



US00D523044S

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

(10) **Patent No.:** **US D523,044 S**  
(45) **Date of Patent:** **\*\* Jun. 13, 2006**

(54) **WELDING TONGS**

DE 202 01 734 7/2003

(75) Inventor: **Robert Hartmann**, Munich (DE)

\* cited by examiner

(73) Assignee: **S.W.A.C. Schmitt-Walter Automation Consult GmbH**, Oberhaching (DE)

*Primary Examiner*—Antoine D. Davis  
(74) *Attorney, Agent, or Firm*—Fynn, Thiel, Boutell & Tanis, P.C.

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

(57) **CLAIM**

(21) Appl. No.: **29/205,878**

The ornamental design for welding tongs, as shown and described.

(22) Filed: **May 21, 2004**

(30) **Foreign Application Priority Data**

**DESCRIPTION**

Nov. 24, 2003 (AM) ..... 000112842

(51) **LOC (8) Cl.** ..... **15-09**

(52) **U.S. Cl.** ..... **D15/144**

(58) **Field of Classification Search** ..... D15/144–144.2;  
219/60 A, 60 R, 86.25, 89–90

See application file for complete search history.

The file of this patent contains at least one drawing/photograph executed in color. Copies of this patent with color drawing(s)/photograph(s) will be provided by the Office upon request and payment of the necessary fee.

FIG. 1 is a perspective view from the right side with a bracket for a roboter arm;

FIG. 2 is a side view from the left side with a bracket for a roboter arm;

FIG. 3 is a side view from the left side without a bracket for a roboter arm;

FIG. 4 is a perspective view from the left side without a bracket for a roboter arm;

FIG. 5 is a perspective view from the right side without a bracket for a roboter arm;

FIG. 6 is a perspective view from the left side and from the front without a bracket for a roboter arm;

FIG. 7 is a perspective view from the left side and from the back side without a bracket for a roboter arm; and,

FIG. 8 is a perspective view from the right side without a bracket for a roboter arm.

(56) **References Cited**

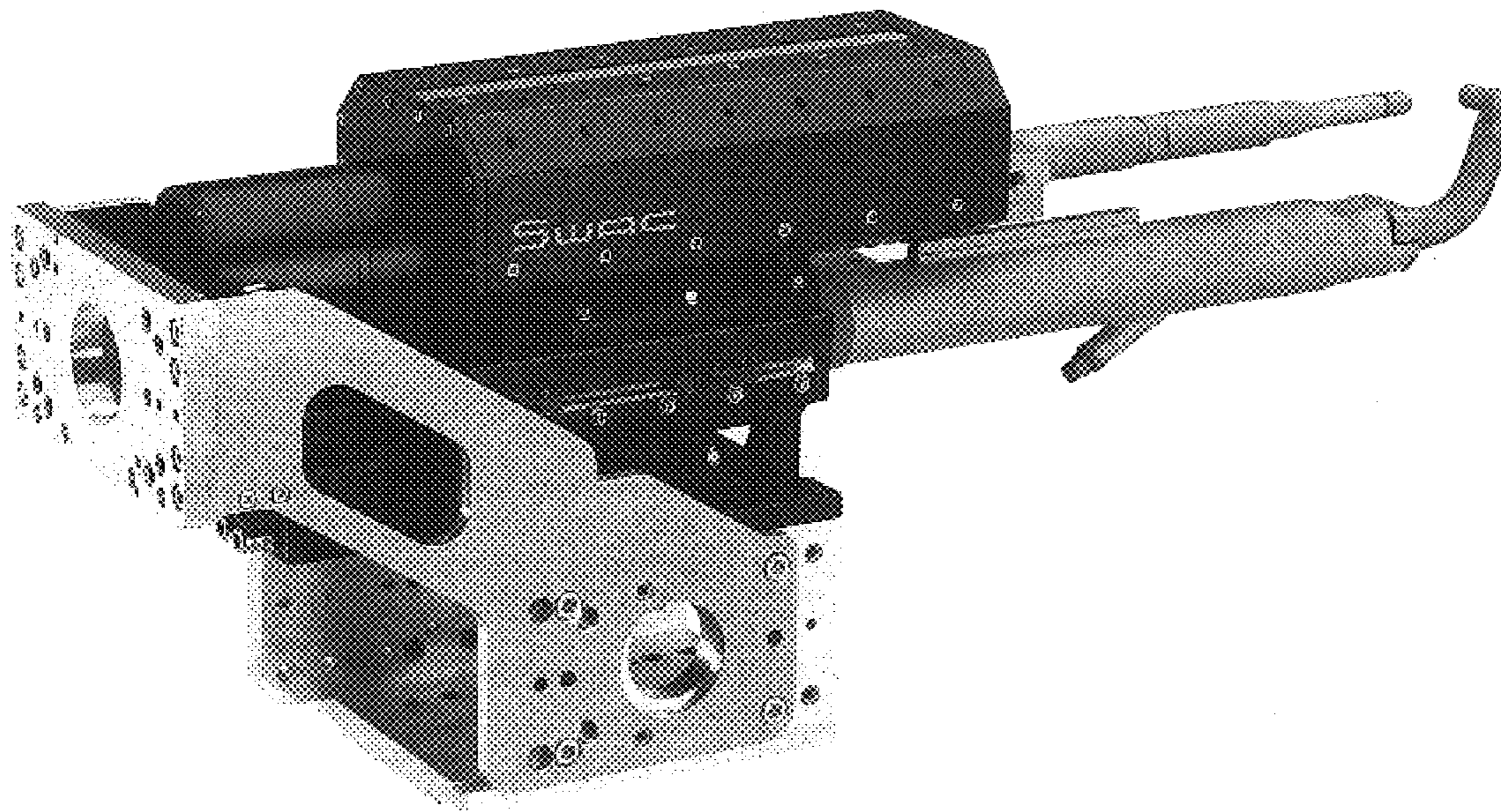
**U.S. PATENT DOCUMENTS**

3,066,216	A	11/1962	Busche	
4,771,160	A *	9/1988	Pitsch et al.	219/90
D327,694	S *	7/1992	Tanaka	D15/144
5,128,510	A *	7/1992	De Bruyn et al.	219/89
D363,298	S *	10/1995	Takemi	D15/144
6,512,194	B1 *	1/2003	Koshurba et al.	219/86.25
6,723,944	B1 *	4/2004	Angel	219/90
6,852,941	B1 *	2/2005	Masanori	219/86.25
6,870,121	B1 *	3/2005	Beauregard et al.	219/86.25
6,875,945	B1 *	4/2005	Knauff et al.	219/90
6,909,064	B1 *	6/2005	Angel	219/116
6,911,616	B1 *	6/2005	Kilabarda et al.	219/86.61

**FOREIGN PATENT DOCUMENTS**

DE 199 04 651 8/2000

**1 Claim, 8 Drawing Sheets**



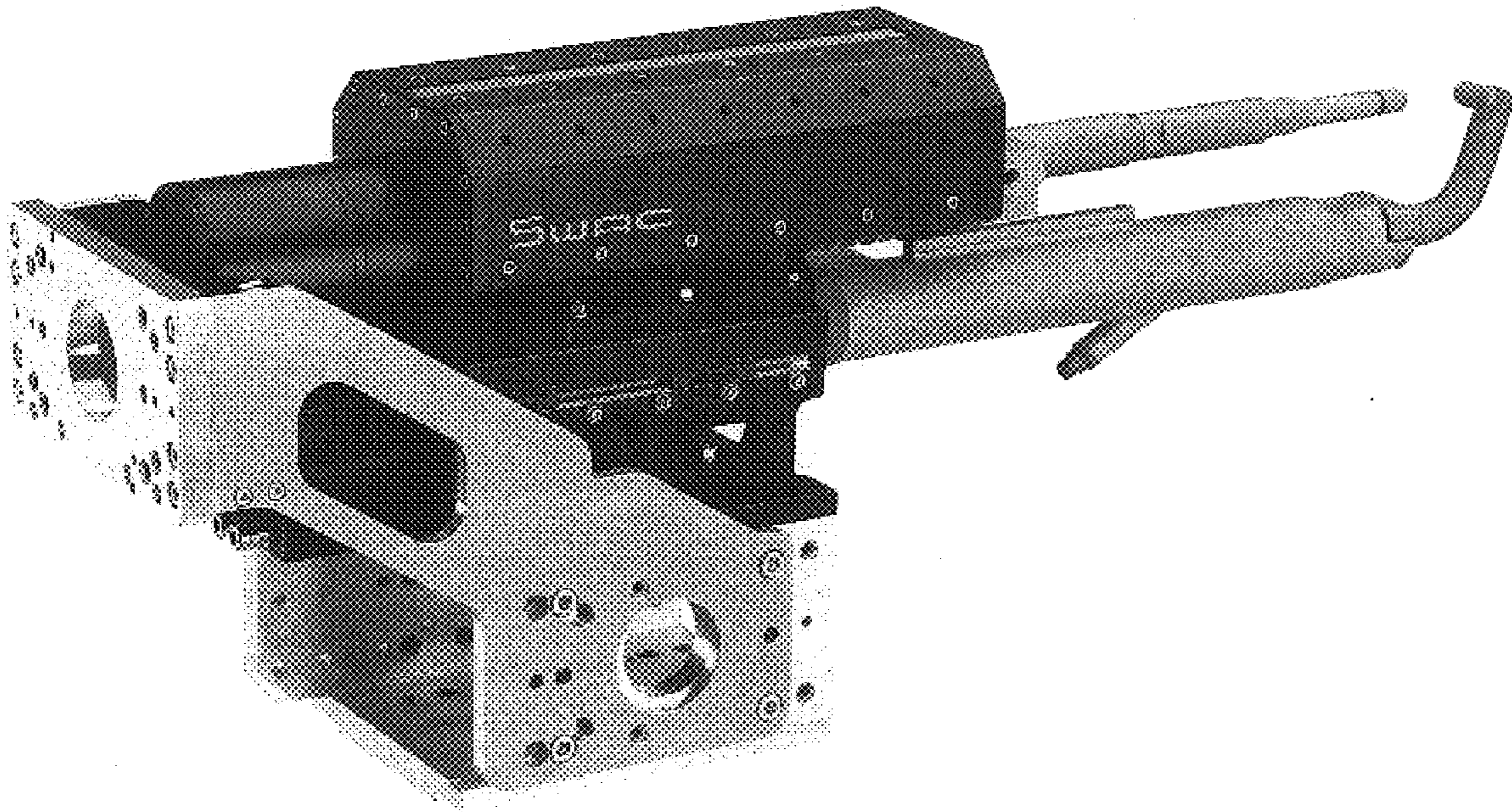


FIG. 1

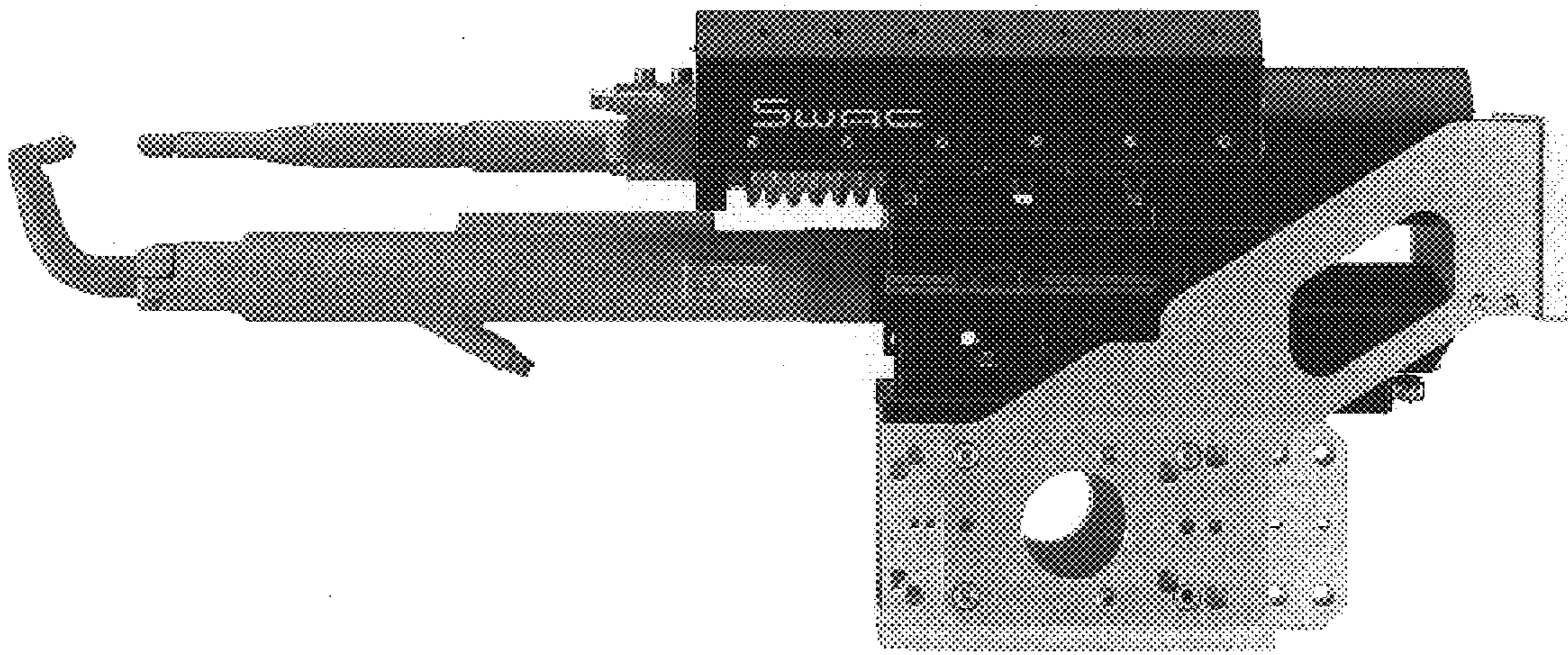


FIG. 2

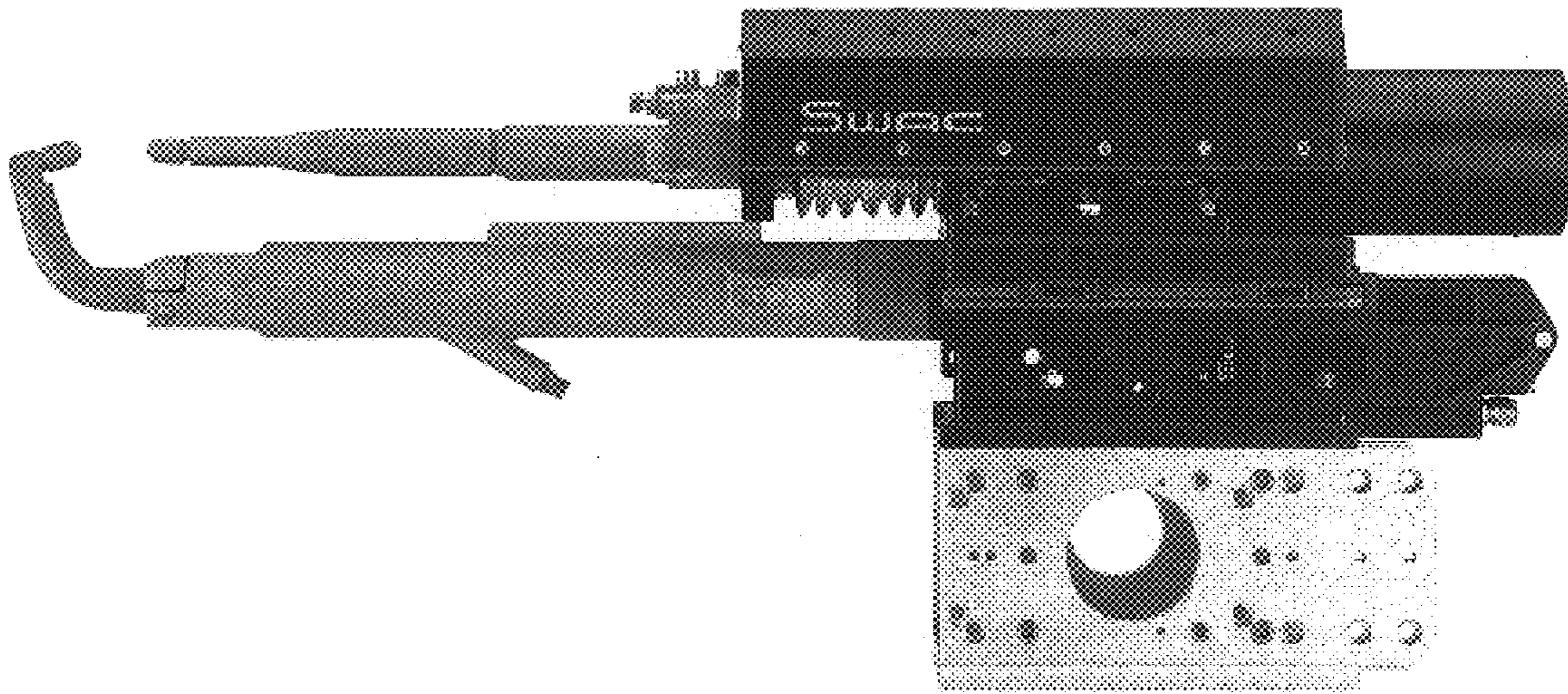


FIG. 3

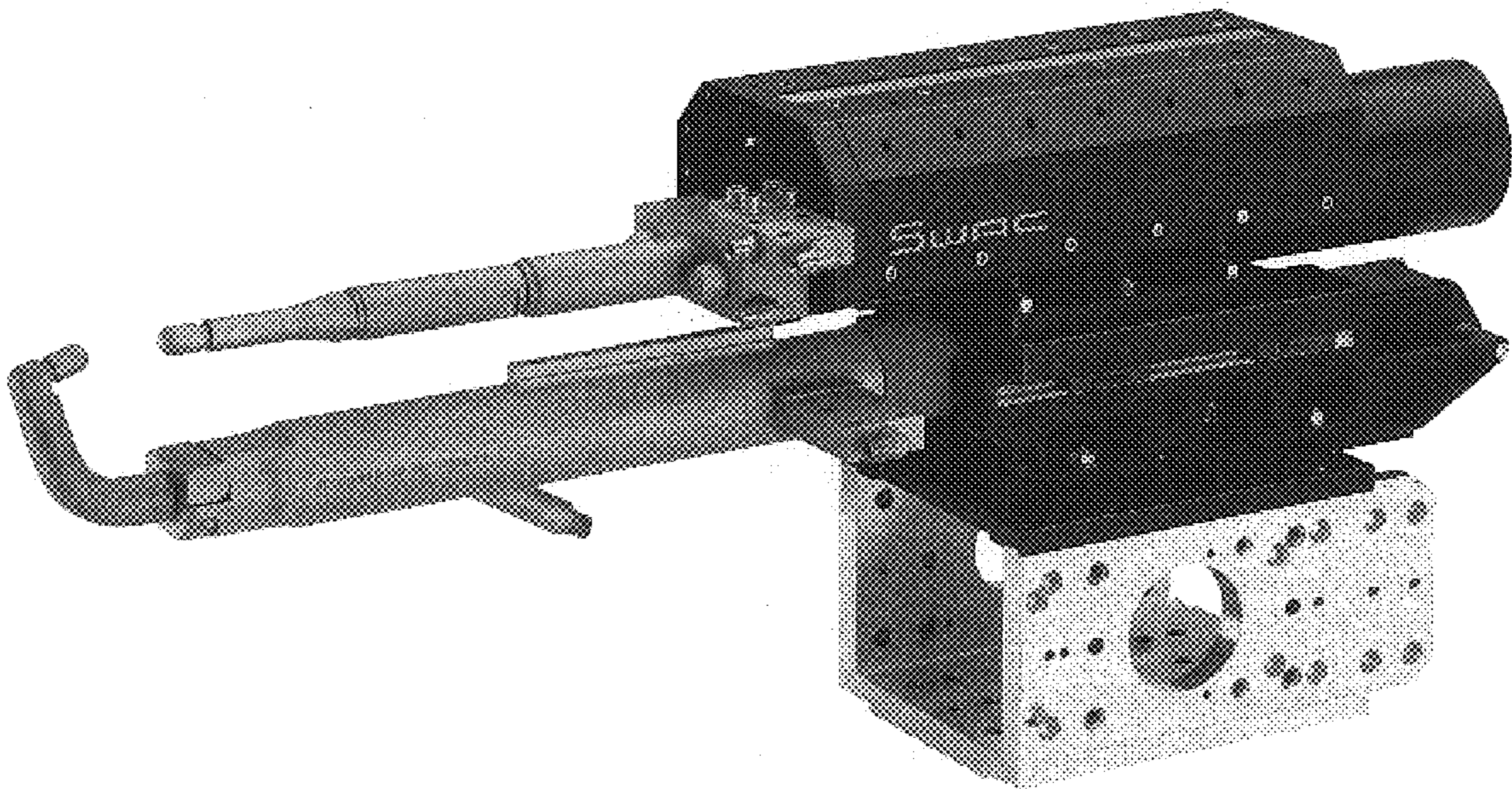


FIG. 4

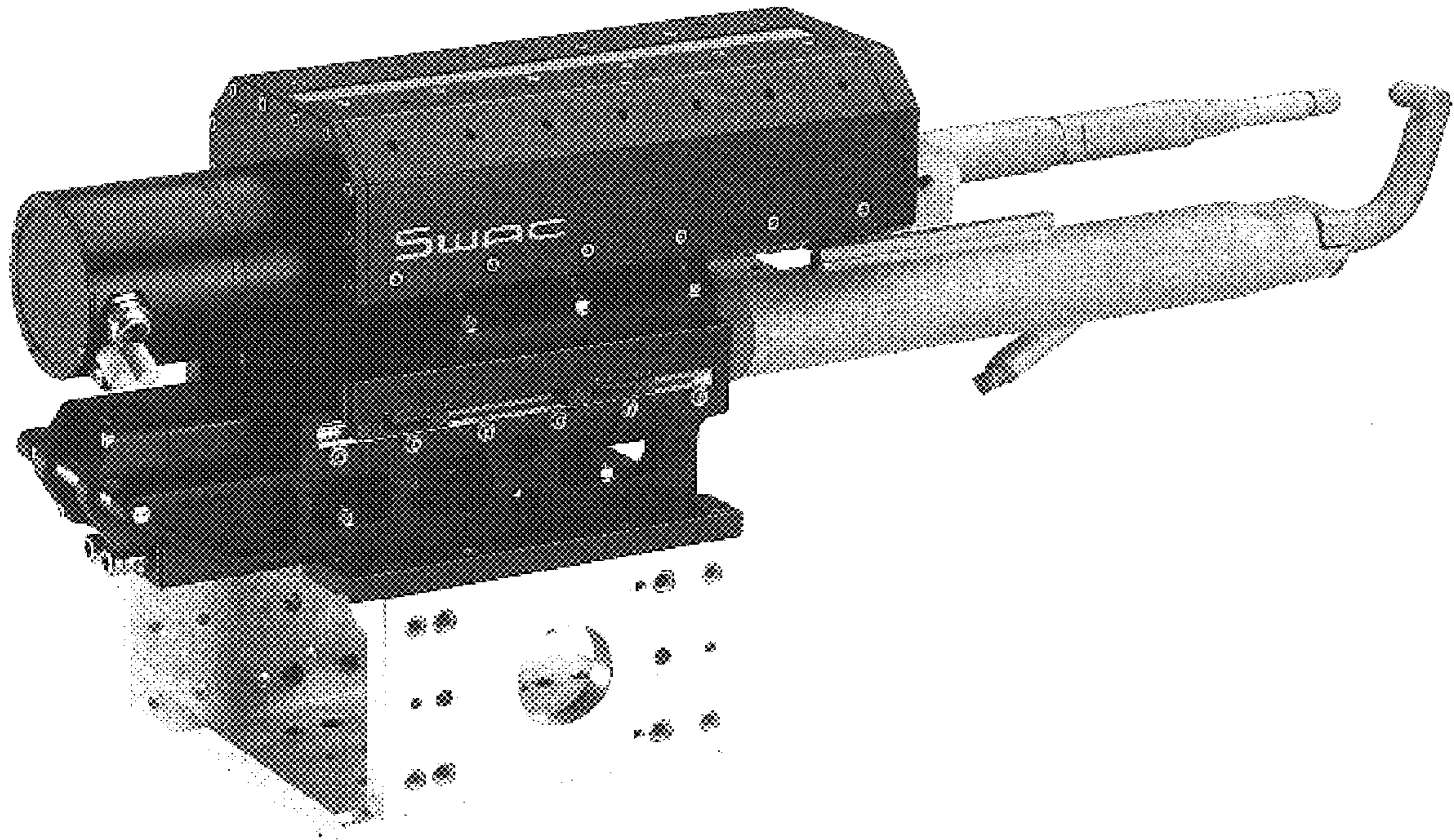


FIG. 5

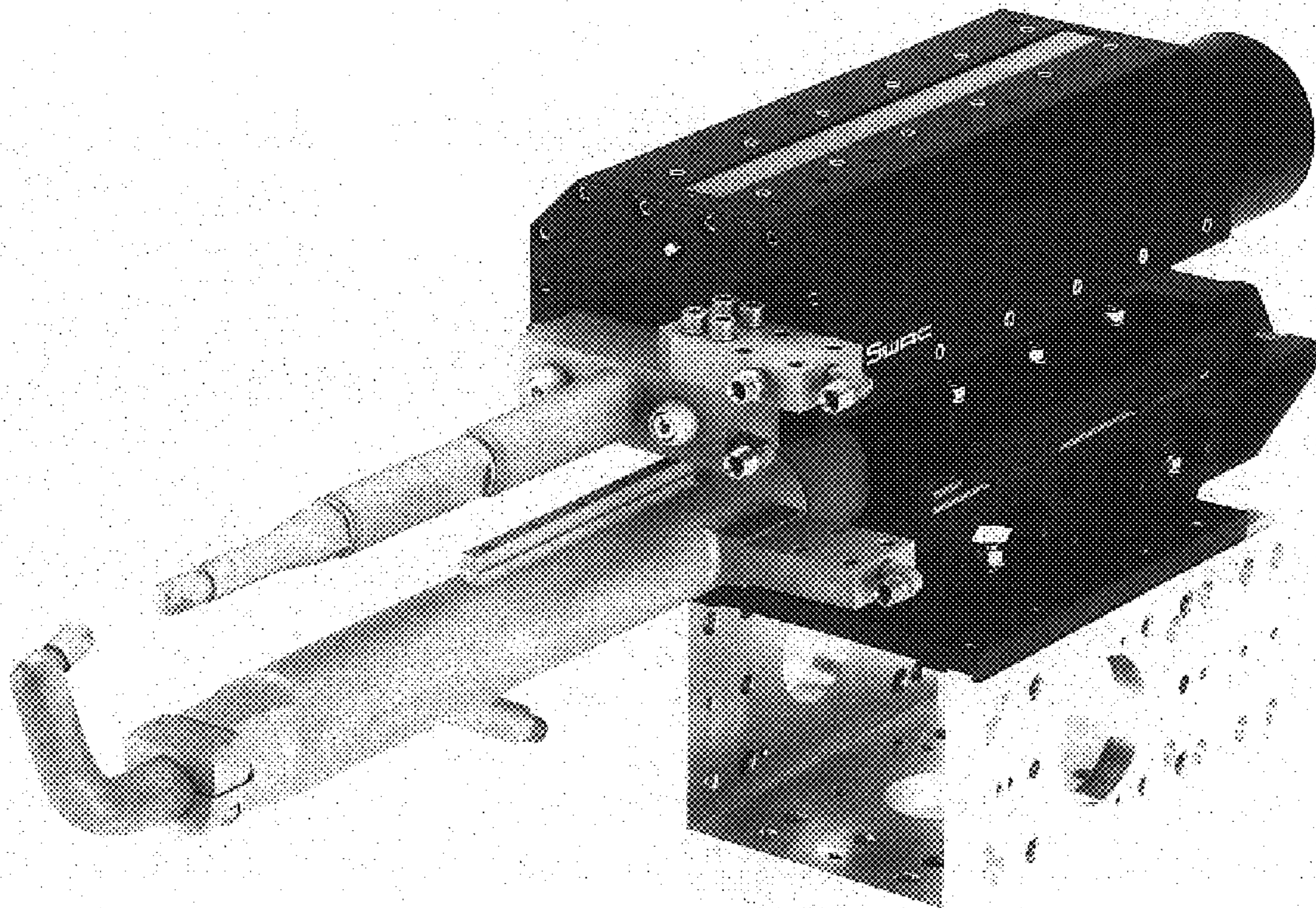


FIG. 6

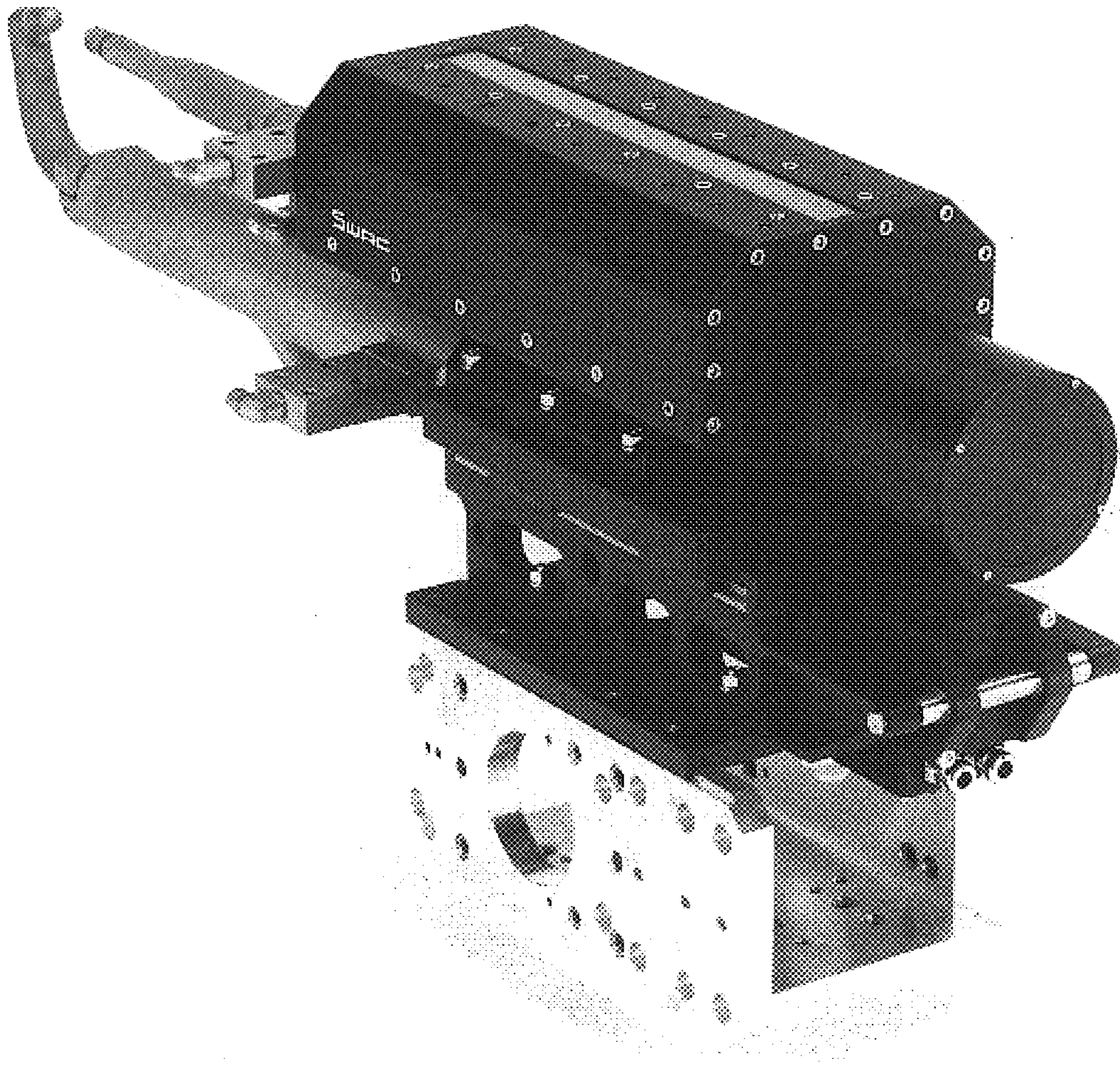


FIG. 7



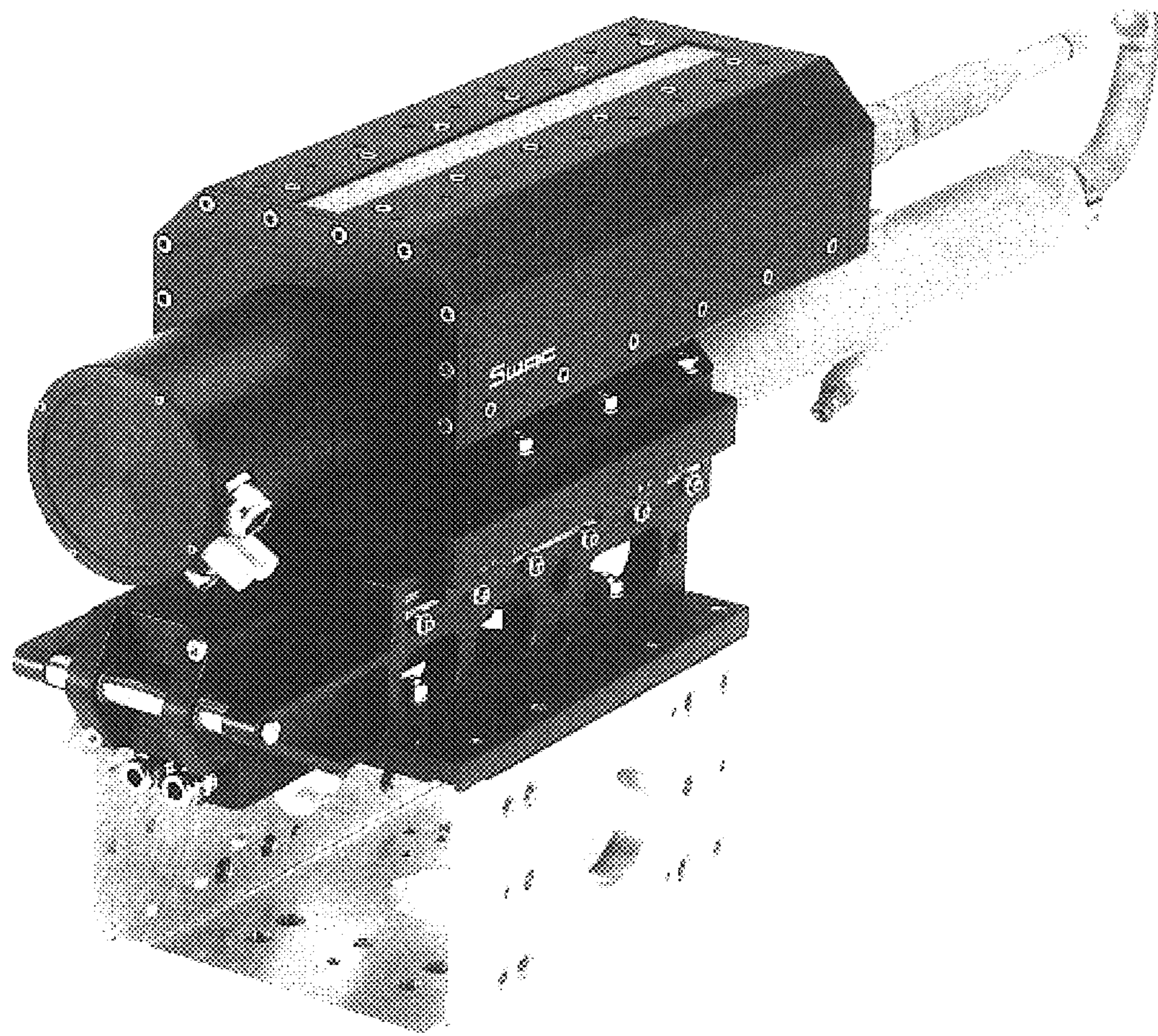


FIG. 8