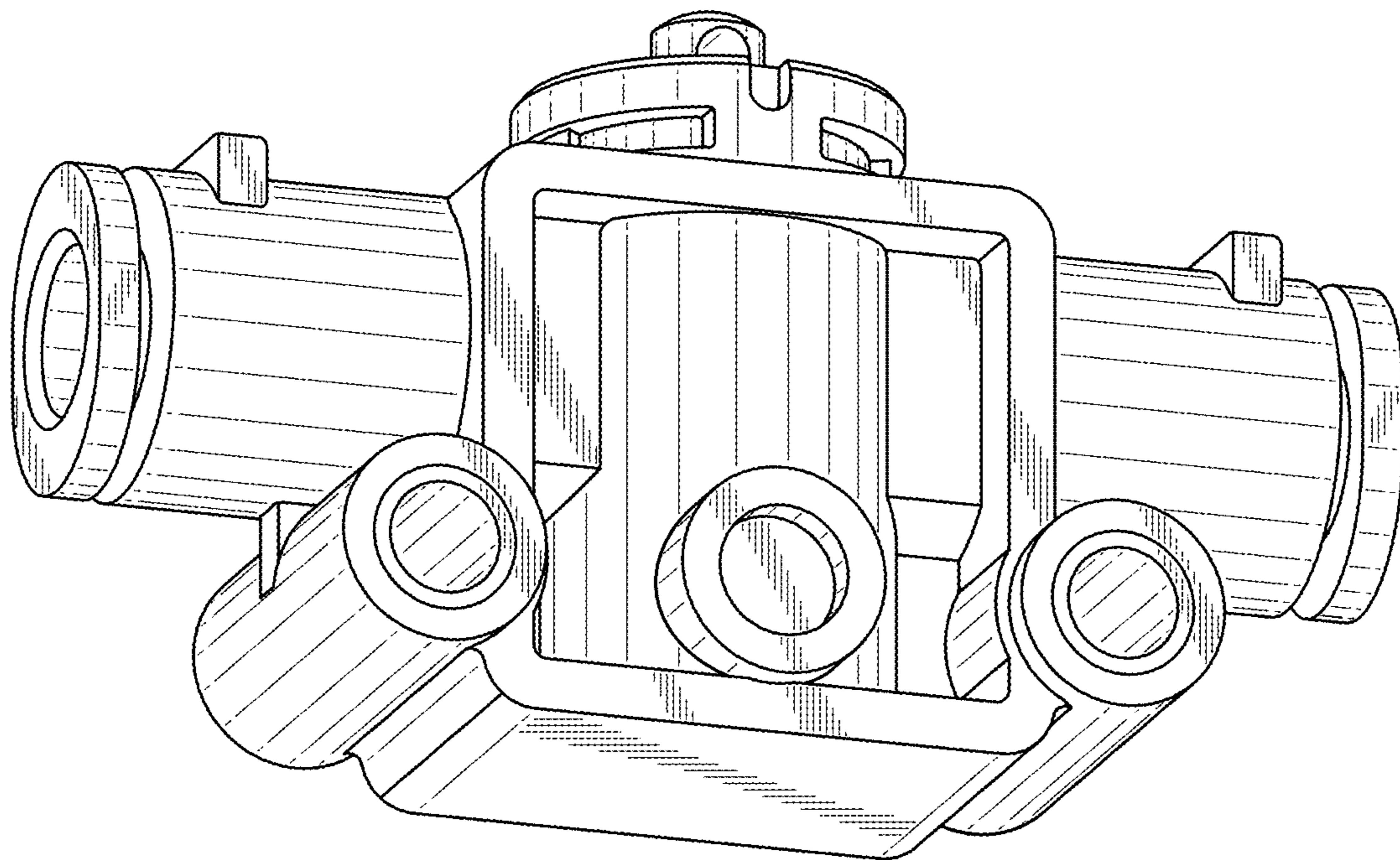


FIG. 19

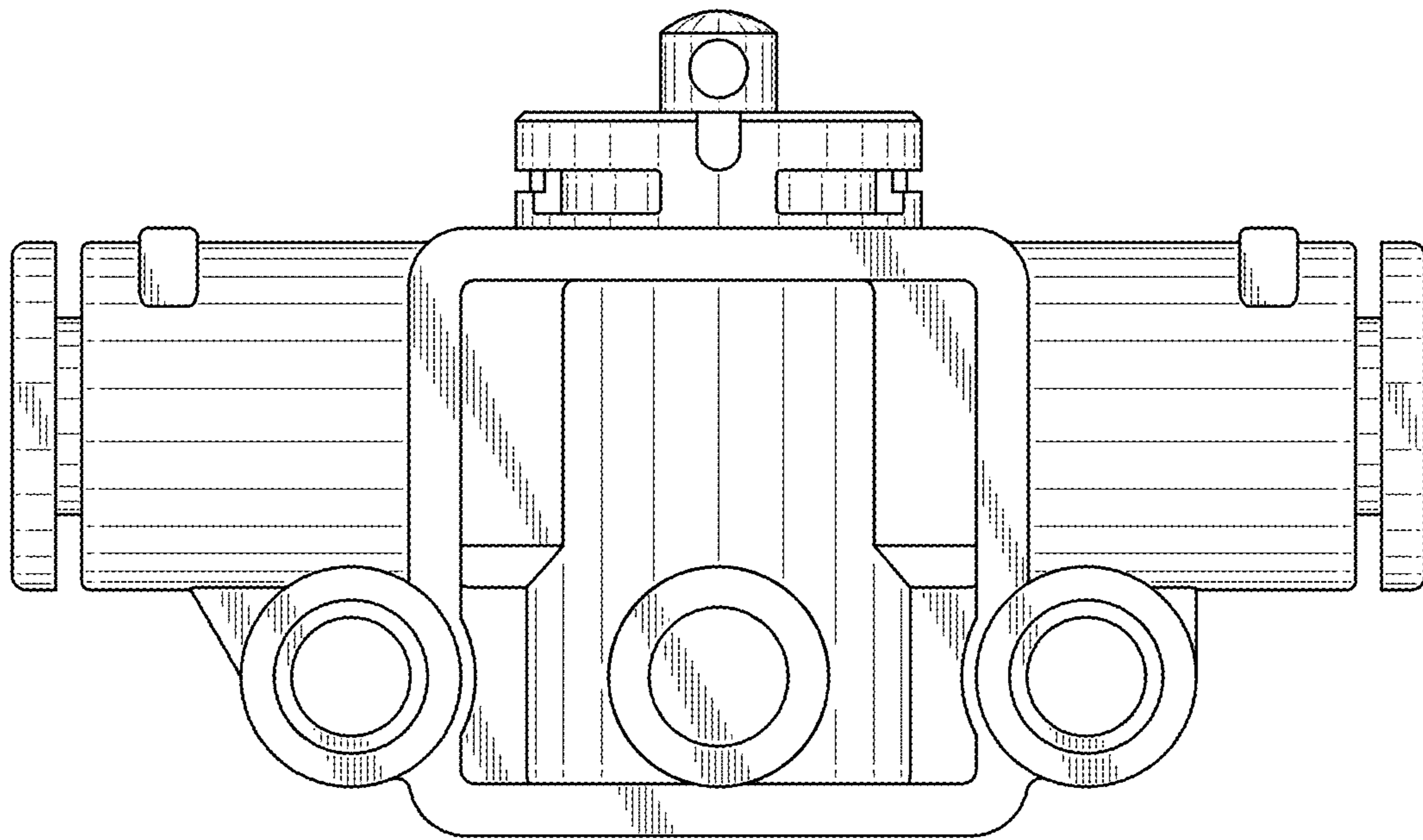


FIG. 20

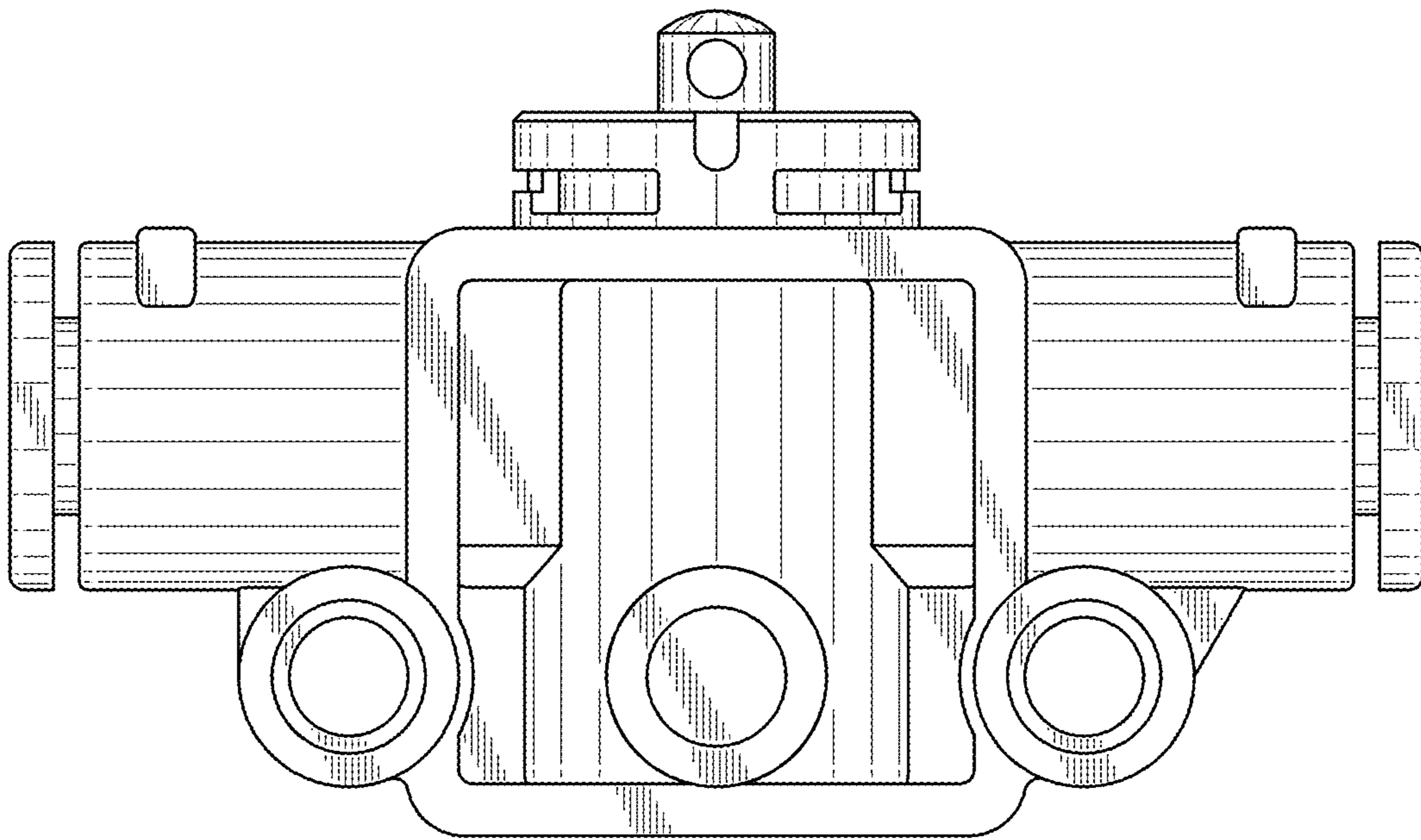


FIG. 21

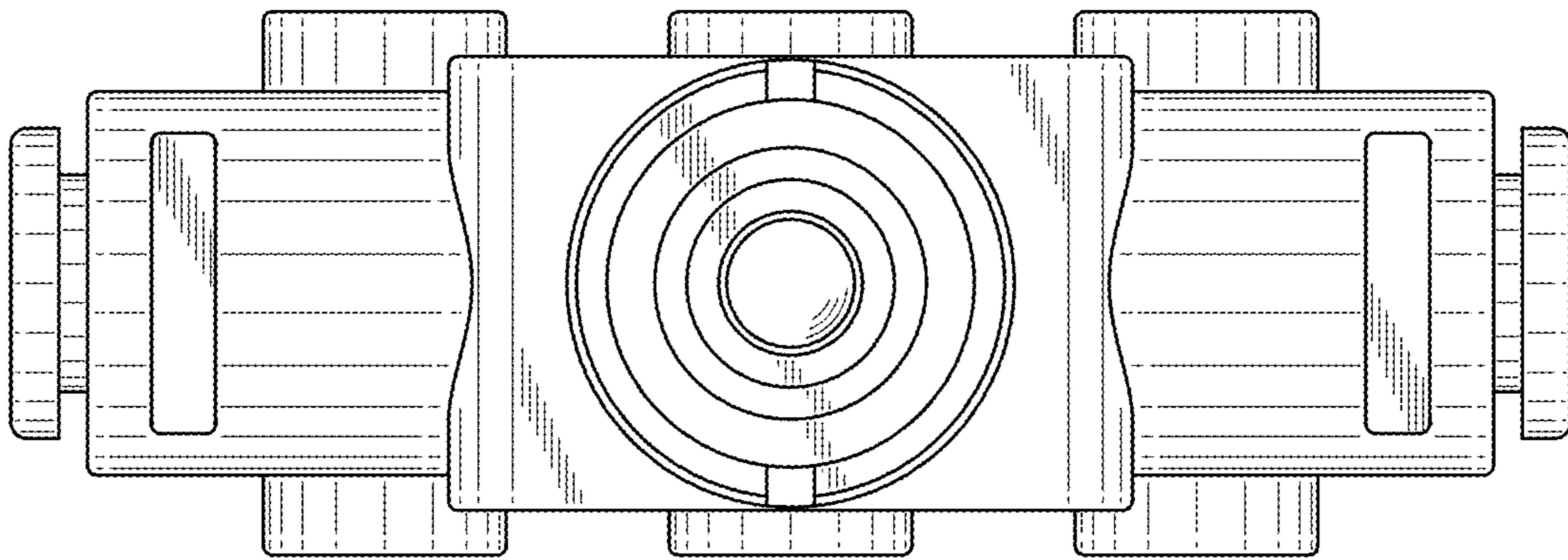


FIG. 22

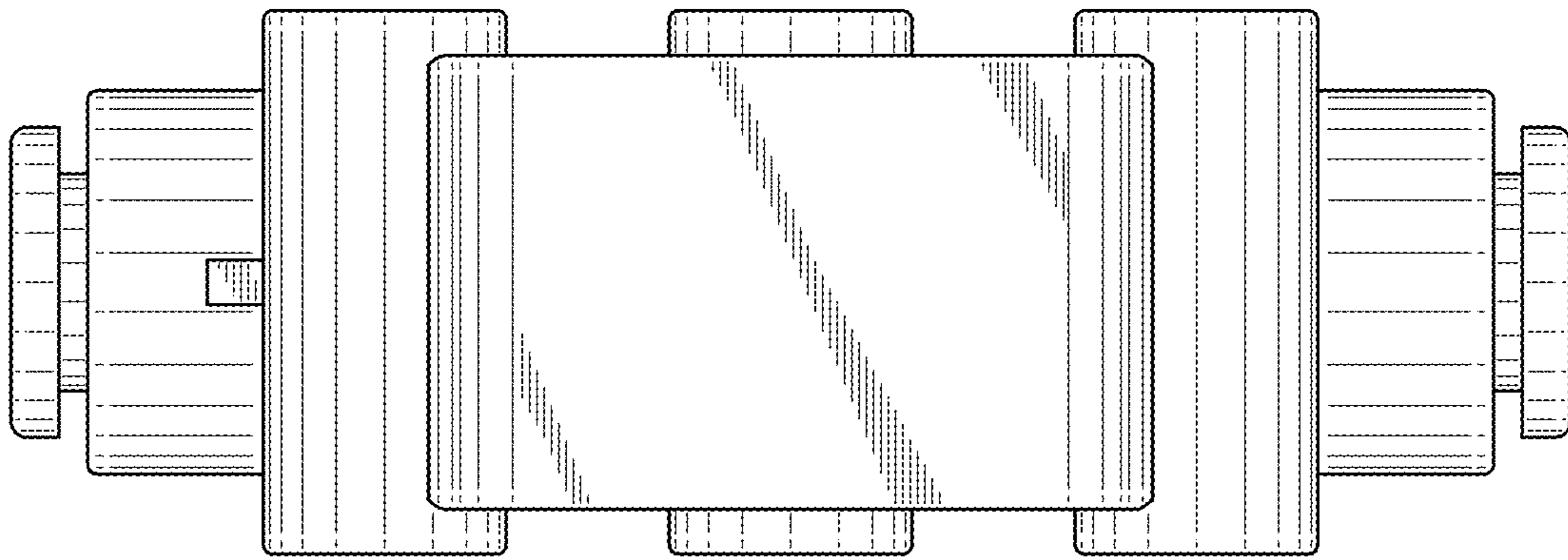




FIG. 23

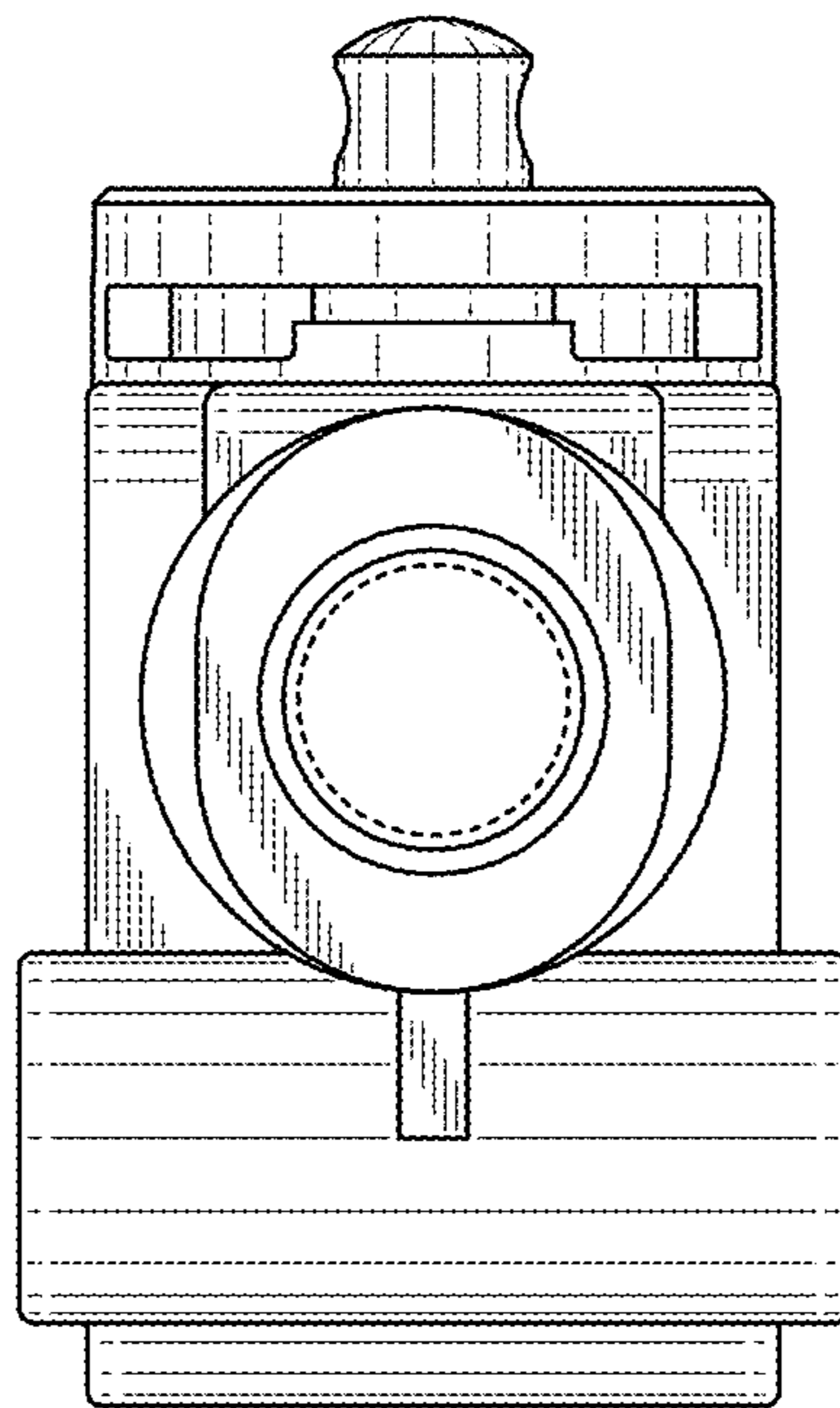


FIG. 24

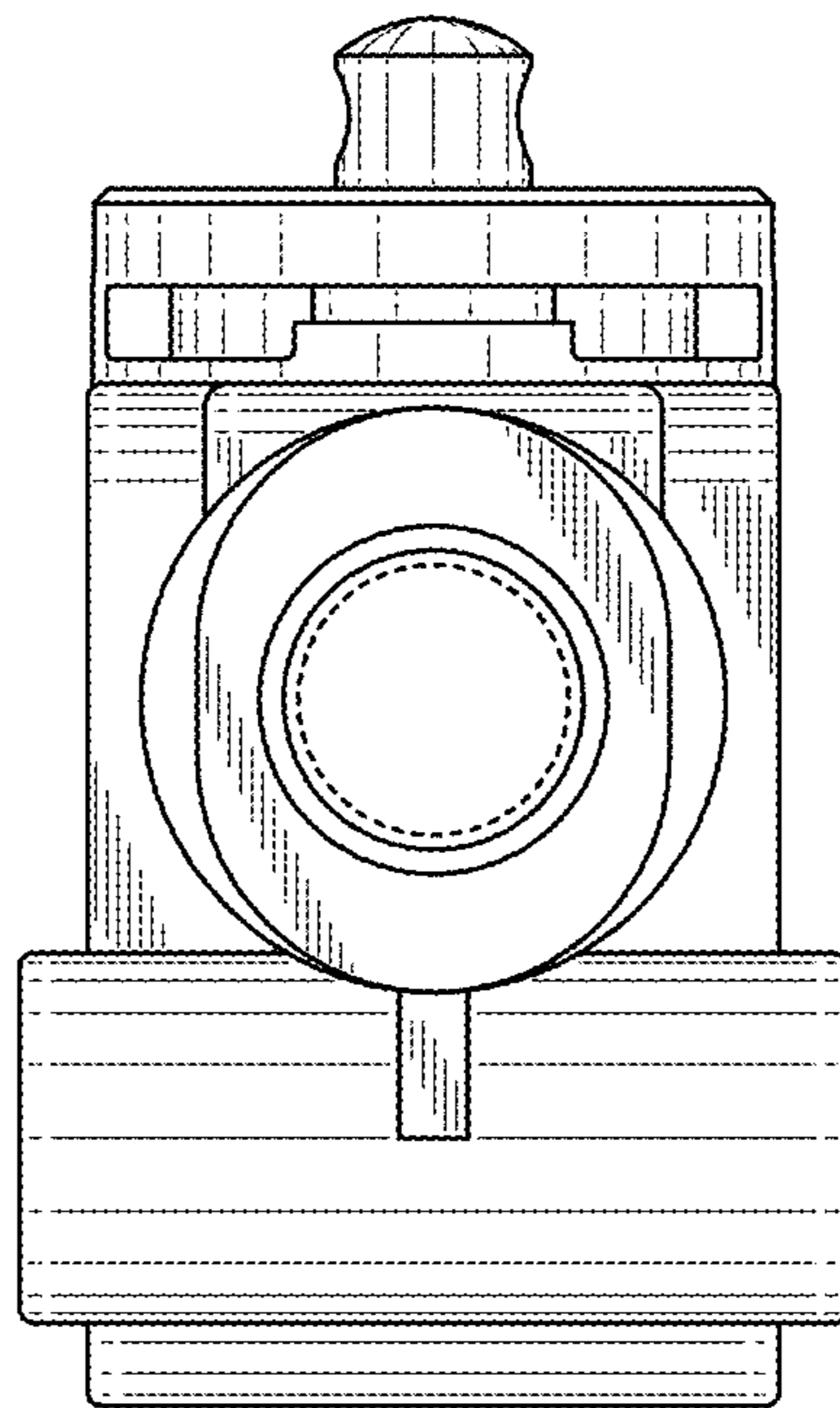


FIG. 25

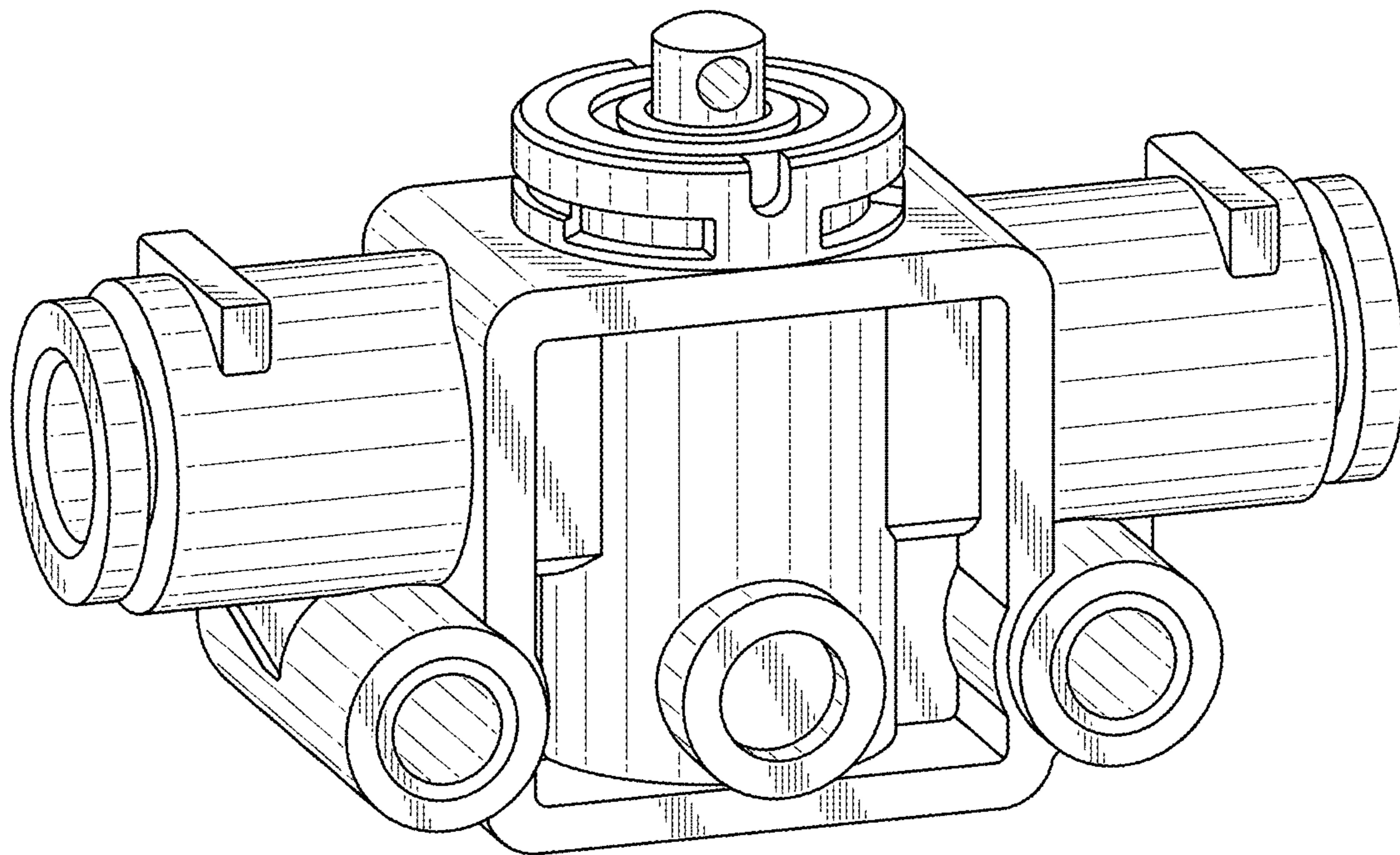


FIG. 26

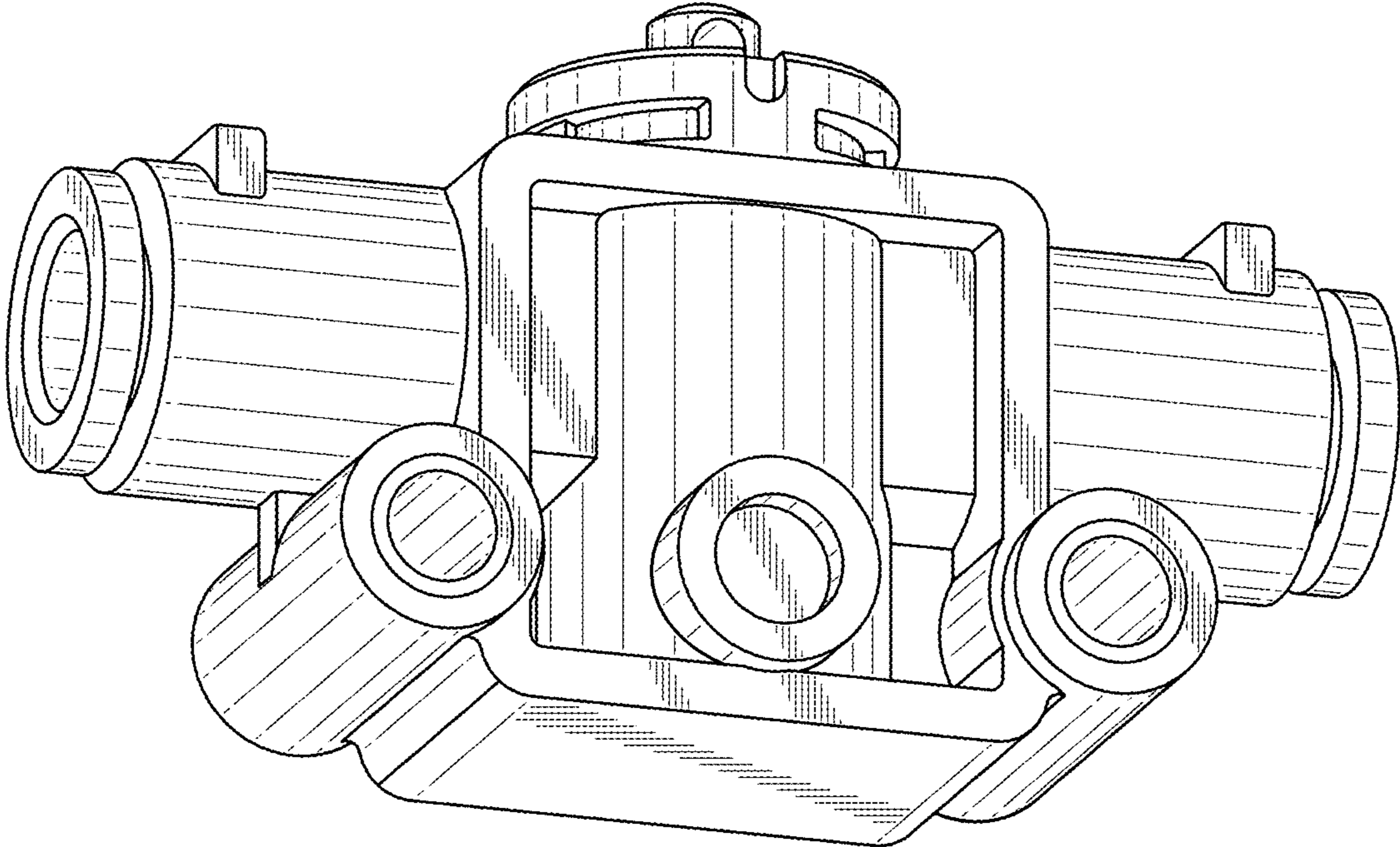


FIG. 27

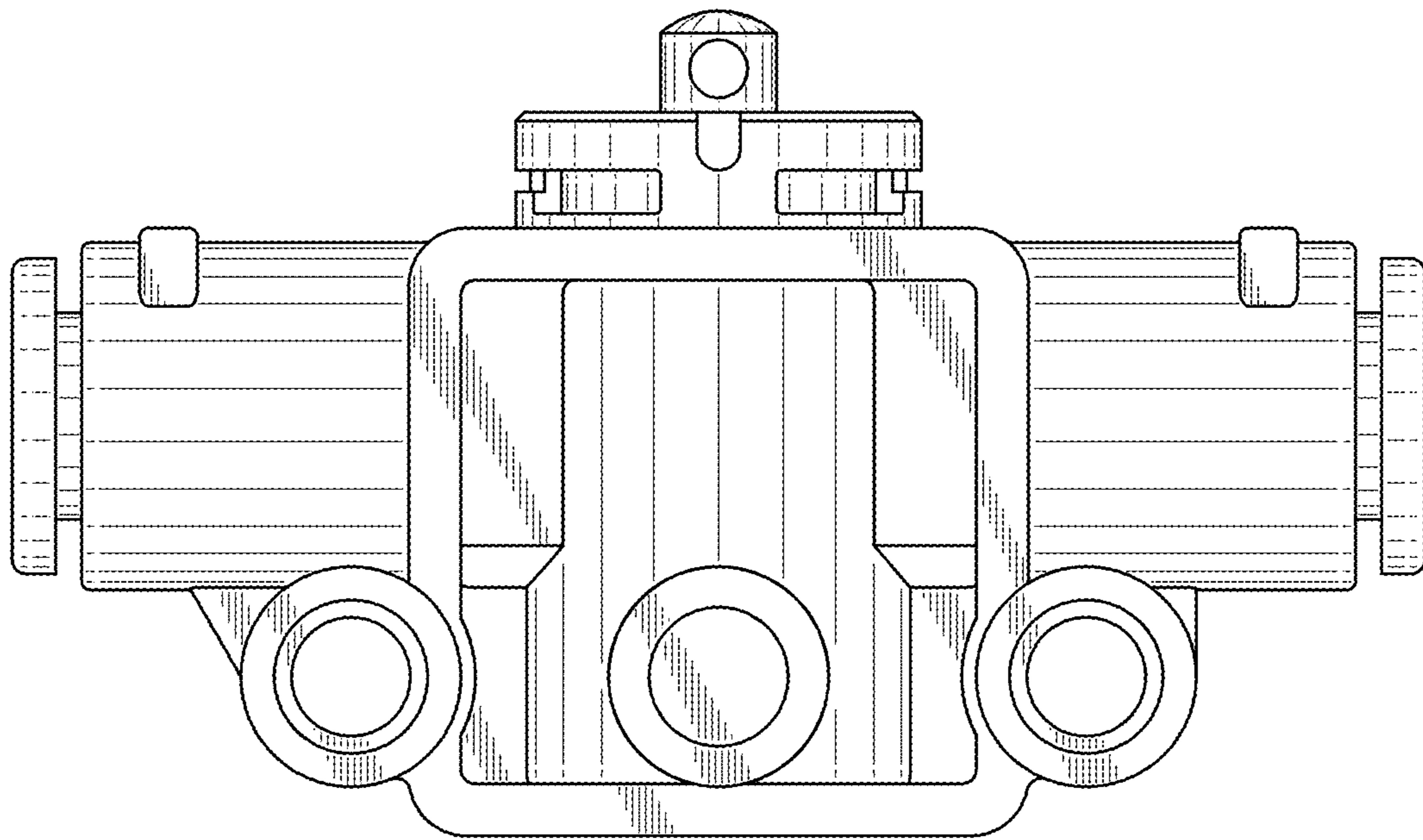


FIG. 28

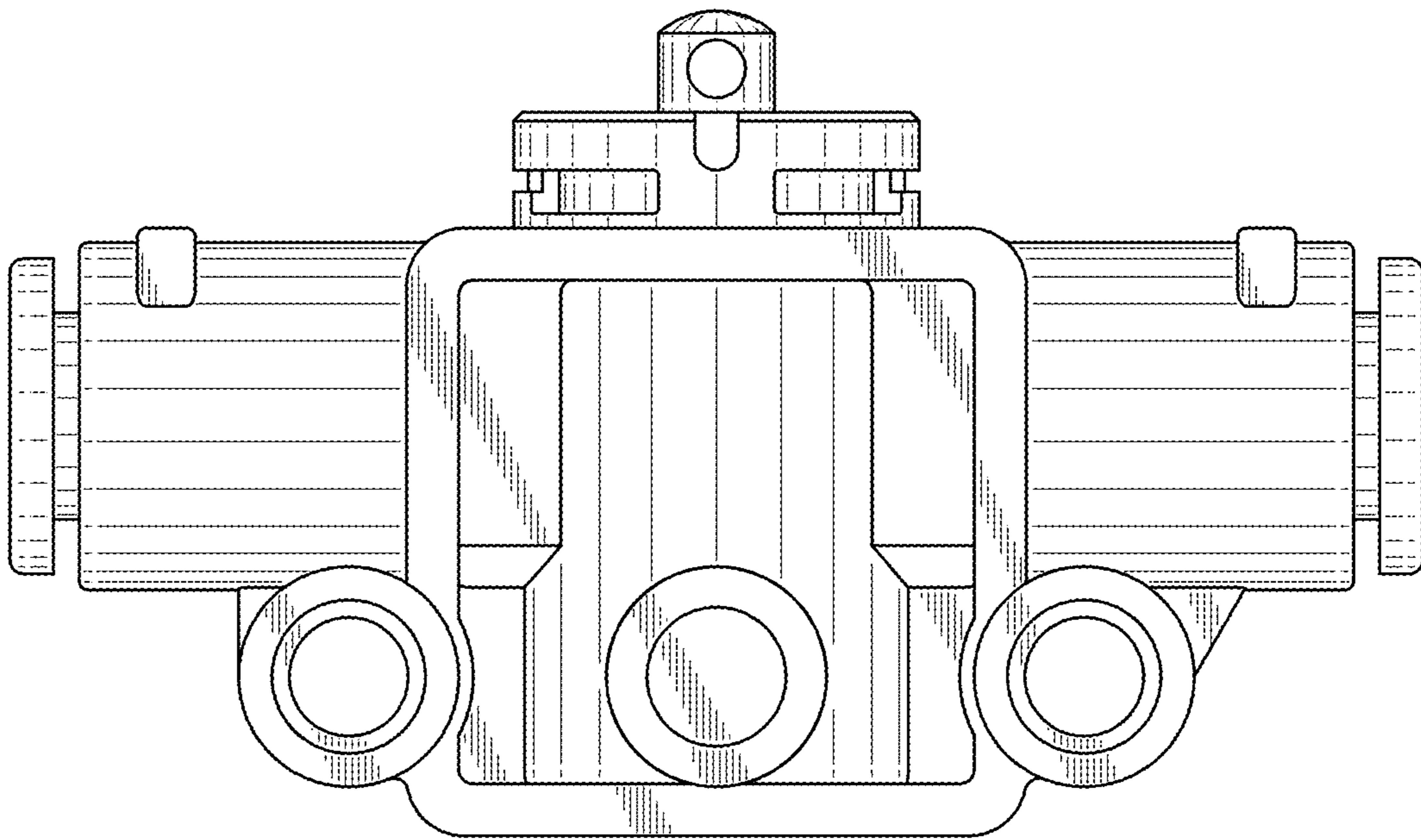


FIG. 29

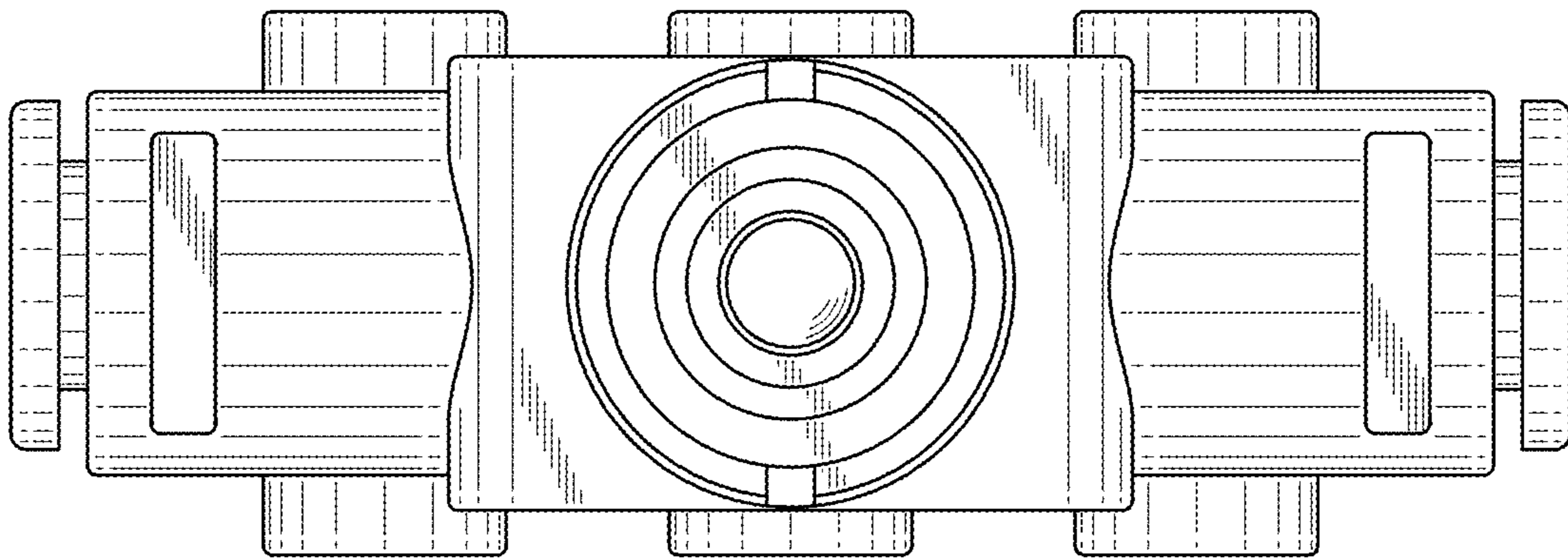


FIG. 30

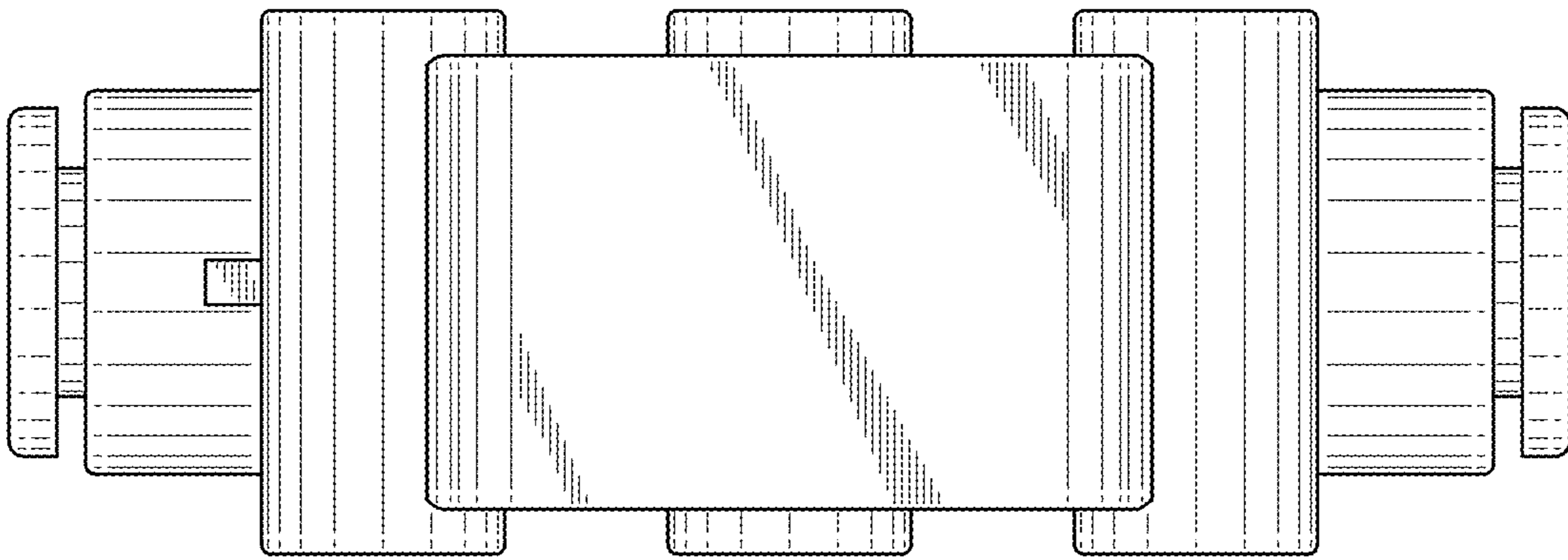




FIG. 31

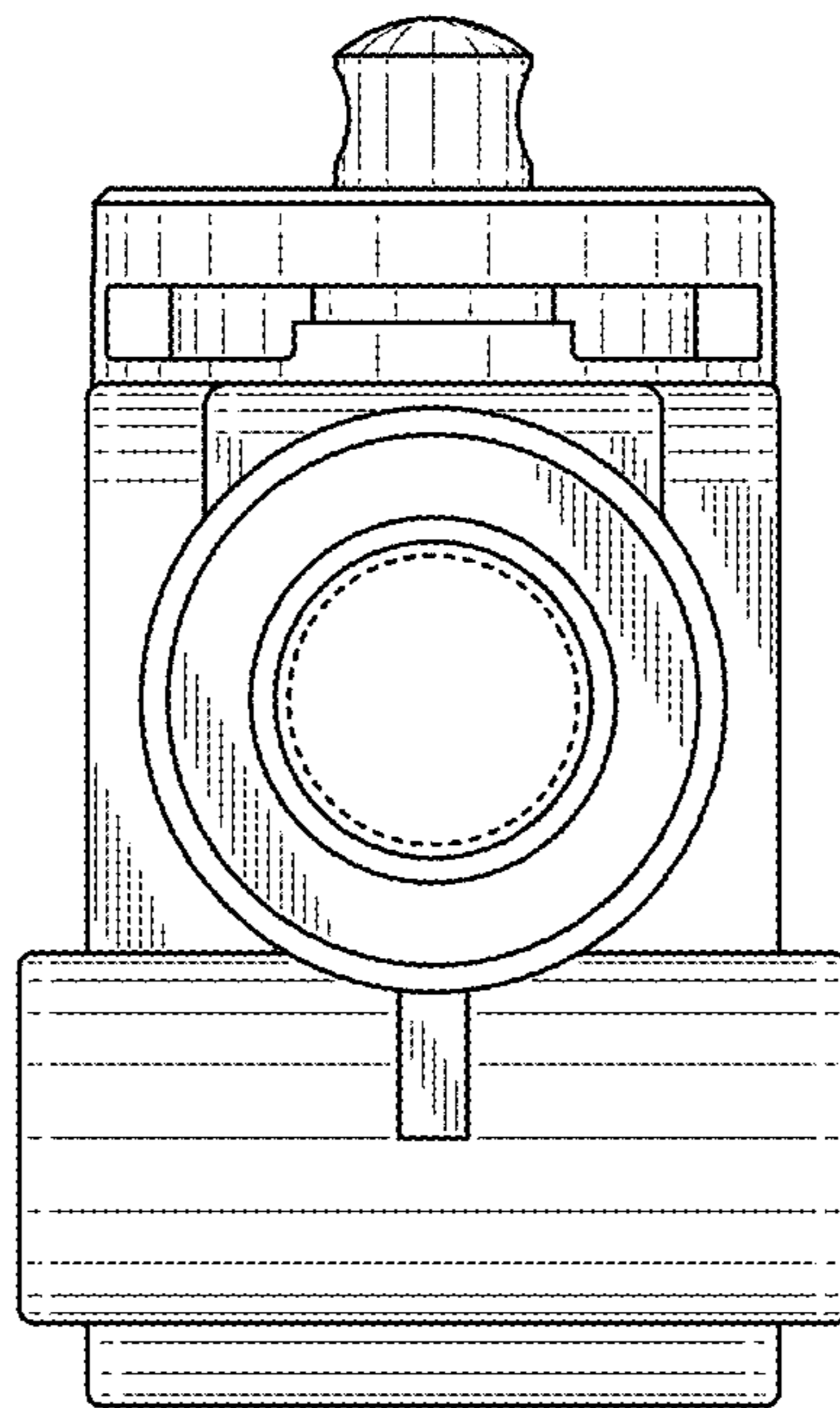


FIG. 32

