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

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(54) **CENTRIFUGAL PUMP**
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(**) Term: **15 Years**
(21) Appl. No.: **35/509,903**
(22) Filed: **Jun. 24, 2020**

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(Continued)

(80) **Hague Agreement Data**
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Primary Examiner — Richard E Chilcot

(57) **CLAIM**

The ornamental design for a centrifugal pump, as shown and described.

(30) **Foreign Application Priority Data**

DESCRIPTION

Dec. 25, 2019 (JP) 2019-028722
Dec. 25, 2019 (JP) 2019-028728
Dec. 25, 2019 (JP) 2019-028734

- 3. Centrifugal pump
- 3.1: Bottom
- 3.2: Front
- 3.3: Back
- 3.4: Left
- 3.5: Right
- 3.6: Perspective
- 3.7: Perspective
- 3.8: Perspective
- 3.9: Perspective

(51) **LOC (13) Cl.** **15-02**
(52) **U.S. Cl.**
USPC **D15/7**
CPC **F02M 37/14** (2013.01)

(58) **Field of Classification Search**
USPC D15/7-9; D23/225, 231, 232; 417/60, 417/235, 265, 321, 355, 358, 363, 359, 417/410.1, 415-416, 405, 900, 269, 539; 60/408, 412; 184/26-37; 415/140-147; 123/495, 509; 137/565.34
CPC F04D 7/04; F04D 29/708; F02M 37/04; F02M 37/14; F04B 53/92; F04B 1/005
See application file for complete search history.

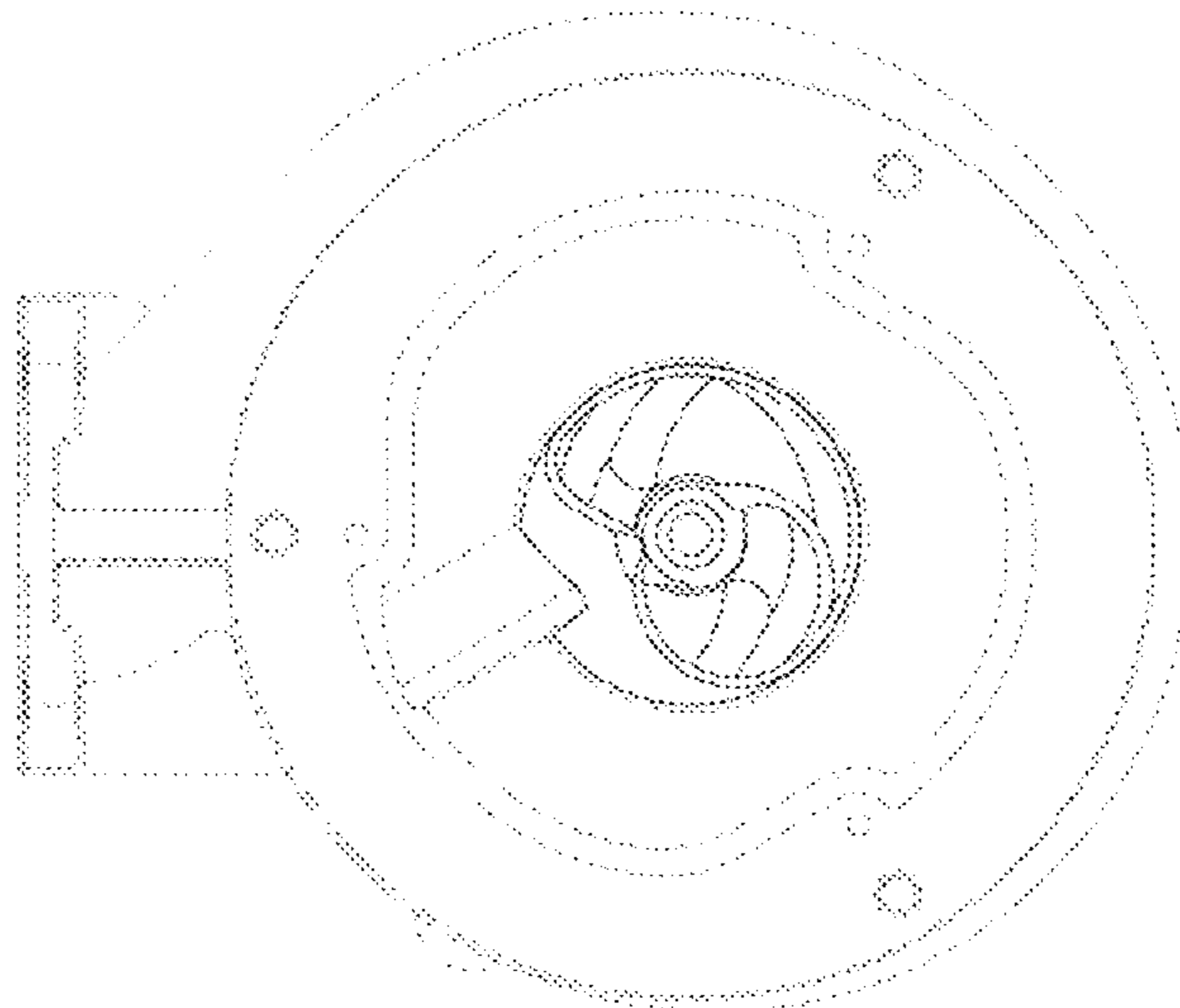
3. Design 3 is a partial design of a centrifugal pump; a part shown by solid lines seeks protection as the partial design in the reproductions **3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8** and **3.9**; top view in design 3 is omitted because it is not shown in the sought partial design; the reproduction **3.6** shows that the impeller is rotated by 0-degree and 360-degrees; the reproduction **3.7** shows that the impeller is rotated by 90-degrees; the reproduction **3.8** shows that the impeller is rotated by 180-degrees; the reproduction **3.9** shows that the impeller is rotated by 270-degrees.

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The broken lines and unshaded surfaces bounded by broken lines form no part of the claimed design.

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1 Claim, 9 Drawing Sheets



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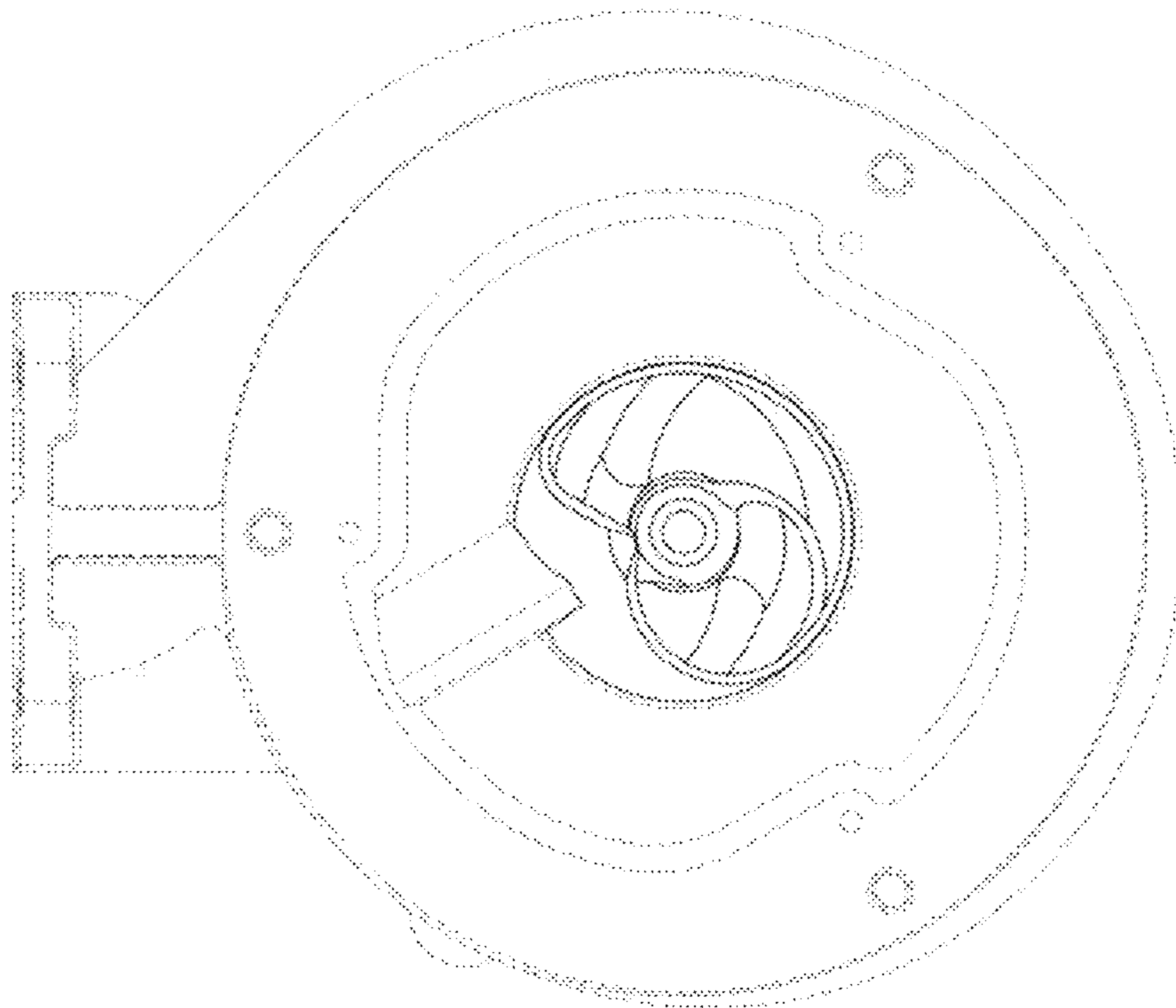


FIG. 3.1

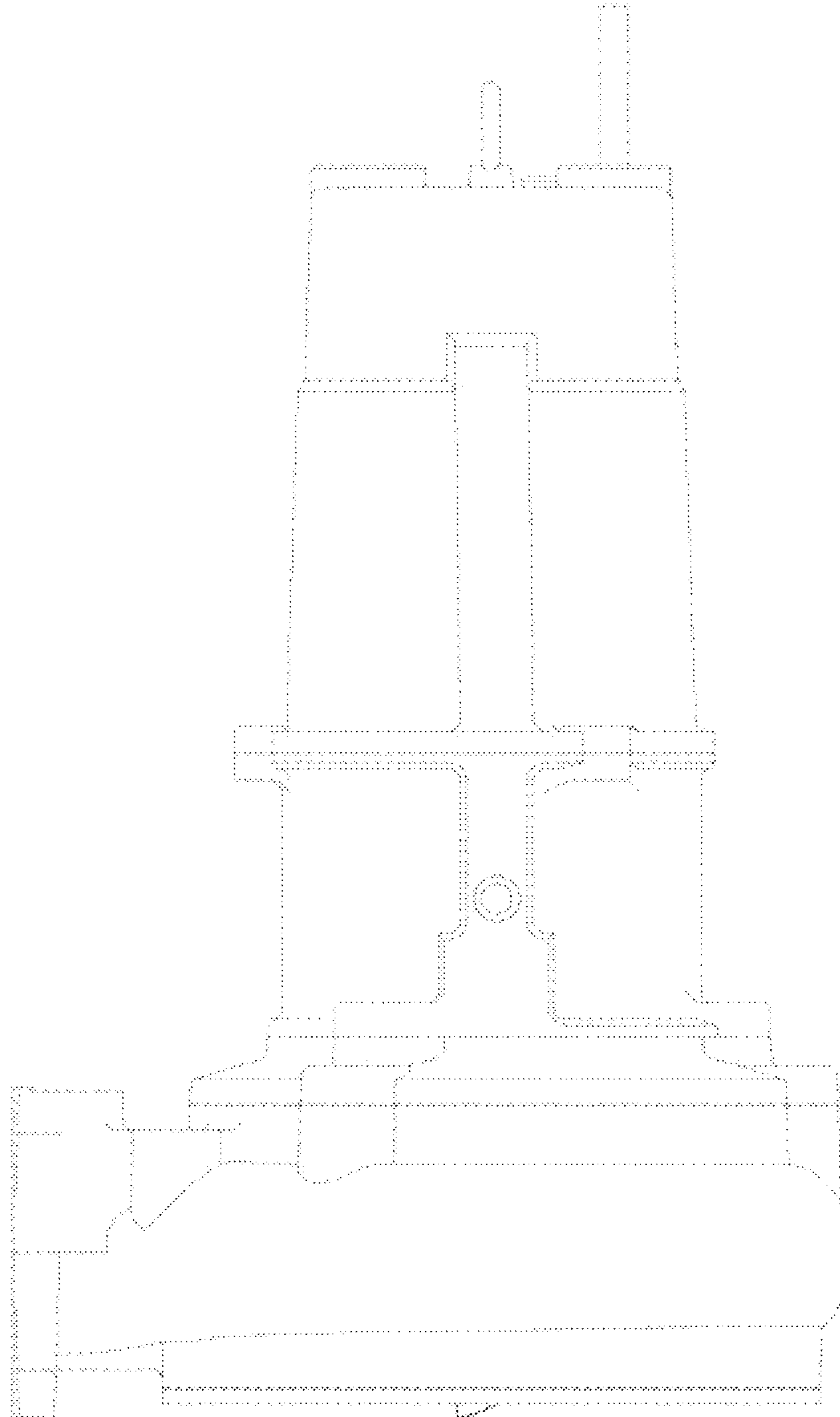


FIG. 3.2

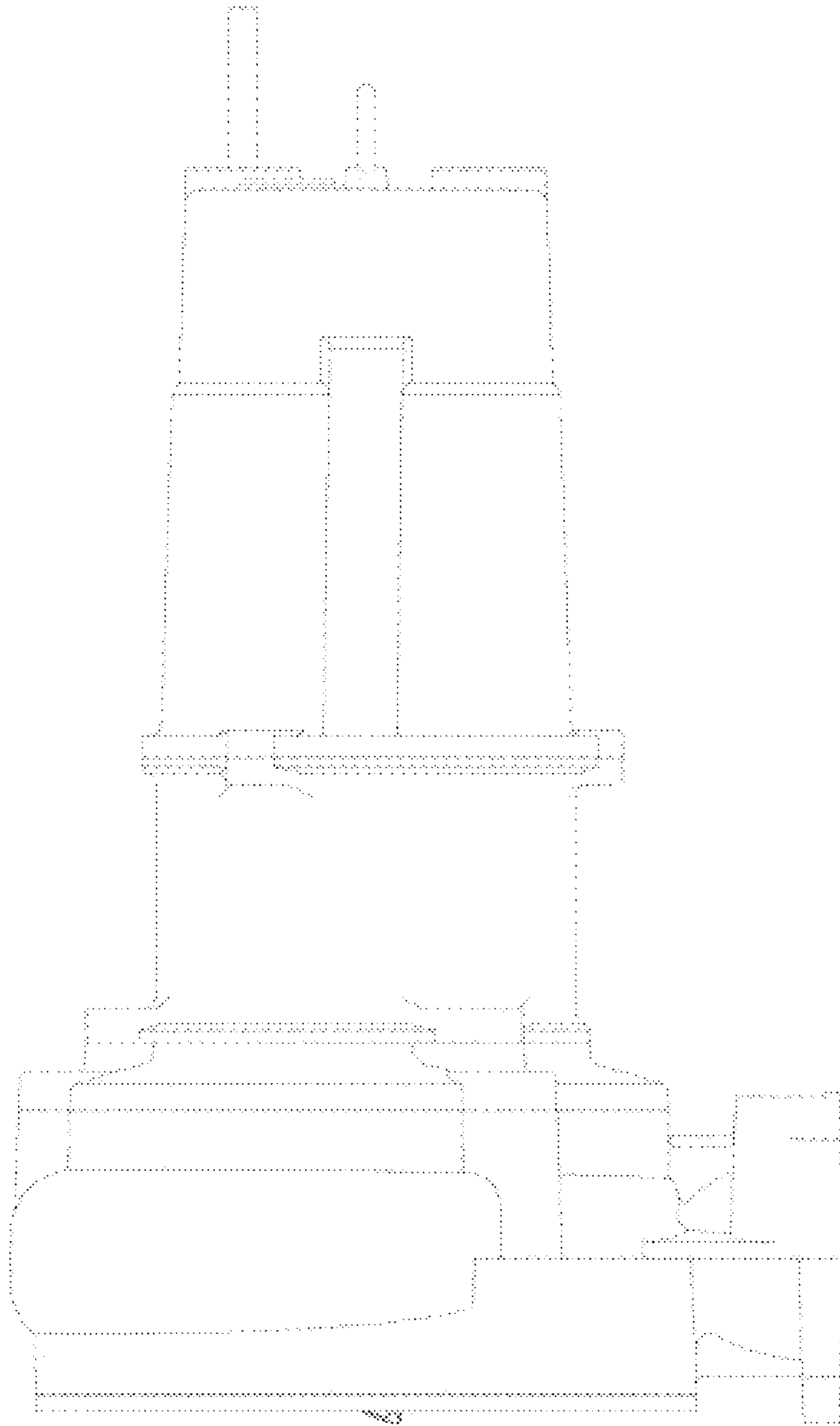


FIG. 3.3

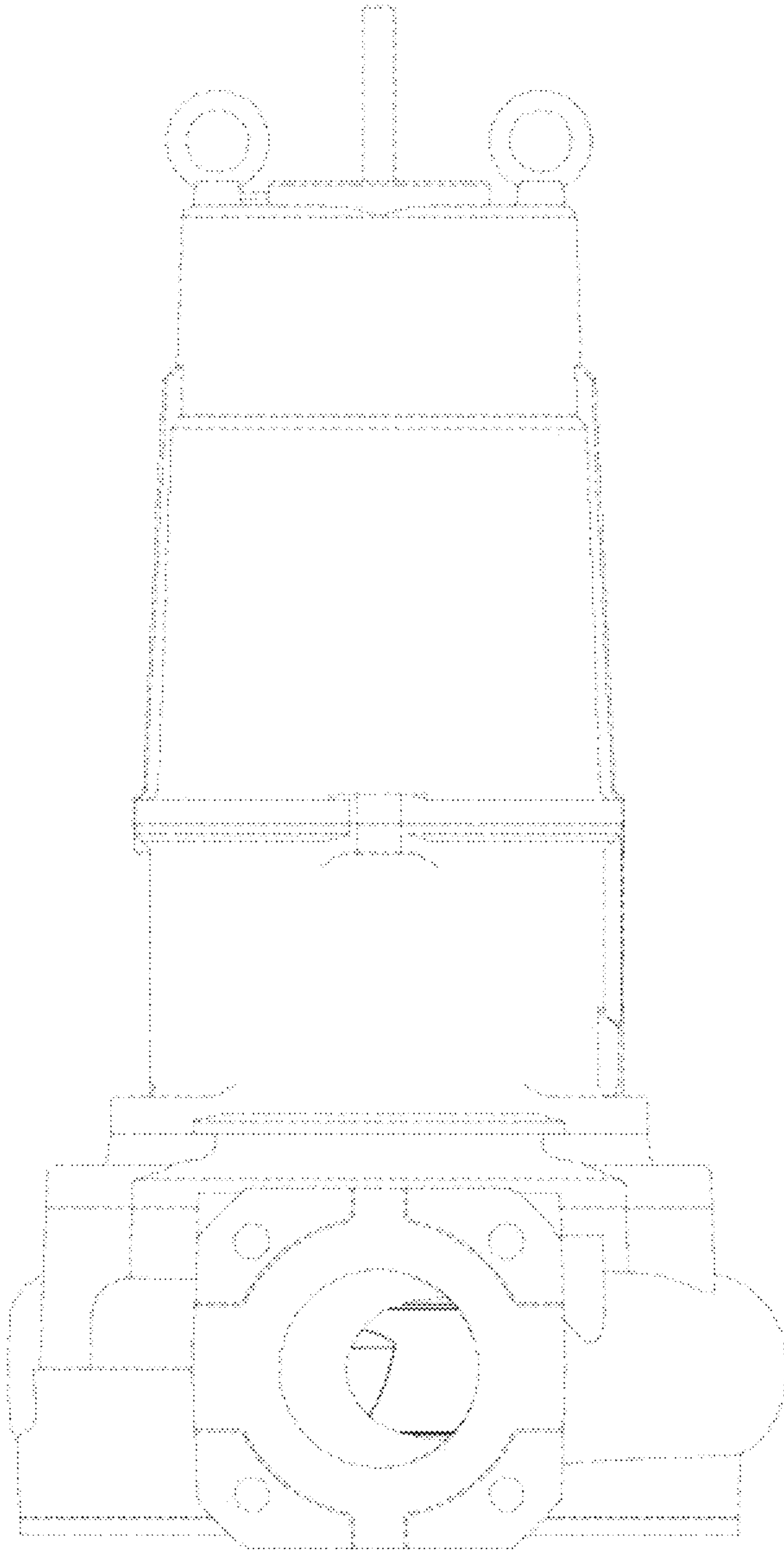


FIG. 3.4

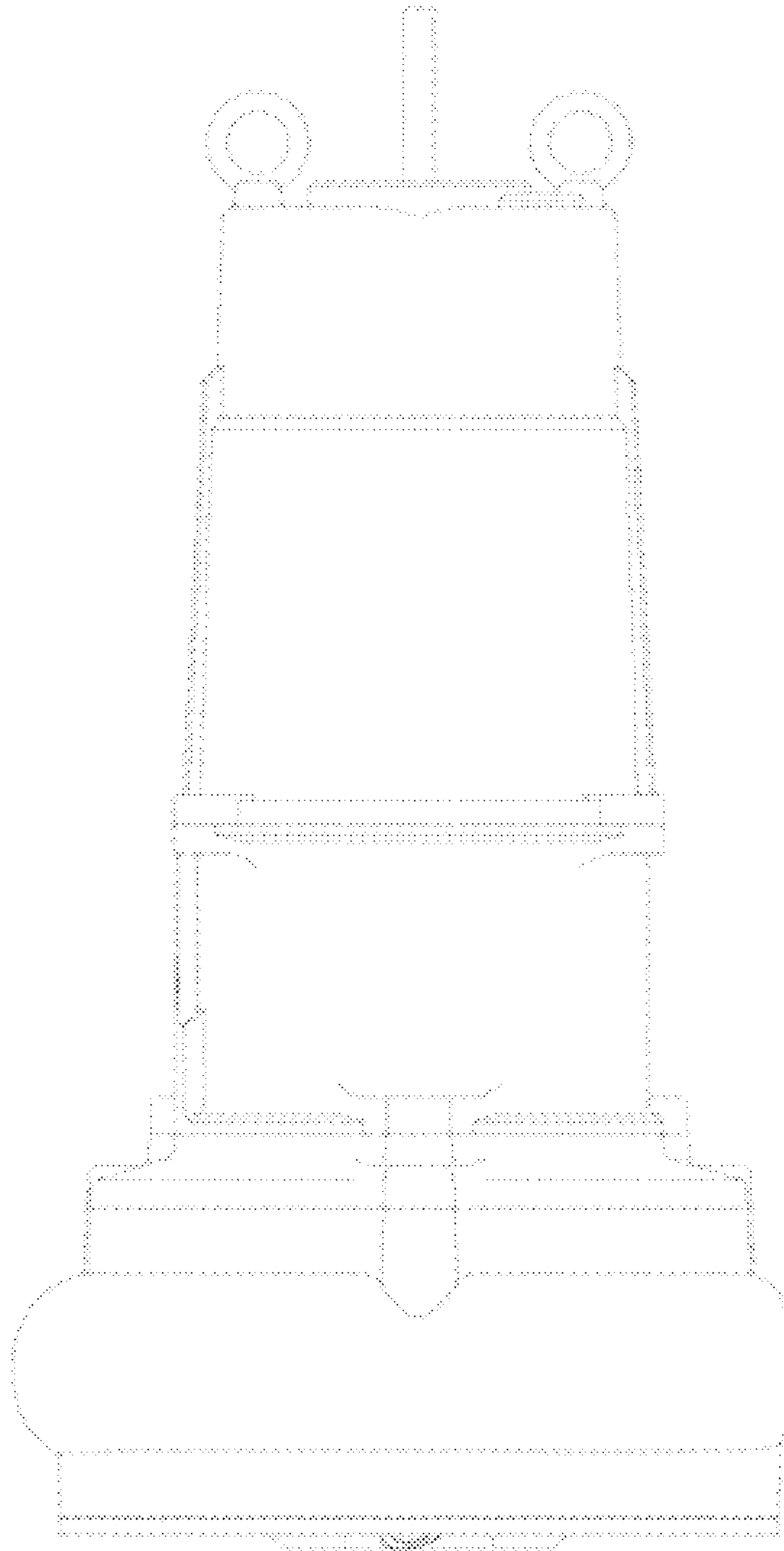


FIG. 3.5

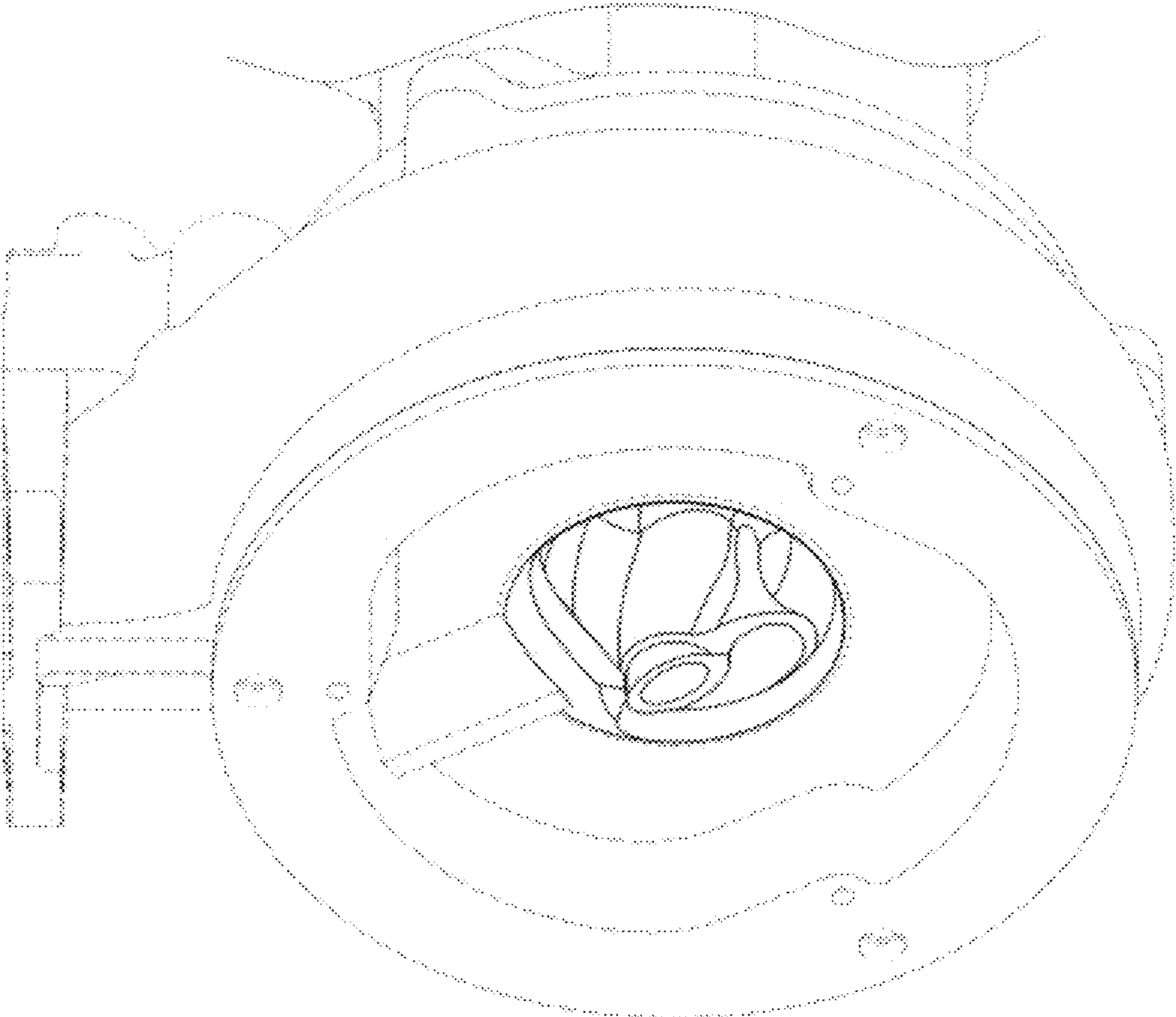


FIG. 3.6

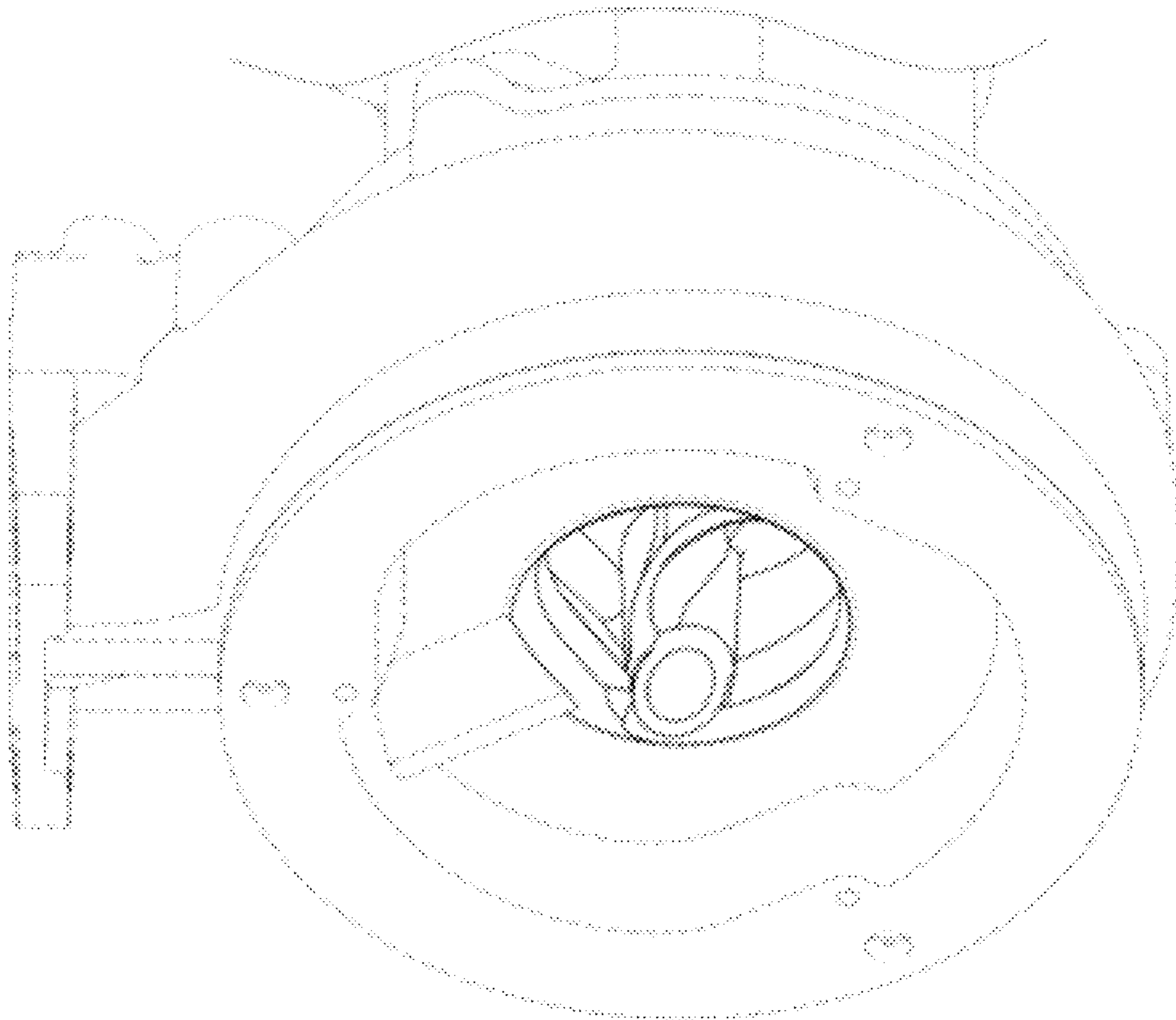


FIG. 3.7

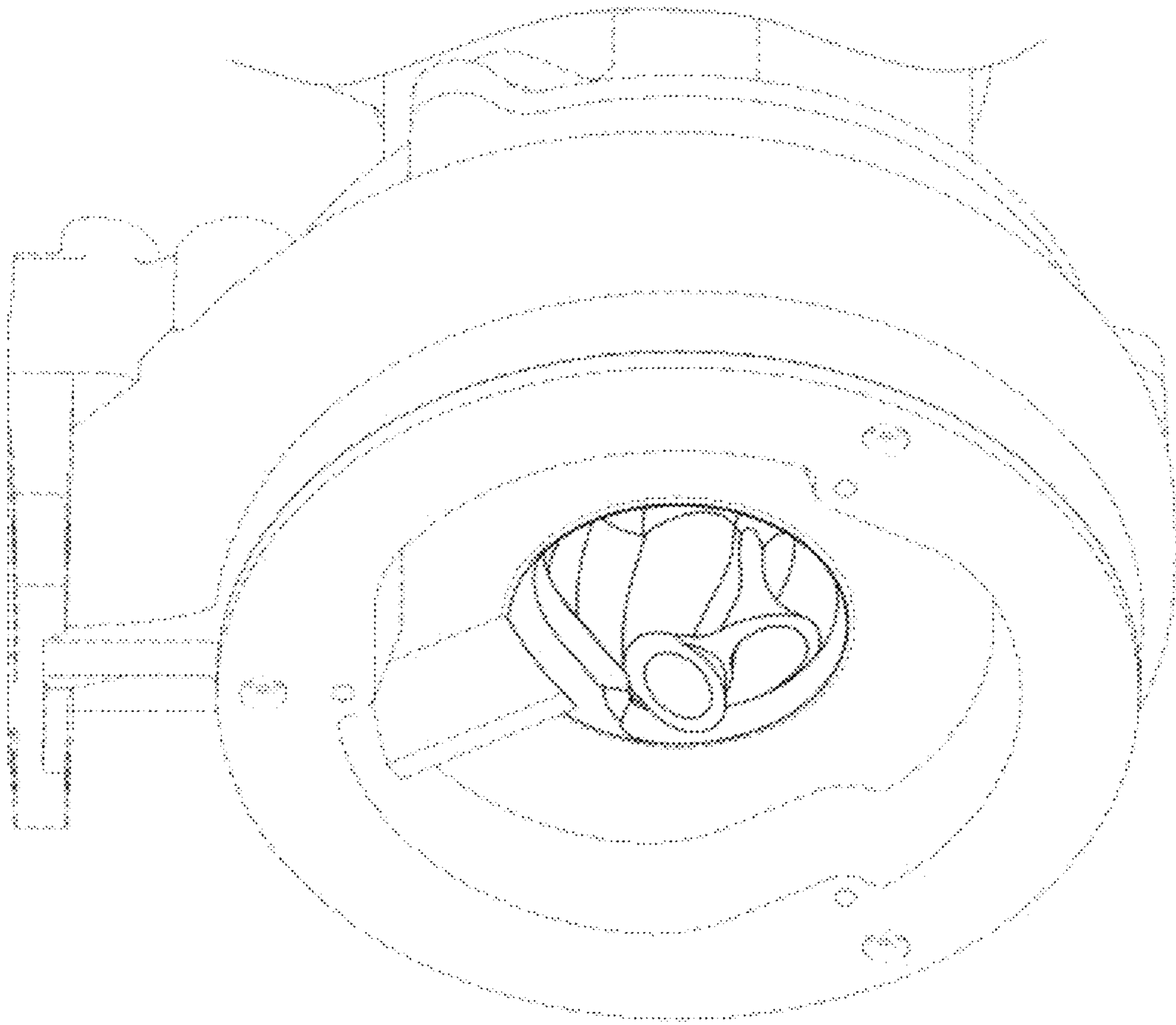


FIG. 3.8

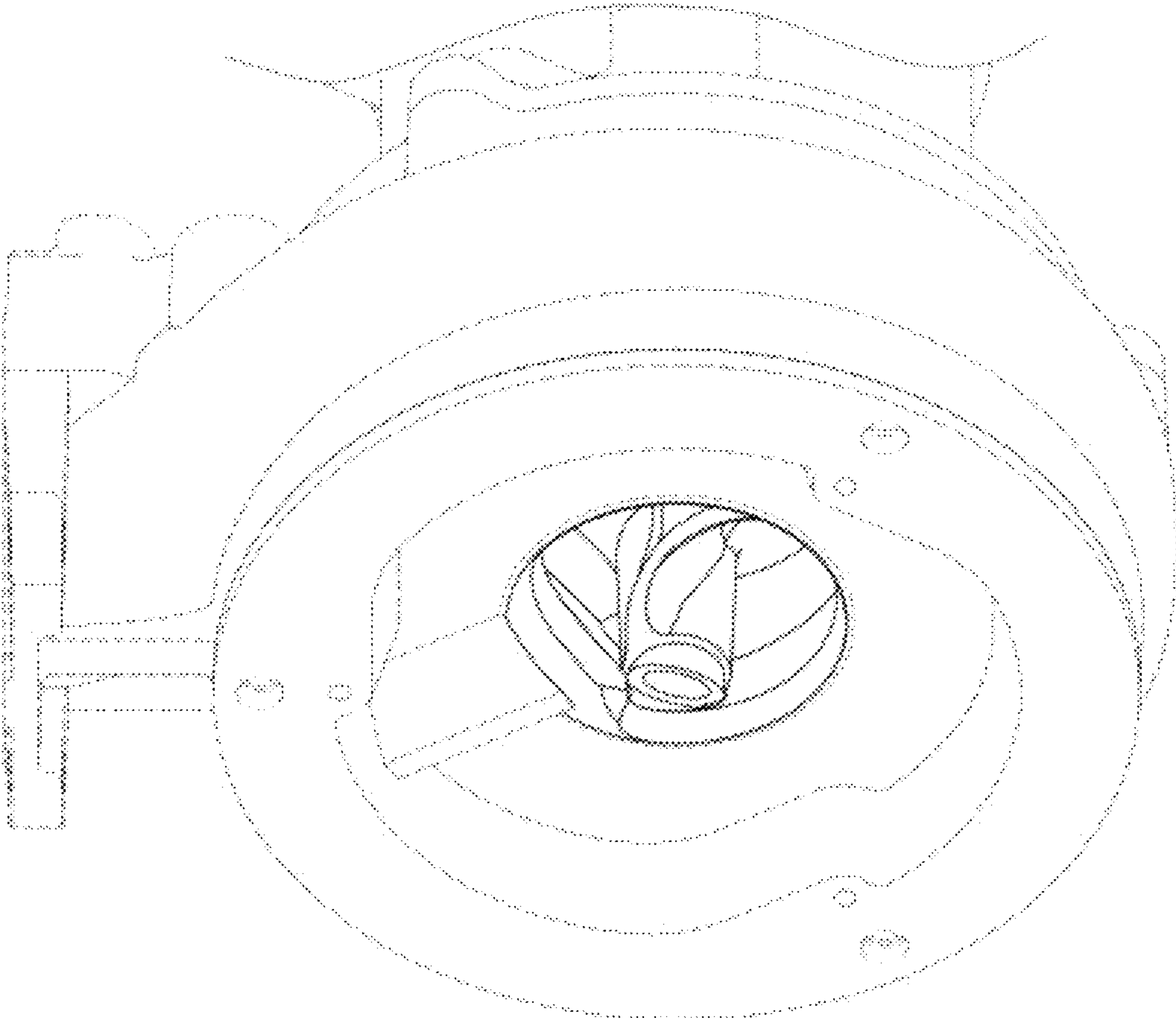


FIG. 3.9