

US00D562524S

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

(10) **Patent No.:** **US D562,524 S**  
(45) **Date of Patent:** **\*\* Feb. 19, 2008**

(54) **WAFER TRANSFER APPARATUS**

(57) **CLAIM**

(75) Inventors: **Tsutomu Hiroki**, Yamanashi (JP);  
**Wataru Machiyama**, Yamanashi (JP);  
**Takehiro Shindo**, Yamanashi (JP)

We claim the ornamental design for a wafer transfer apparatus, as shown and described.

(73) Assignee: **Tokyo Electron Limited**, Tokyo (JP)

**DESCRIPTION**

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

FIG. 1 is a top view of the wafer transfer apparatus of the present design;

(21) Appl. No.: **29/220,627**

FIG. 2 is a front elevational view thereof;

(22) Filed: **Jan. 5, 2005**

FIG. 3 is a back elevational view thereof;

(30) **Foreign Application Priority Data**

FIG. 4 is a bottom view thereof;

Jul. 20, 2004 (JP) ..... 2004-21726

FIG. 5 is a right side view thereof;

(51) **LOC (8) Cl.** ..... **12-05**

FIG. 6 is a left side view thereof;

(52) **U.S. Cl.** ..... **D34/28; D34/35**

FIG. 7 is a reference figure showing a perspective view seen from a back-left hand side of the apparatus;

(58) **Field of Classification Search** ..... D34/29,

FIG. 8 is a reference figure showing a top view seen from a back-left hand side of the apparatus;

D34/35; 198/771, 866, 890, 367, 890.1,  
198/370.1, 370.04, 782, 722; 193/35 A,  
193/35 C; 438/220, 232, 5, 689

FIG. 9 is a reference figure showing a perspective view seen from a front-right hand side of the apparatus;

See application file for complete search history.

FIG. 10 is a reference figure showing a perspective view seen from a back-right hand side of the apparatus;

(56) **References Cited**

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FIG. 11 is a reference figure showing a right side view seen from a back side of the apparatus;

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FIG. 12 is a reference figure showing a perspective view seen from the back-left hand side of the apparatus;

FIG. 13 is a reference figure showing a perspective view seen from a front-right hand side of the apparatus;

FIG. 14 is a reference figure showing a perspective view seen from the front-left hand side of the apparatus;

FIG. 15 is a reference figure showing a perspective view seen from a back-left hand side of the apparatus; and,

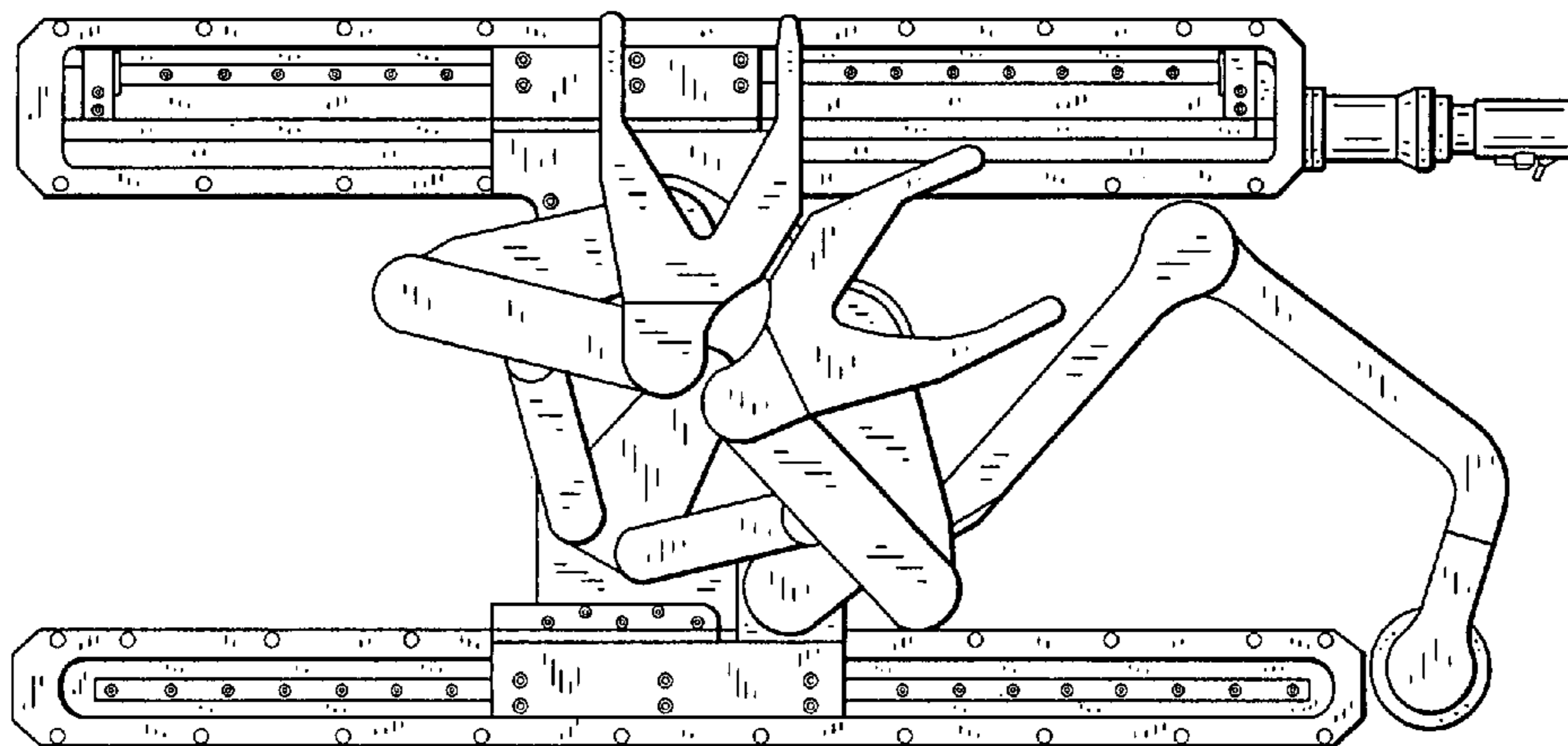
FIG. 16 is a reference figure showing a perspective view seen from a back-right hand side of the apparatus.

The broken line showing of wafers in some of the figures is included for the purpose of illustrating environment and forms no part of the claimed design.

*Primary Examiner*—Cynthia E. Ramirez

(74) *Attorney, Agent, or Firm*—Smith, Gambrell & Russell, LLP

**1 Claim, 16 Drawing Sheets**



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FIG. 1

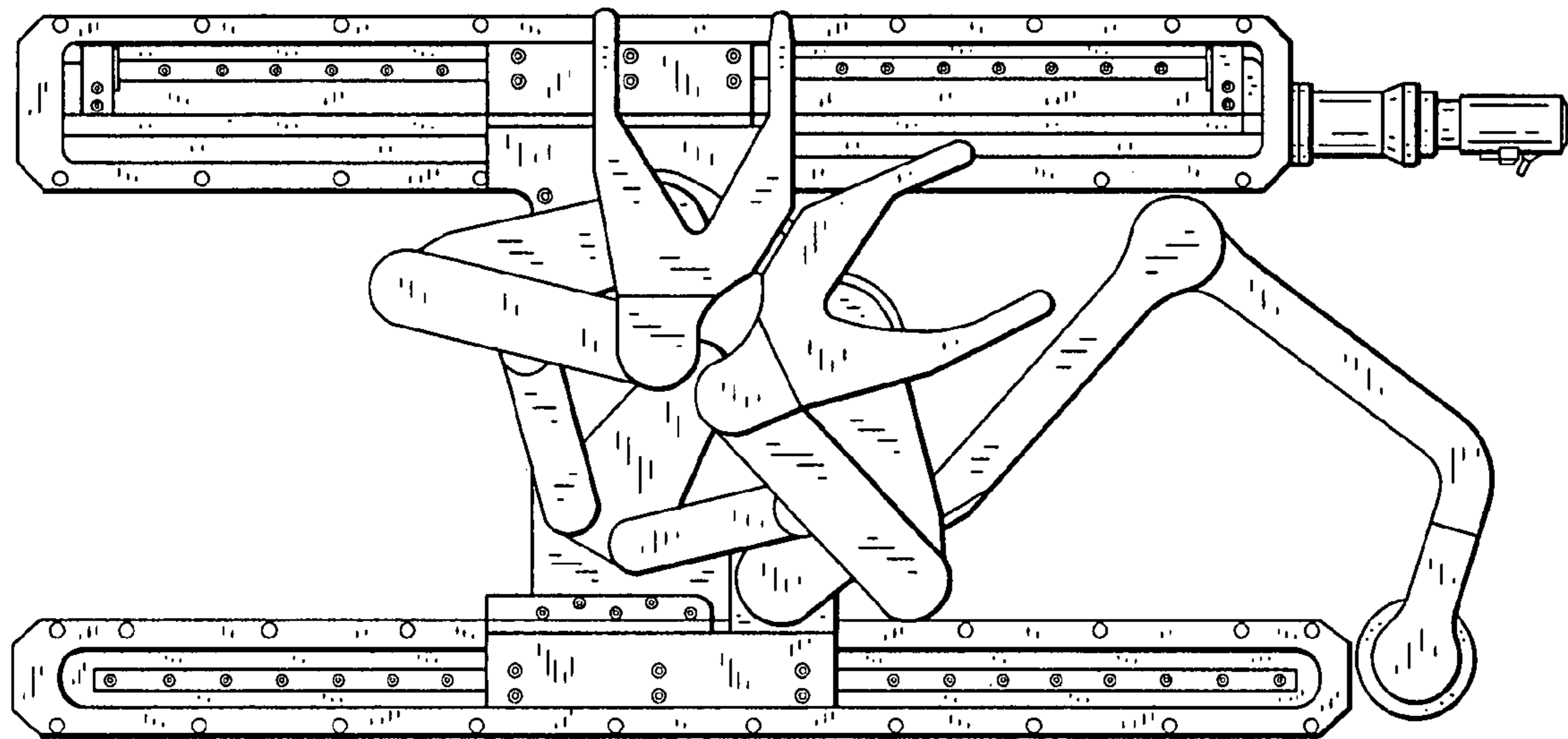


FIG. 2

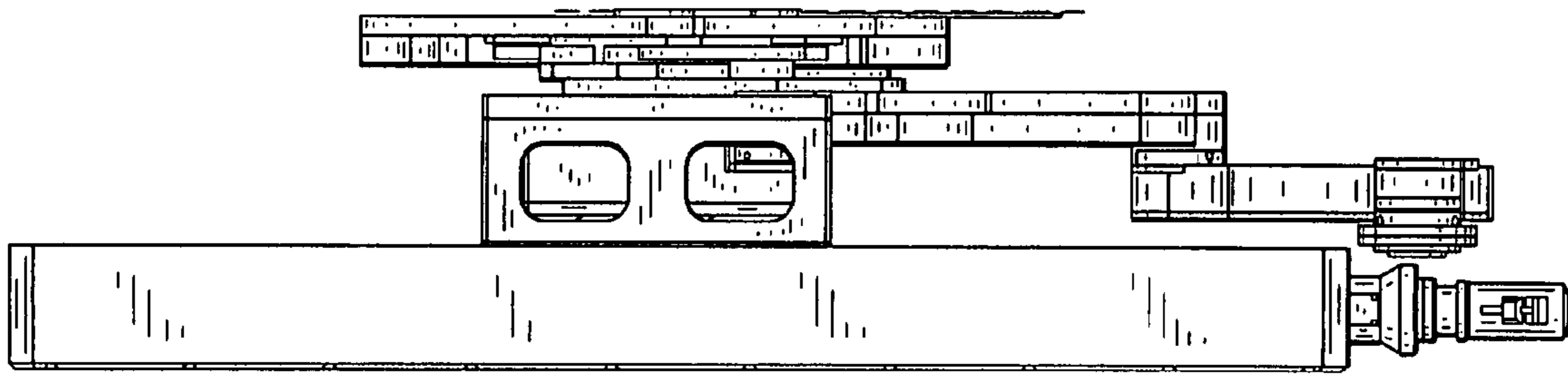


FIG. 3

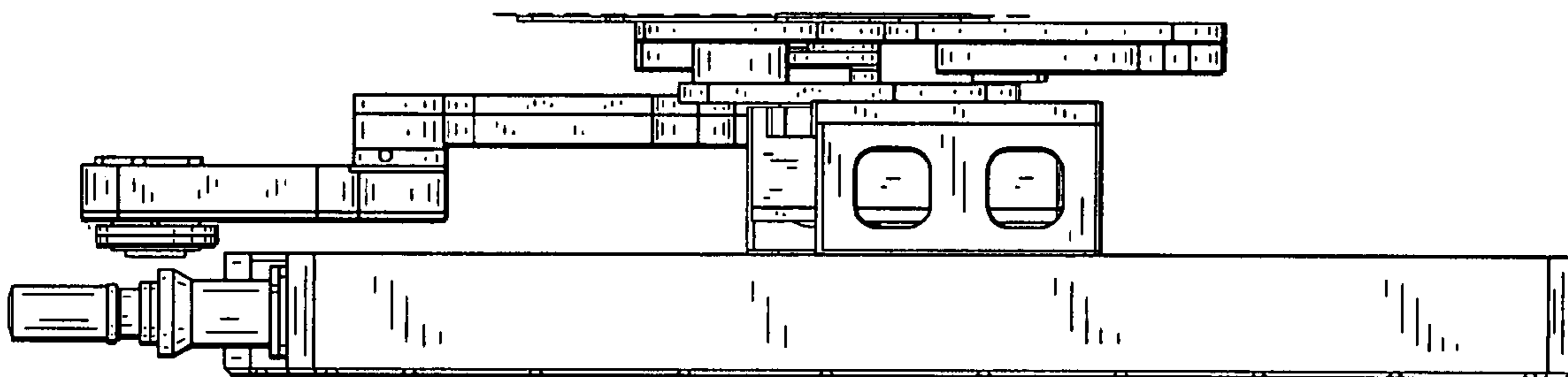


FIG. 4

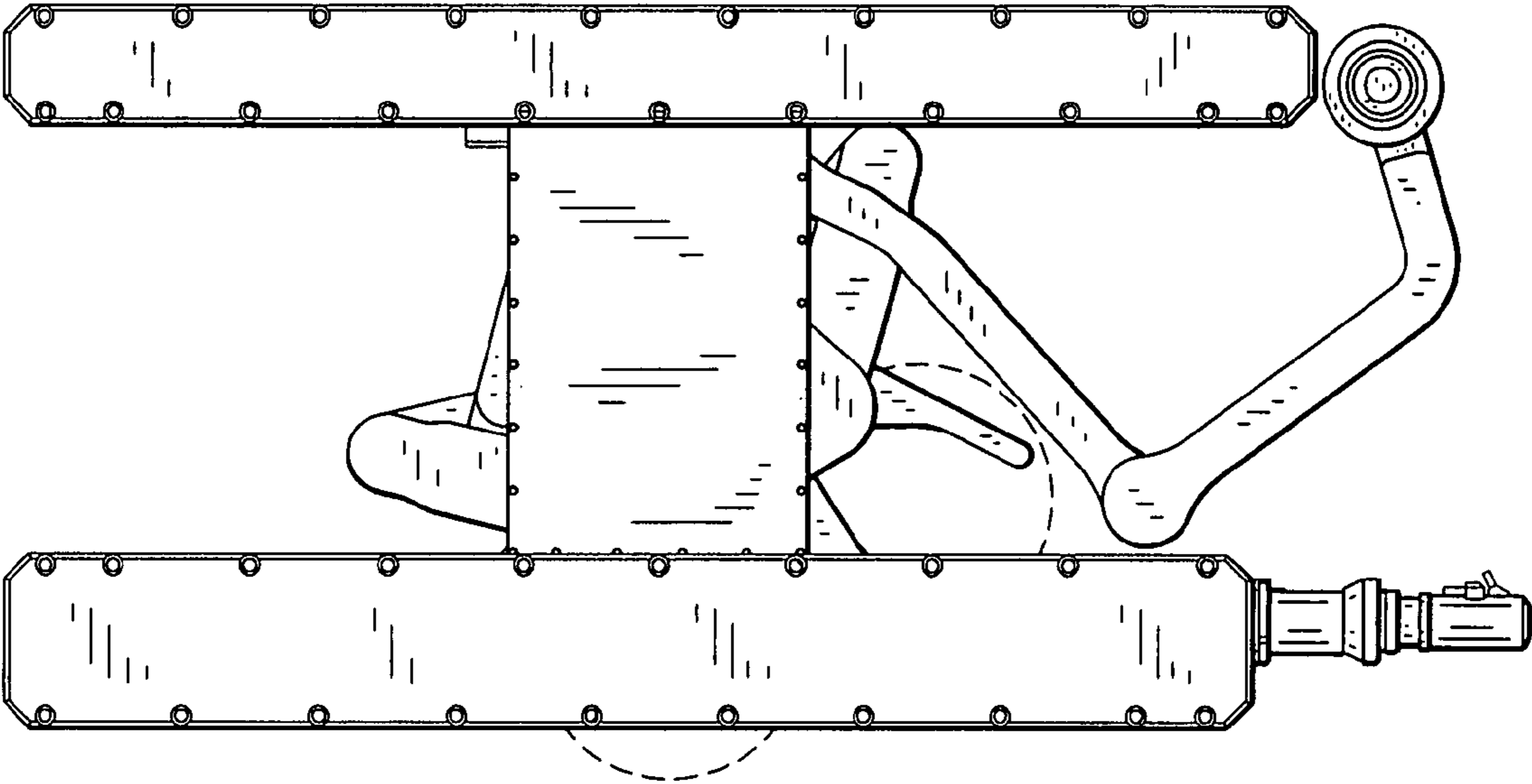


FIG. 5

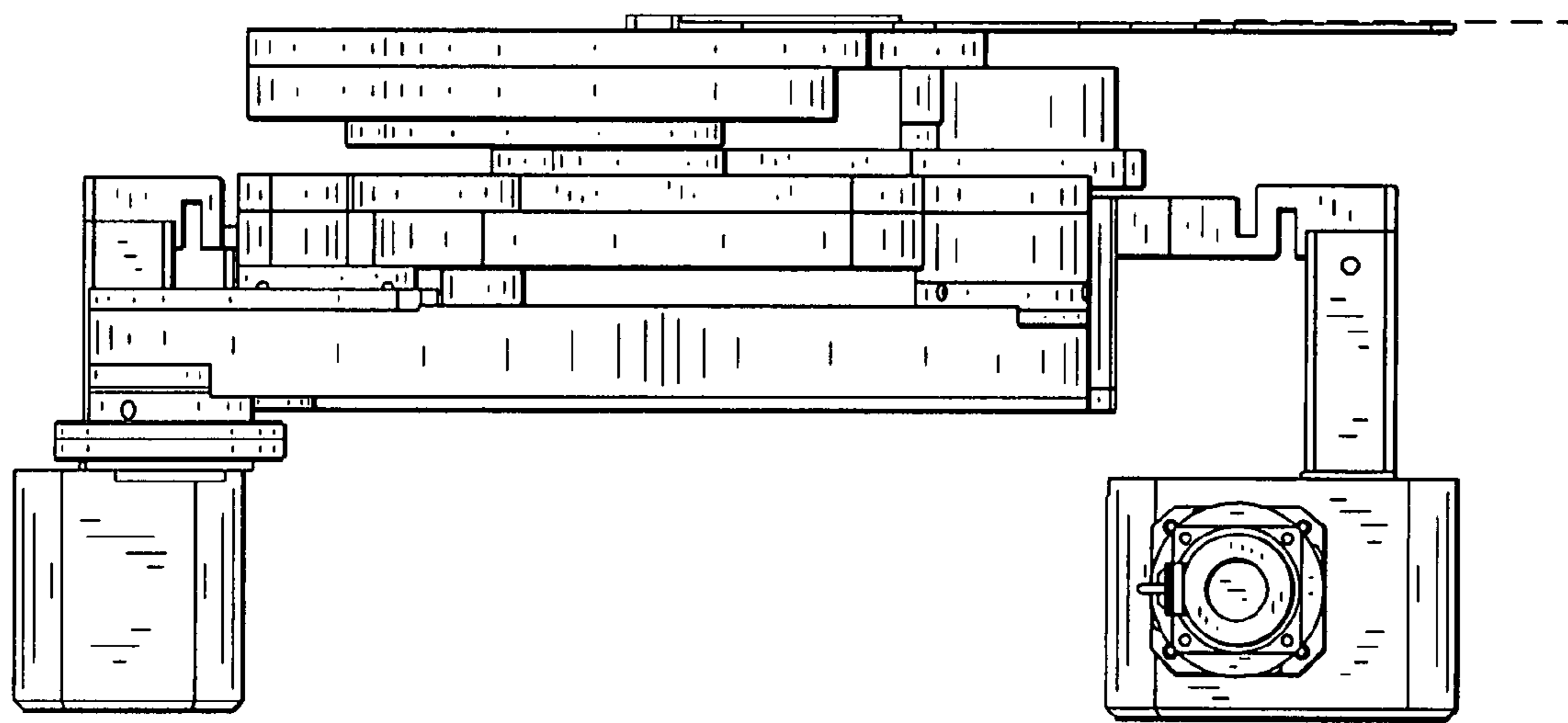


FIG. 6

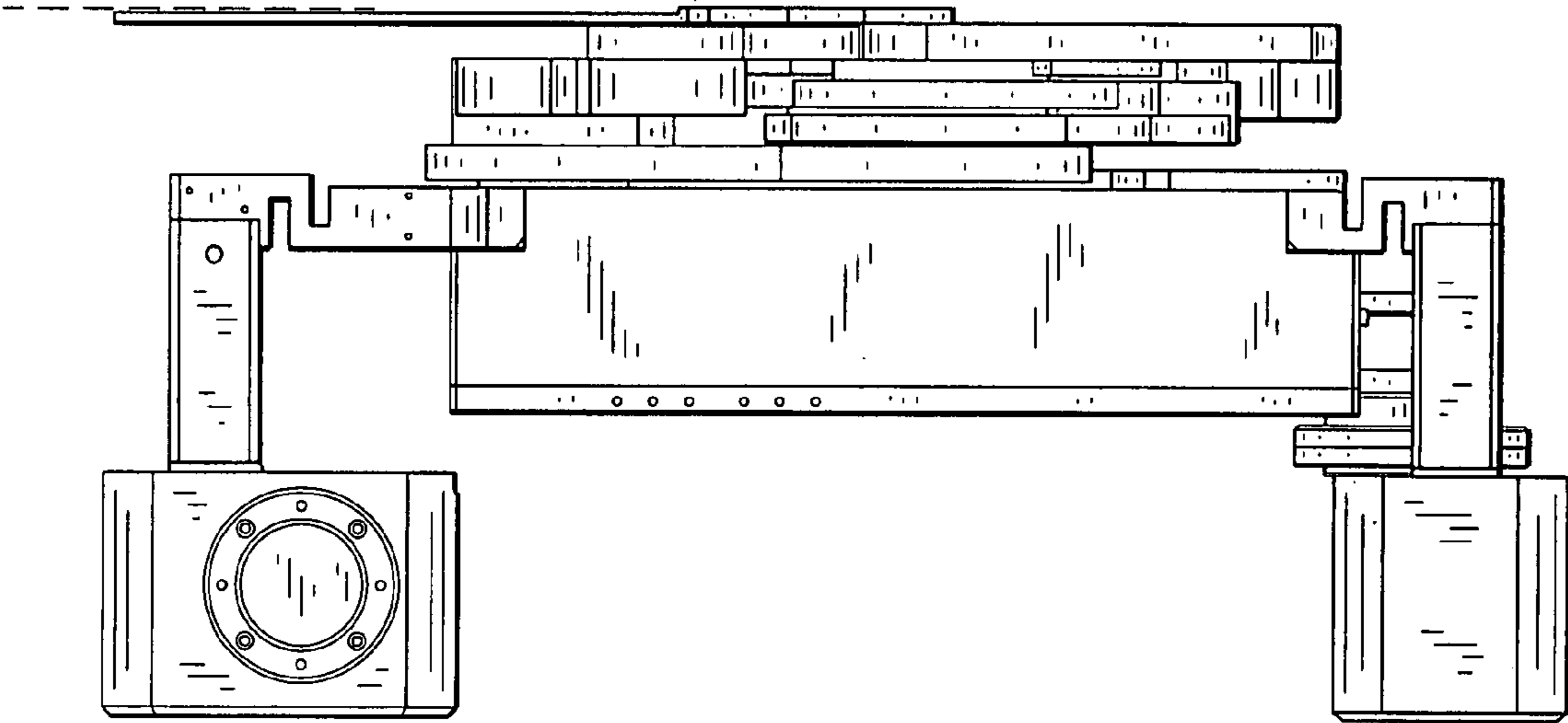




FIG. 7

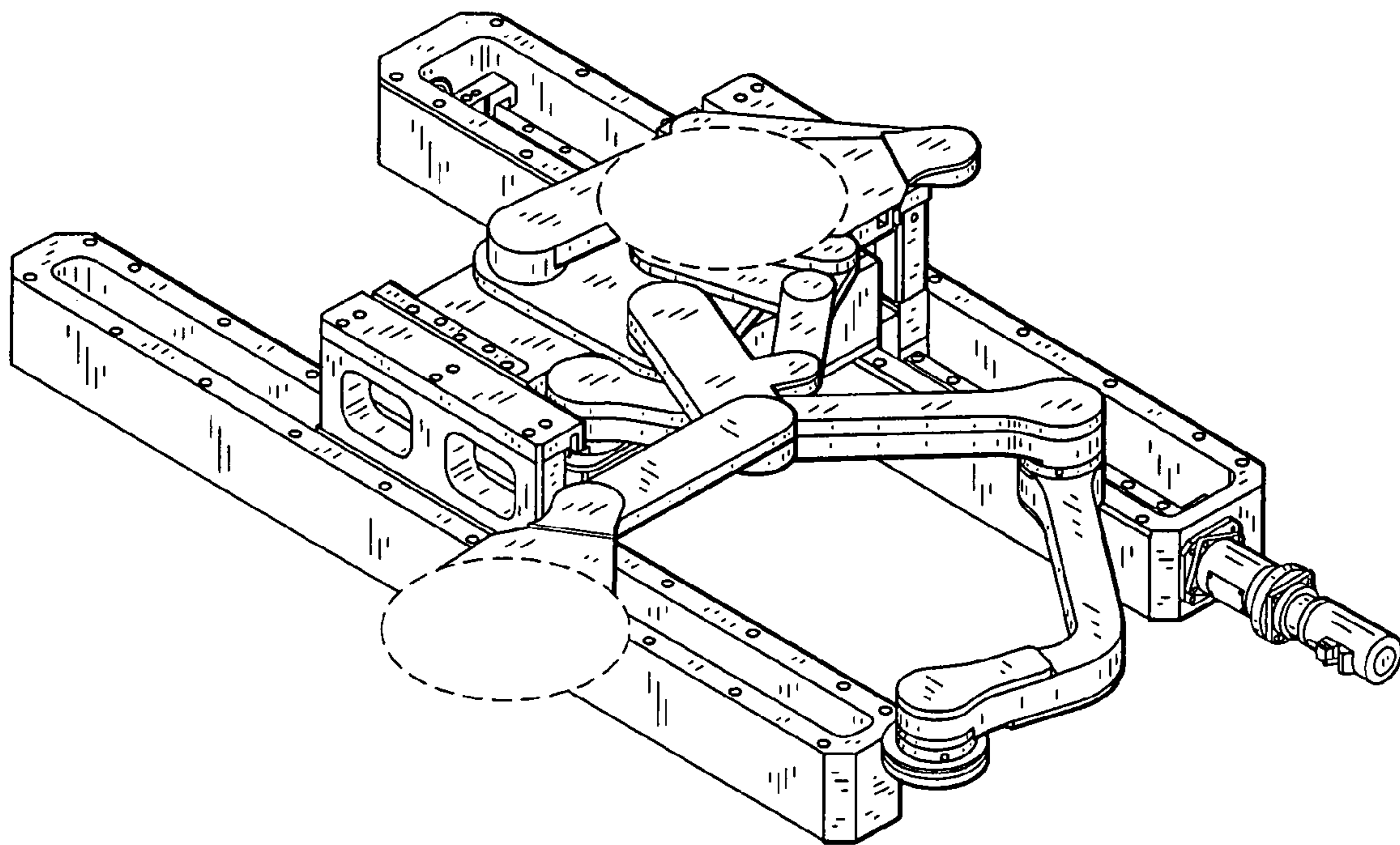


FIG. 8

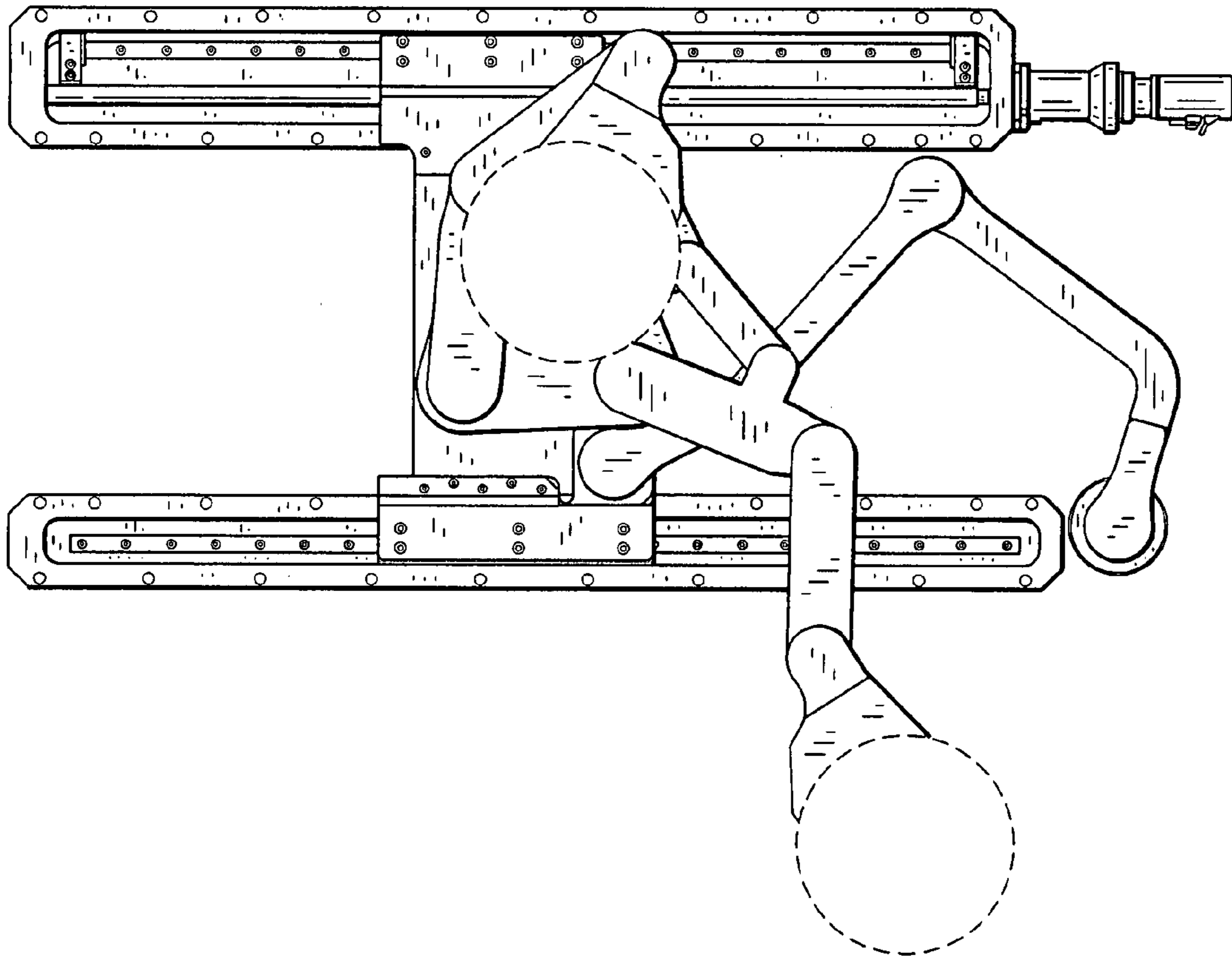


FIG. 9

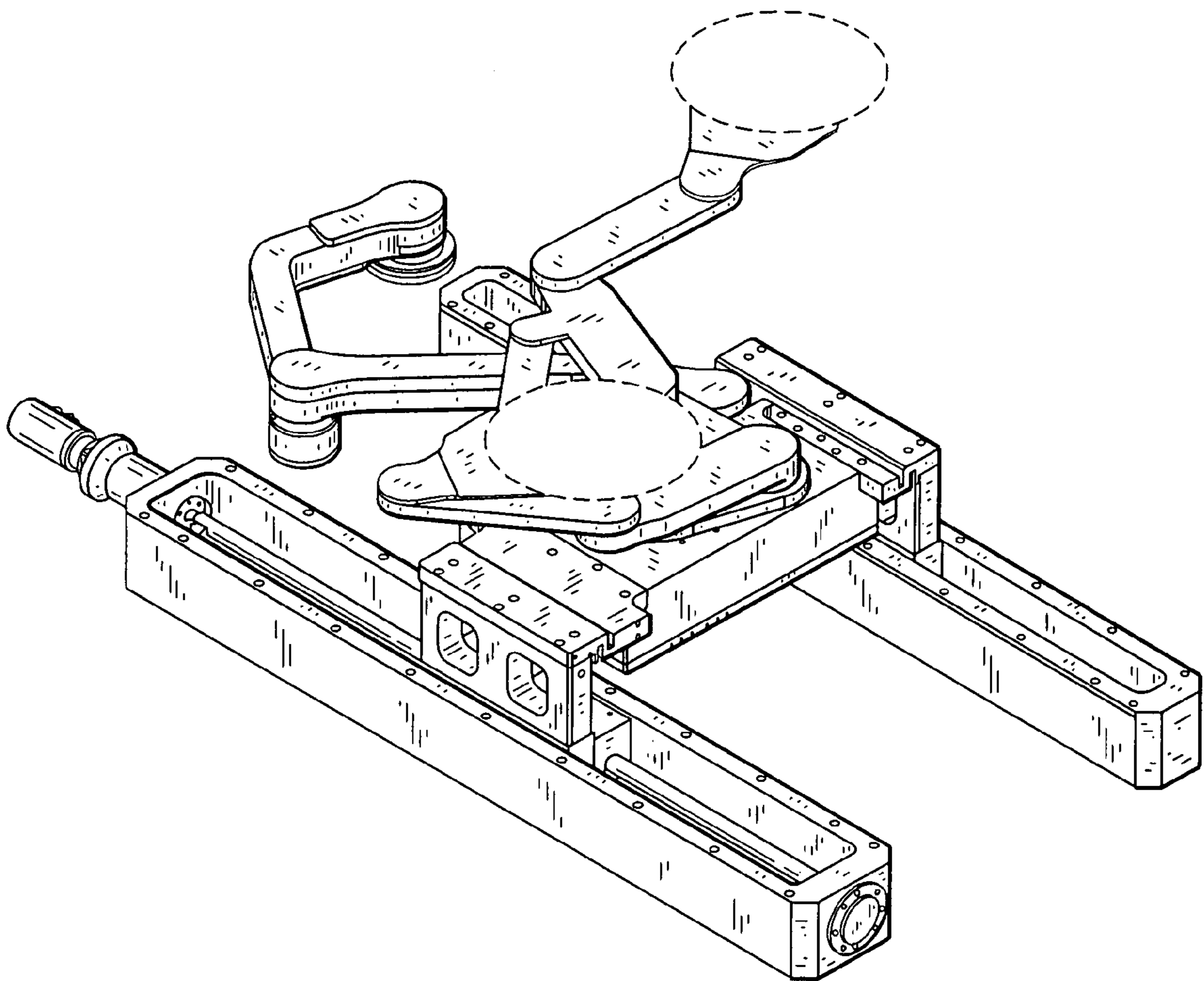


FIG. 10

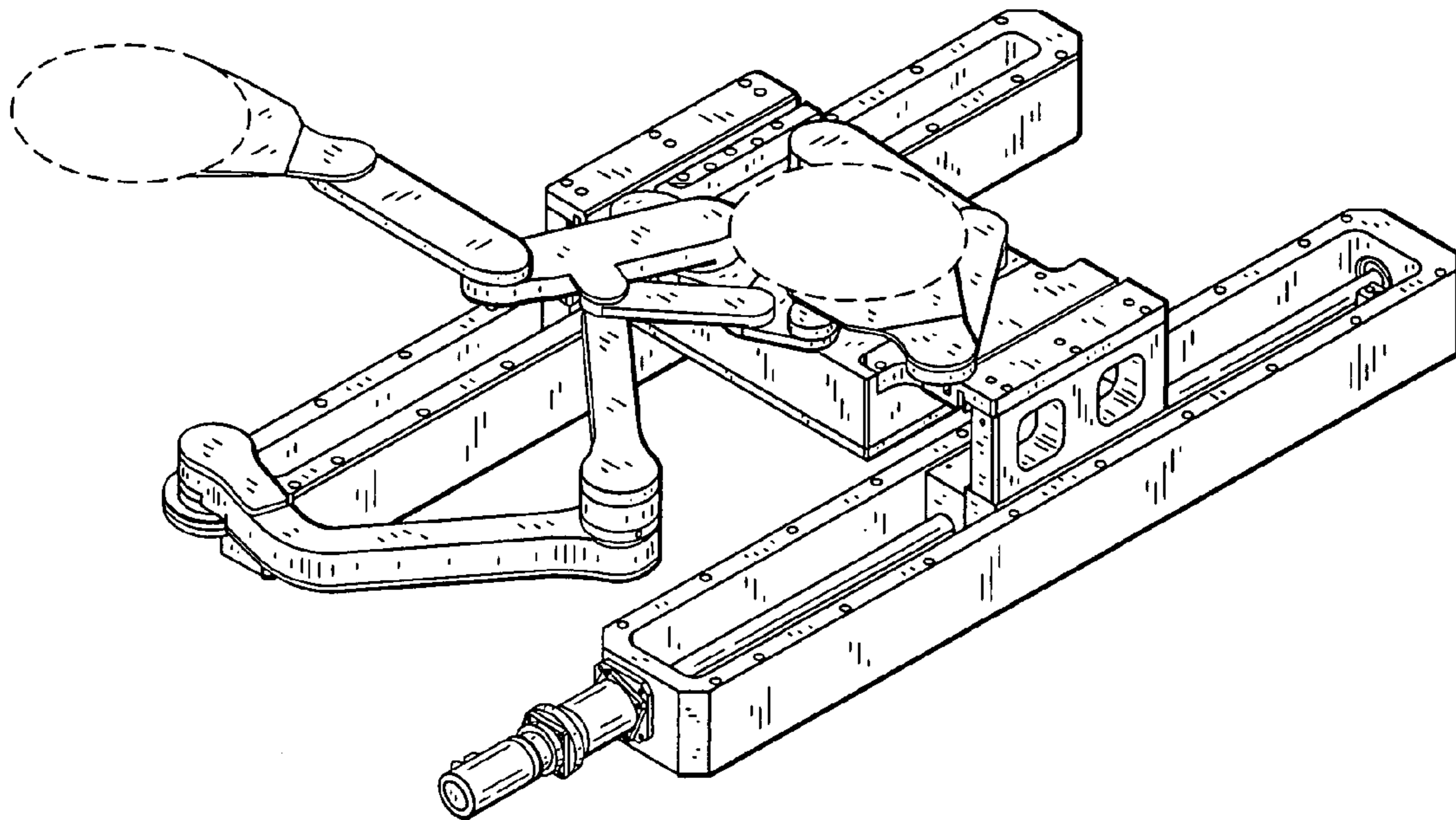


FIG. 11

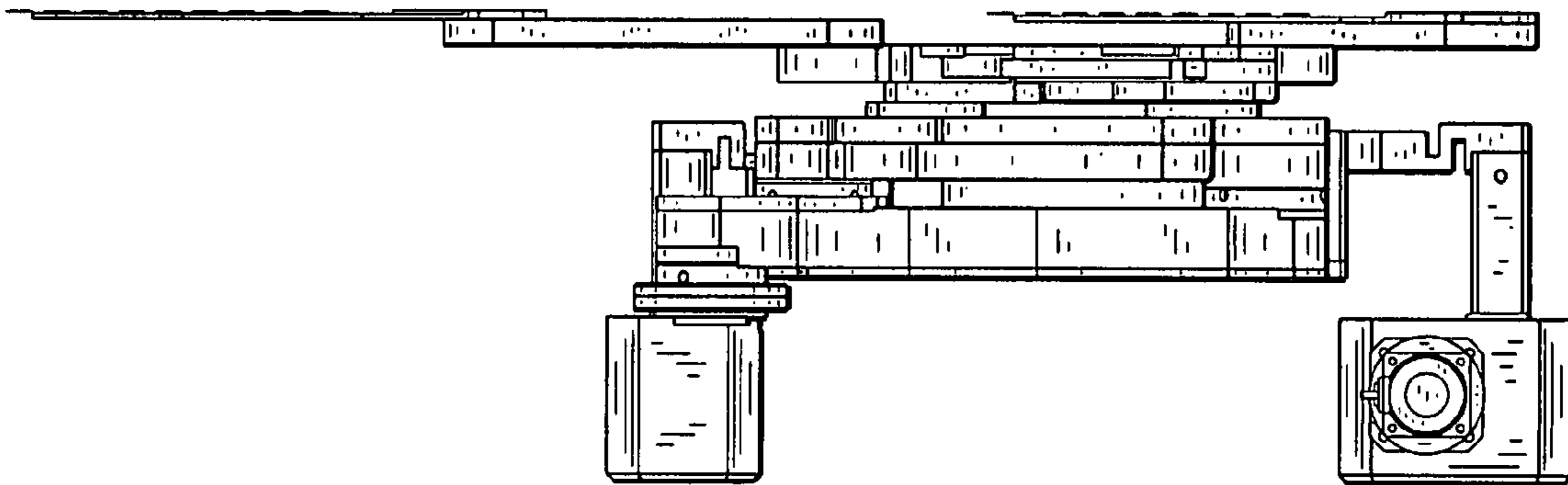


FIG. 12

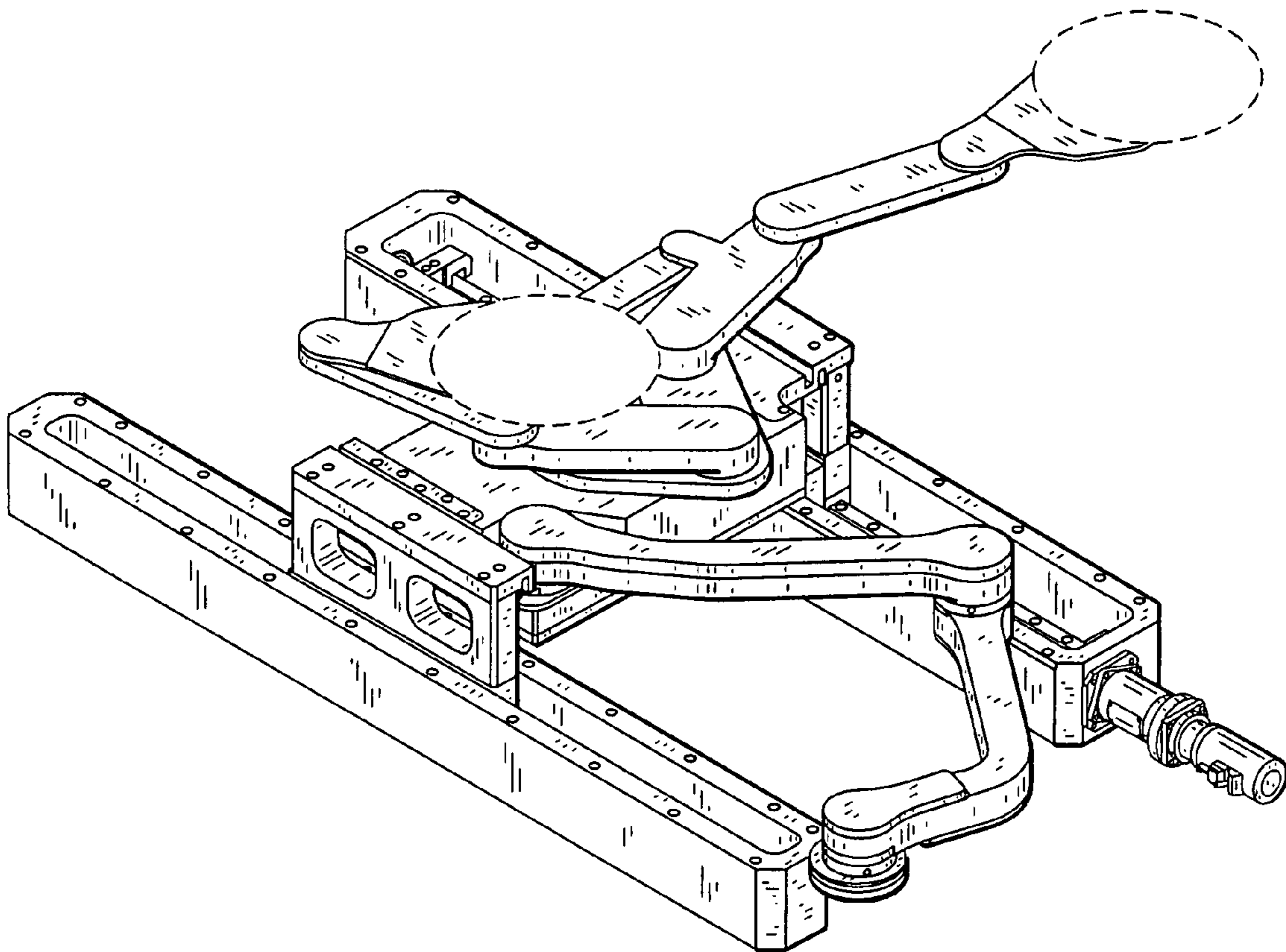


FIG. 13

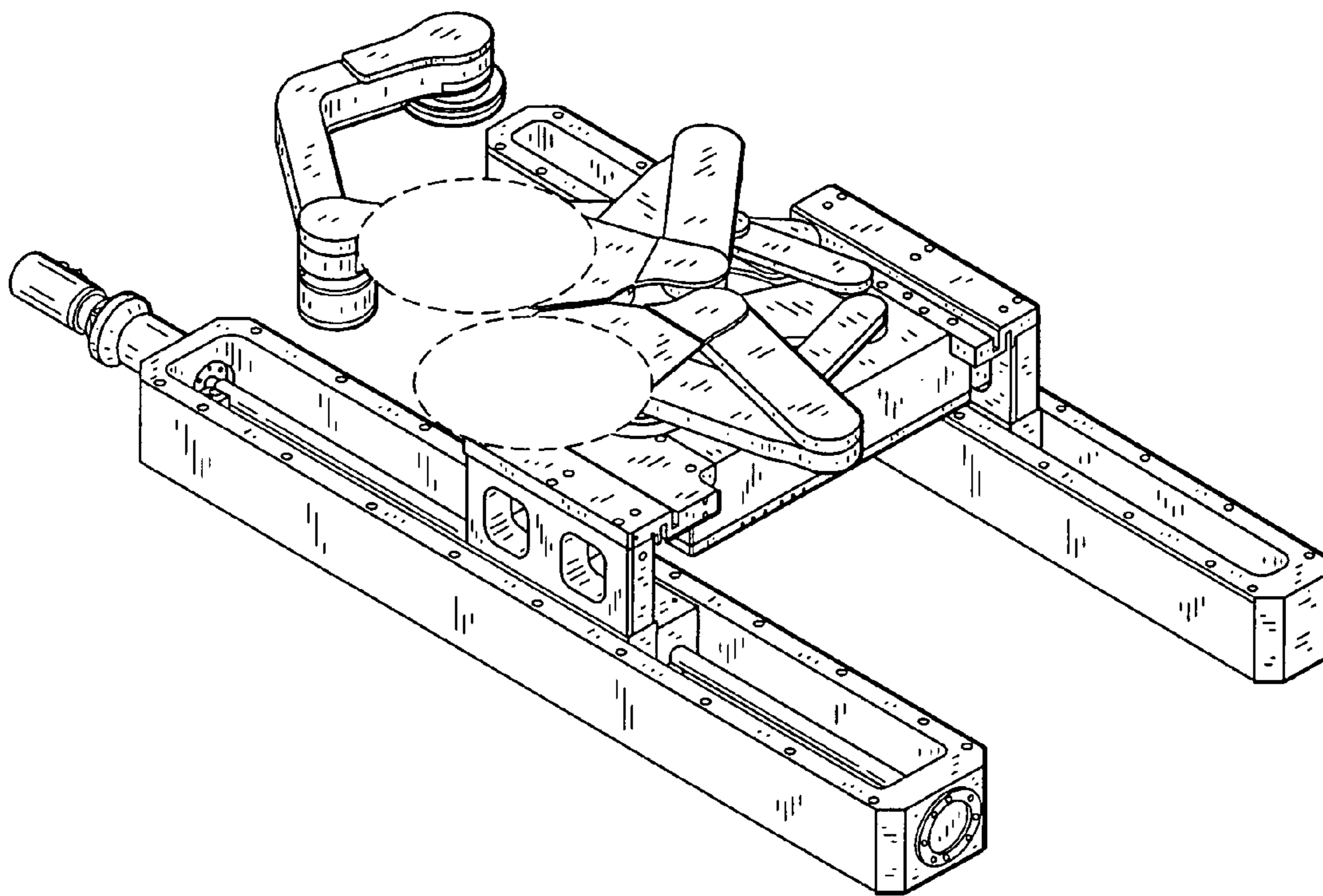


FIG. 14

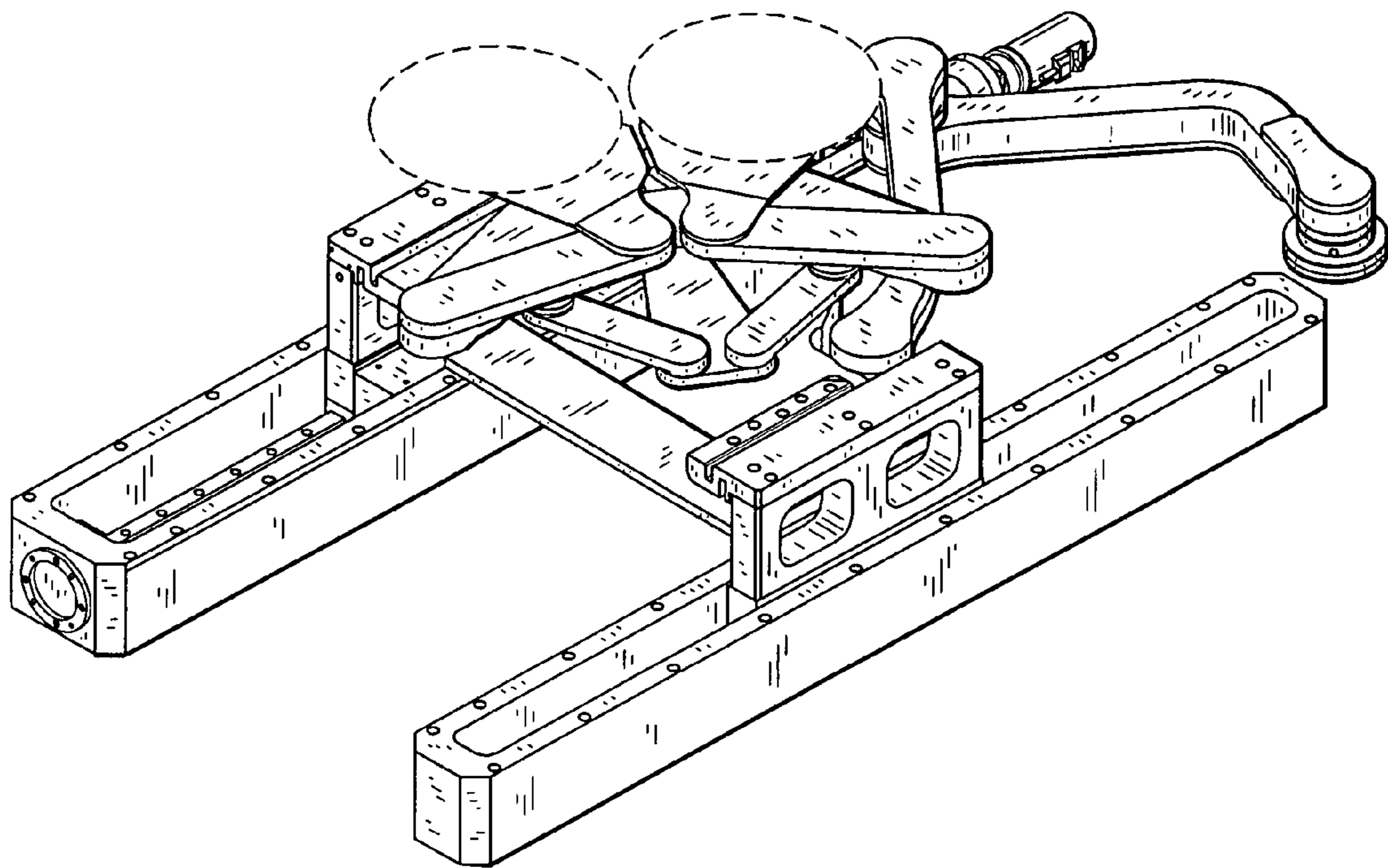




FIG. 15

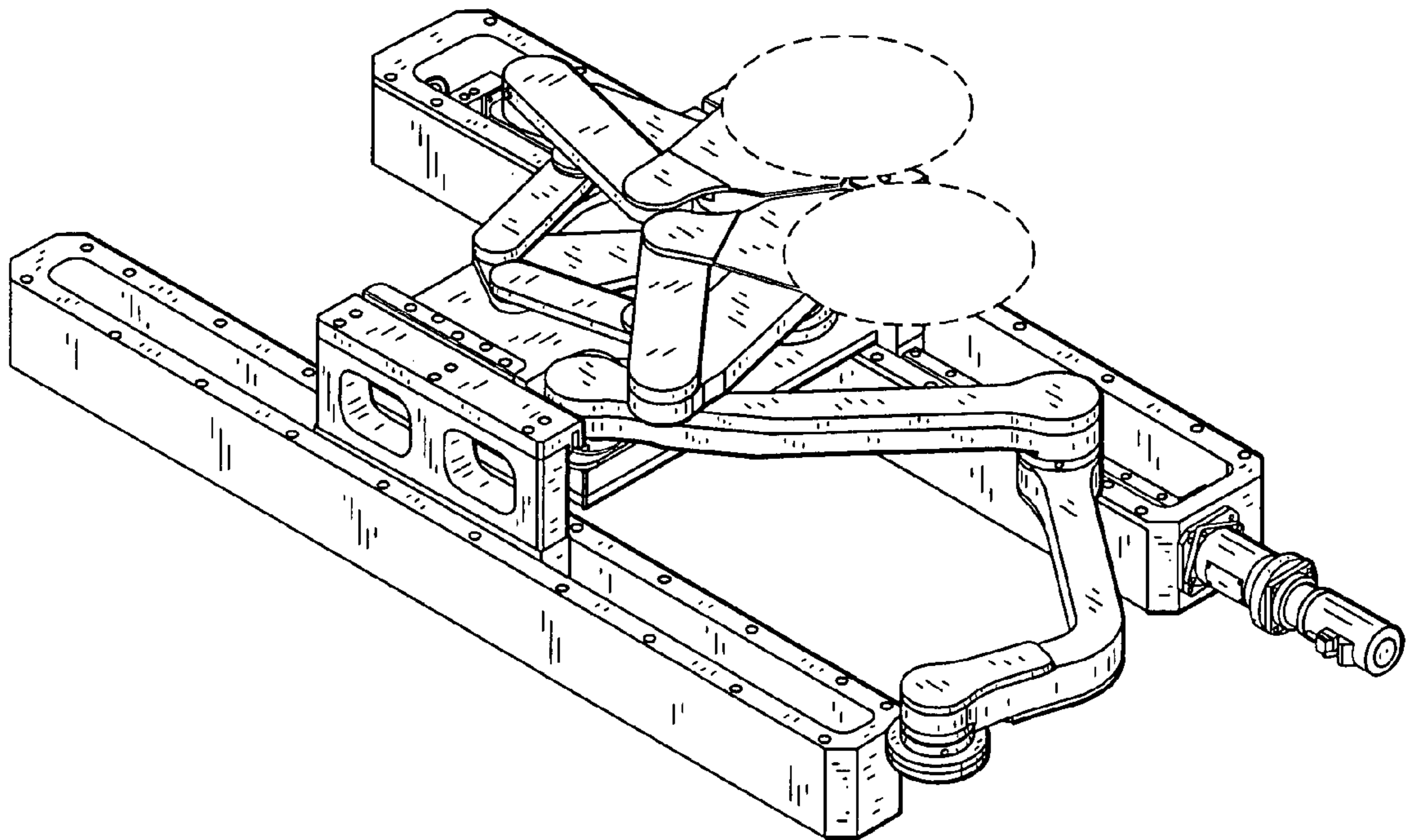


FIG. 16

