US00D482051S

(12) United States Design Patent

Hanne et al.

(10) Patent No.: US D482,051 S
(45) Date of Patent: ** Nov. 11, 2003

(54) **CHUCK FOR INDUSTRIAL ROBOT**

(75) Inventors: **Hiroshi Hanne**, Tsukuba-gun (JP); **Jiro Mandokoro**, Tsukuba-gun (JP)

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

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

(21) Appl. No.: **29/154,691**

(22) Filed: **Jan. 30, 2002**

Related U.S. Application Data

(62) Division of application No. 29/142,867, filed on Jun. 5, 2001, now Pat. No. Des. 457,900.

(30) **Foreign Application Priority Data**

Dec. 5, 2000 (JP) 2000-34798
Dec. 5, 2000 (JP) 2000-34799

(51) **LOC (7) Cl.** **15-09**
(52) **U.S. Cl.** **D15/140**; D15/143; D15/199
(58) **Field of Search** D15/5, 143, 199, D15/140; 74/89.15, 490.09; 294/119.1; 310/20, 80; 901/37

(56) **References Cited**

U.S. PATENT DOCUMENTS

D407,409	S	*	3/1999	Masuda et al.	D15/5
D438,220	S		2/2001	Ishibashi et al.	
D440,988	S		4/2001	Ishibashi et al.	
6,318,779	B1		11/2001	Hanne et al.	
D457,900	S	*	5/2002	Hanne et al.	D15/140

* cited by examiner

Primary Examiner—Antoine Duval Davis
(74) *Attorney, Agent, or Firm*—Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

(57) **CLAIM**

The ornamental design for a chuck for industrial robot, as shown.

DESCRIPTION

FIG. **1** is a front elevational view of chuck for industrial robot, the rear view being a mirror image of the front view shown;

FIG. **2** is a top plan view thereof;

FIG. **3** is a bottom plan view thereof;

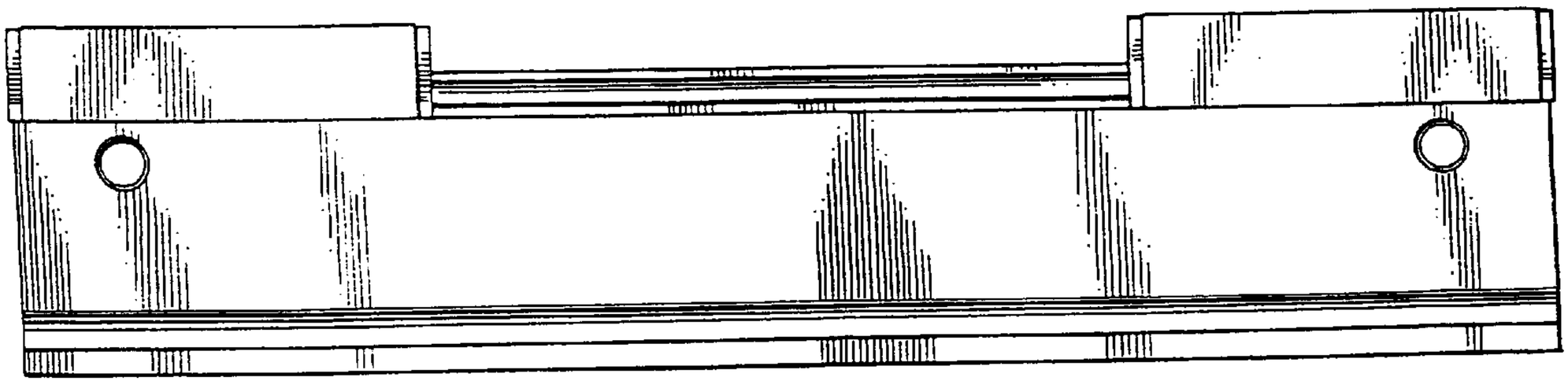
FIG. **4** is a left side elevational view thereof;

FIG. **5** is a right side elevational view thereof;

FIG. **6** is a top, front and left side perspective view thereof; and,

FIG. **7** is a bottom, rear and right side perspective view thereof.

1 Claim, 2 Drawing Sheets



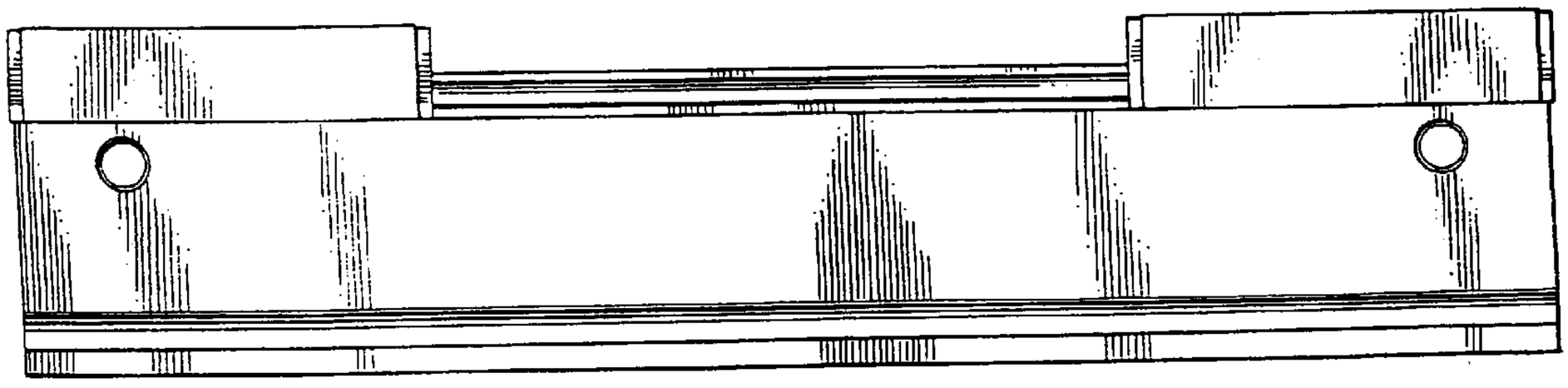


FIG. 1

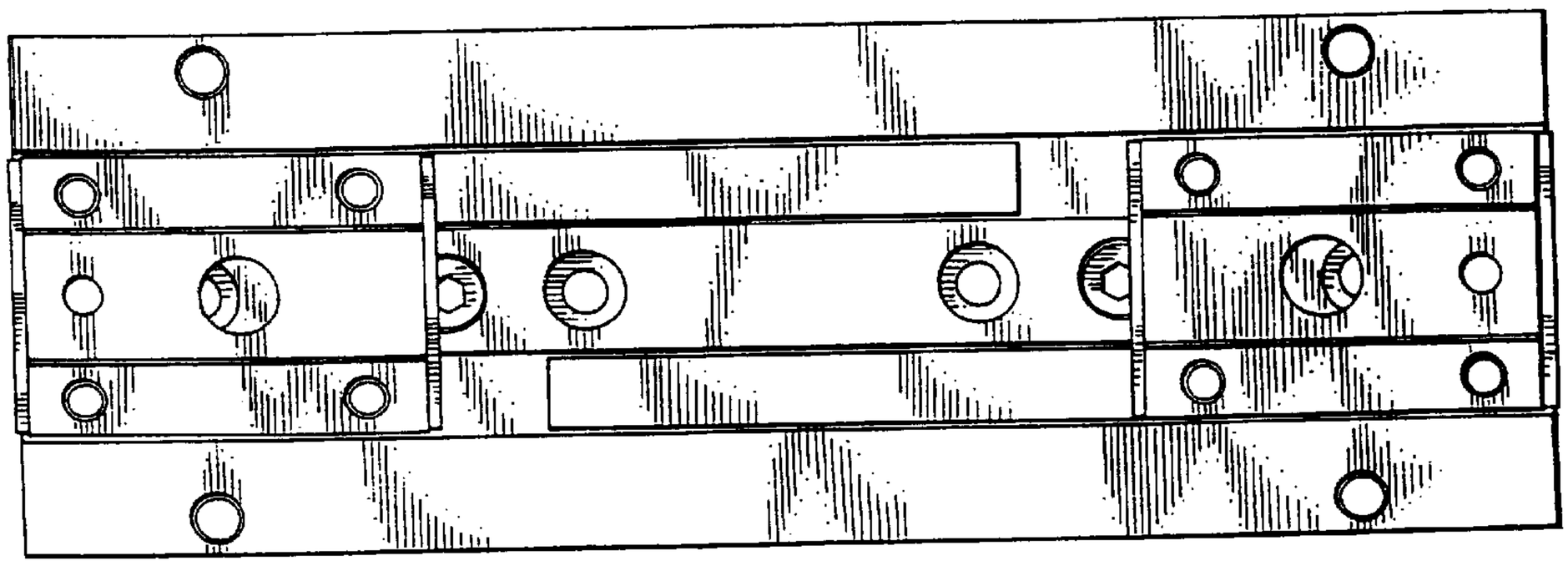


FIG.2

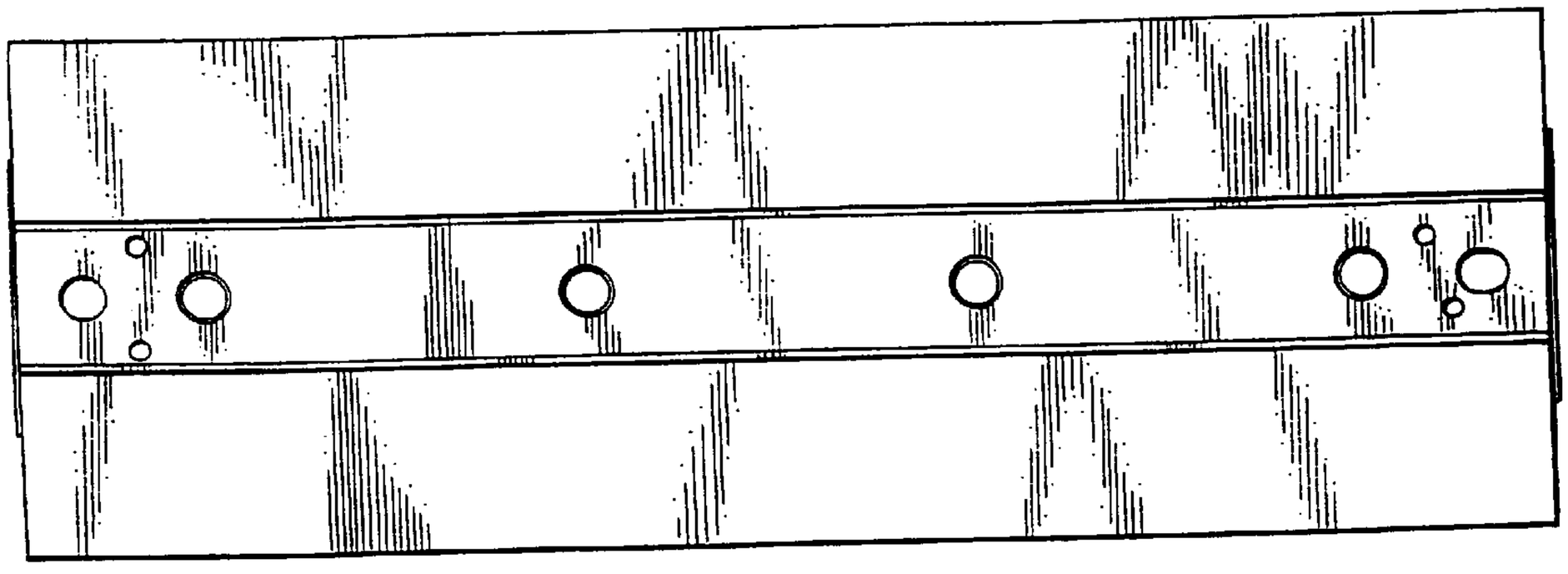


FIG.3

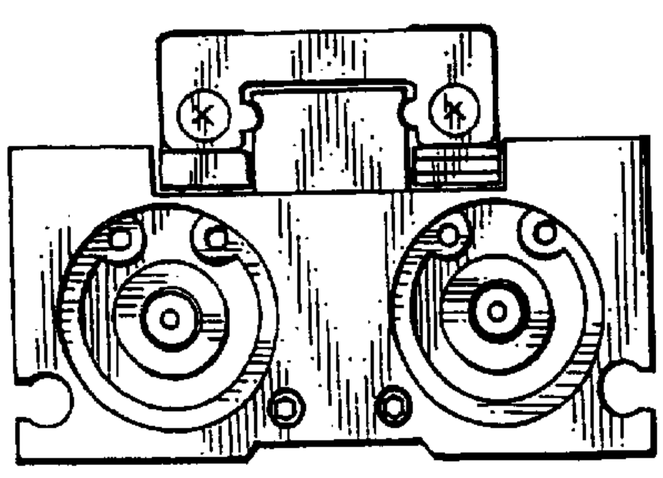


FIG.4

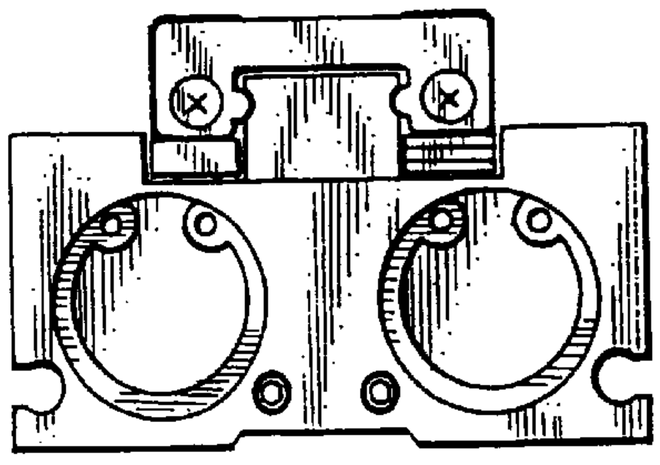


FIG. 5

FIG. 6

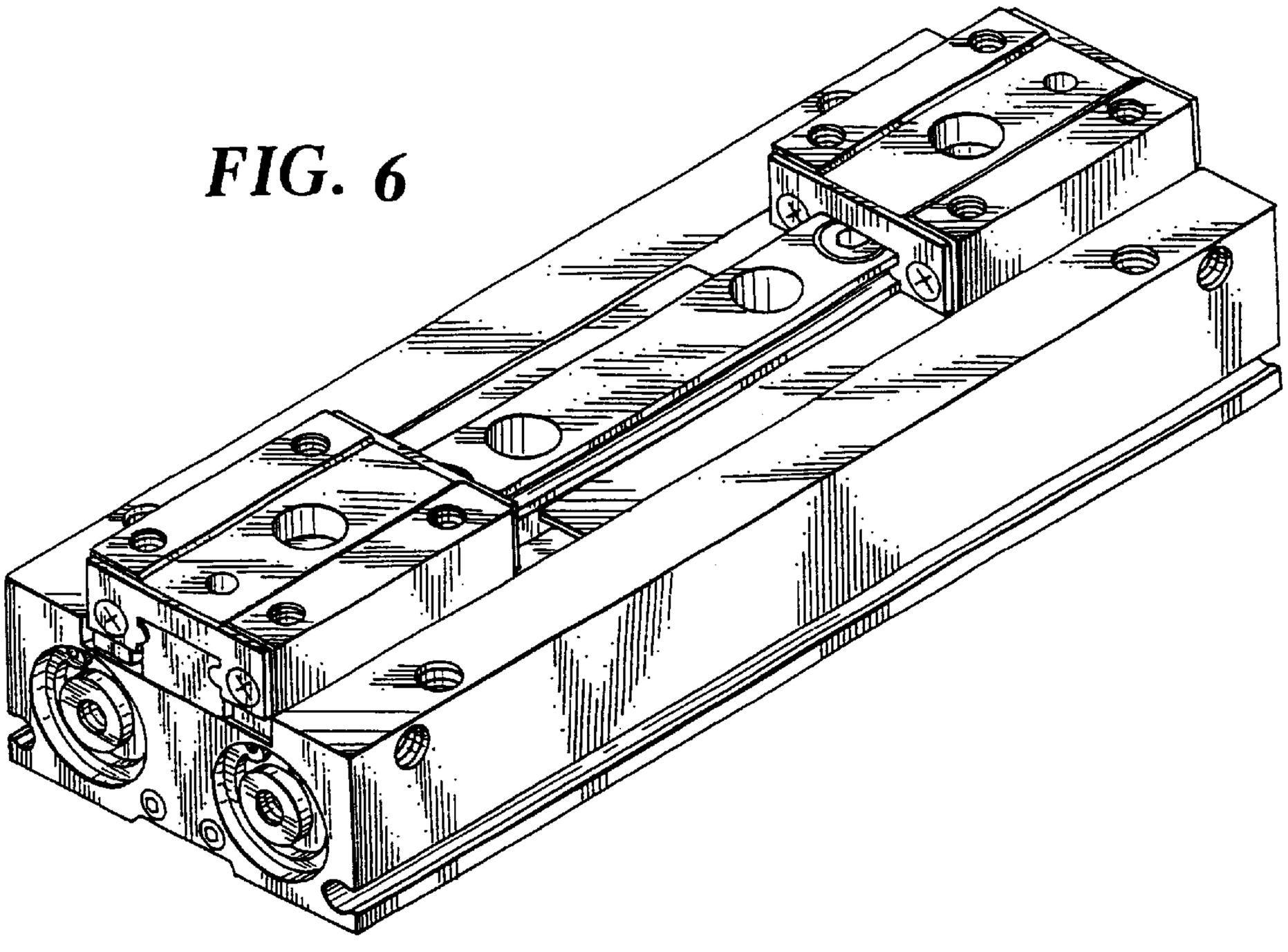


FIG. 7