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(12) **United States Design Patent** (10) **Patent No.:** **US D847,676 S**  
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(54) **HARDNESS TESTER**  
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G01N 3/50; G01N 3/52; G01N 3/54;  
G01N 3/00; G01N 3/08; G01N 3/10;  
G01N 3/12; G01N 3/14; G01N 3/16;  
G01N 3/30; G01N 3/32; G01B 2203/00;  
G01B 2203/0001; G01B 2203/0003;  
G01B 2203/0005; G01B 2203/001; G01B  
2203/0012; G01B 2203/0014; G01B  
2203/0016; G01B 2203/0017; G01B  
2203/0019; G01B 2203/0076  
See application file for complete search history.

(56) **References Cited**  
U.S. PATENT DOCUMENTS  
4,442,705 A \* 4/1984 Lang ..... G01N 3/42  
73/83  
D283,599 S 4/1986 Biddle, Jr. et al.  
D356,515 S 3/1995 Fukumoto et al.  
D394,015 S 5/1998 Kellstedt, Jr. et al.  
D704,582 S 5/2014 Muraoka et al.  
D719,039 S \* 12/2014 Chang ..... D10/63  
D731,904 S \* 6/2015 Stohr ..... D10/63  
D783,424 S \* 4/2017 Matsumiya ..... D10/63  
2014/0182364 A1\* 7/2014 Koshimizu ..... G01N 3/42  
73/81  
2017/0248415 A1\* 8/2017 Matsumiya ..... G01B 5/012

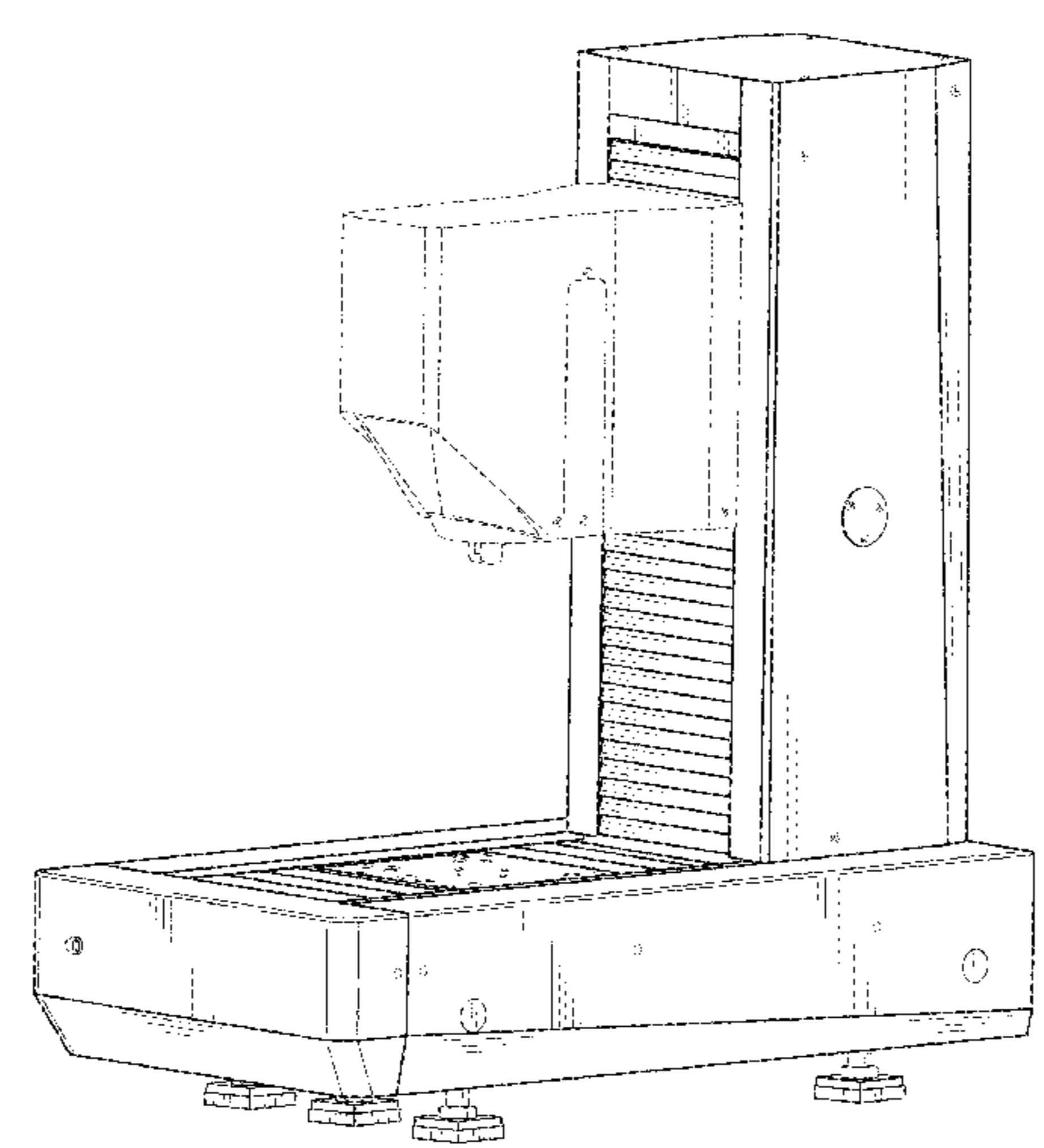
**OTHER PUBLICATIONS**  
“Rockwell Hardness Testing Machines, HR-300/400/500 Series,”  
Mitutoyo, Bulletin No. 2025(3), Jun. 2017, pp. 1-8.  
\* cited by examiner

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(57) **CLAIM**  
The ornamental design for a hardness tester, as shown and  
described.

**DESCRIPTION**  
FIG. 1 is a front, right-side, top perspective view of the  
hardness tester;  
FIG. 2 is a front elevational view thereof;  
FIG. 3 is a top plan view thereof;  
FIG. 4 is a right-side elevational view thereof;  
FIG. 5 is a left-side elevational view thereof;  
FIG. 6 is a rear elevational view thereof; and,  
FIG. 7 is a bottom plan view thereof.  
The broken lines depict unclaimed parts of the hardness  
tester, and thus form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**



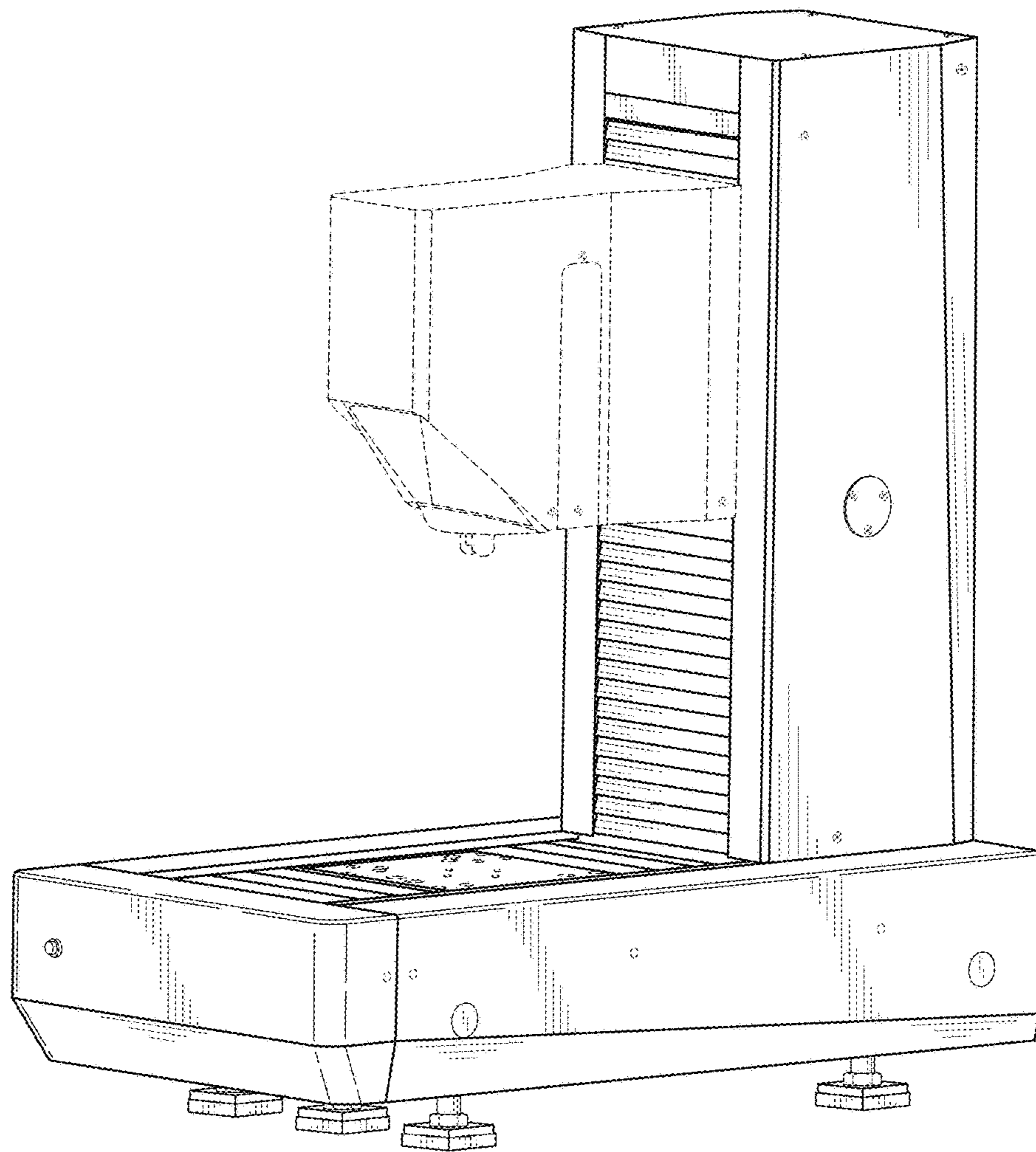


FIG. 1

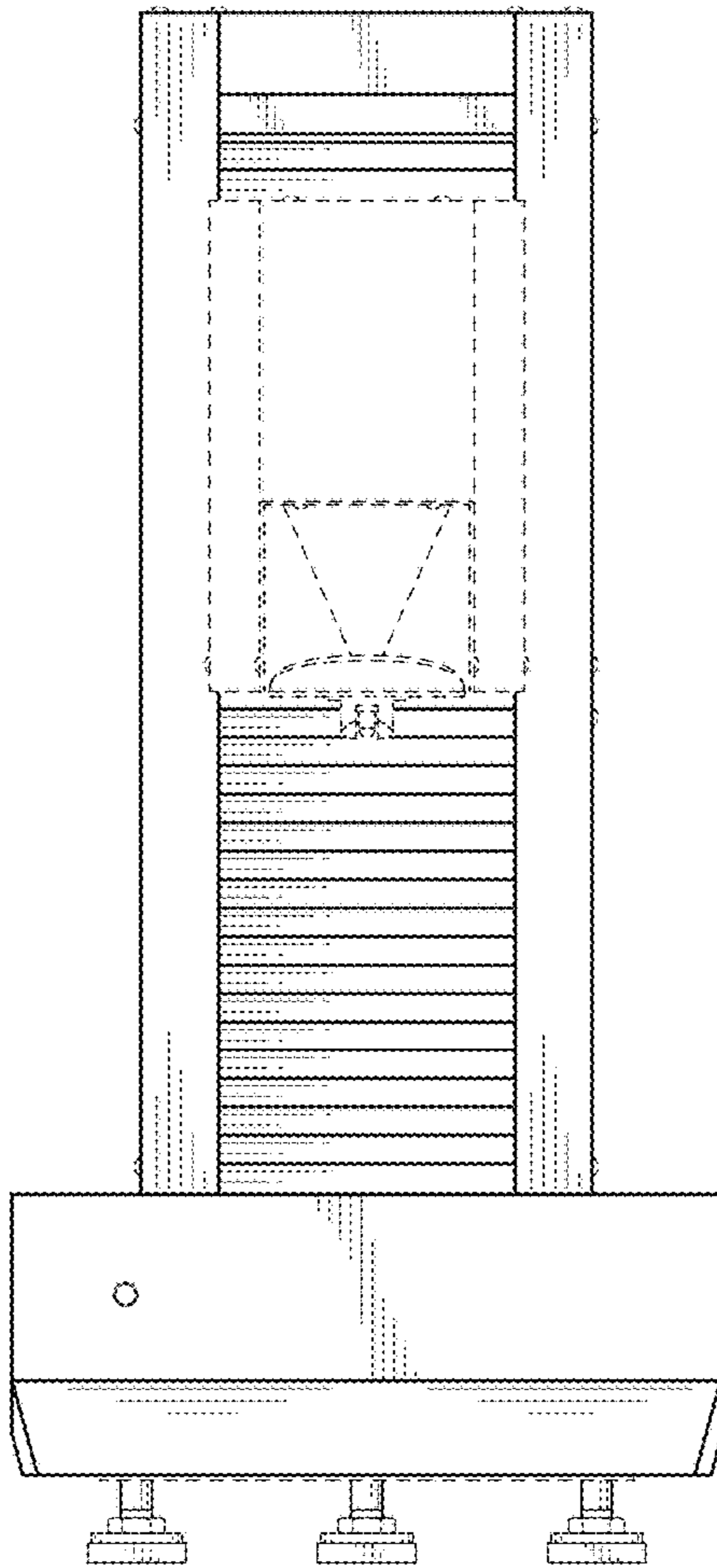


FIG. 2

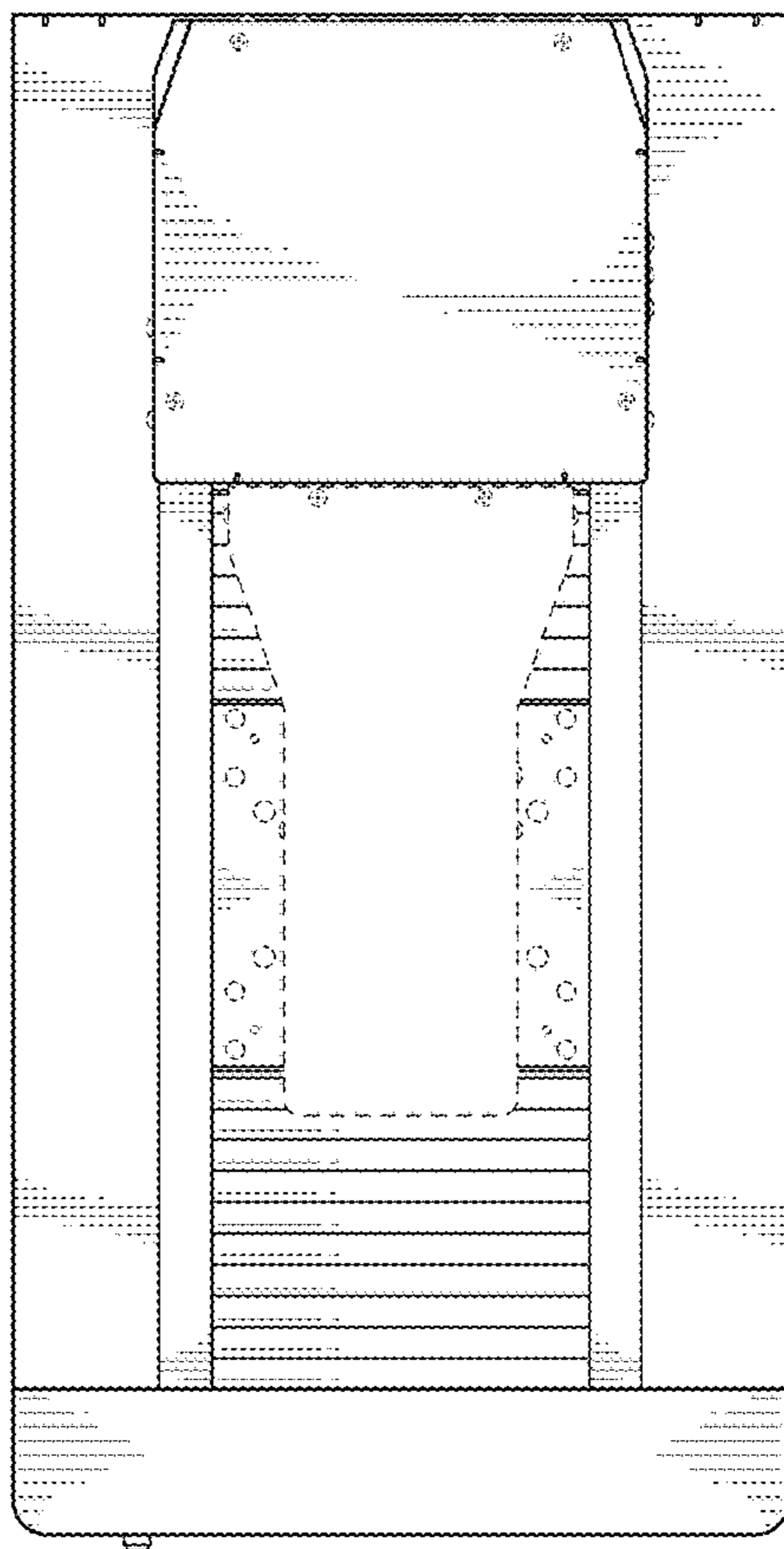


FIG. 3

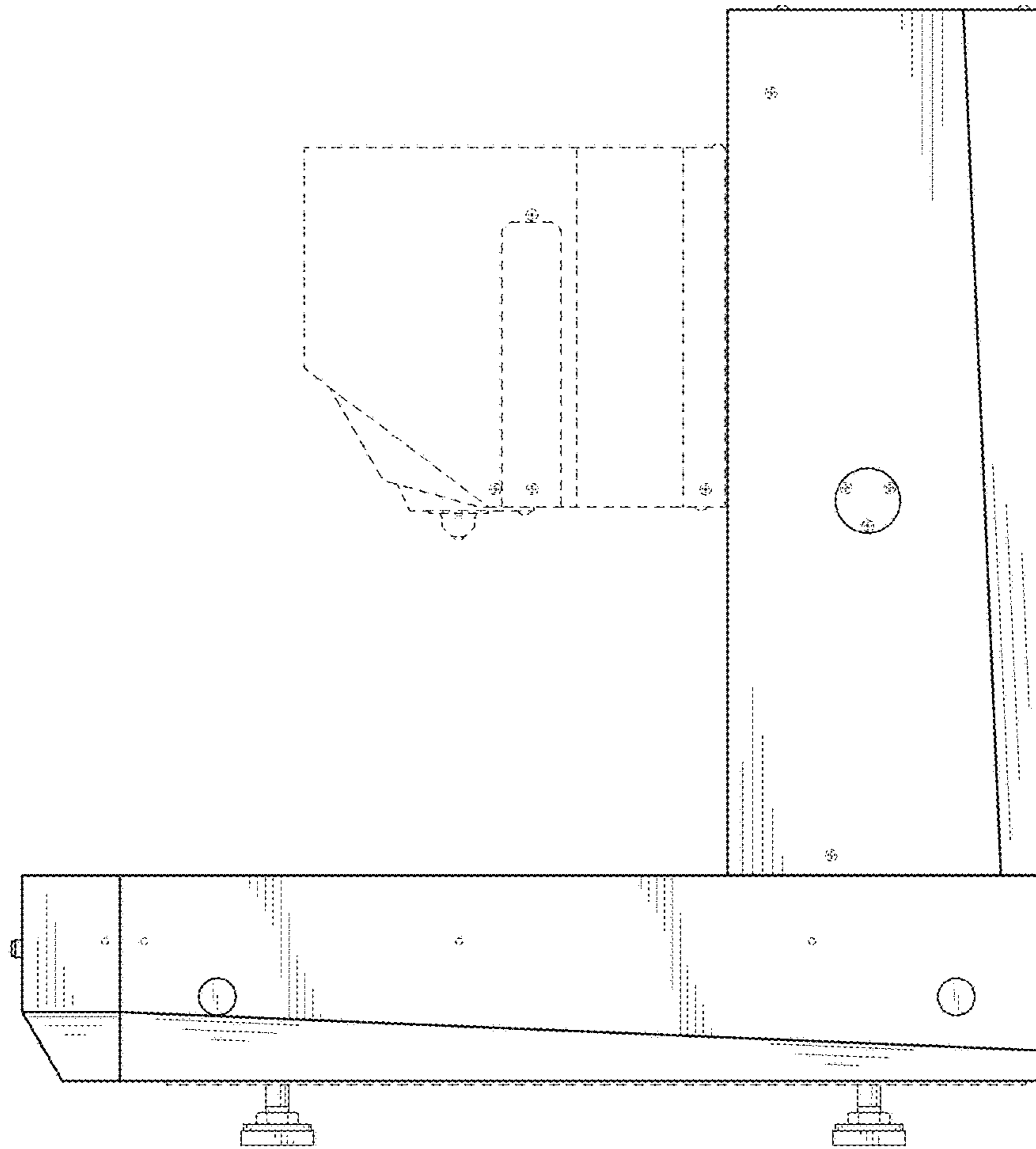


FIG. 4

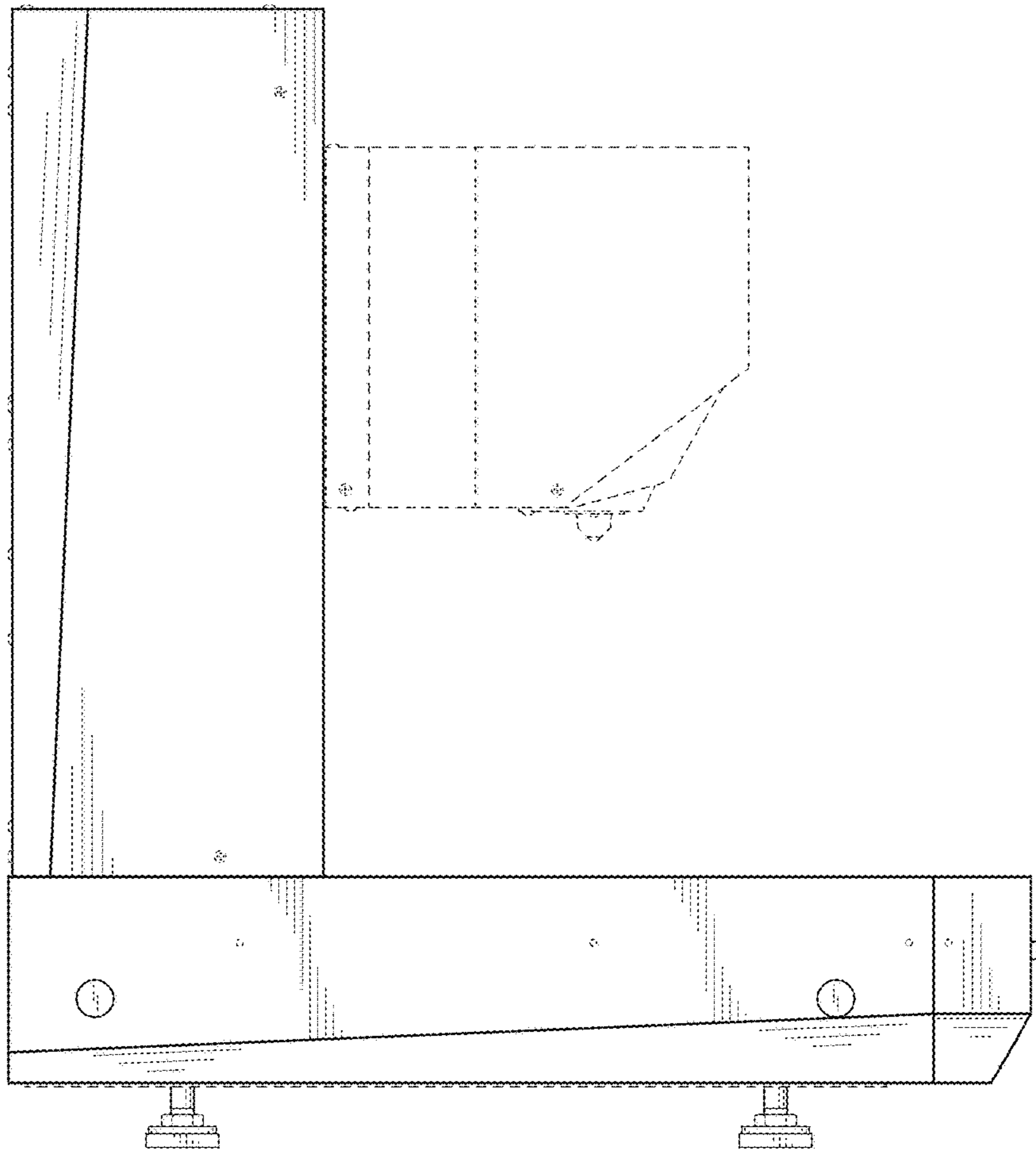


FIG. 5

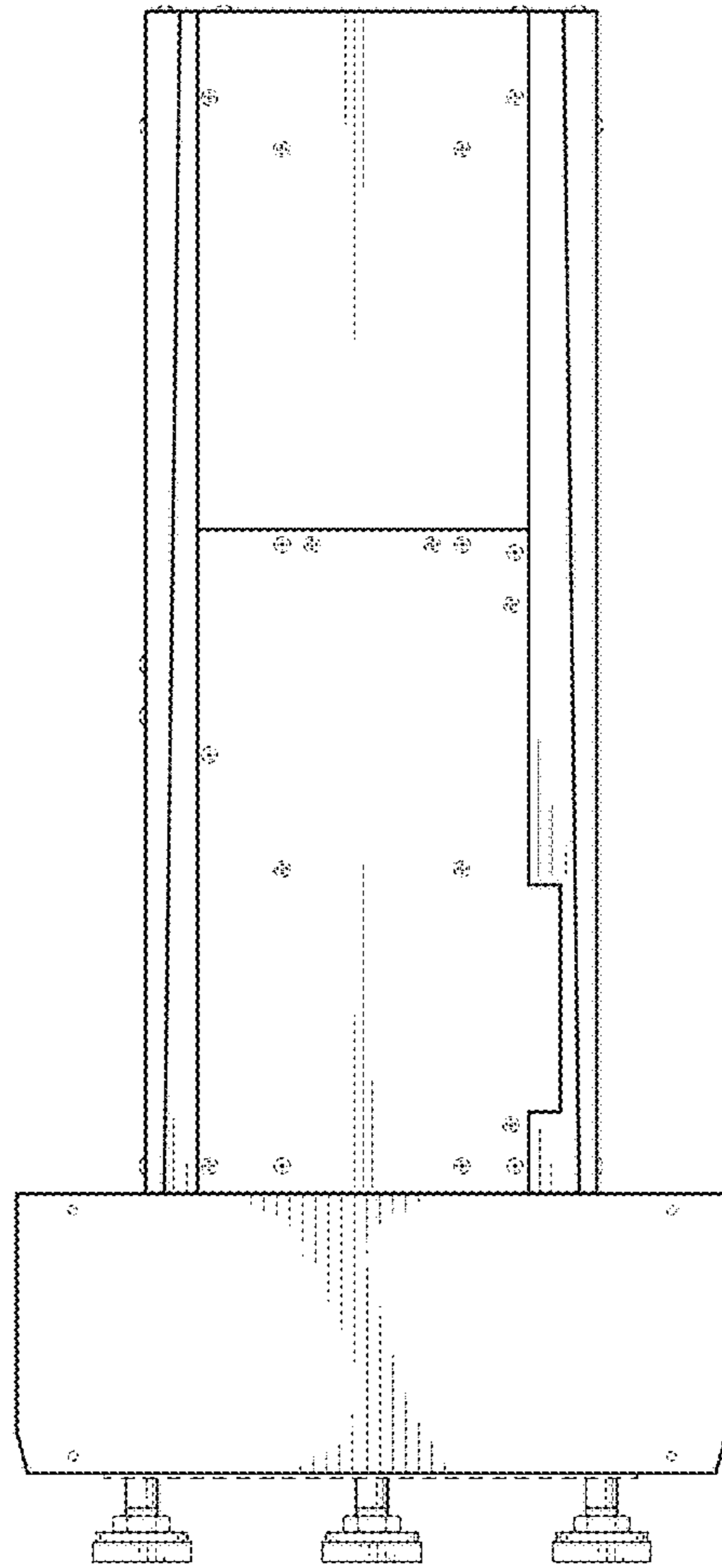


FIG. 6

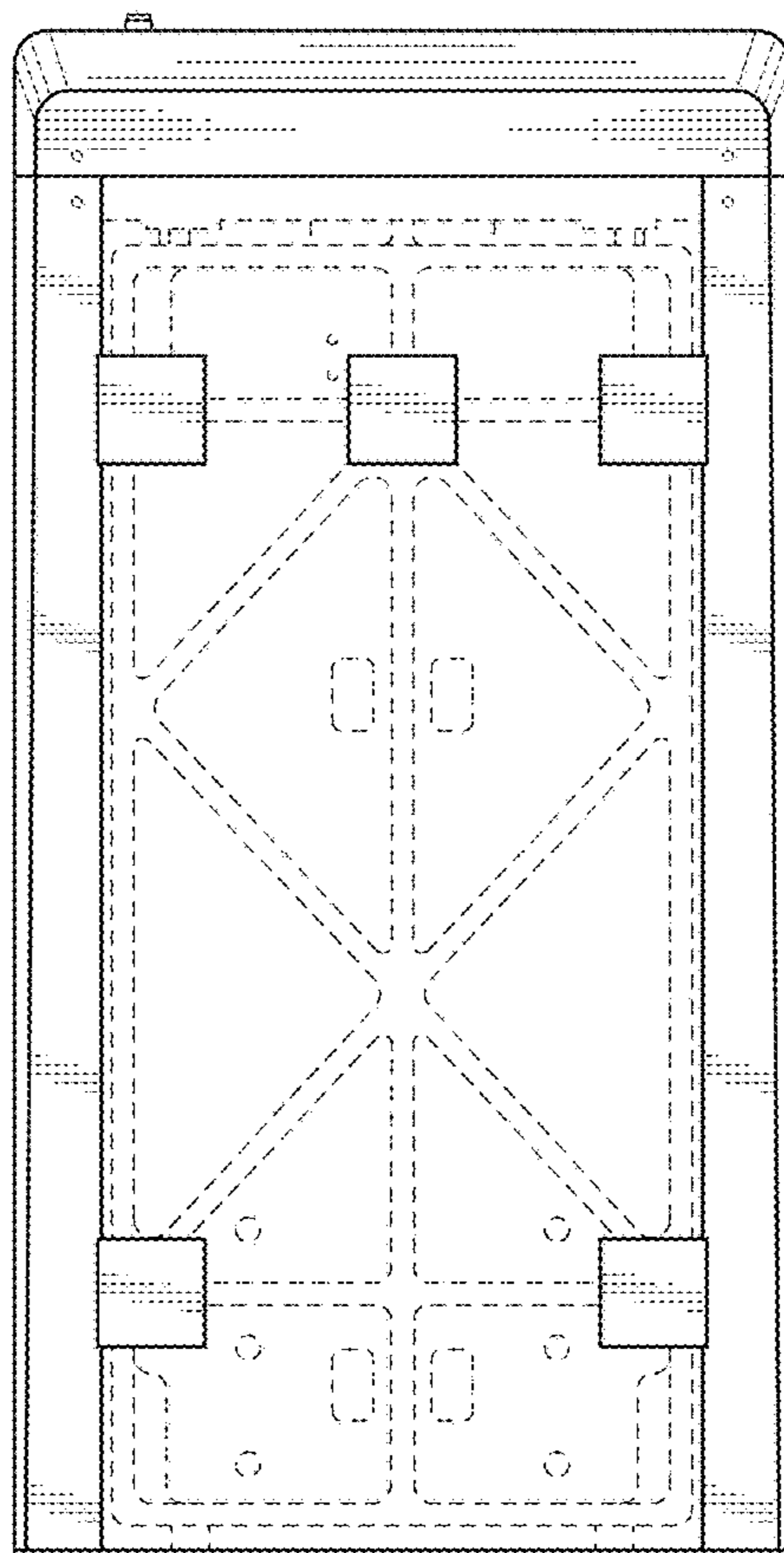


FIG. 7