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# United States Patent [19]

Yonezawa et al.

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[54] **RODLESS CYLINDER WITH A SLIDER**

5,617,772 4/1997 Hosono et al. .... 92/165 R X

[75] Inventors: **Tsuyoshi Yonezawa**, Nakashima-gun;  
**Mitsuo Noda**, Ichinomiya, both of  
Japan

[73] Assignee: **Howa Machinery, Ltd.**, Nagoya, Japan

[\*\*] Term: **14 Years**

[21] Appl. No.: **29/077,759**

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### [30] Foreign Application Priority Data

Apr. 21, 1997 [JP] Japan ..... 9-52162

[51] **LOC (6) Cl.** ..... **15-01**

[52] **U.S. Cl.** ..... **D15/5; D15/143**

[58] **Field of Search** ..... D15/5, 143, 199;  
92/5 R, 88, 146, 161, 165 R; 277/DIG. 7;  
384/43, 49

### [56] References Cited

#### U.S. PATENT DOCUMENTS

- D. 329,434 9/1992 Toyoda et al. .... D15/5
- D. 367,863 3/1996 Shiino et al. .... D15/5
- D. 375,508 11/1996 Shiino et al. .... D15/143
- 5,275,088 1/1994 Takada et al. .... 92/88
- 5,363,741 11/1994 Takada et al. .... 92/165 R X

### FOREIGN PATENT DOCUMENTS

- 845112 4/1992 Japan .
- 845402 5/1992 Japan .
- 846673 5/1992 Japan .
- 845402 8/1992 Japan .

*Primary Examiner*—Ted Shooman  
*Assistant Examiner*—Nanda Bondade  
*Attorney, Agent, or Firm*—Finnegan, Henderson, Farabow,  
Garrett & Dunner, L.L.P.

### [57] CLAIM

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

### DESCRIPTION

FIG. 1 is a front perspective view of a rodless cylinder with a slider showing our new design;  
FIG. 2 is a rear perspective view of FIG. 1 with the slider moved to the opposite direction;  
FIG. 3 is a front elevational view of FIG. 1;  
FIG. 4 is a rear elevational view of FIG. 1;  
FIG. 5 is a top plan view of FIG. 1;  
FIG. 6 is a bottom plan view of FIG. 1; and,  
FIG. 7 is a right side elevational view of FIG. 1, a left side elevational view being a mirror image thereof.

**1 Claim, 2 Drawing Sheets**

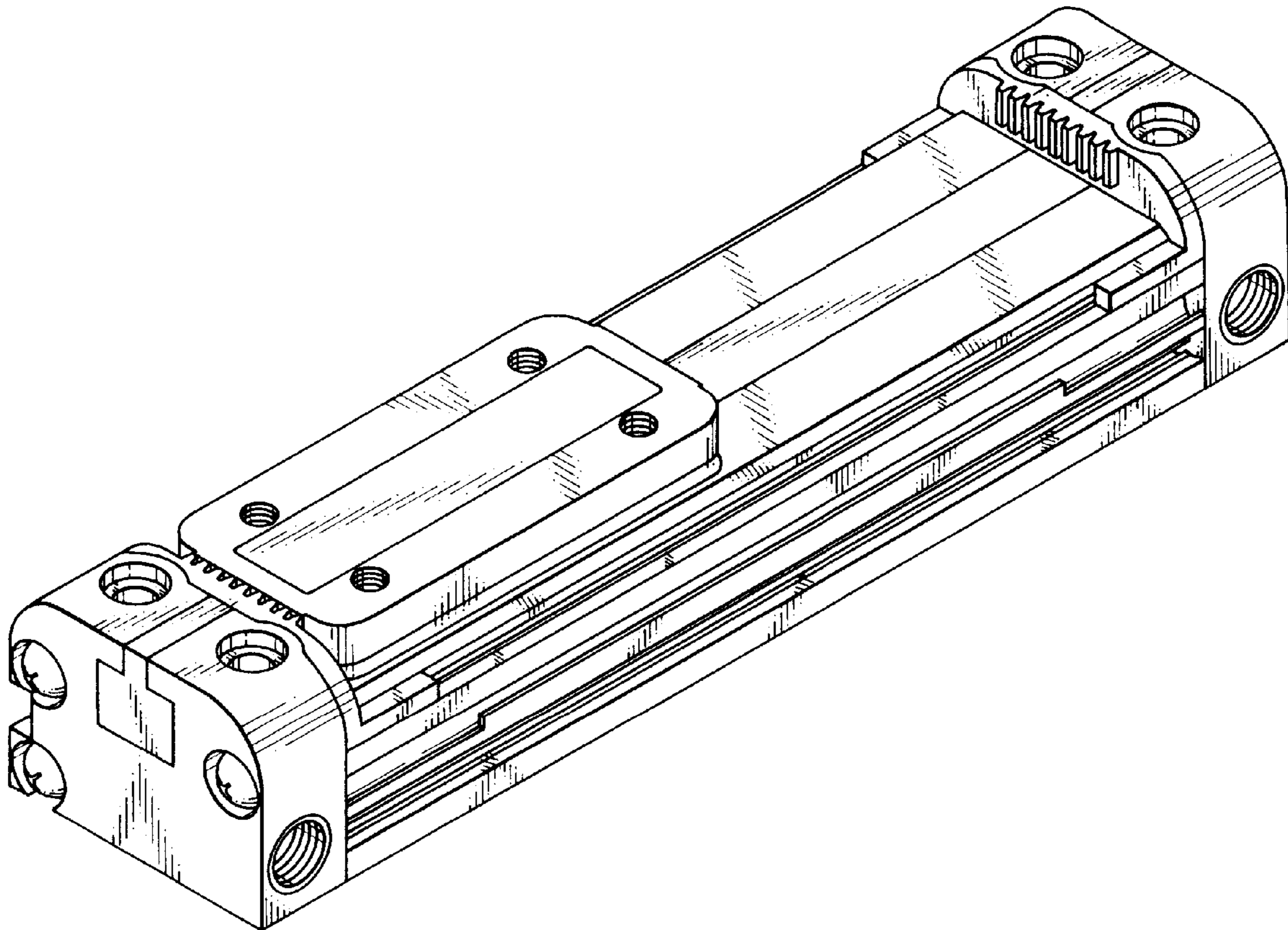


Fig. 1

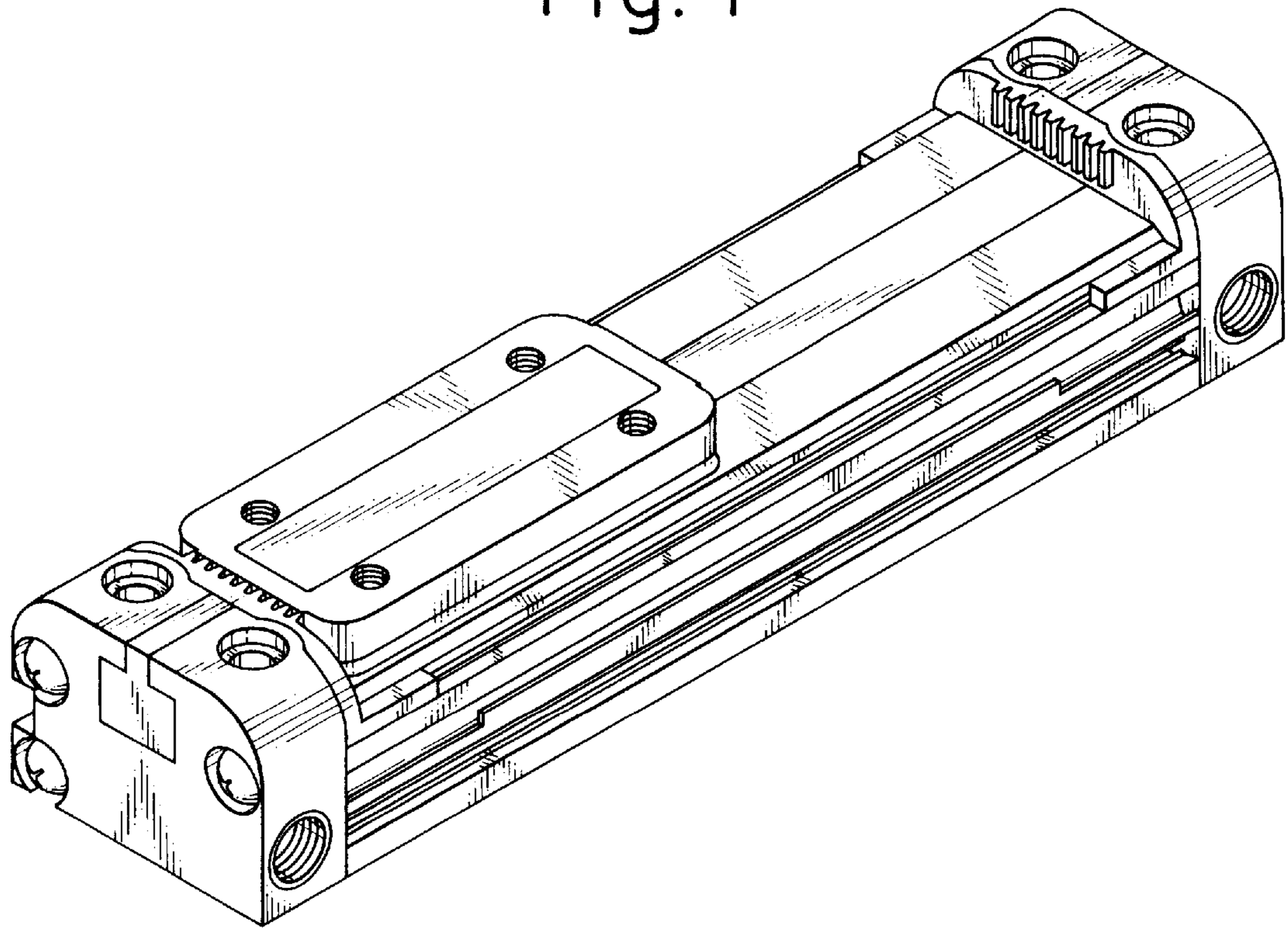


Fig. 2

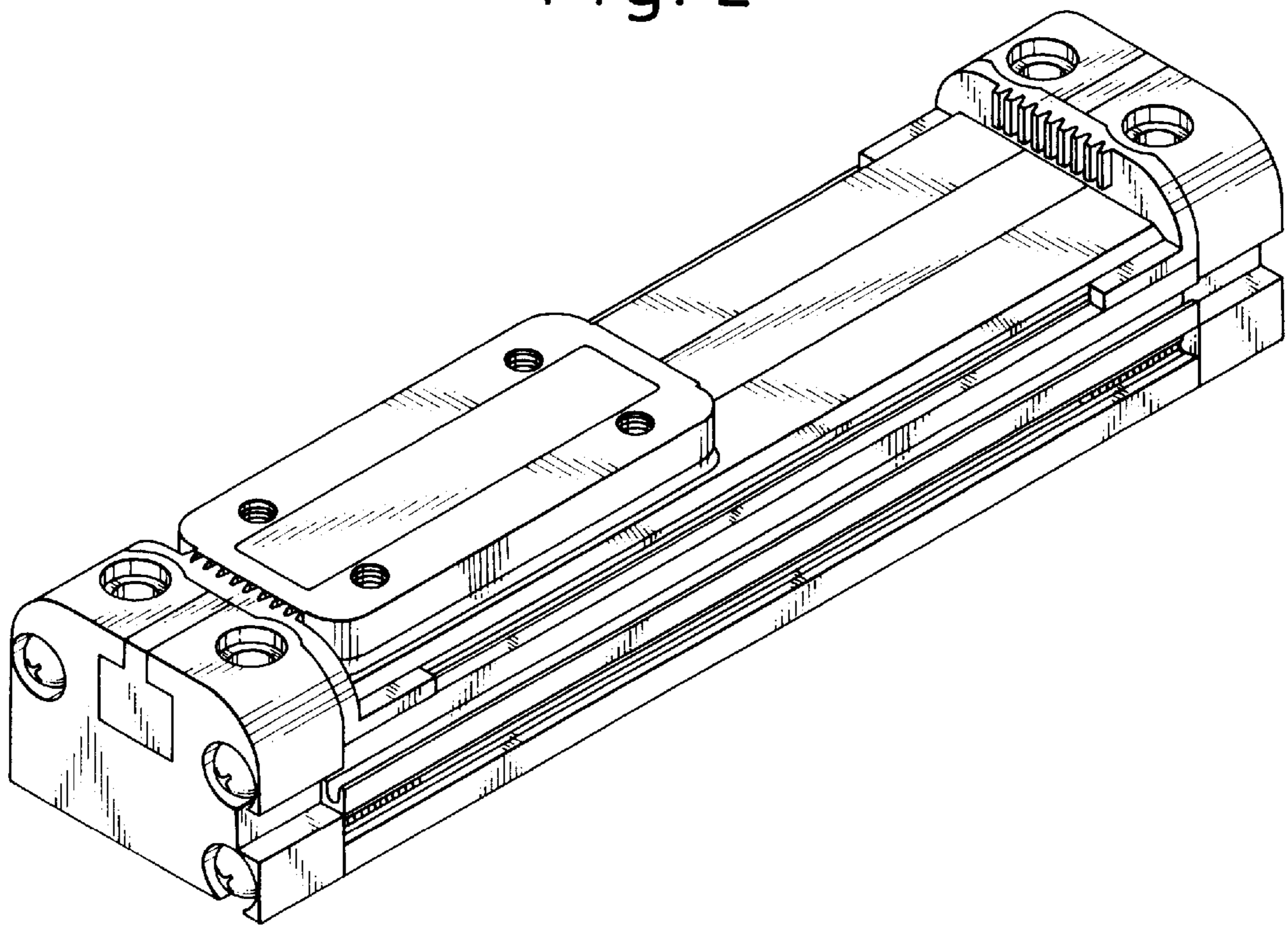




Fig. 3

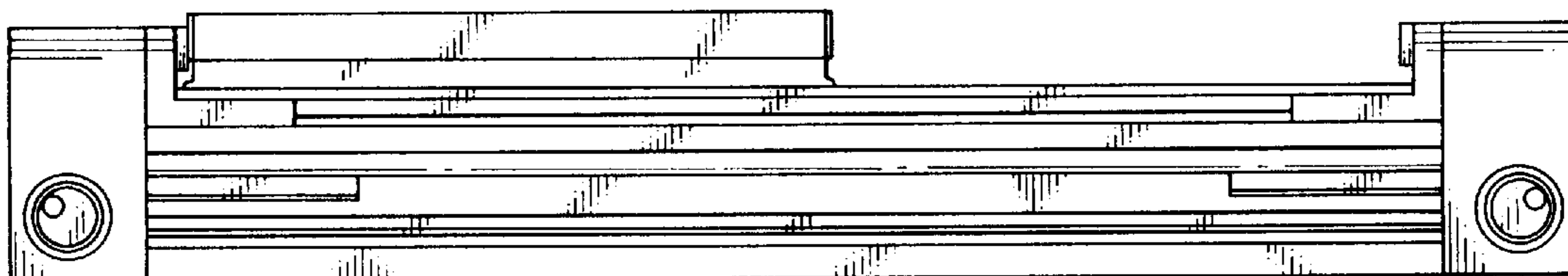


Fig. 4

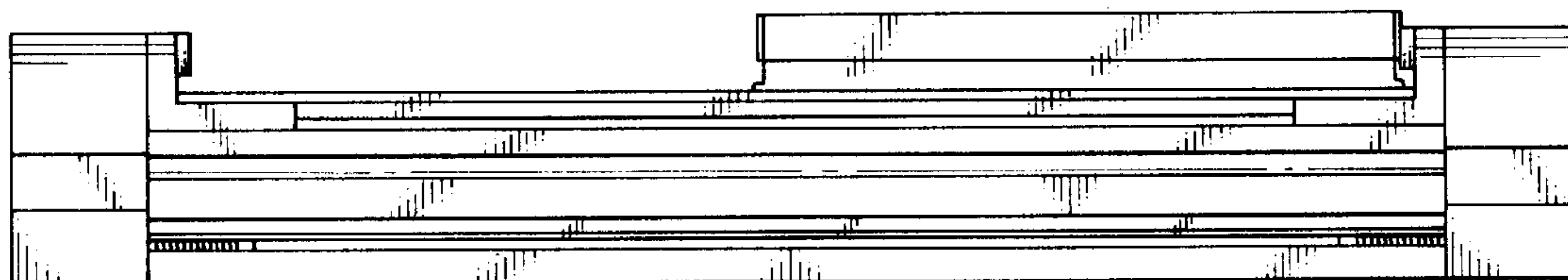


Fig. 5

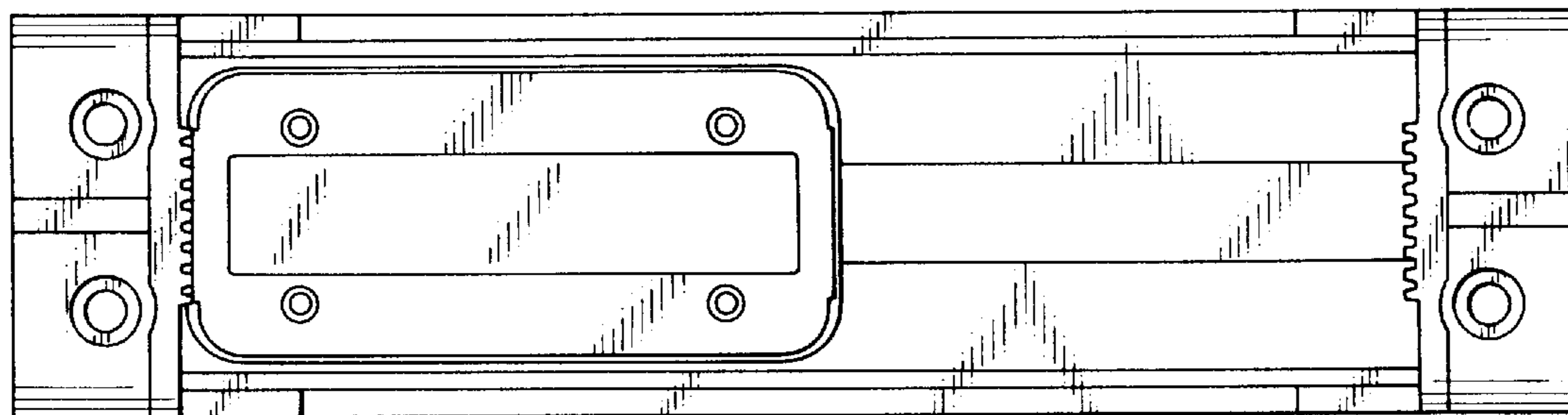


Fig. 6

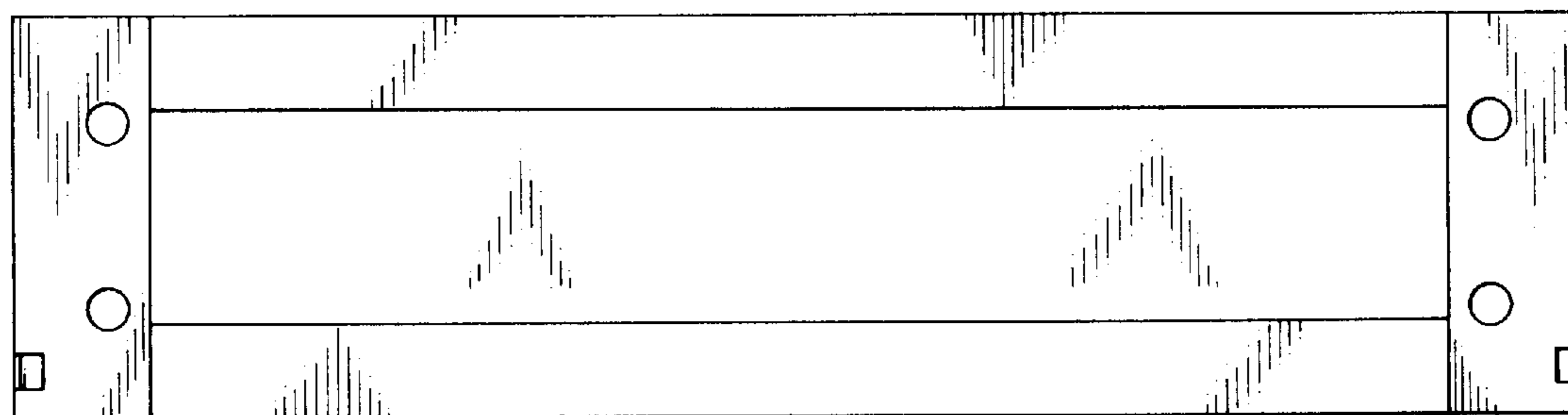


Fig. 7

