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

(10) **Patent No.:** **US D678,912 S**  
(45) **Date of Patent:** **\*\* Mar. 26, 2013**

(54) **RODLESS CYLINDER**

D655,314 S 3/2012 Yoshimura et al.  
D660,191 S \* 5/2012 Asaba ..... D10/85  
D670,741 S \* 11/2012 Abe et al. .... D15/7

(75) Inventors: **Takashi Abe**, Moriya (JP); **Soichi Sato**,  
Kashiwa (JP)

**FOREIGN PATENT DOCUMENTS**

(73) Assignee: **SMC Kabushiki Kaisha**, Tokyo (JP)

JP D1147598 7/2002

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

\* cited by examiner

(21) Appl. No.: **29/432,425**

*Primary Examiner* — Ralf Seifert

(22) Filed: **Sep. 14, 2012**

(74) *Attorney, Agent, or Firm* — Holtz, Holtz, Goodman &  
Chick, PC

**Related U.S. Application Data**

(62) Division of application No. 29/410,019, filed on Jan. 3,  
2012, now Pat. No. Des. 670,741.

(57) **CLAIM**

The ornamental design for a rodless cylinder, as shown and  
described.

(30) **Foreign Application Priority Data**

Jul. 5, 2011 (JP) ..... 2011-015353  
Jul. 5, 2011 (JP) ..... 2011-015354

**DESCRIPTION**

(51) **LOC (9) Cl.** ..... **15-02**

(52) **U.S. Cl.** ..... **D15/7**

(58) **Field of Classification Search** ..... D15/7-9;  
D23/231, 232, 225; 417/60, 235, 265, 321,  
417/355, 358, 363, 359, 410.1, 415-416,  
417/405, 900; 60/408, 412; 184/26-37;  
415/140-147; 123/495, 509

See application file for complete search history.

FIG. 1 is a top, front and left-side perspective view of a rodless  
cylinder showing a first embodiment of our new design;  
FIG. 2 is a bottom, rear 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; and  
FIG. 8 is a right side view thereof.  
FIG. 9 is a top, front and left-side perspective view of a rodless  
cylinder showing a second embodiment of our new design;  
FIG. 10 is a bottom, rear and right-side perspective view  
thereof;  
FIG. 11 is a front view thereof;  
FIG. 12 is a rear view thereof;  
FIG. 13 is a top plan view thereof;  
FIG. 14 is a bottom plan view thereof;  
FIG. 15 is a left side view thereof; and,  
FIG. 16 is a right side view thereof.

(56) **References Cited**

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D589,061 S 3/2009 Chu

**1 Claim, 16 Drawing Sheets**

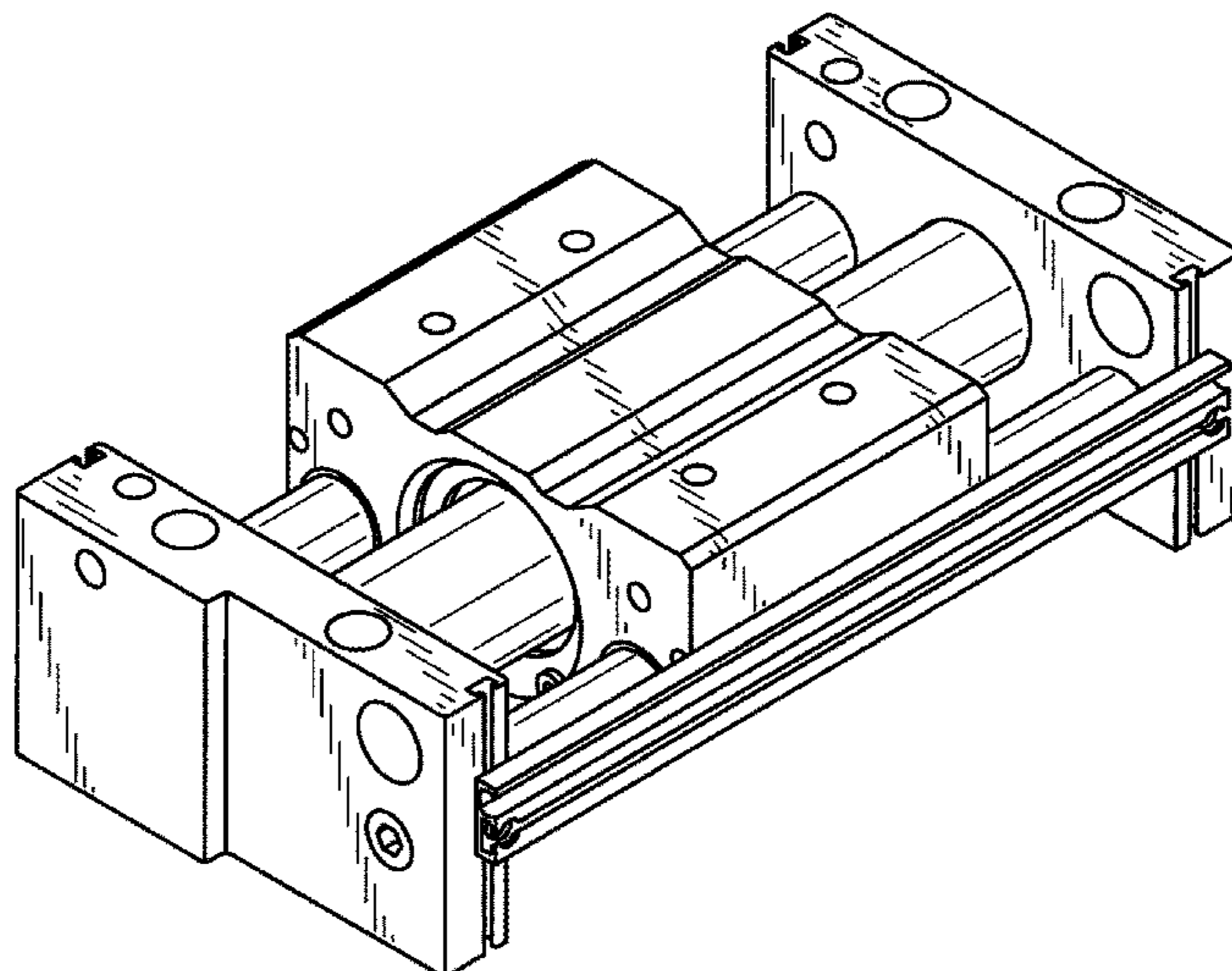


FIG. 1

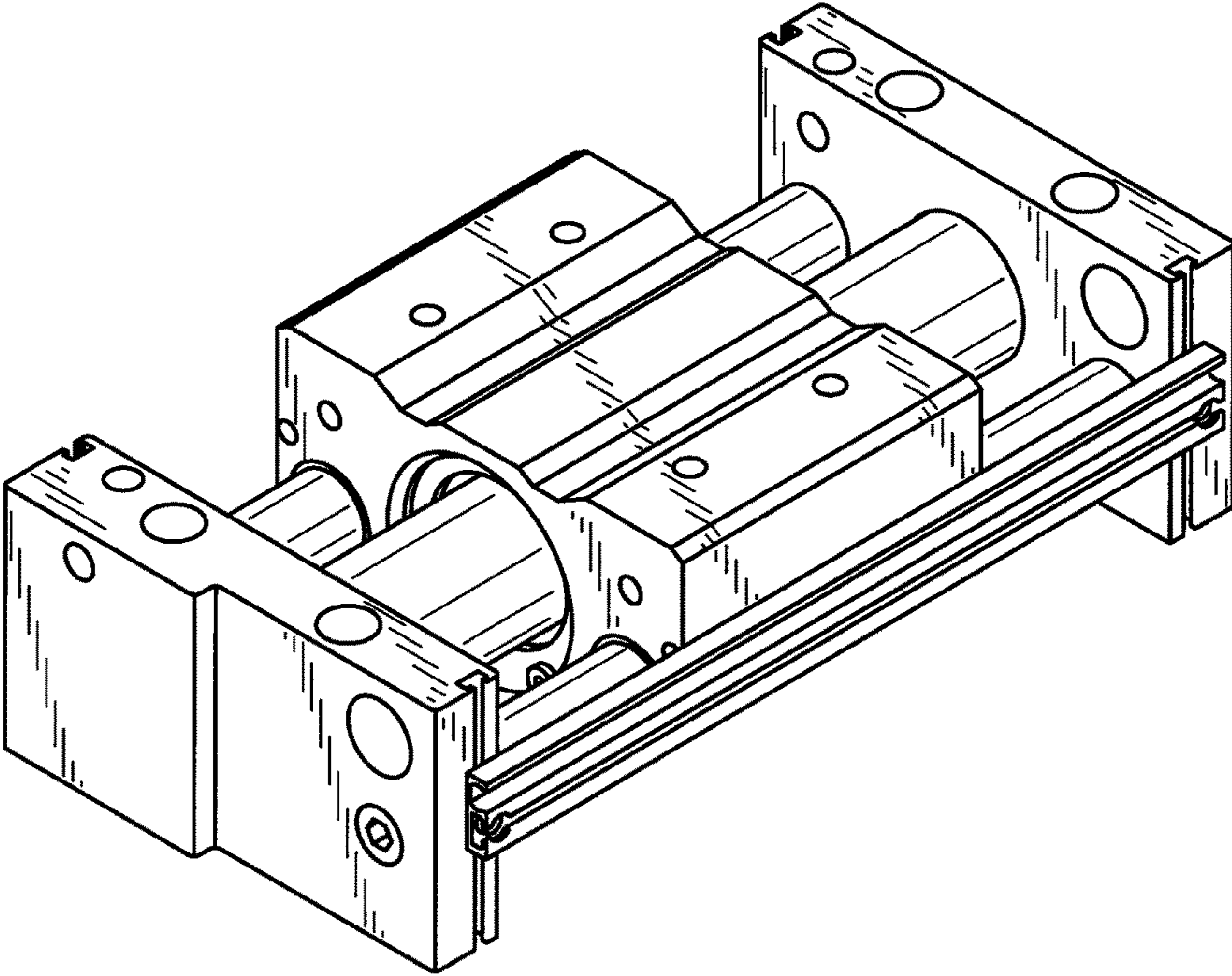


FIG. 2

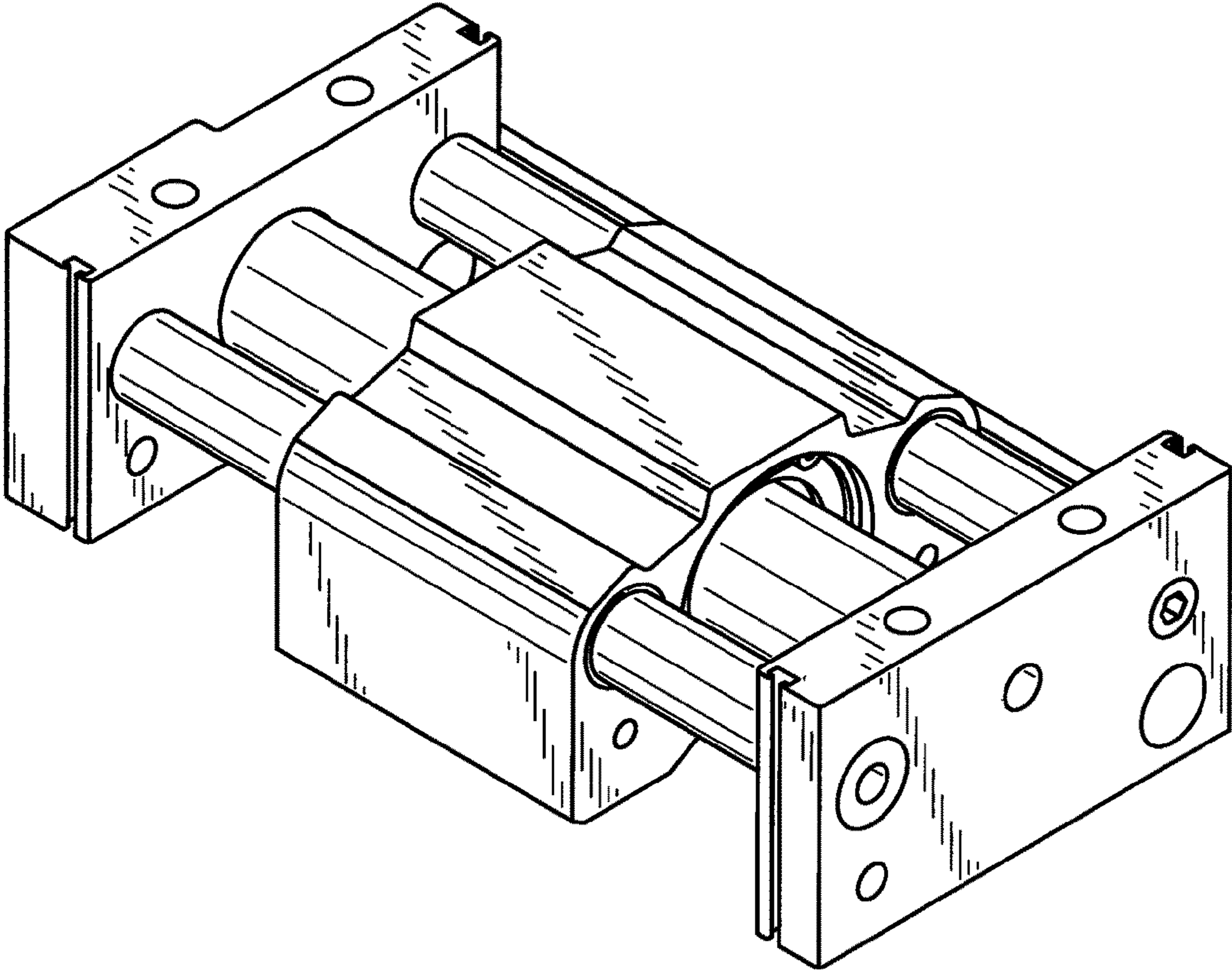


FIG. 3

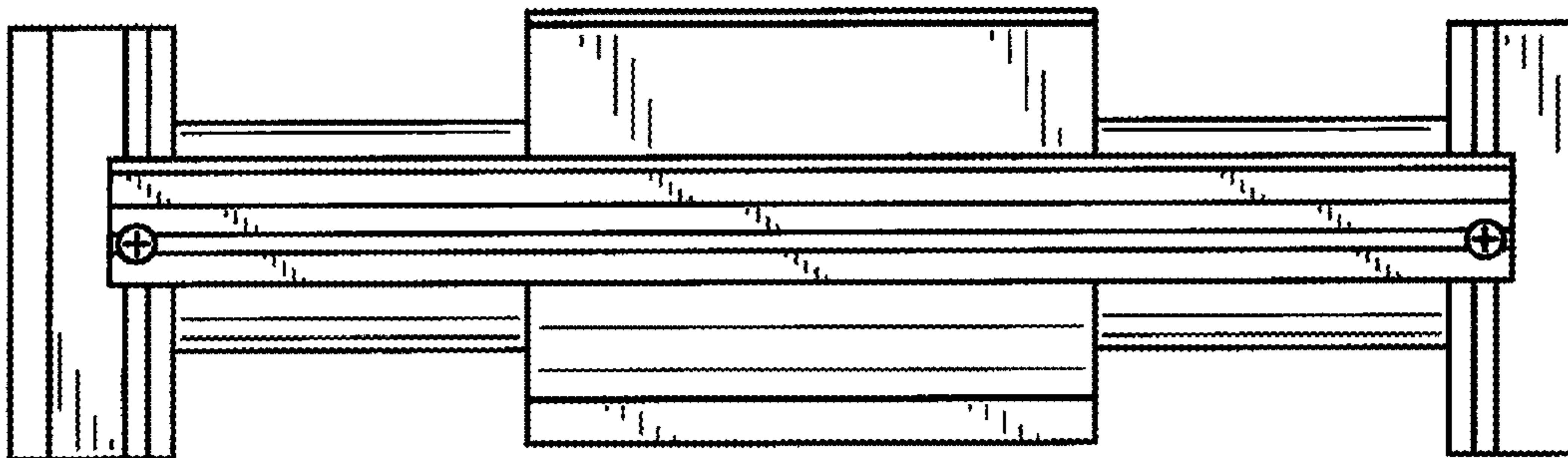


FIG. 4

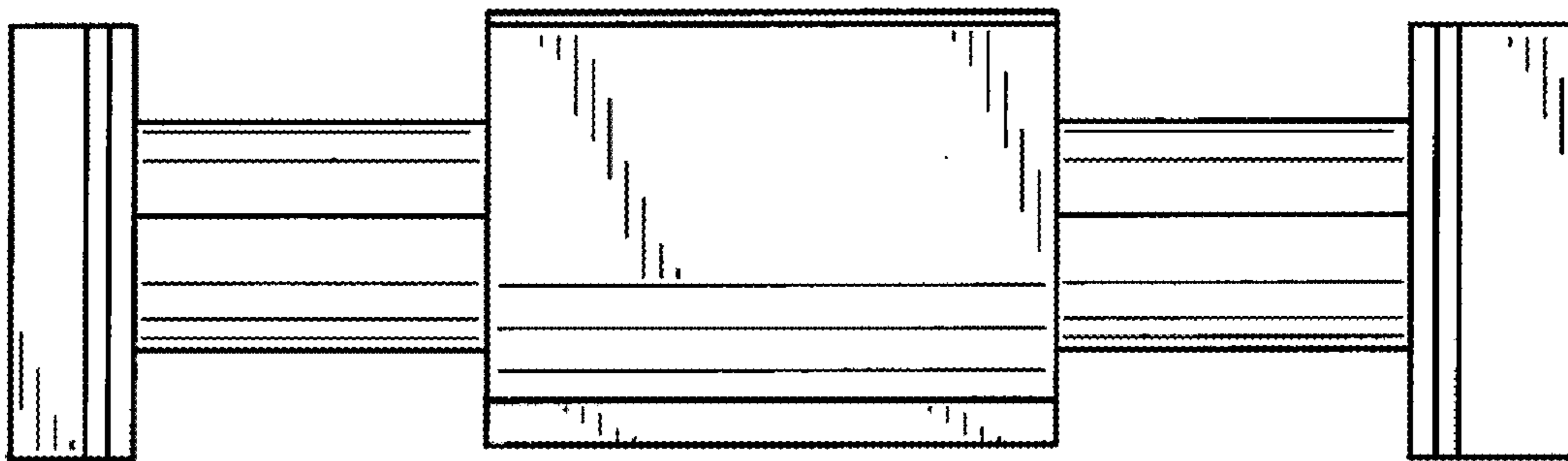


FIG. 5

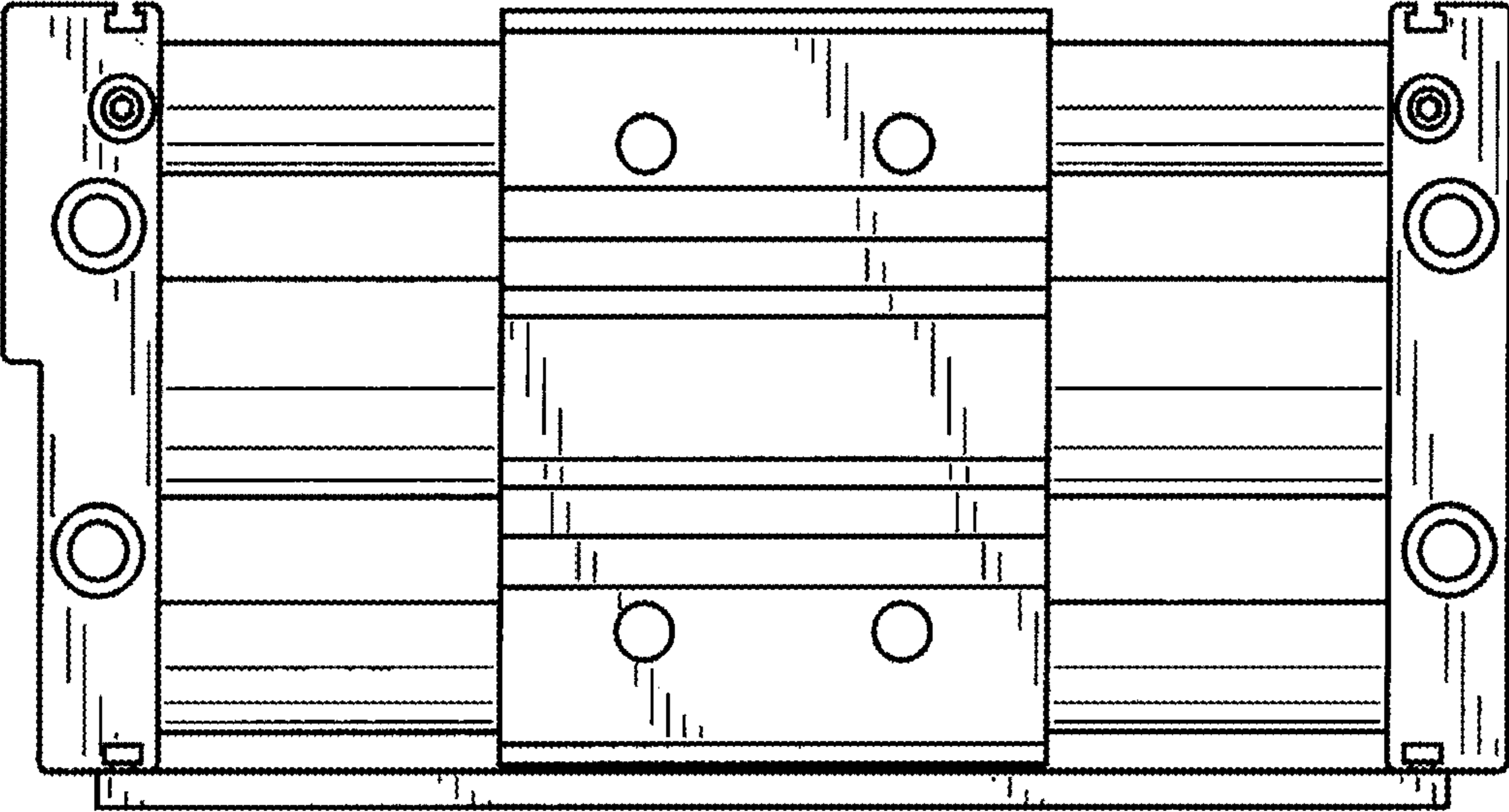


FIG. 6

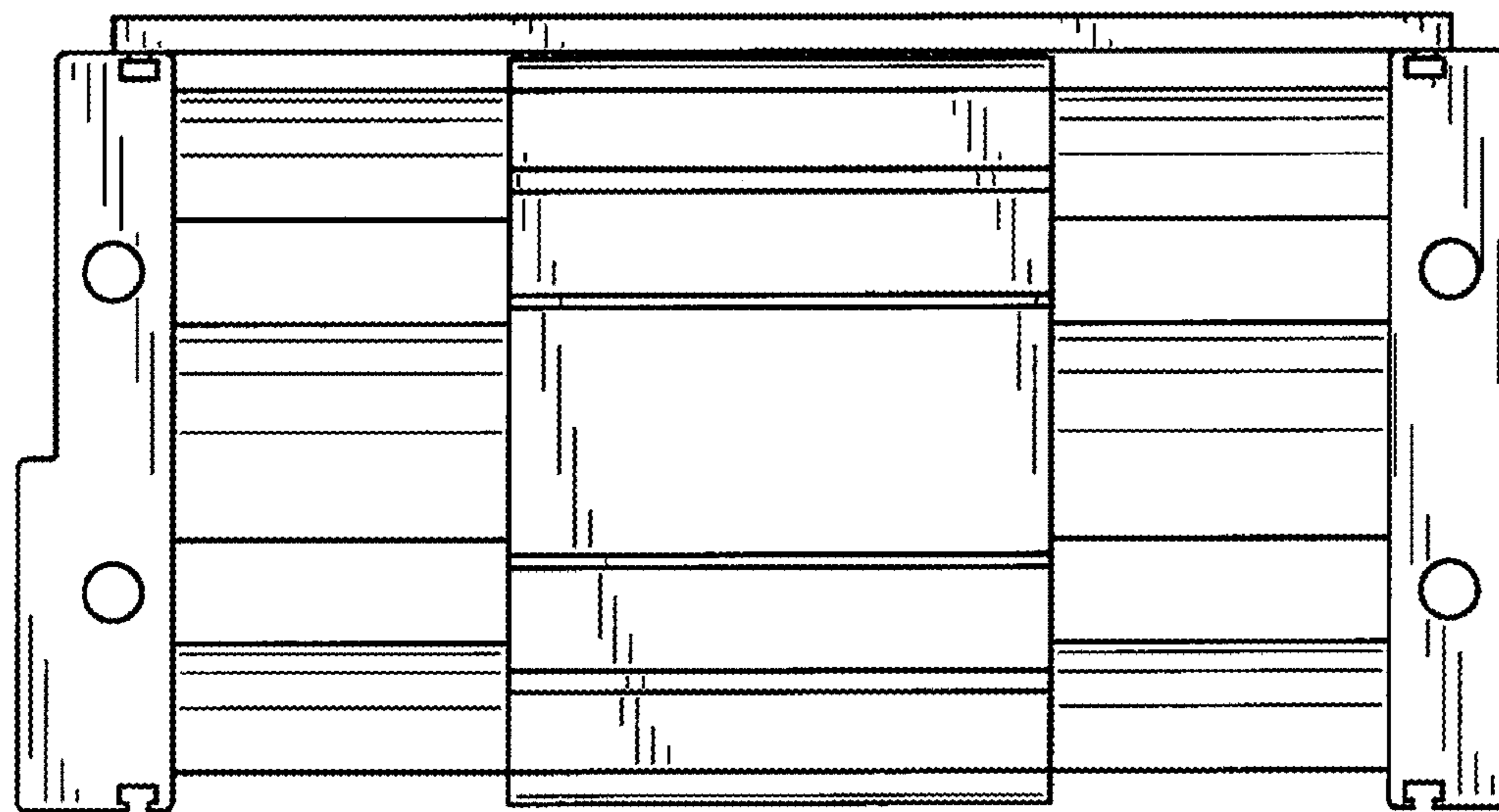


FIG. 7

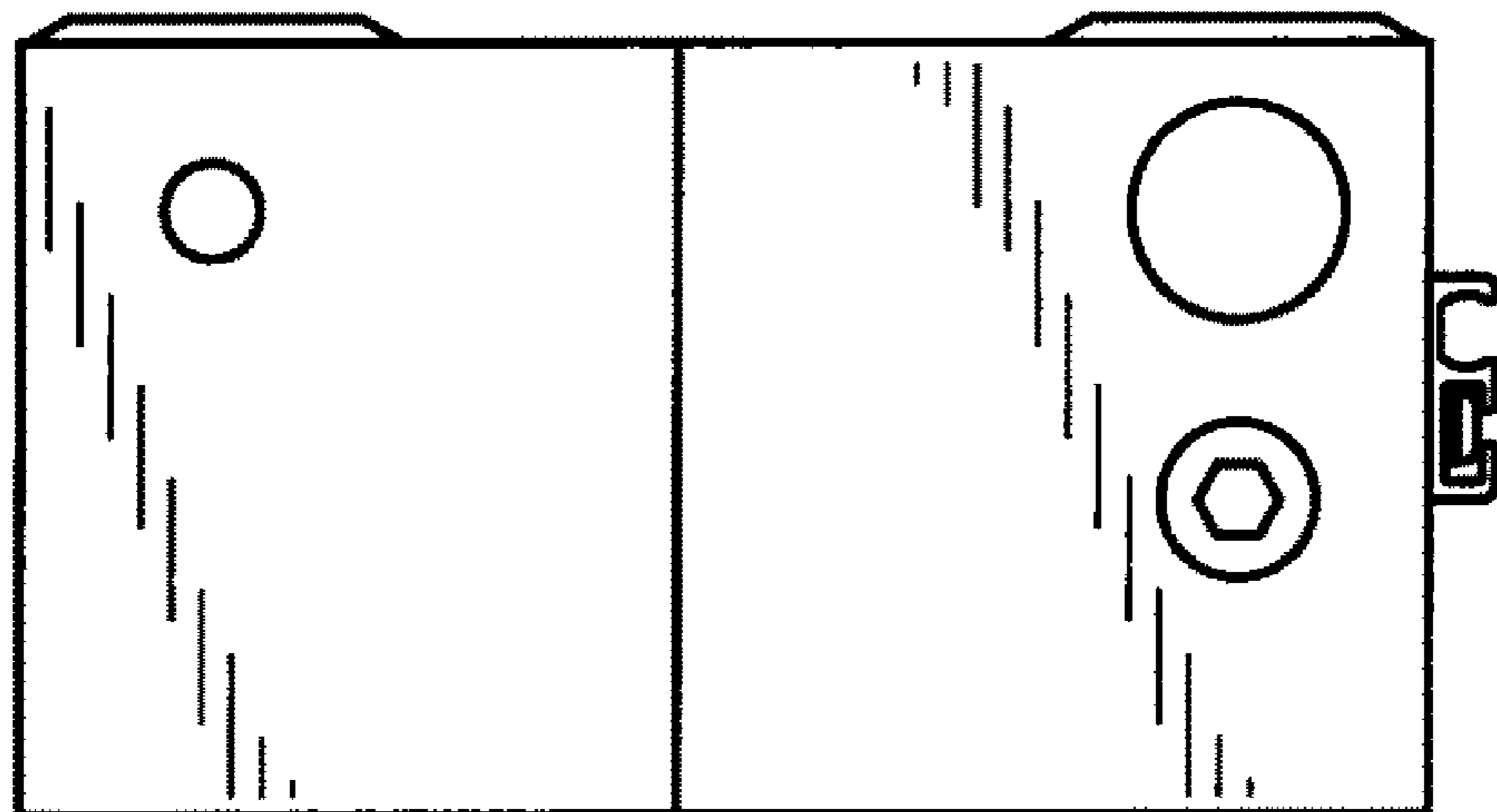




FIG. 8

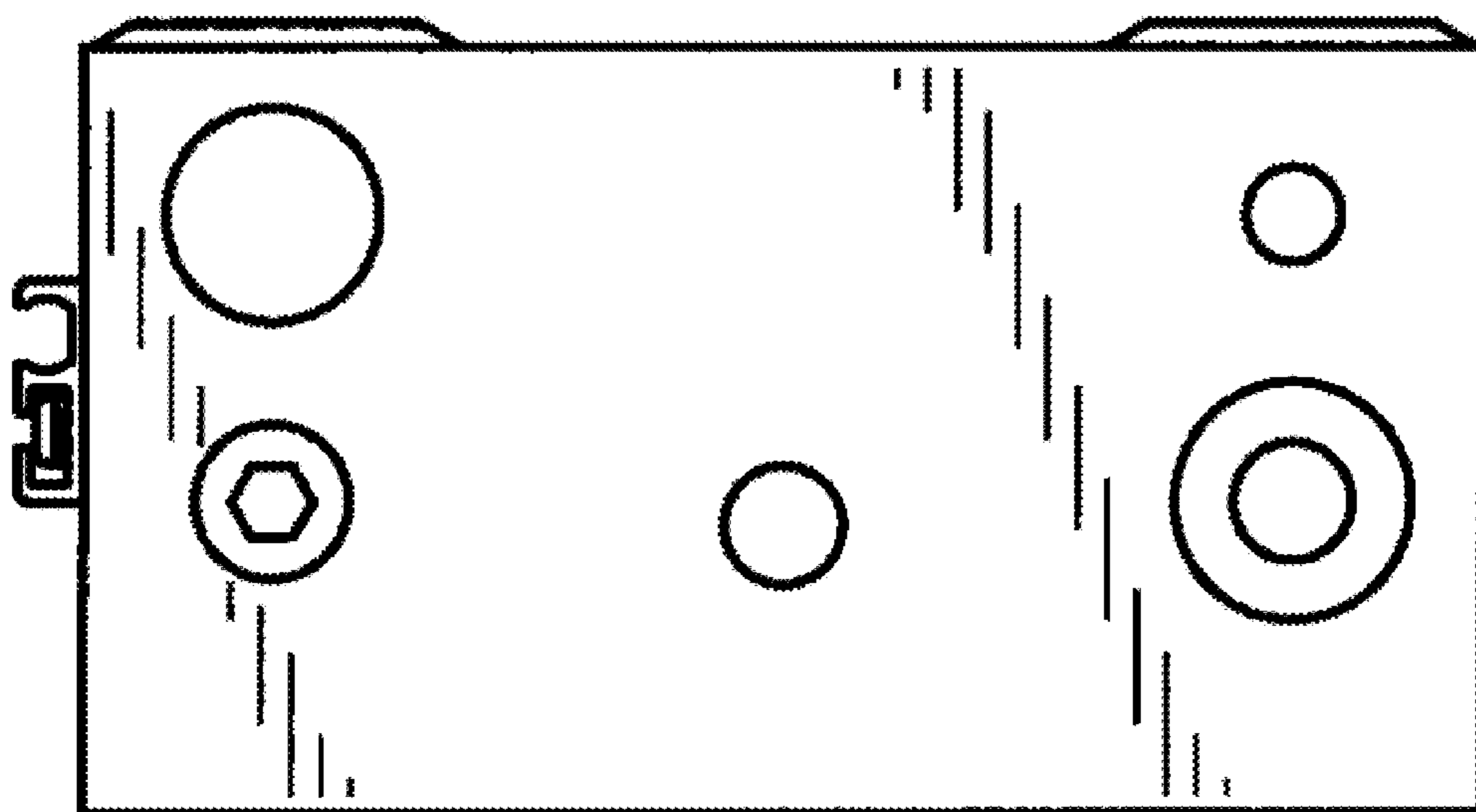


FIG. 9

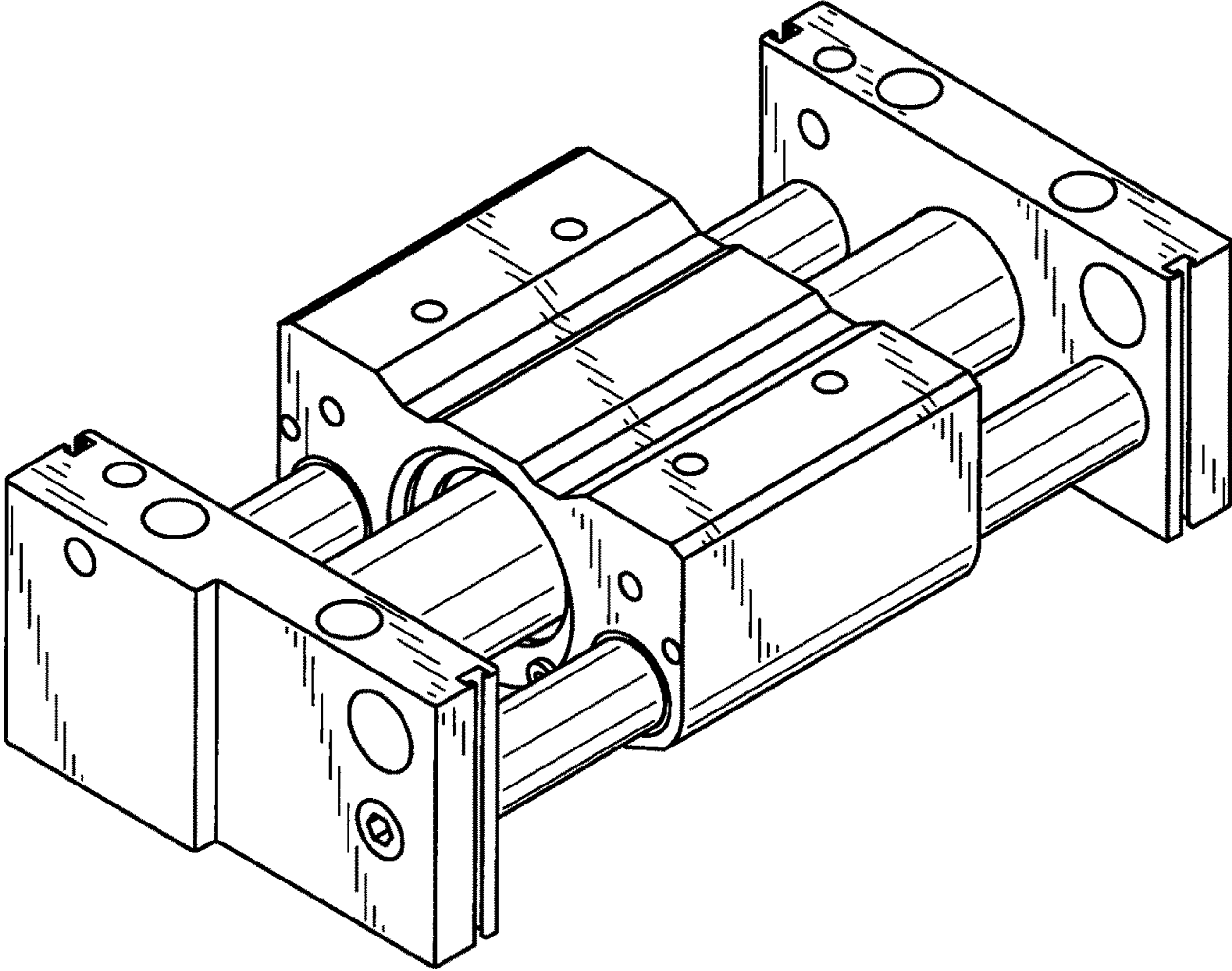


FIG. 10

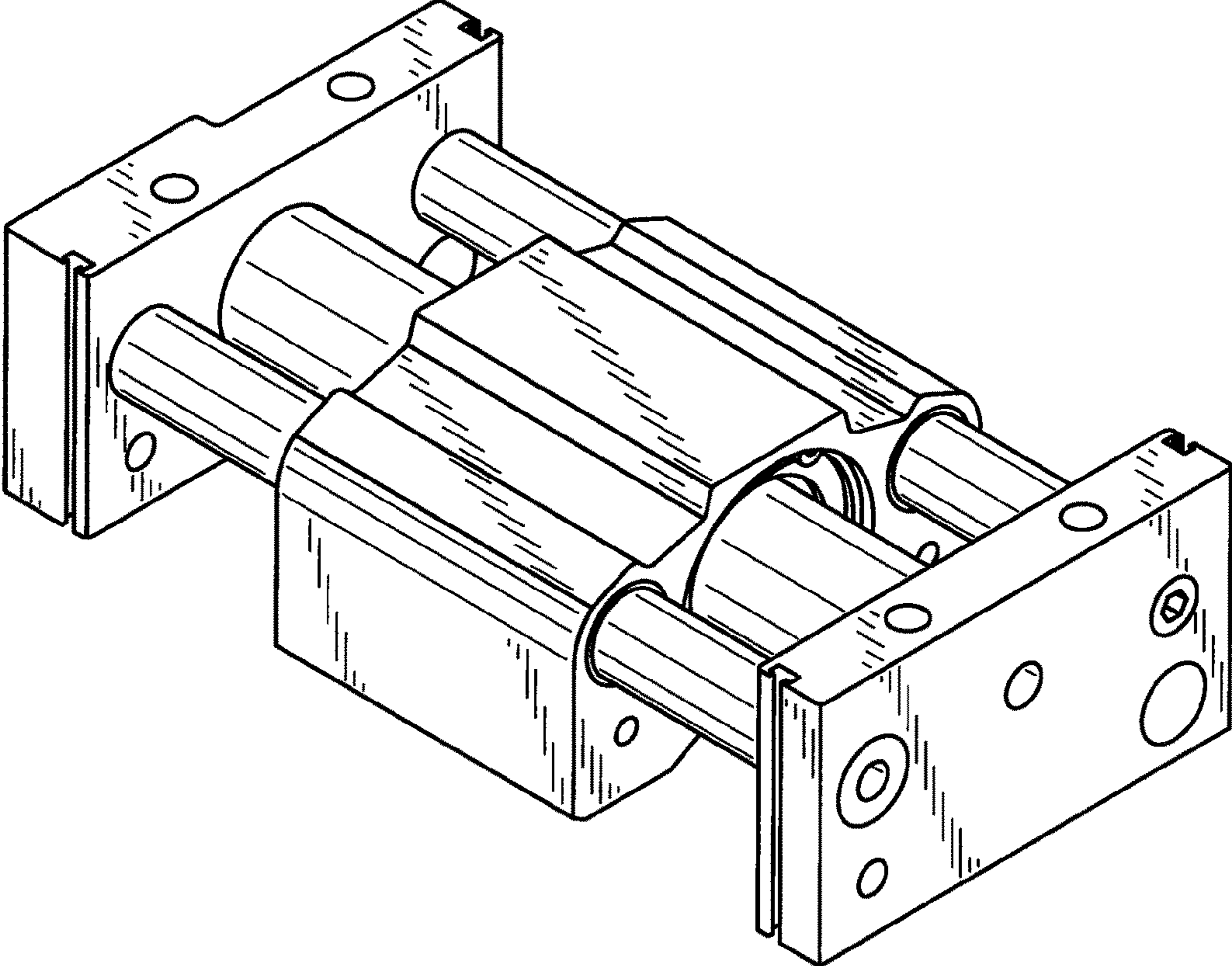


FIG. 11

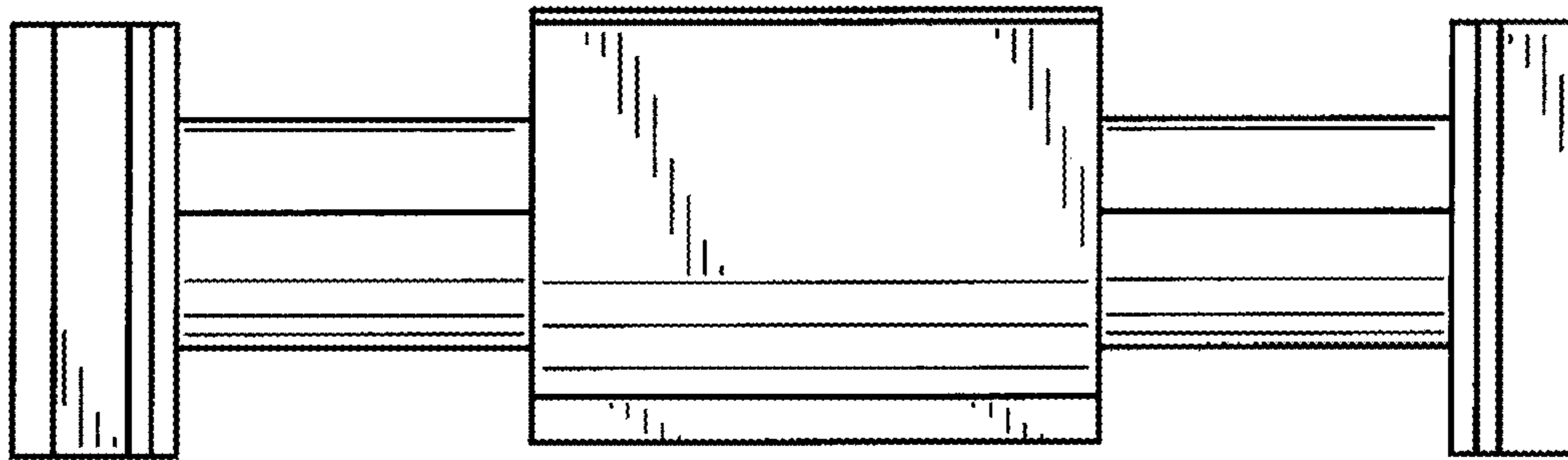


FIG. 12

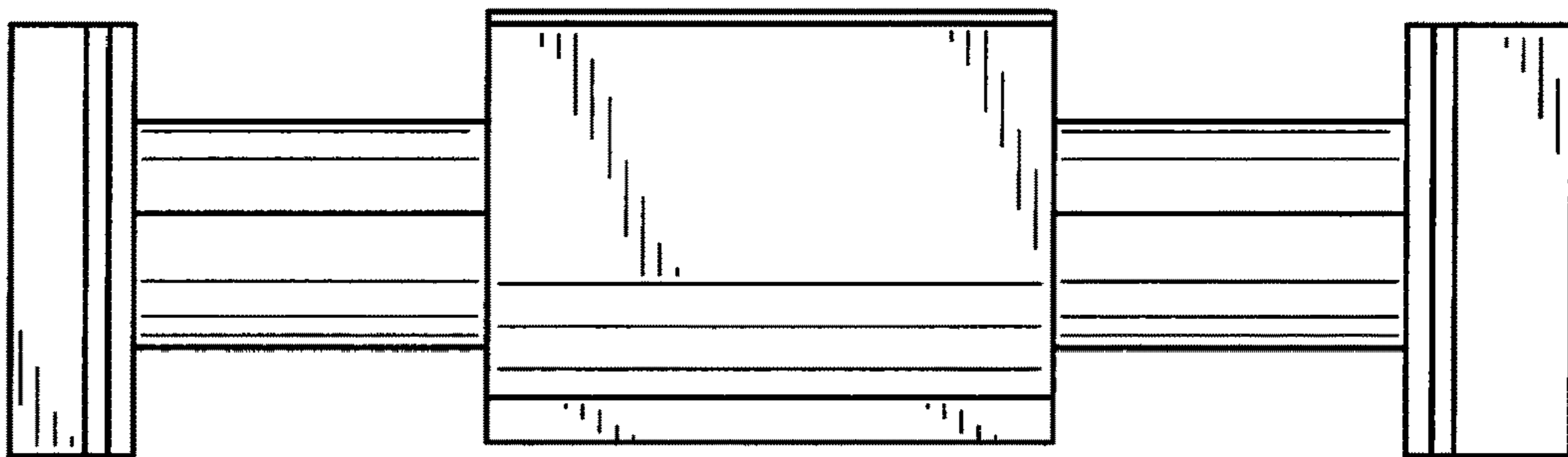


FIG. 13

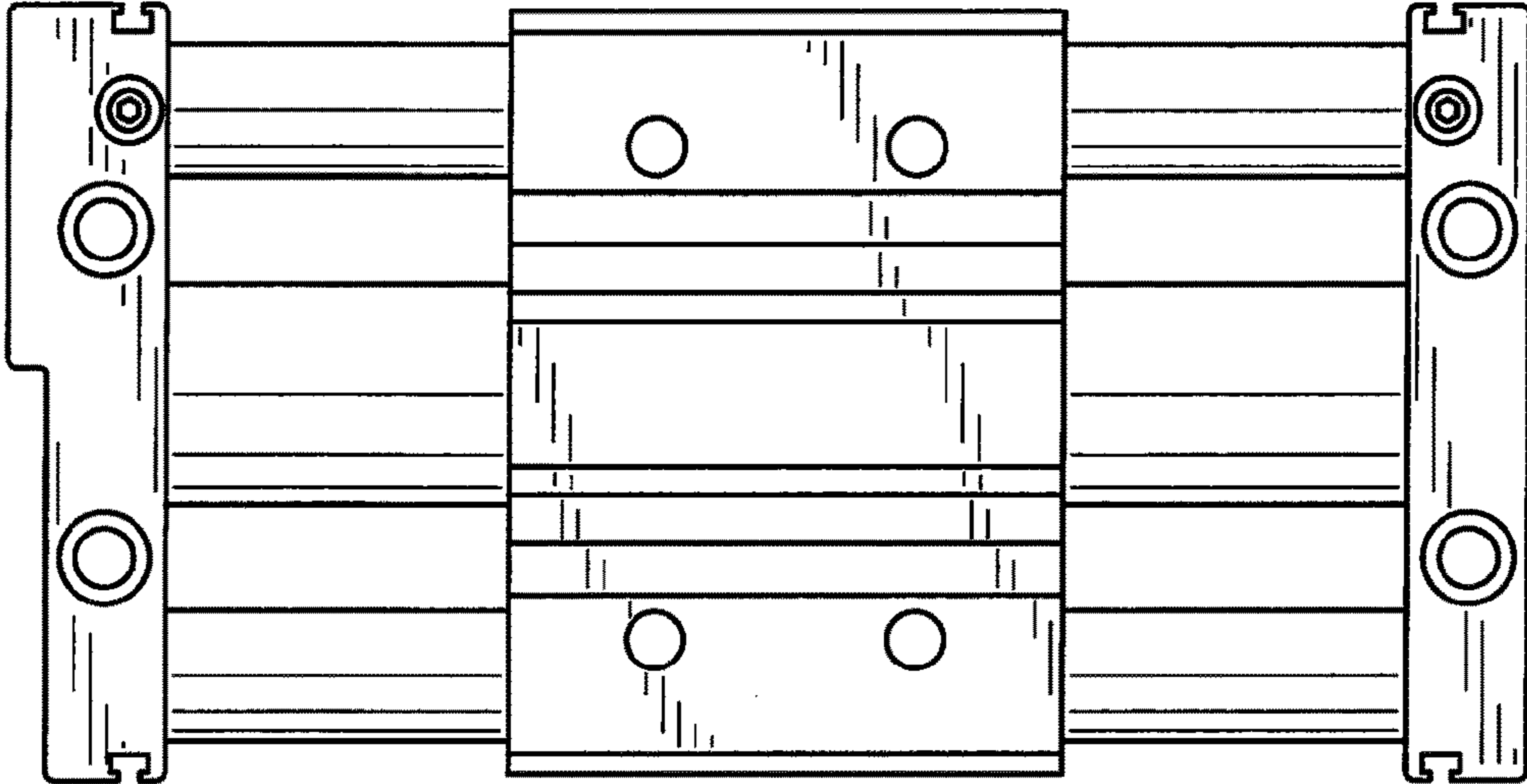


FIG. 14

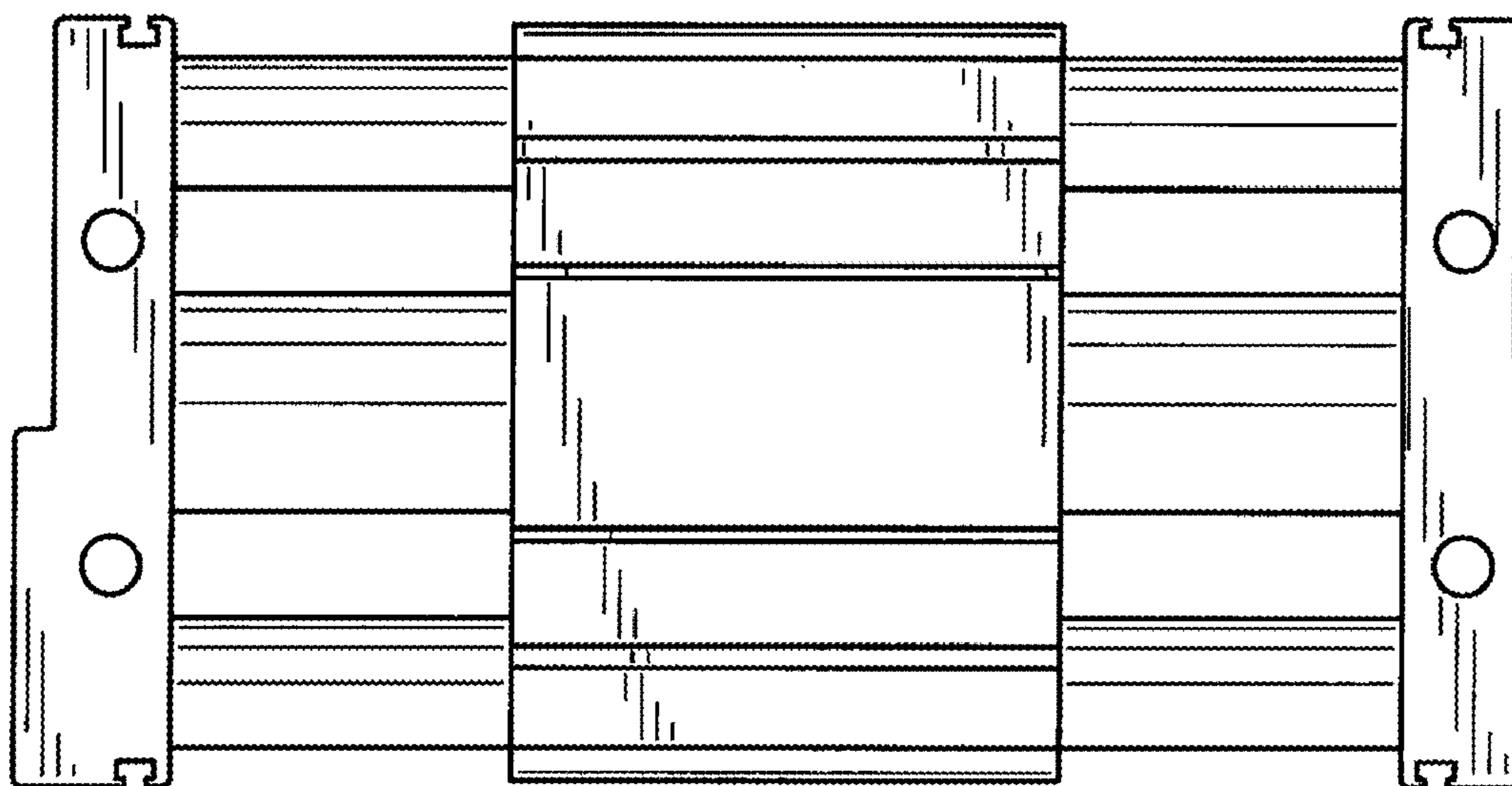


FIG. 15

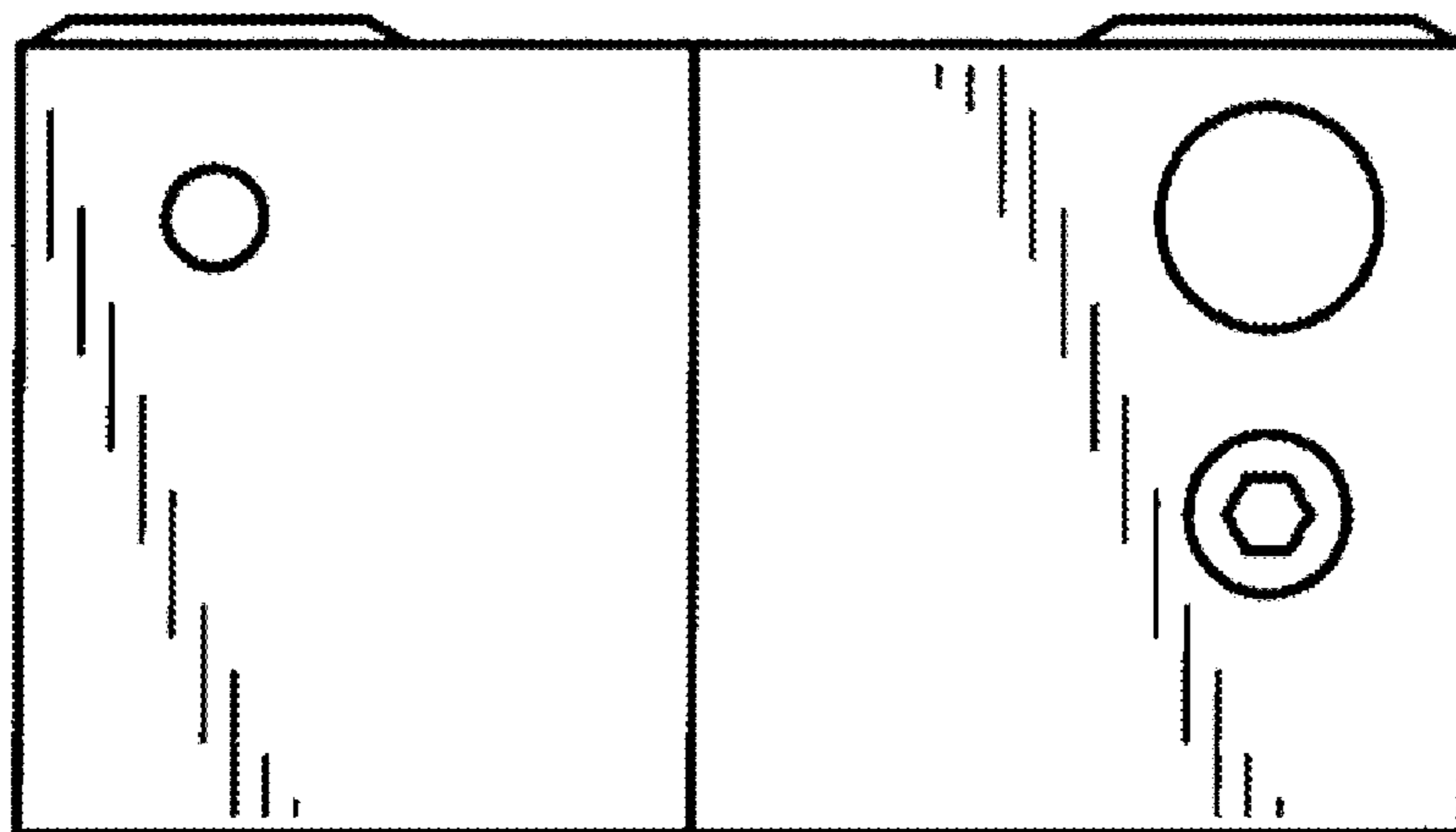




FIG. 16

