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

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(54) **SUPPORTING CYLINDER FOR CARAVAN**  
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(\*\*) Term: **15 Years**

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Jun. 14, 2016 (CN) ..... 2016 3 0243769

(51) **LOC (11) Cl.** ..... **12-16**

(52) **U.S. Cl.**  
USPC ..... **D12/159**

(58) **Field of Classification Search**  
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CPC .... F15B 11/0445; F15B 11/0413; F15B 9/08;  
F15B 20/007  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,185,043 A \* 5/1965 Dunham ..... F15B 15/227  
220/319  
3,362,683 A \* 1/1968 Hansen ..... B60S 9/12  
254/423

3,614,064 A \* 10/1971 Bennett ..... B60S 9/02  
254/418  
4,165,861 A \* 8/1979 Hanser ..... B60S 9/12  
254/423  
4,216,939 A \* 8/1980 Valdespino ..... B60S 9/12  
254/423  
D282,304 S \* 1/1986 Bickley ..... D34/36  
D295,753 S \* 5/1988 LaBair ..... D15/7  
5,842,911 A \* 12/1998 Weber ..... B24B 1/00  
451/49  
D408,420 S \* 4/1999 Buter ..... D15/7  
6,044,752 A \* 4/2000 Harigaya ..... F15B 15/1428  
92/163  
6,415,876 B1 \* 7/2002 Bollinger ..... B23D 51/18  
173/135  
6,637,315 B2 \* 10/2003 Mickelson ..... F15B 15/1438  
92/164  
D620,402 S \* 7/2010 Schwindaman ..... D12/159

\* cited by examiner

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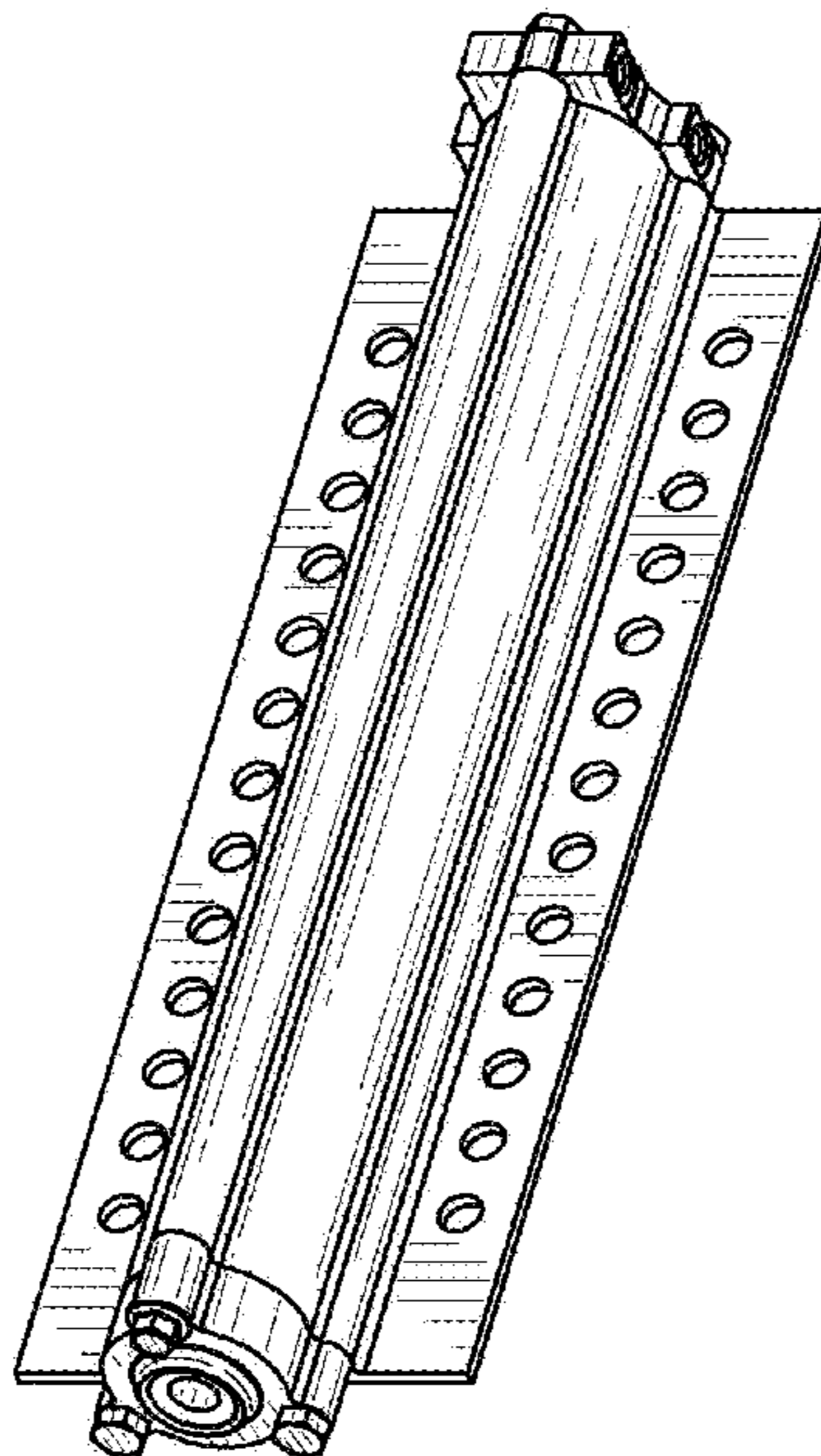
(57) **CLAIM**

We claim an ornamental design for a supporting cylinder for caravan, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a supporting cylinder for caravan, showing our new design;  
FIG. 2 is a left side view thereof;  
FIG. 3 is a right side view thereof;  
FIG. 4 is a front view thereof;  
FIG. 5 is a rear view thereof;  
FIG. 6 is a top view thereof; and,  
FIG. 7 is a bottom view thereof.

**1 Claim, 5 Drawing Sheets**



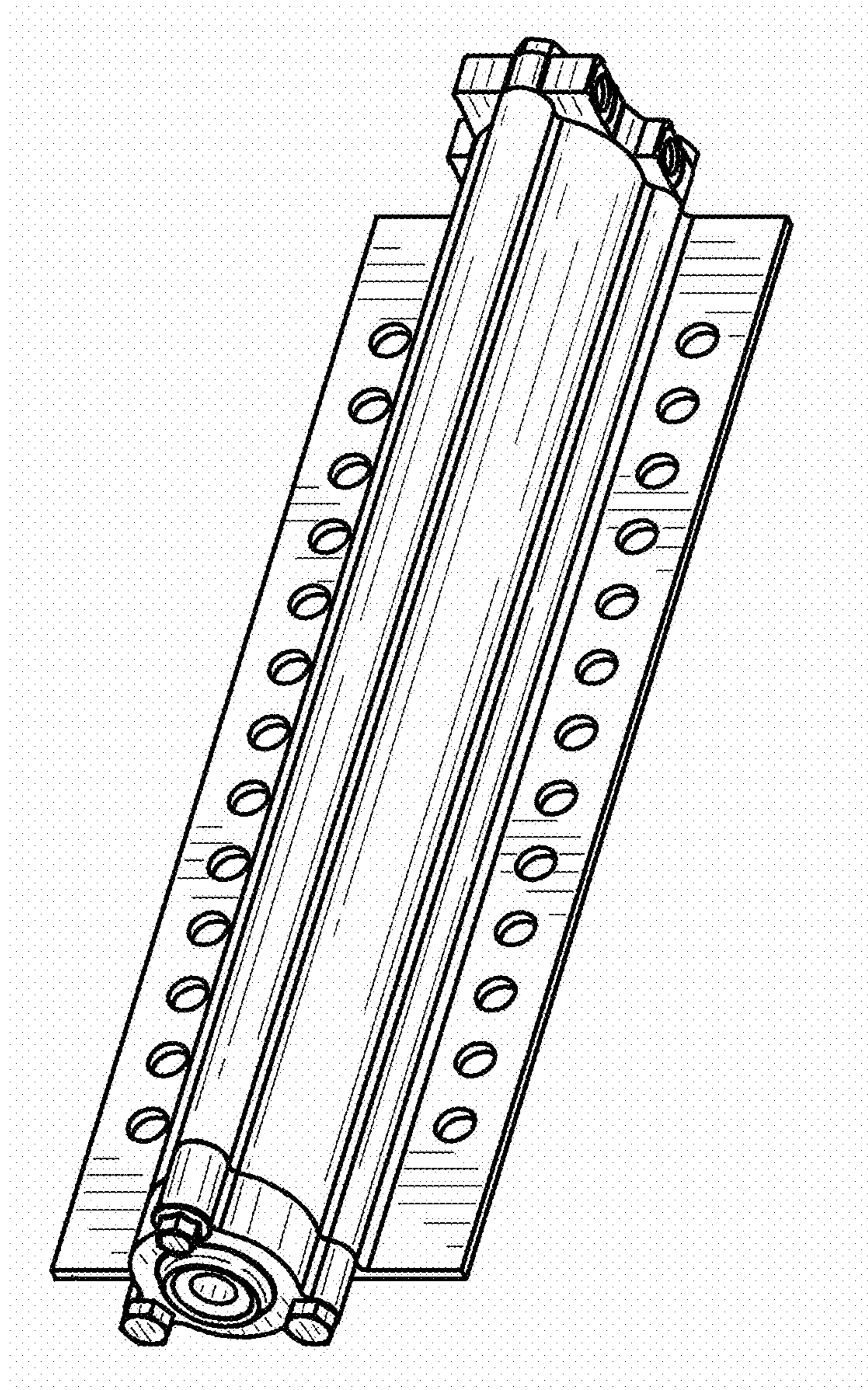


FIG. 1

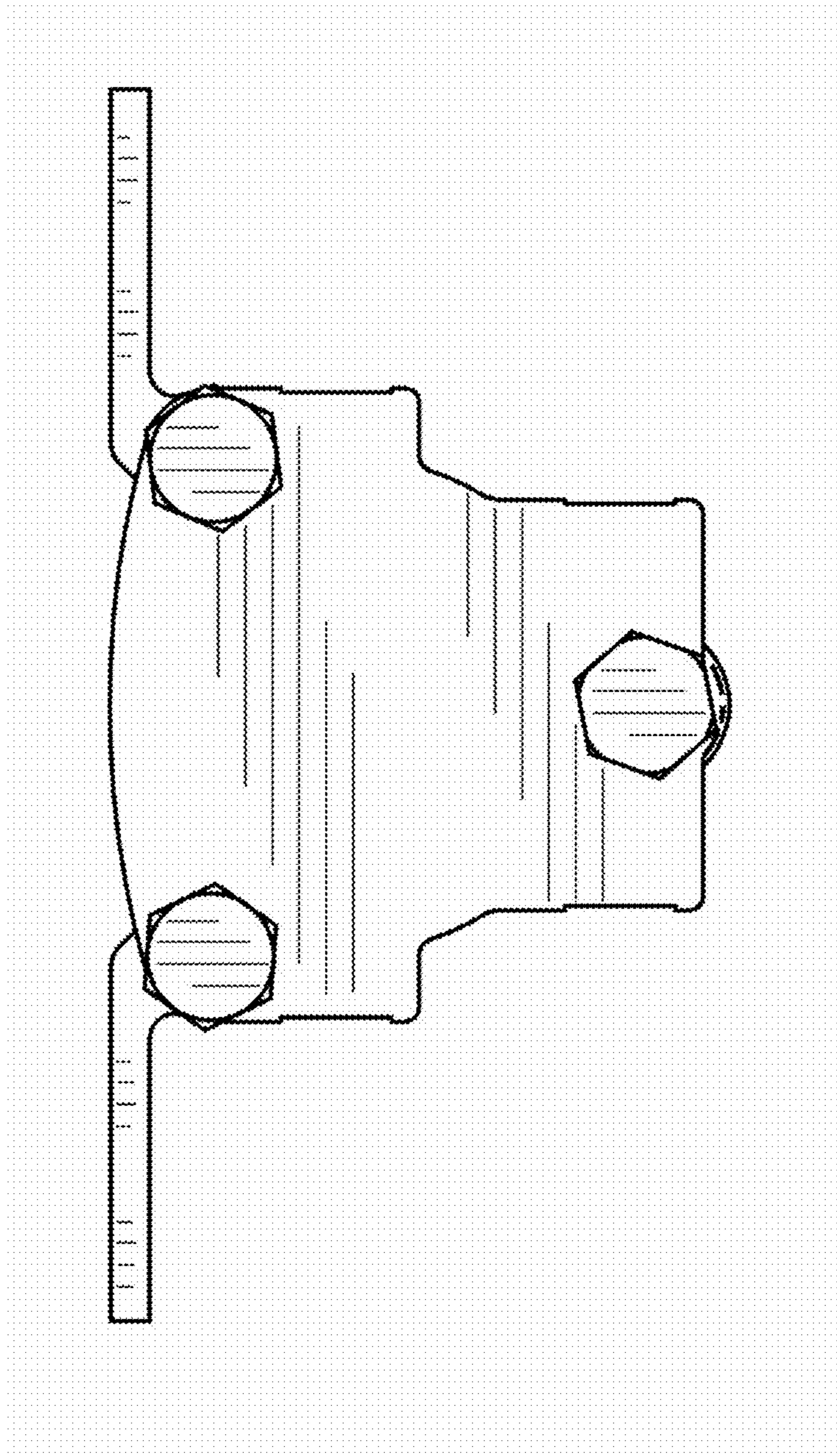


FIG. 2

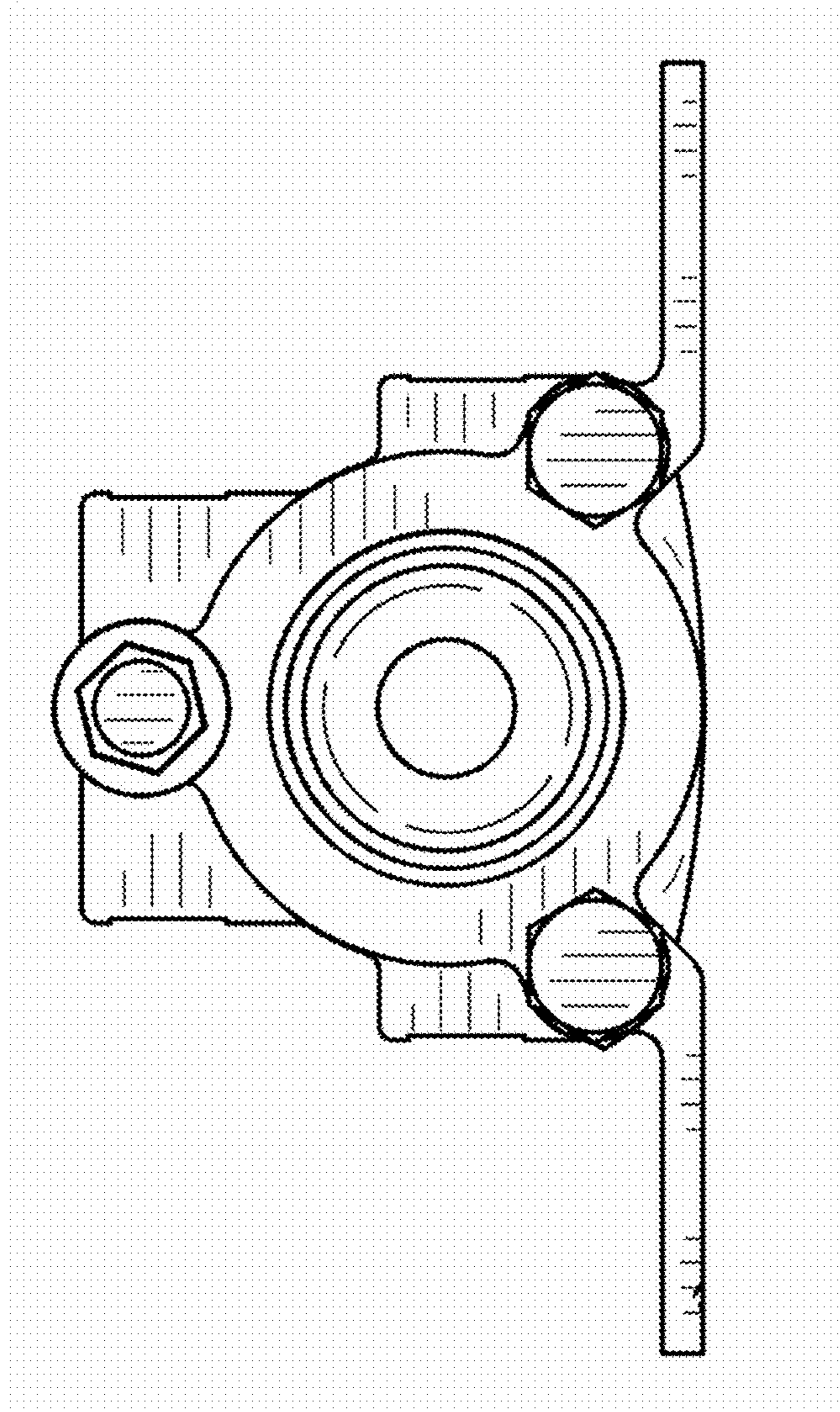


FIG. 3

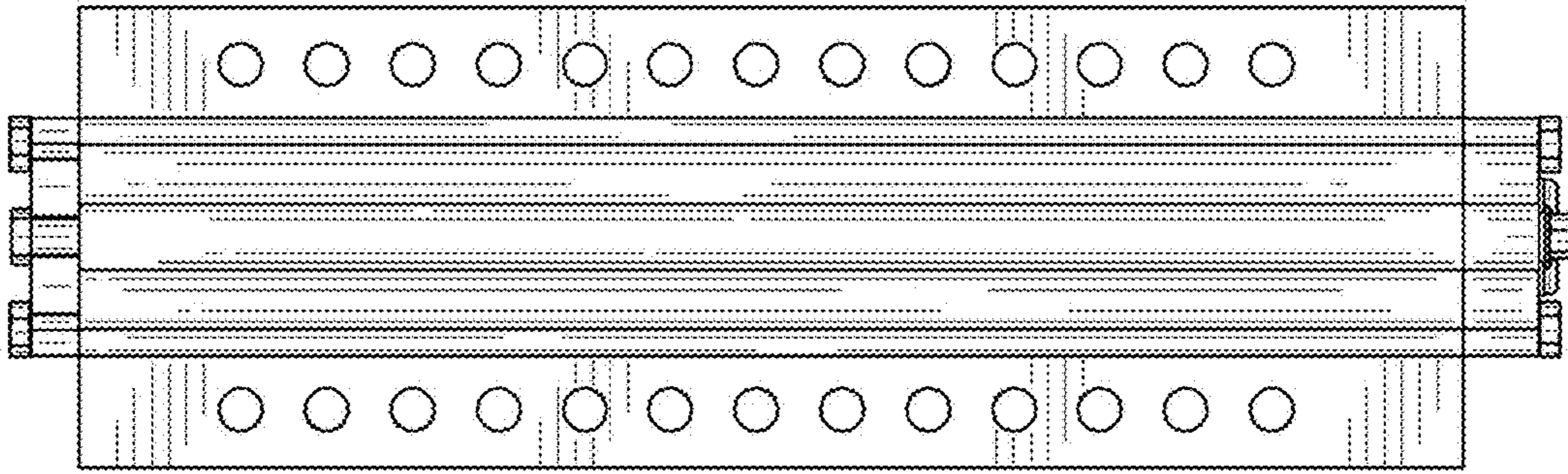


FIG. 4

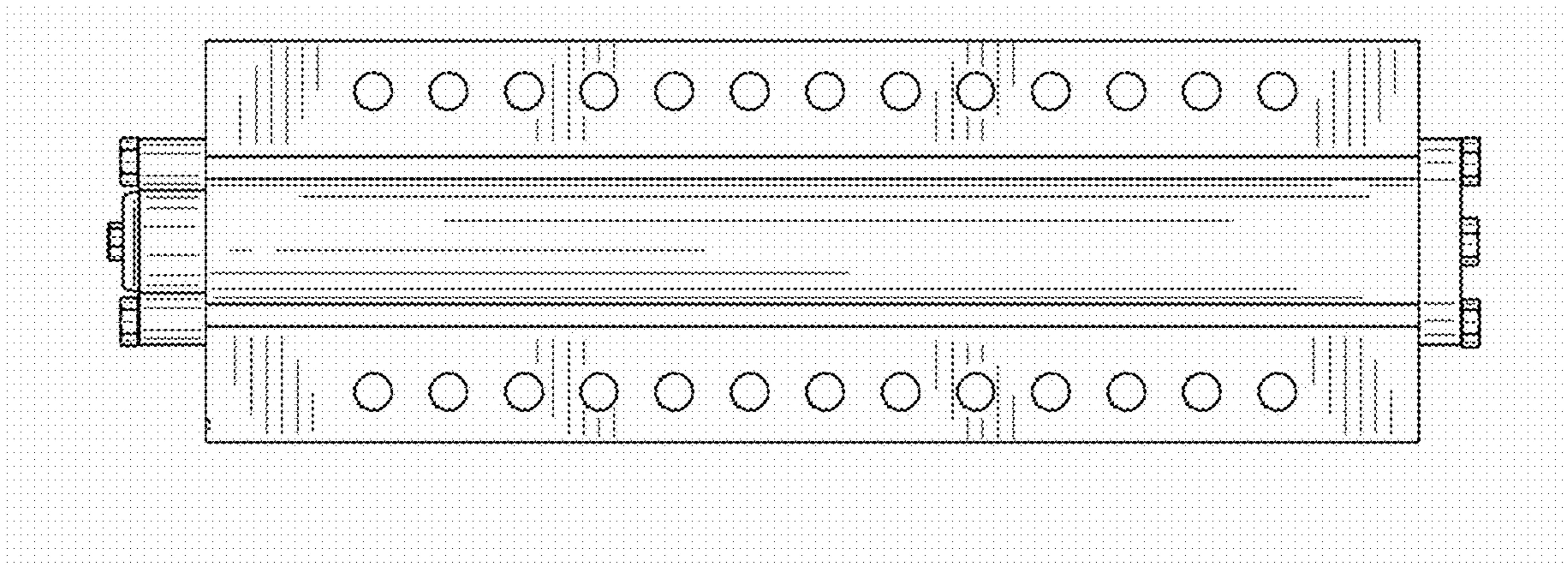


FIG. 5

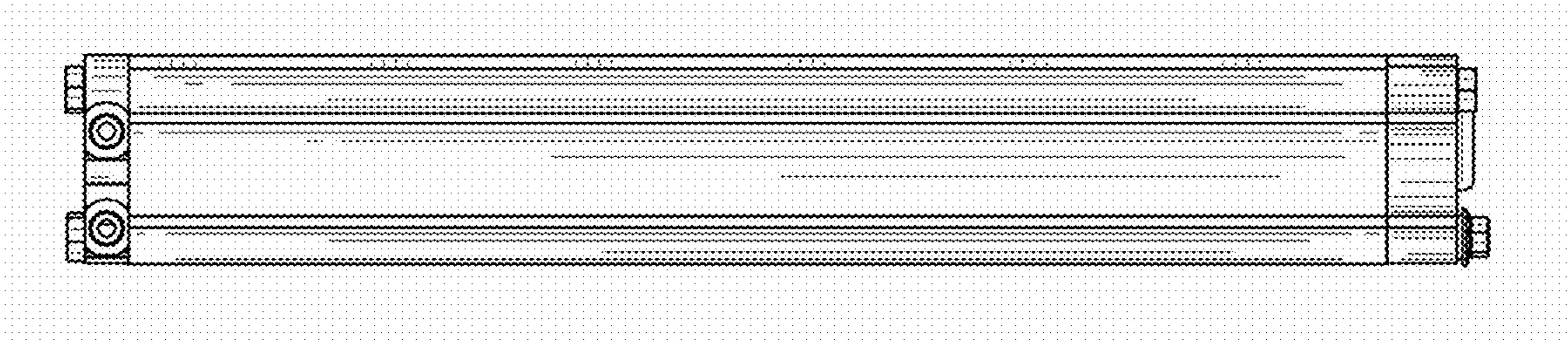


FIG. 6

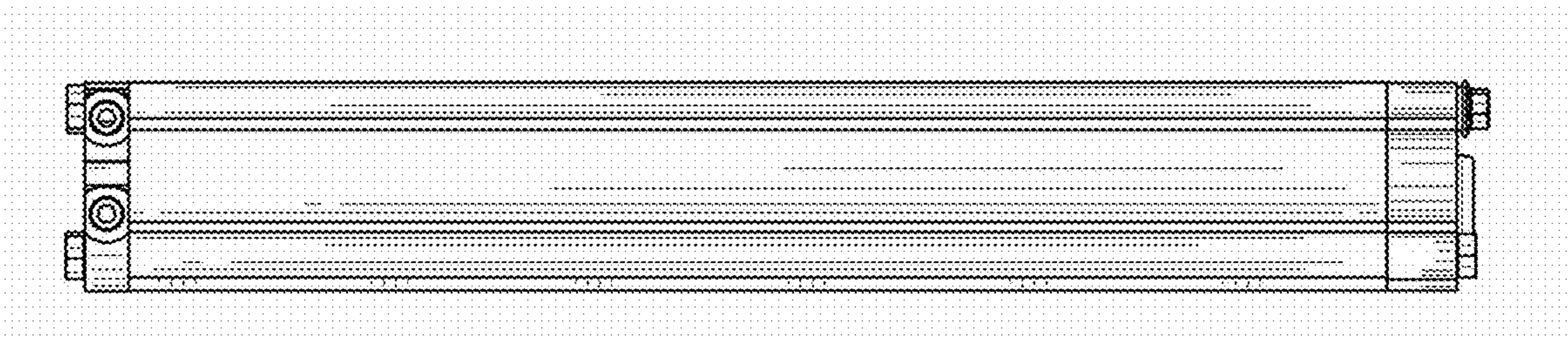


FIG. 7