



US00D526671S

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

(10) **Patent No.:** **US D526,671 S**
(45) **Date of Patent:** **** Aug. 15, 2006**

(54) **PIVOT UNIT FOR GRIPPER SYSTEMS**

(75) Inventors: **Andreas Hoch**, Talheim (DE); **Tobias Dietz**, Brackenheim (DE)

(73) Assignee: **Schunk GmbH & Co. KG Fabrik für Spann- und Greifwerkzeuge**, Lauffen am Neckar (DE)

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

(21) Appl. No.: **29/209,025**

(22) Filed: **Jul. 12, 2004**

(30) **Foreign Application Priority Data**

Jan. 16, 2004 (EM) 132329

(51) **LOC (8) Cl.** **15-99**

(52) **U.S. Cl.** **D15/199**

(58) **Field of Classification Search** D15/199;
20/12; 21/44; 74/22 R, 63, 66, 96, 99; 192/DIG. 1;
269/20, 32, 237, 238, 239, 2, 25, 27, 228
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,690,546 A * 11/1997 Mascola 269/157
6,378,856 B1 * 4/2002 Takahashi 269/32
6,488,273 B1 * 12/2002 Sawdon et al. 269/20
6,908,077 B1 * 6/2005 Sawdon 269/32
7,000,911 B1 * 2/2006 McCormick et al. 269/239

2004/0149060 A1 * 8/2004 Rentz 74/99 R
2005/0126320 A1 * 6/2005 Cheng 74/63
2005/0178816 A1 * 8/2005 Stevenson et al. 228/112.1
2005/0242483 A1 * 11/2005 McIntosh et al. 269/32

* cited by examiner

Primary Examiner—Antoine D. Davis

Assistant Examiner—Patricia Palasik

(74) *Attorney, Agent, or Firm*—Paul Vincent

(57) **CLAIM**

The ornamental design for the pivot unit for gripper systems, as shown.

DESCRIPTION

FIG. 1 shows a top, front, right view of the unit in accordance with the invention;

FIG. 2 shows a top, front view of the unit in accordance with the invention;

FIG. 3 shows a top, left view of the unit in accordance with the invention;

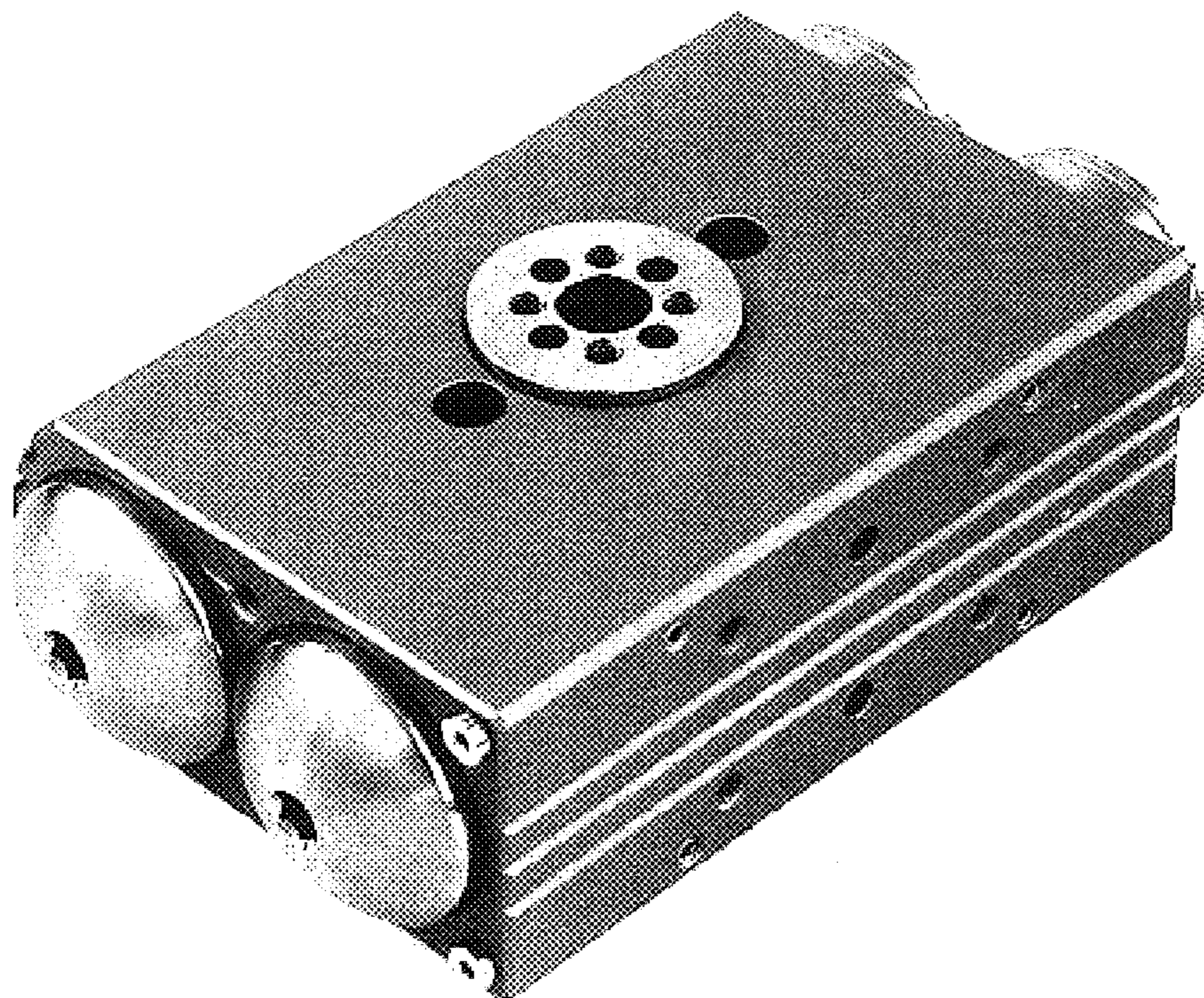
FIG. 4 shows a top, back view of the unit in accordance with the invention;

FIG. 5 shows a top view of the unit in accordance with the invention;

FIG. 6 shows a bottom, front, left view of the unit in accordance with the invention; and,

FIG. 7 shows a bottom view of the unit in accordance with the invention;

1 Claim, 4 Drawing Sheets



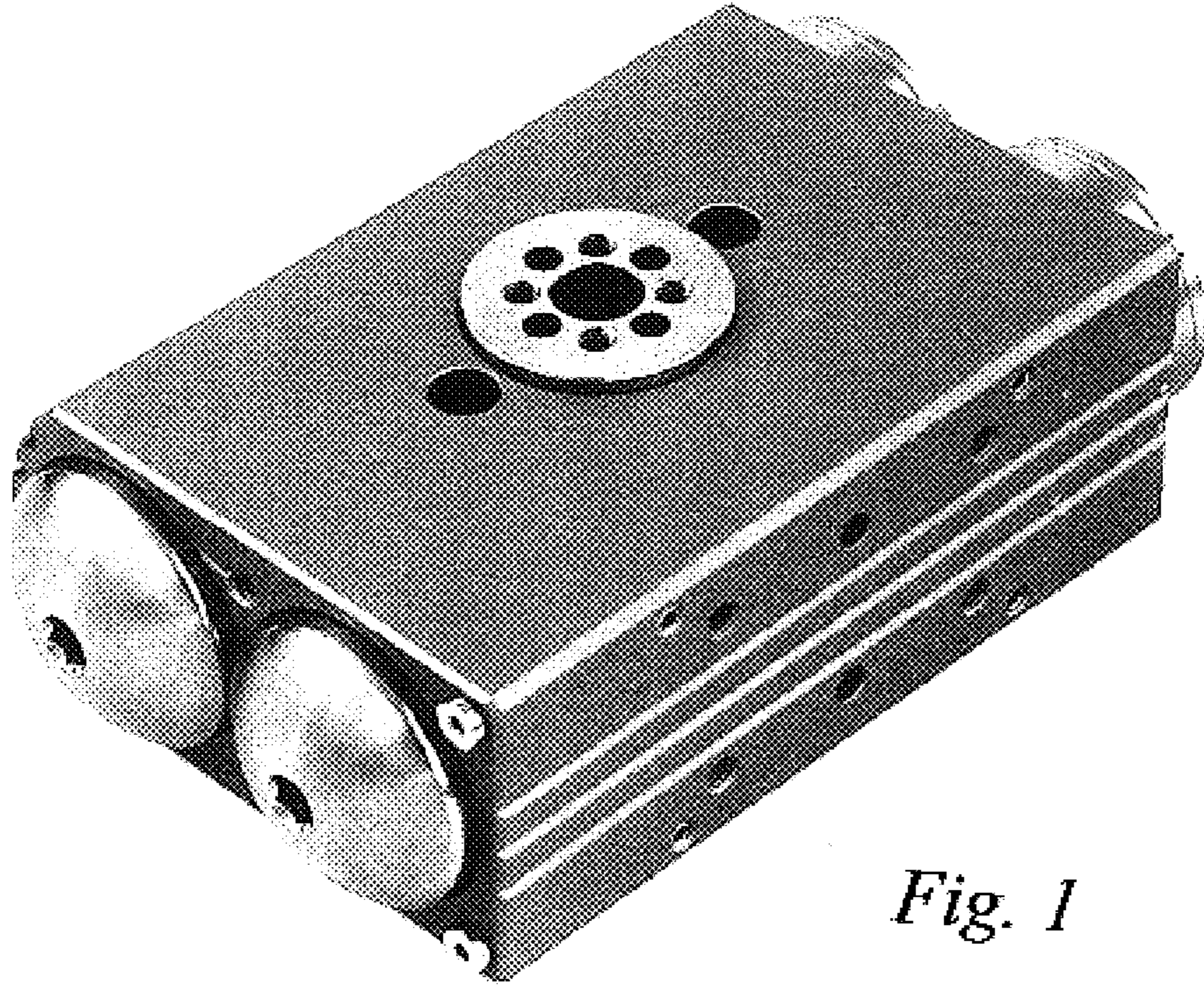


Fig. 1

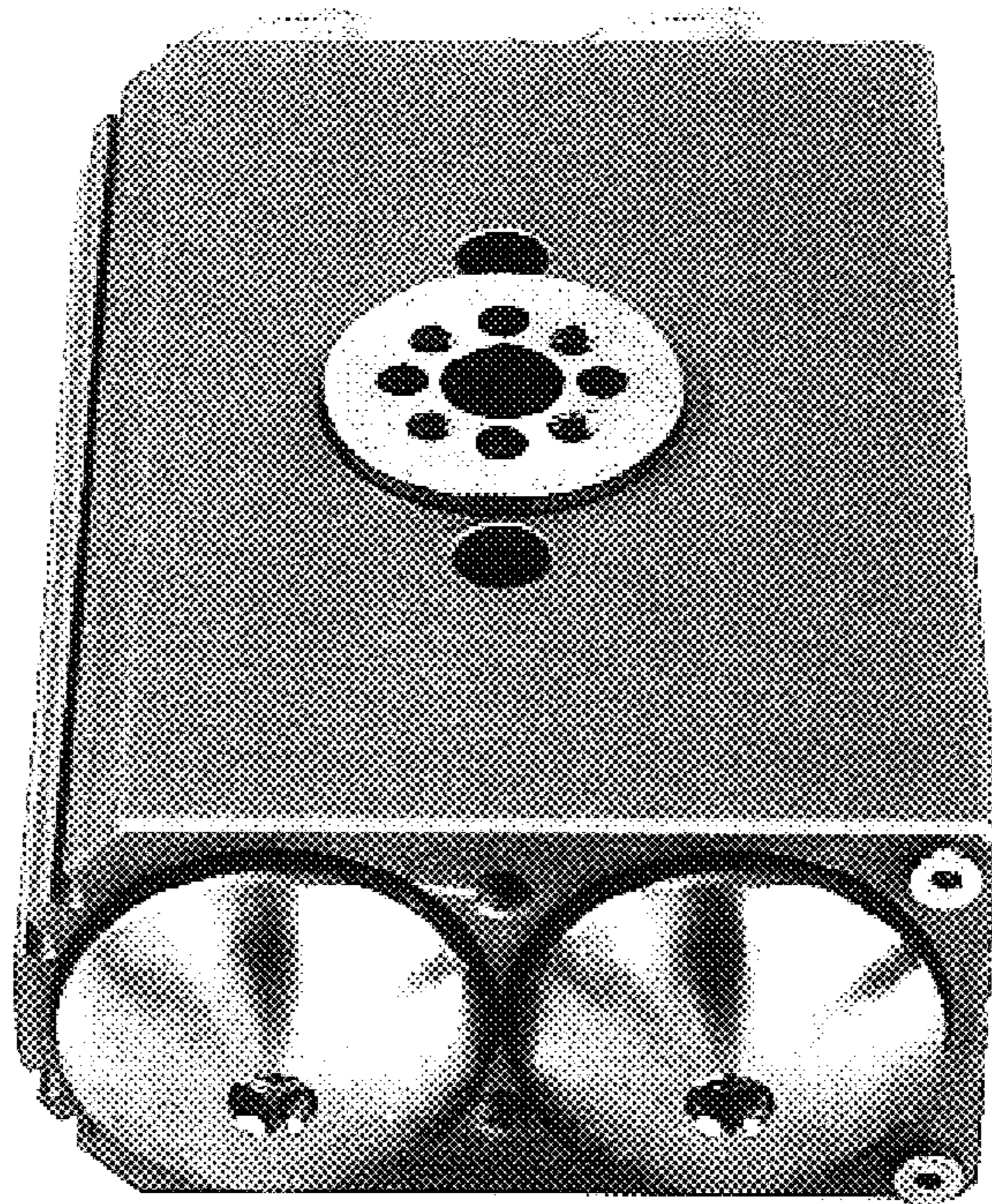


Fig. 2

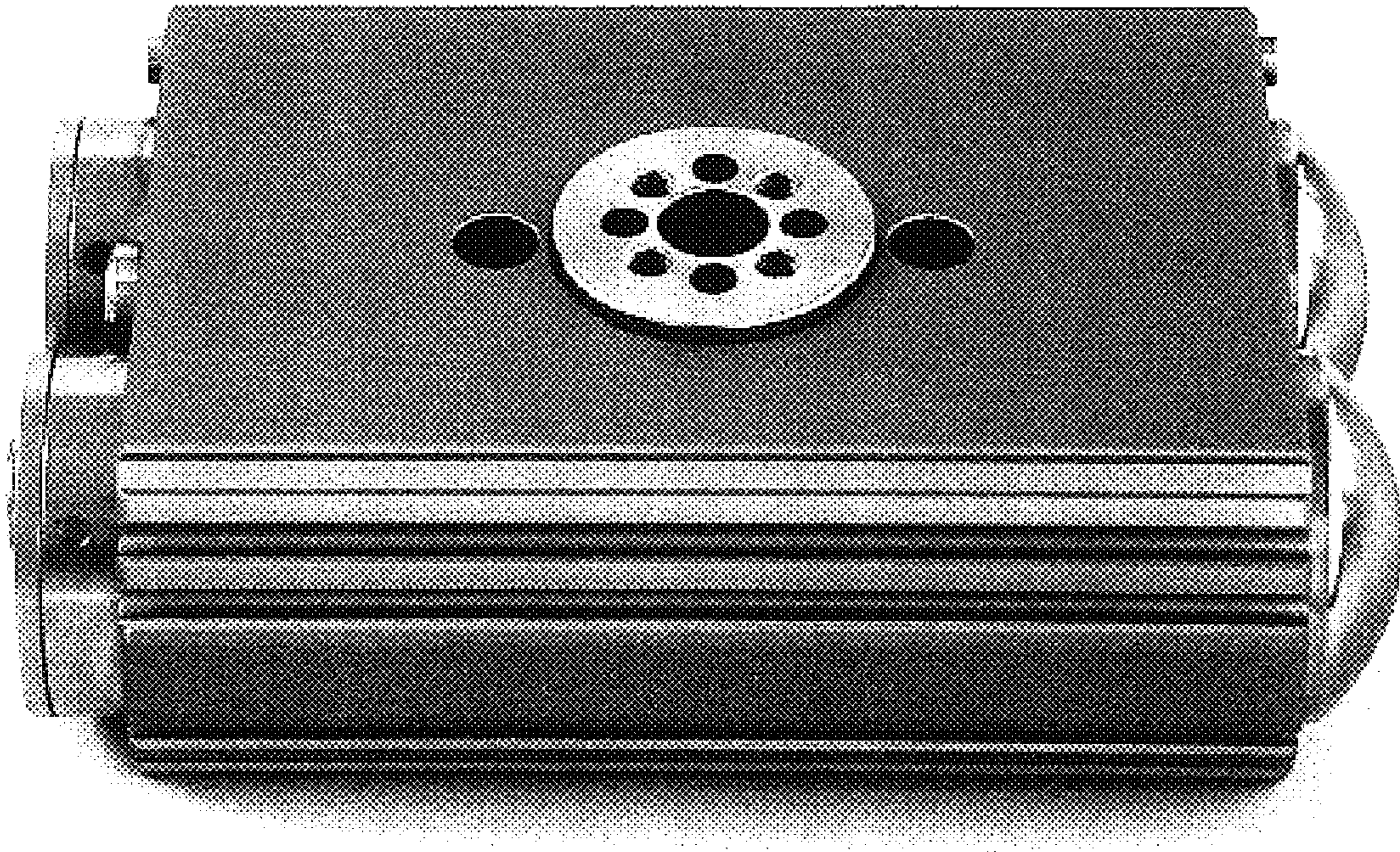


Fig. 3

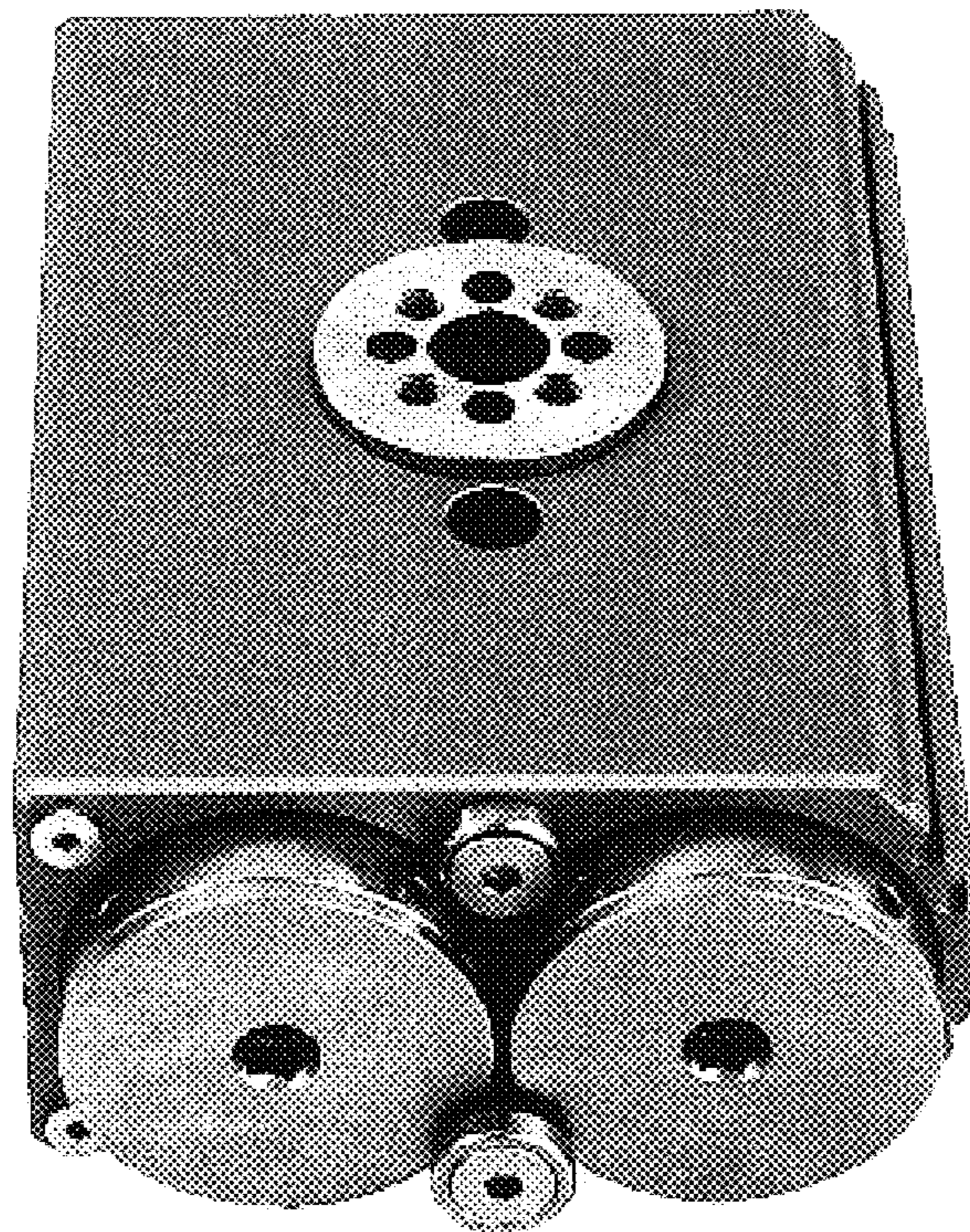


Fig. 4

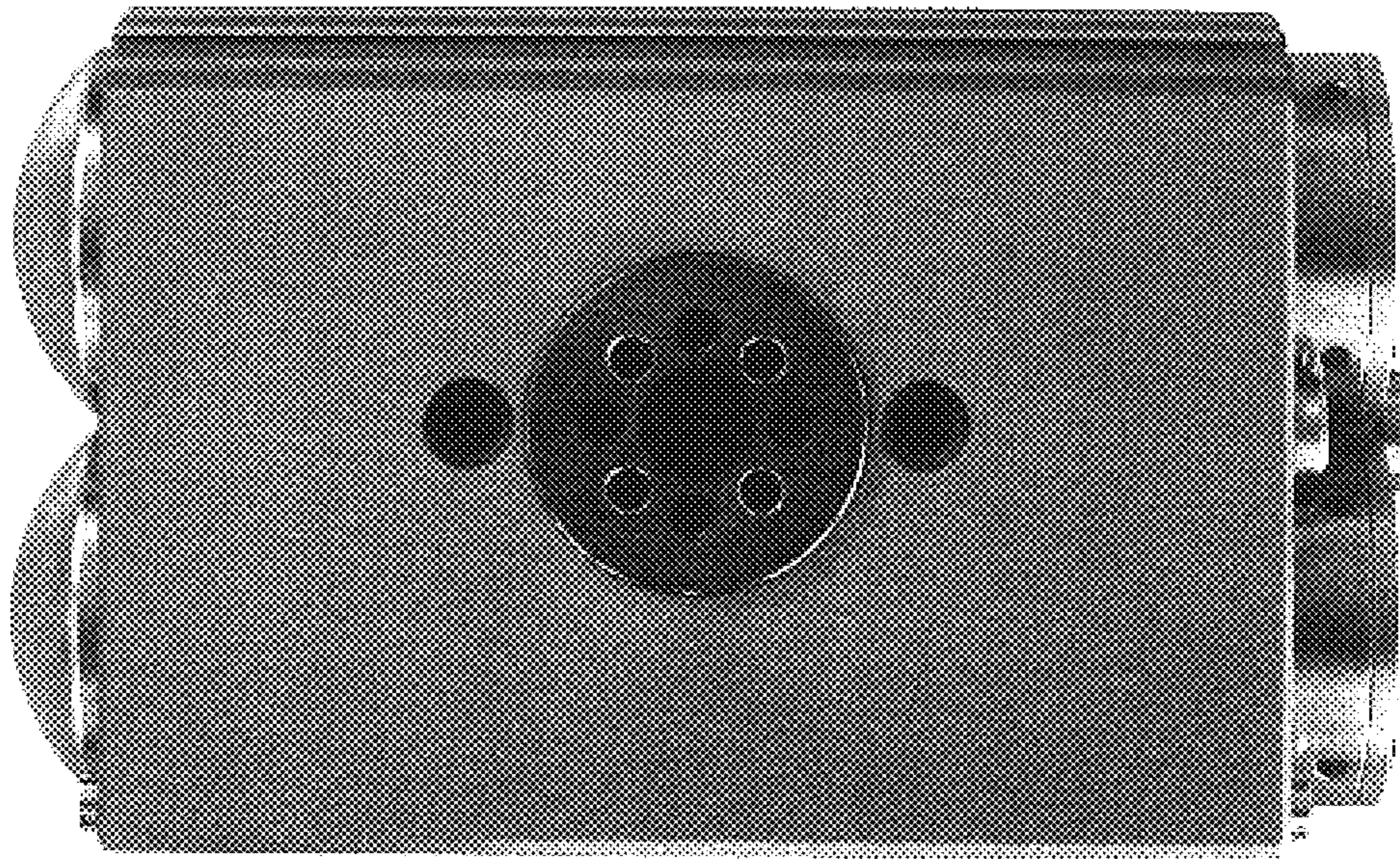


Fig. 5

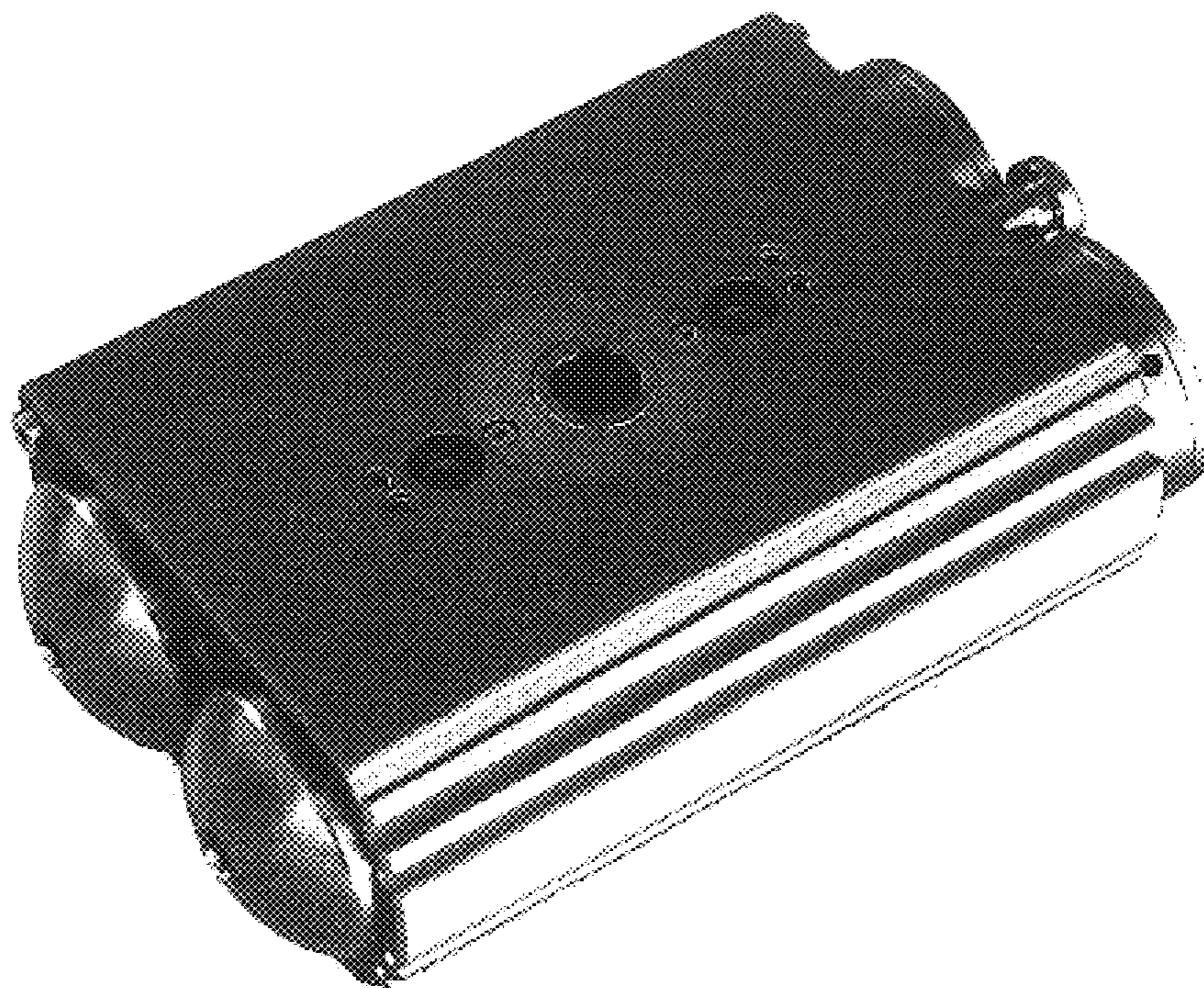


Fig. 6

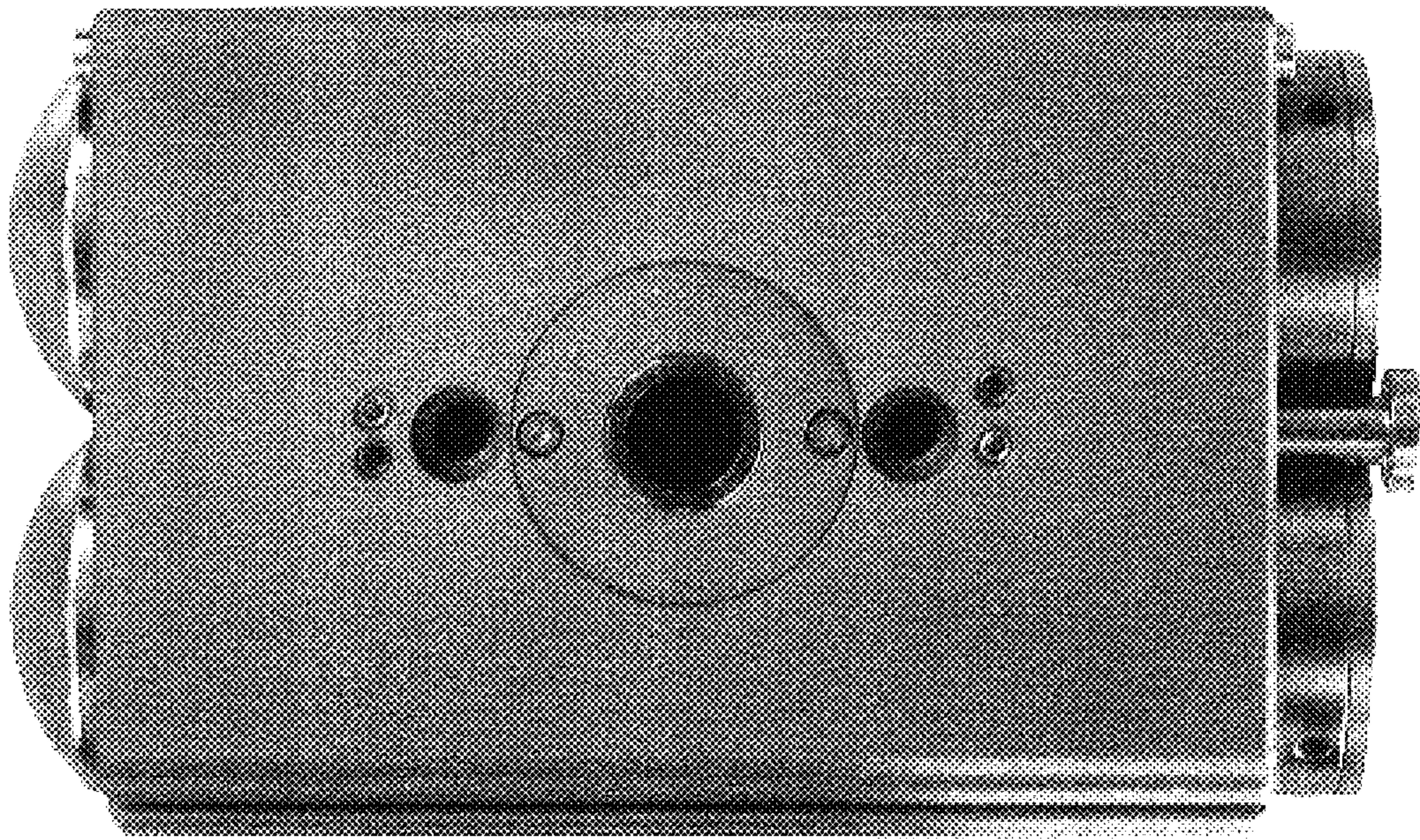


Fig. 7