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

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(54) **DIAPHRAGM VALVE**

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(73) Assignee: **Bueno Tehcnology Co., Ltd.**, Tainan  
(TW)

(\*\*) Term: **15 Years**

(21) Appl. No.: **29/679,952**

(22) Filed: **Feb. 12, 2019**

(51) **LOC (13) Cl.** ..... **23-01**

(52) **U.S. Cl.**

USPC ..... **D23/233**

(58) **Field of Classification Search**

USPC ..... D23/233–237, 244–249, 255–269, 310;  
251/331, 335.2, 315.05, 15.19

CPC ..... F16K 7/17; F16K 27/0236; F16K 7/16;  
F16K 31/402; F16K 31/126; F16K  
41/103; F16K 7/00; F16K 99/0015; F16K  
1/36; F16K 1/34

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D633,986 S \* 3/2011 Ito ..... D23/233  
D671,194 S \* 11/2012 Ikenoya ..... D23/245

D671,621 S \* 11/2012 Ikenoya ..... D23/245  
D686,697 S \* 7/2013 Murase ..... D23/233  
D686,698 S \* 7/2013 Iwata ..... D23/233  
D687,515 S \* 8/2013 Iwata ..... D23/233  
9,829,112 B2 \* 11/2017 Smith ..... F16K 41/103  
D845,440 S \* 4/2019 Fukuhara ..... D23/248

\* cited by examiner

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(57) **CLAIM**

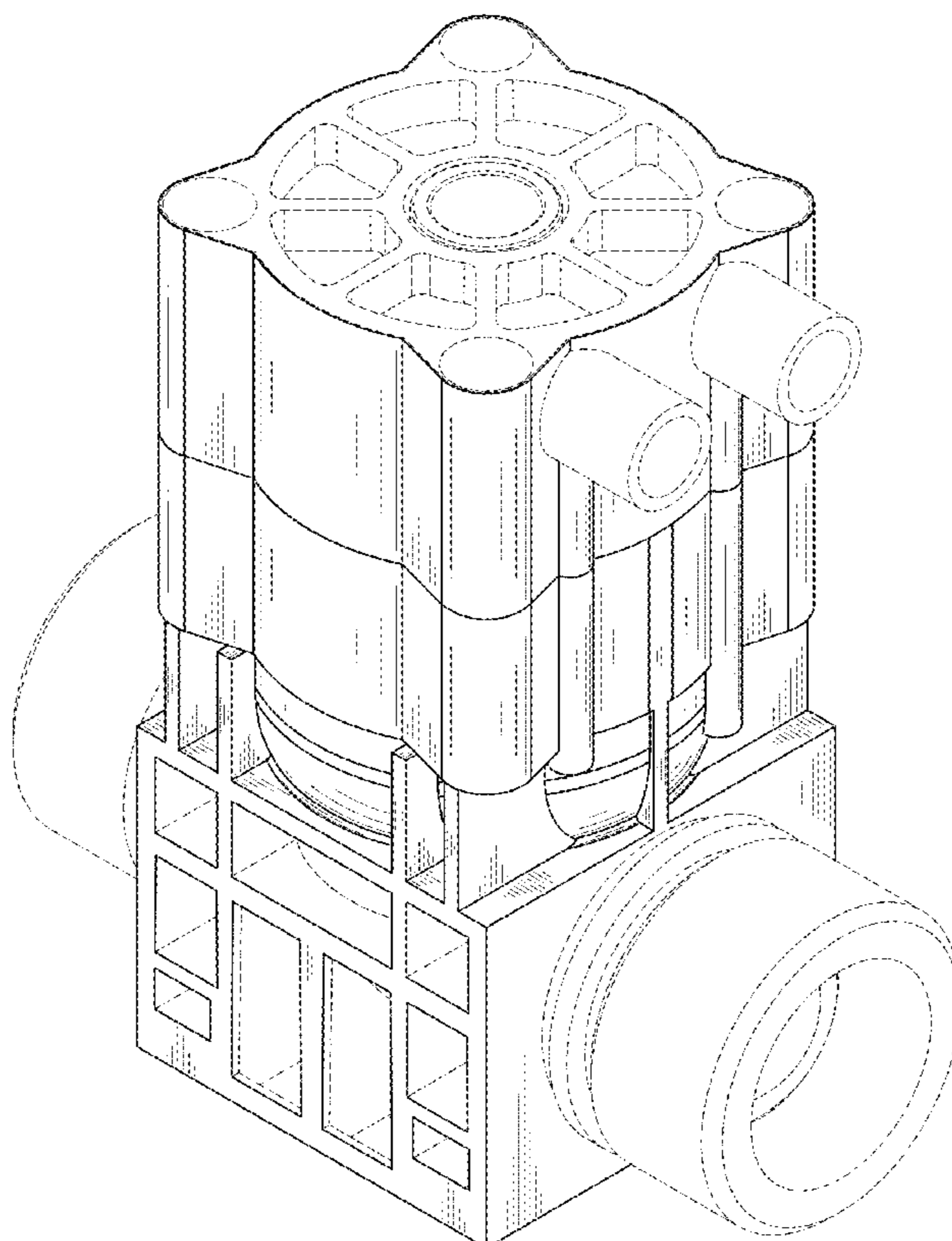
The ornamental design for a diaphragm valve, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a diaphragm valve showing our new design;  
FIG. 2 is a front view thereof;  
FIG. 3 is a rear view thereof;  
FIG. 4 is a left view thereof;  
FIG. 5 is a right view thereof;  
FIG. 6 is top plane view thereof;  
FIG. 7 is a bottom view thereof;  
FIG. 8 is another perspective view;  
FIG. 9 is still another perspective view; and,  
FIG. 10 is yet another perspective view.

The broken lines in the drawings illustrate portions of the diaphragm valve and form no part of the claimed design.

**1 Claim, 9 Drawing Sheets**



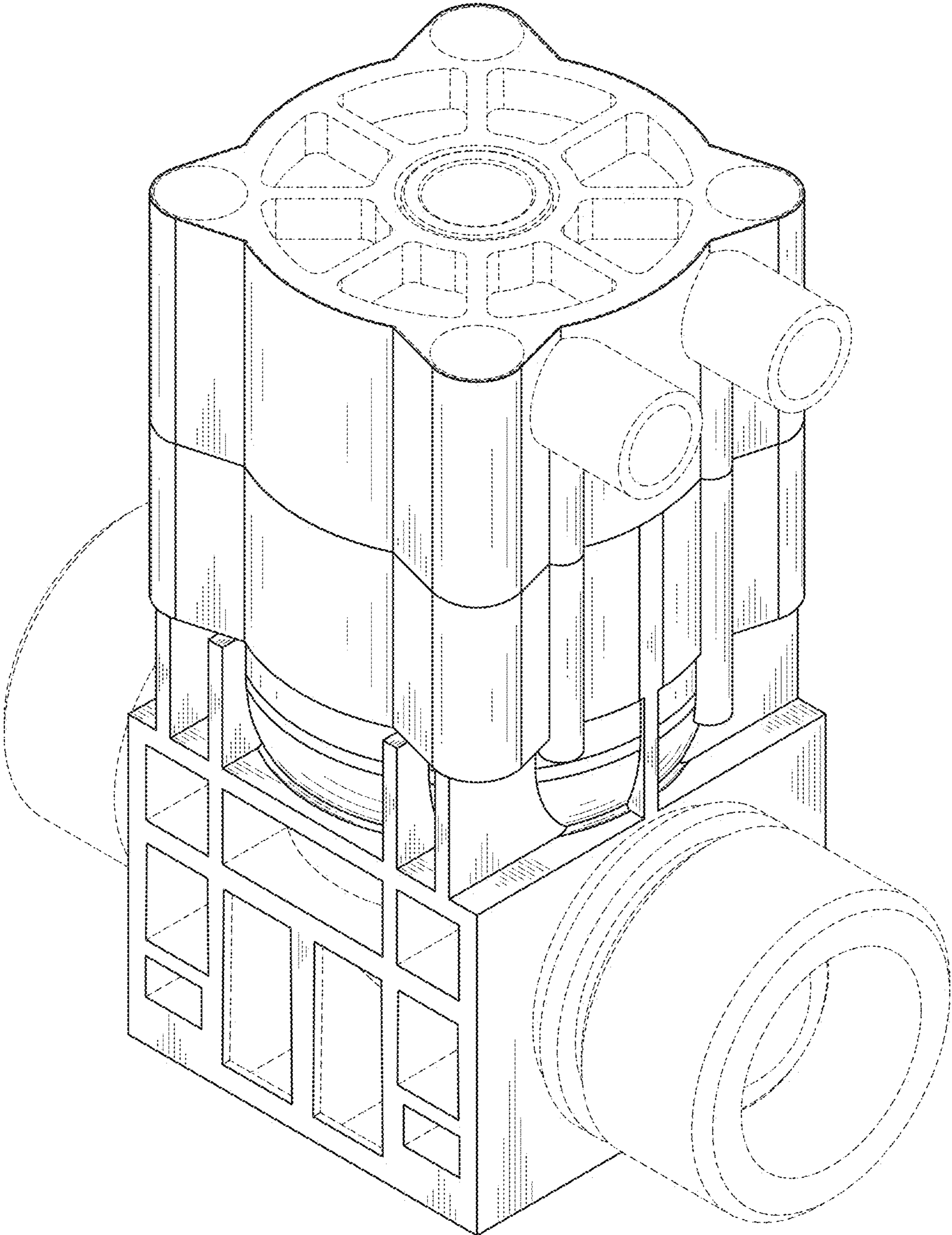


FIG. 1

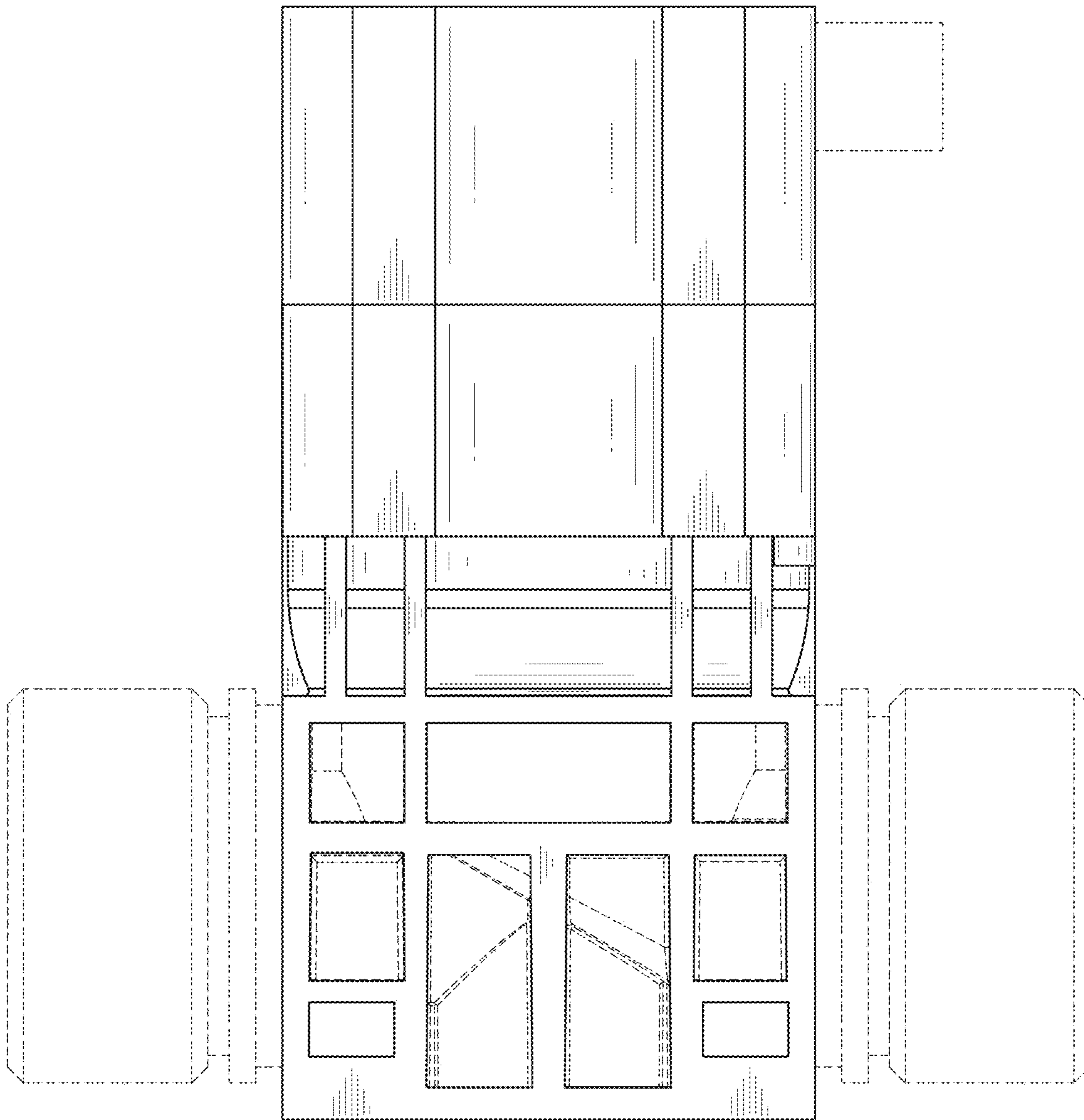


FIG. 2

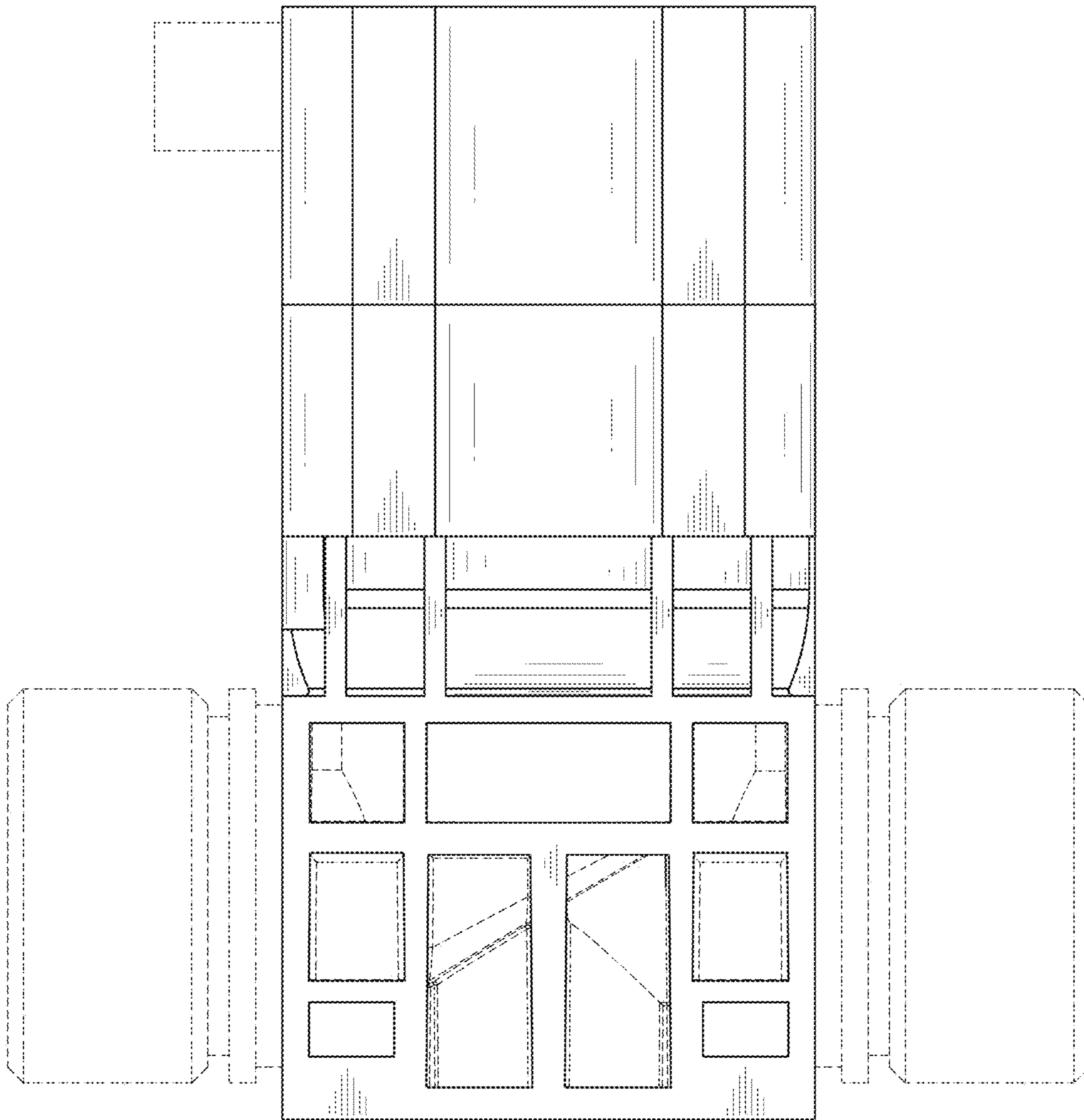


FIG. 3

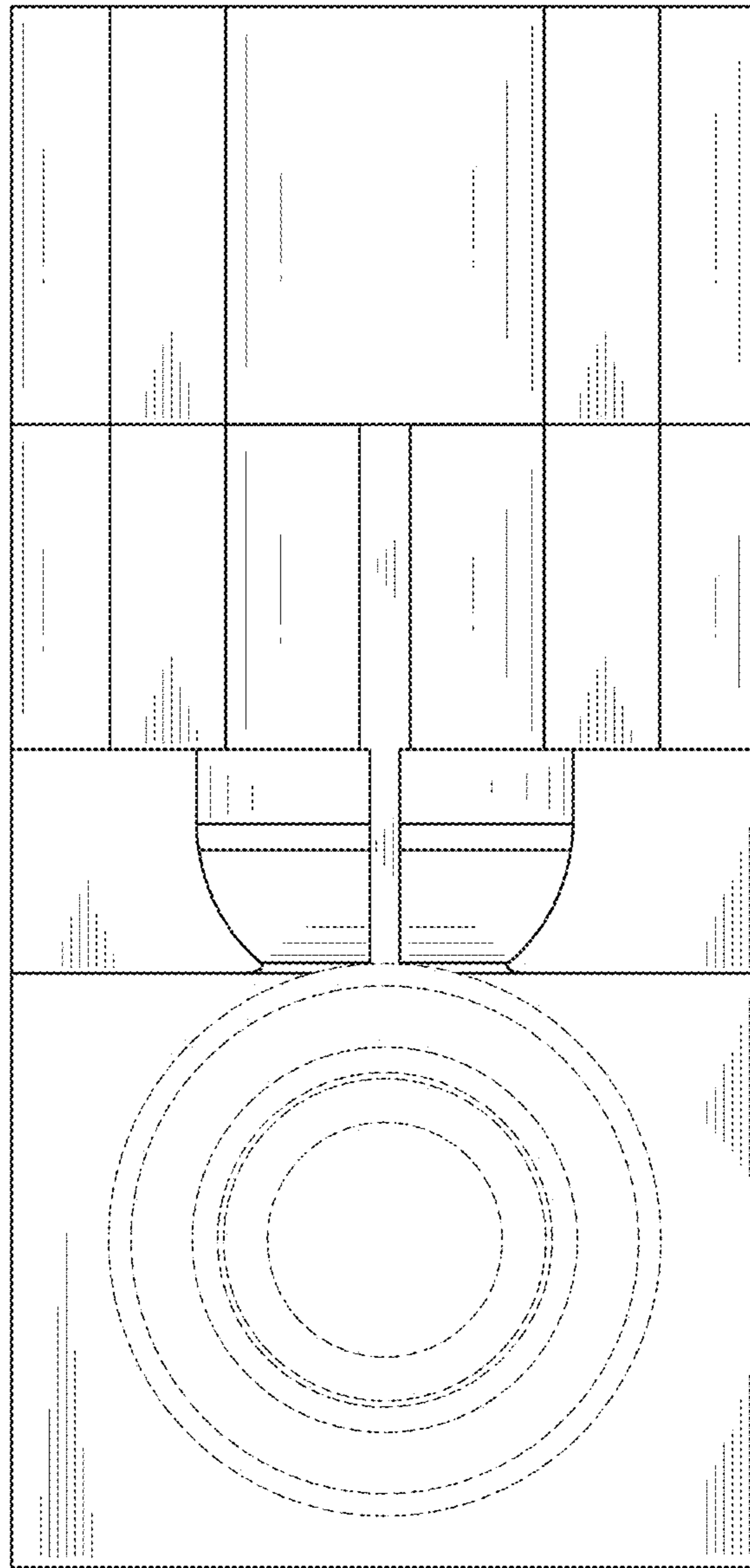


FIG. 4

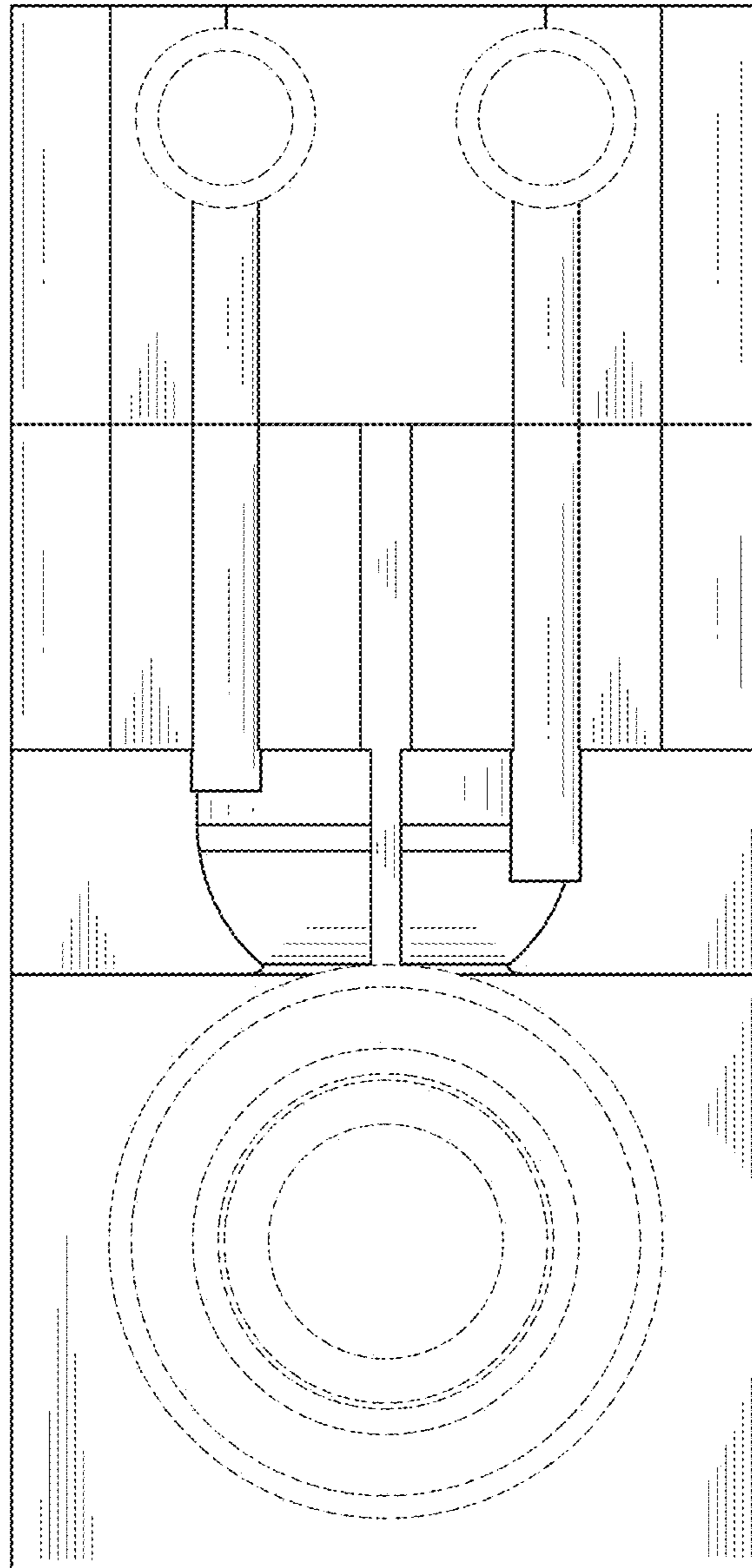


FIG. 5

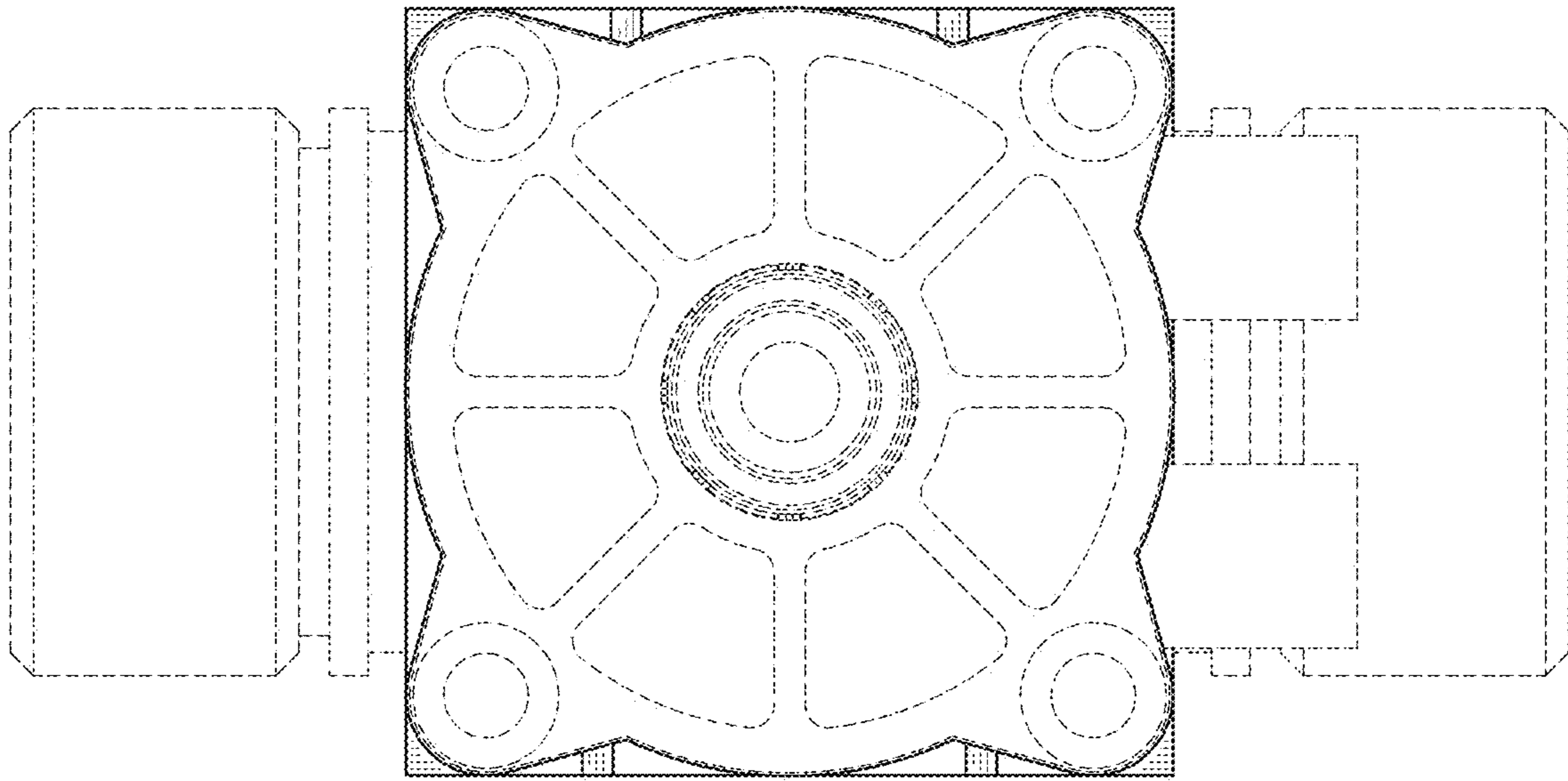


FIG. 6

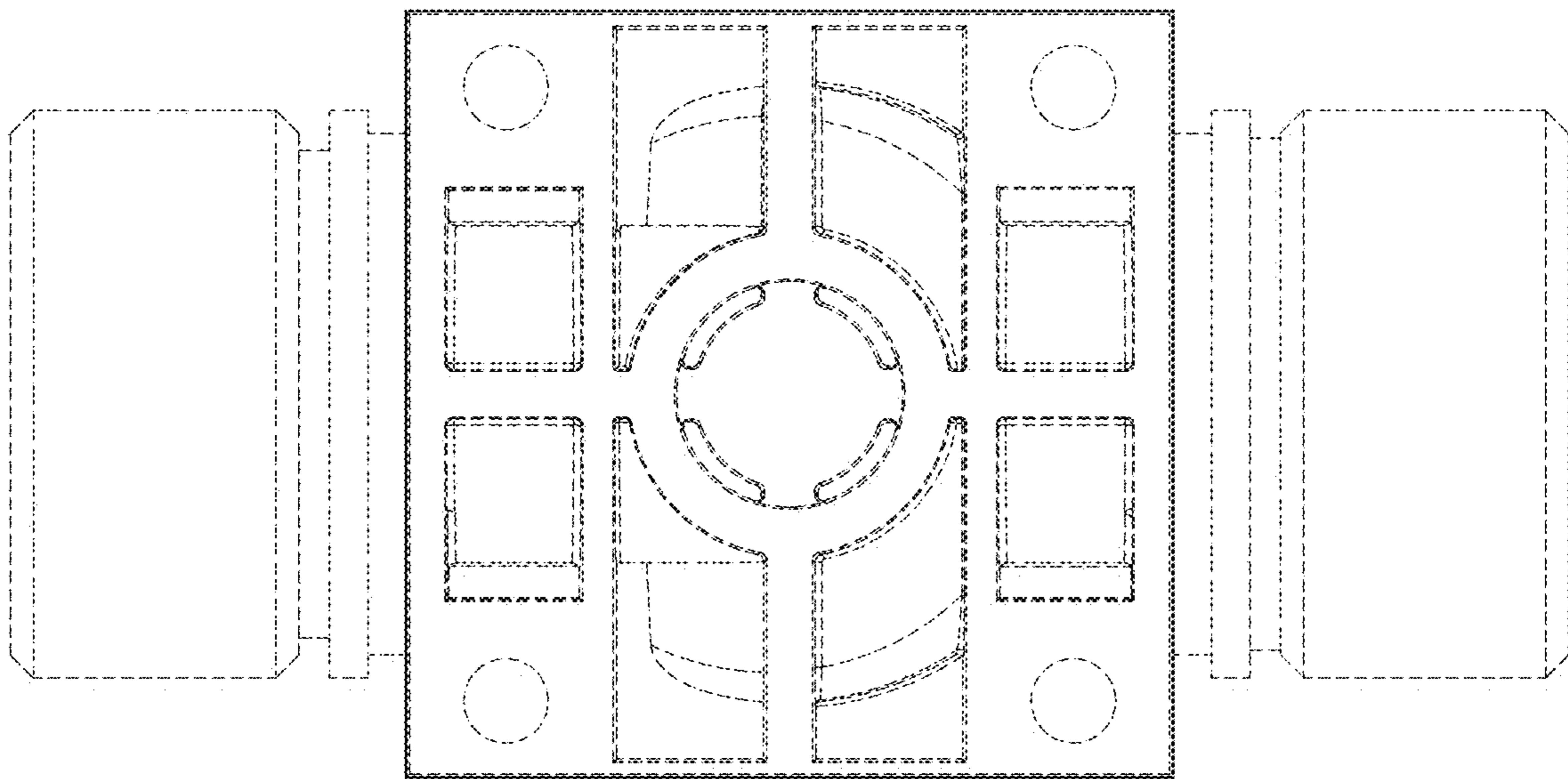


FIG. 7

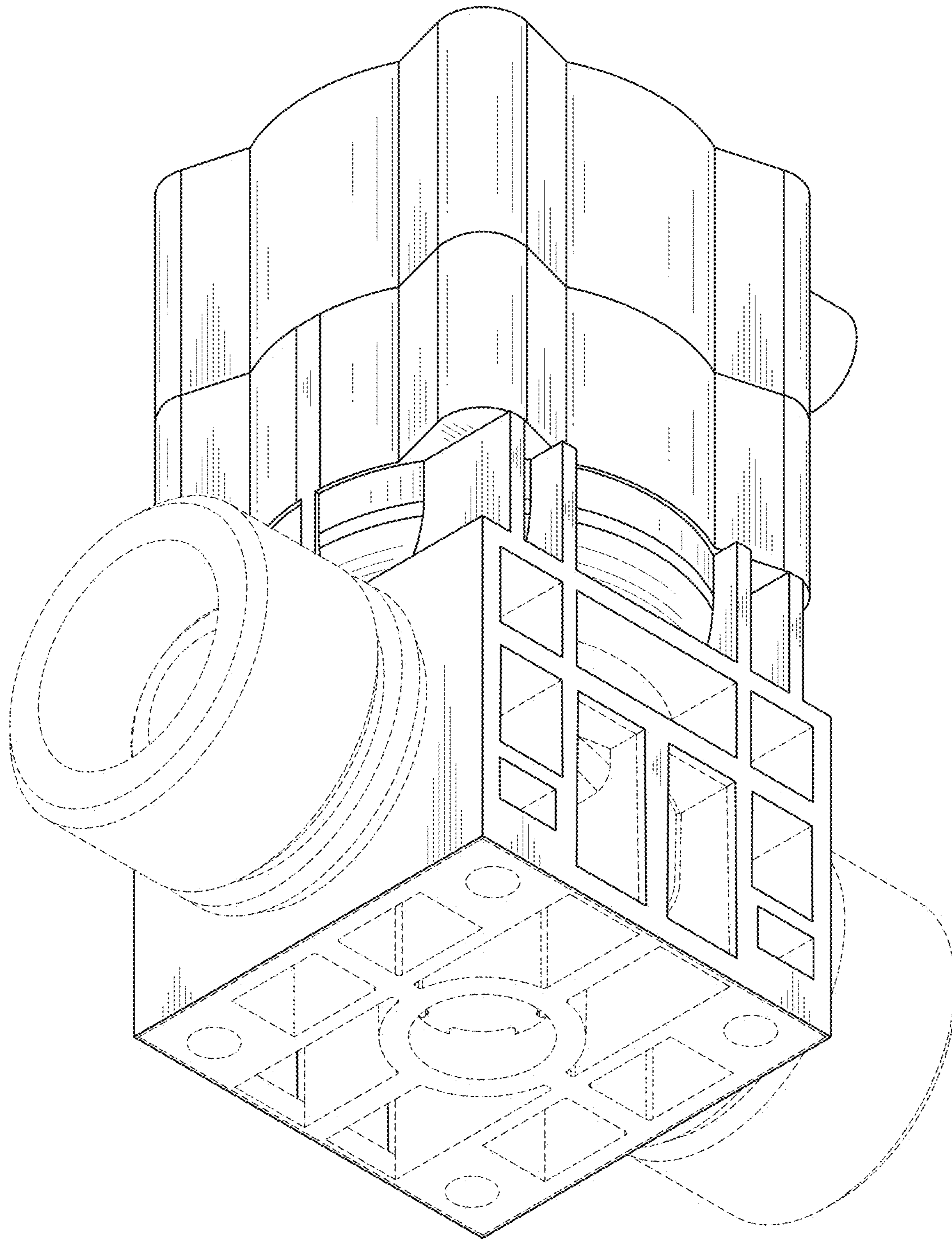


FIG. 8



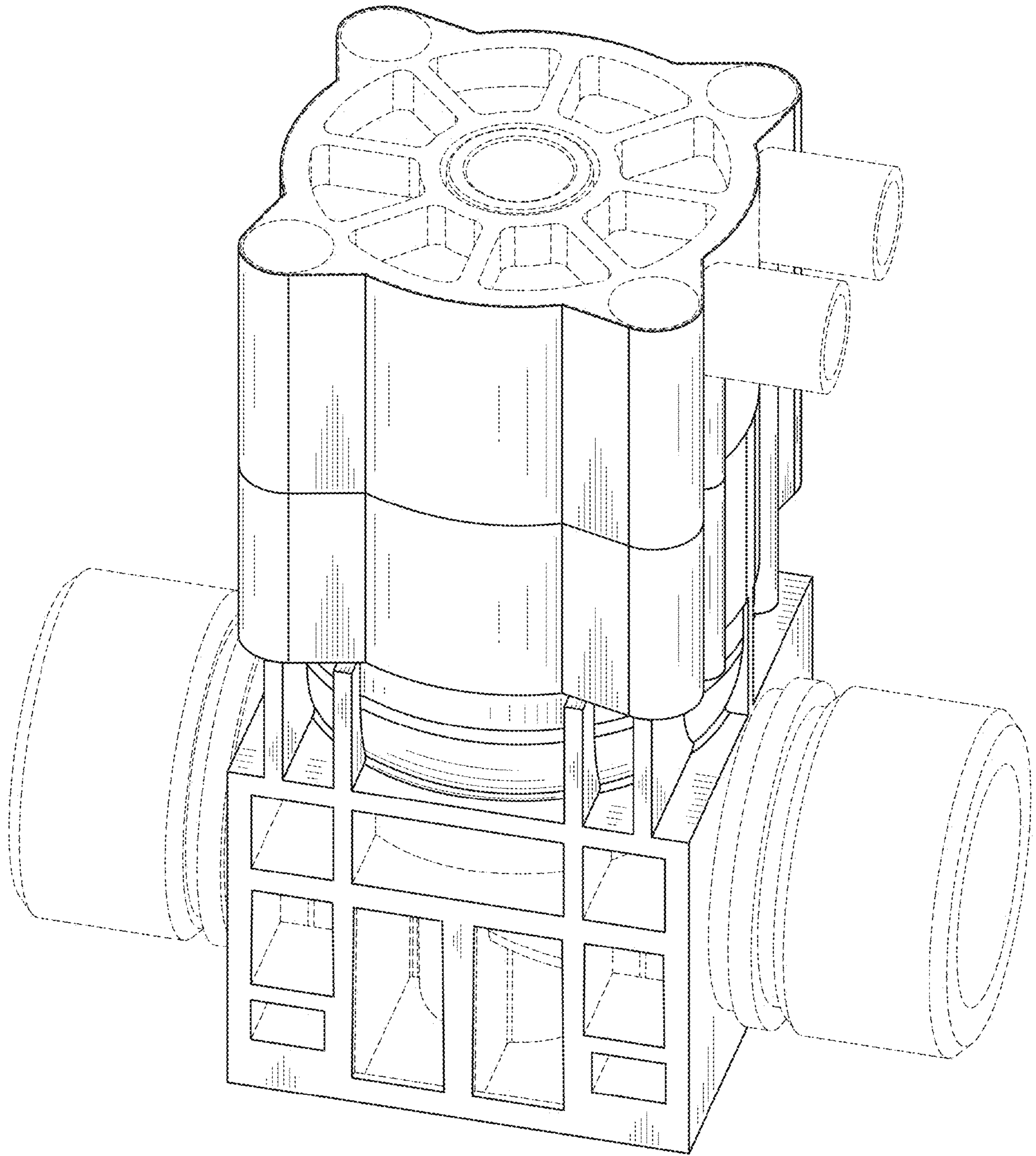


FIG. 9

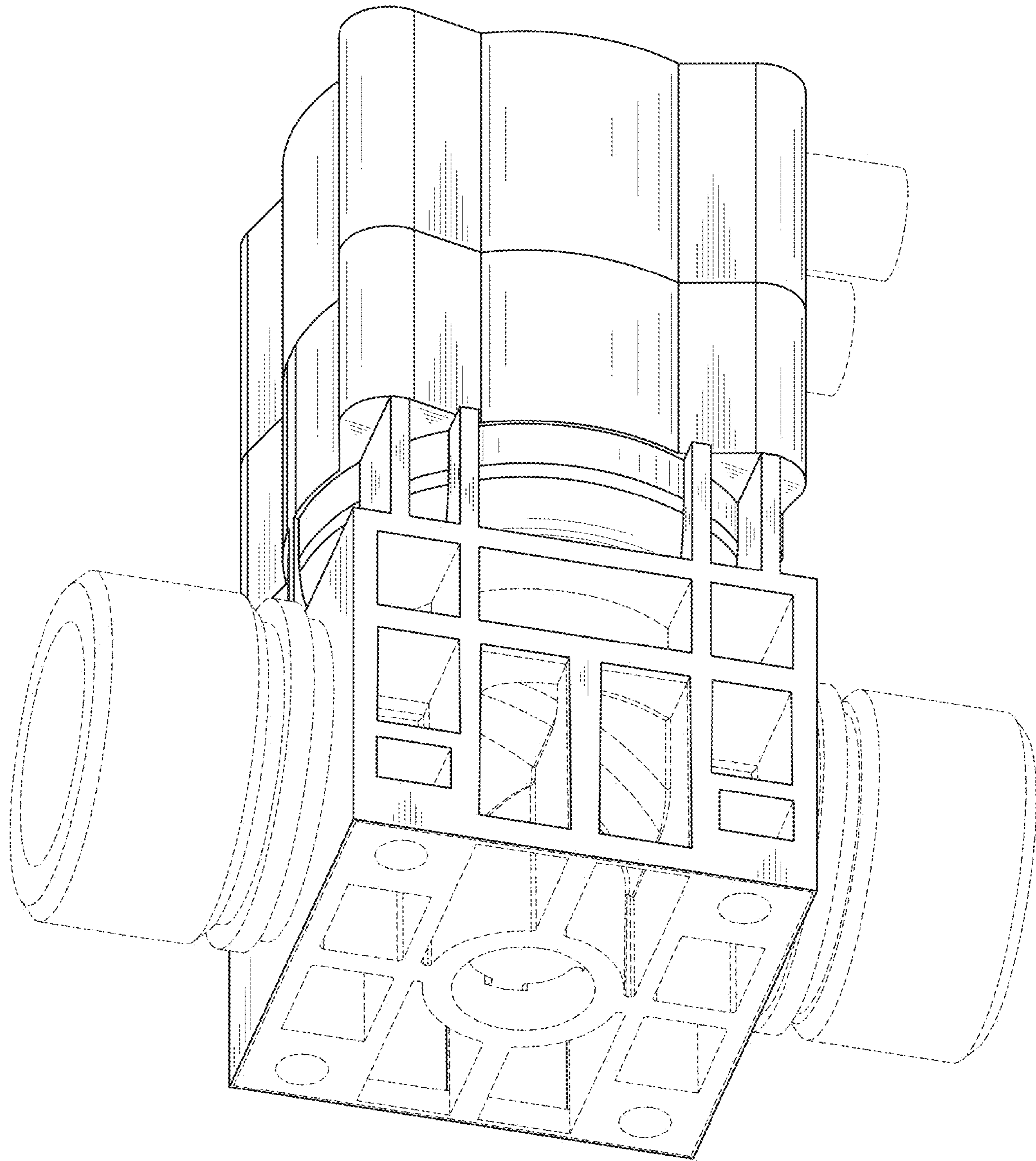


FIG. 10