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Matoba et al.

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(54) **PUMP FOR LIQUID CHROMATOGRAPH ANALYZER**

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

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(30) **Foreign Application Priority Data**

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(51) **LOC (9) Cl.** **24-01**

(52) **U.S. Cl.**
USPC **D24/216; D24/232**

(58) **Field of Classification Search**
USPC D24/216, 217, 219, 223, 231, 232, D24/233, 107, 169, 186, 111; D10/81; 422/62-65, 67, 500, 547, 70, 81, 505, 506, 422/509; 436/43, 45, 47; 435/287.1, 287.3; 73/61.52, 61.55; 210/198.2, 656, 659
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D353,384 S * 12/1994 Ninomiya et al. D15/7
D422,925 S * 4/2000 Glaser et al. D10/81
D424,458 S * 5/2000 Hanson et al. D10/81
D456,728 S * 5/2002 Oonuma et al. D10/81
D631,976 S * 2/2011 Oonuma et al. D24/216

D637,929 S * 5/2011 Kimura et al. D10/81
D637,930 S * 5/2011 Kimura et al. D10/81
D645,977 S * 9/2011 Oonuma et al. D24/232
D645,979 S * 9/2011 Oonuma et al. D24/232
D646,189 S * 10/2011 Dinter et al. D10/81
D646,398 S * 10/2011 Oonuma et al. D24/232
D652,147 S * 1/2012 Isozaki D24/216
D663,856 S * 7/2012 Lieblein et al. D24/216

FOREIGN PATENT DOCUMENTS

CN 301049635 10/2009
CN 301321502 S 8/2010
EM 001691320-0006 4/2010
JP D 988479 S 8/1997

OTHER PUBLICATIONS

Co-pending U.S. Appl. No. 29/429,034, filed Aug. 7, 2012, Matoba.

(Continued)

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(57) **CLAIM**

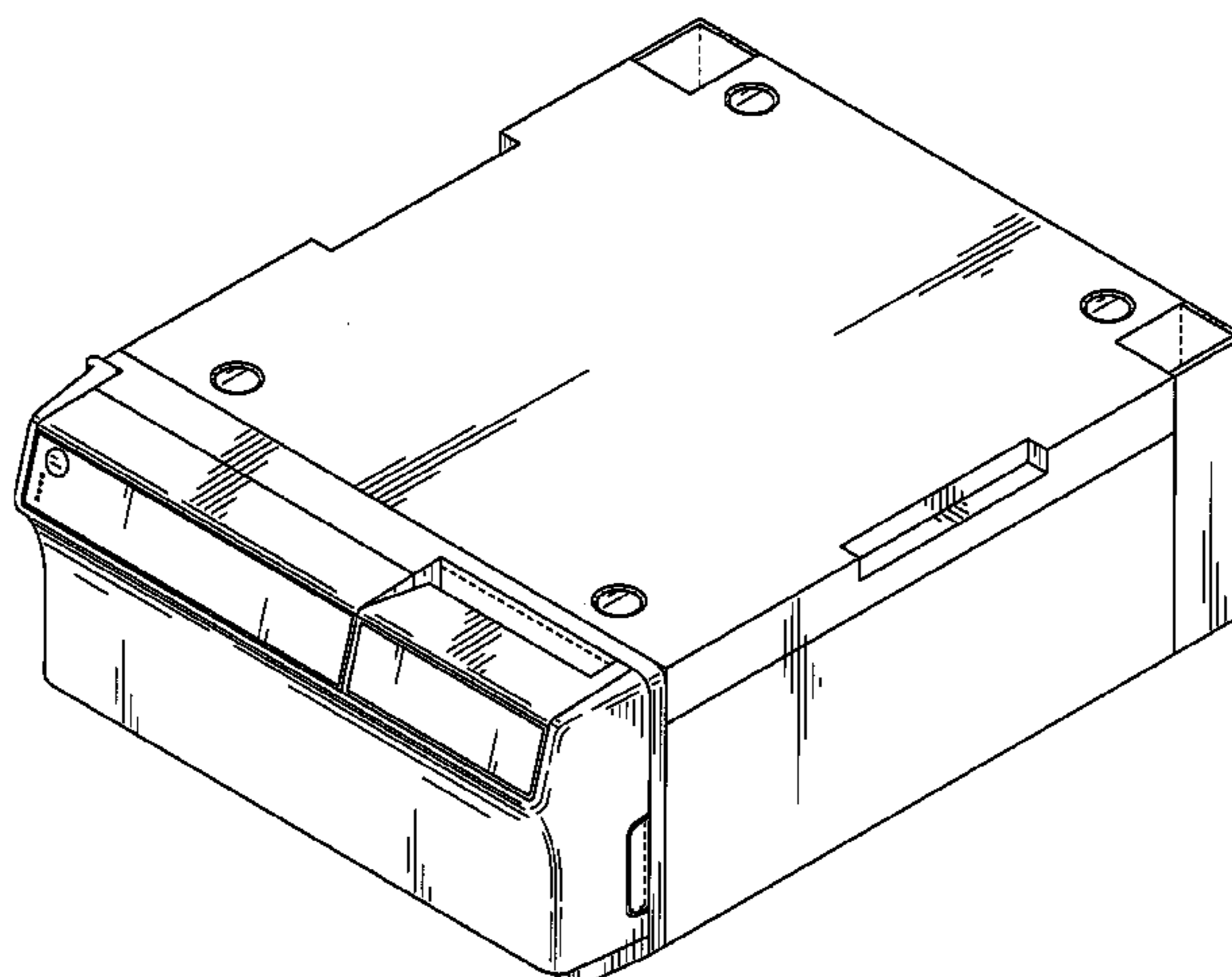
We claim the ornamental design for a pump for liquid chromatograph analyzer, as shown and described.

DESCRIPTION

FIG. 1 is a front, top and right side perspective view of a pump for liquid chromatograph analyzer showing our new design; FIG. 2 is a front elevational view thereof; FIG. 3 is a rear elevational view thereof; FIG. 4 is a left side elevational view thereof; FIG. 5 is a right side elevational view thereof; FIG. 6 is a top plan view thereof; and, FIG. 7 is a bottom plan view thereof.

The broken lines in the drawing views are included for the purpose of illustrating portions of the pump for liquid chromatograph analyzer that form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56)

References Cited

Co-pending U.S. Appl. No. 29/429,036, filed Aug. 7, 2012, Matoba.

Co-pending U.S. Appl. No. 29/429,043, filed Aug. 7, 2012, Matoba.

OTHER PUBLICATIONS

Co-pending U.S. Appl. No. 29/429,035, filed Aug. 7, 2012, Matoba.

* cited by examiner

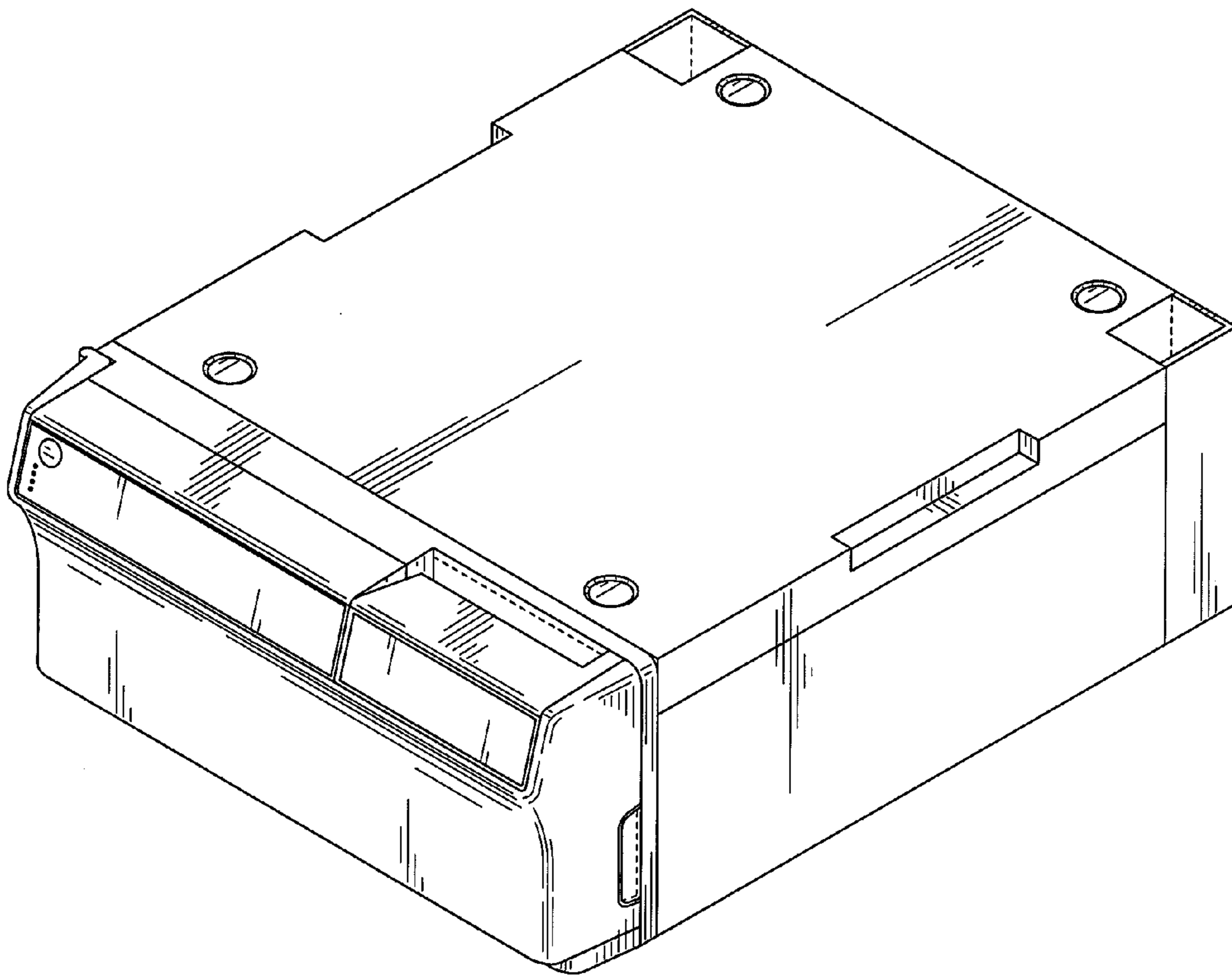


FIG. 1



FIG. 2

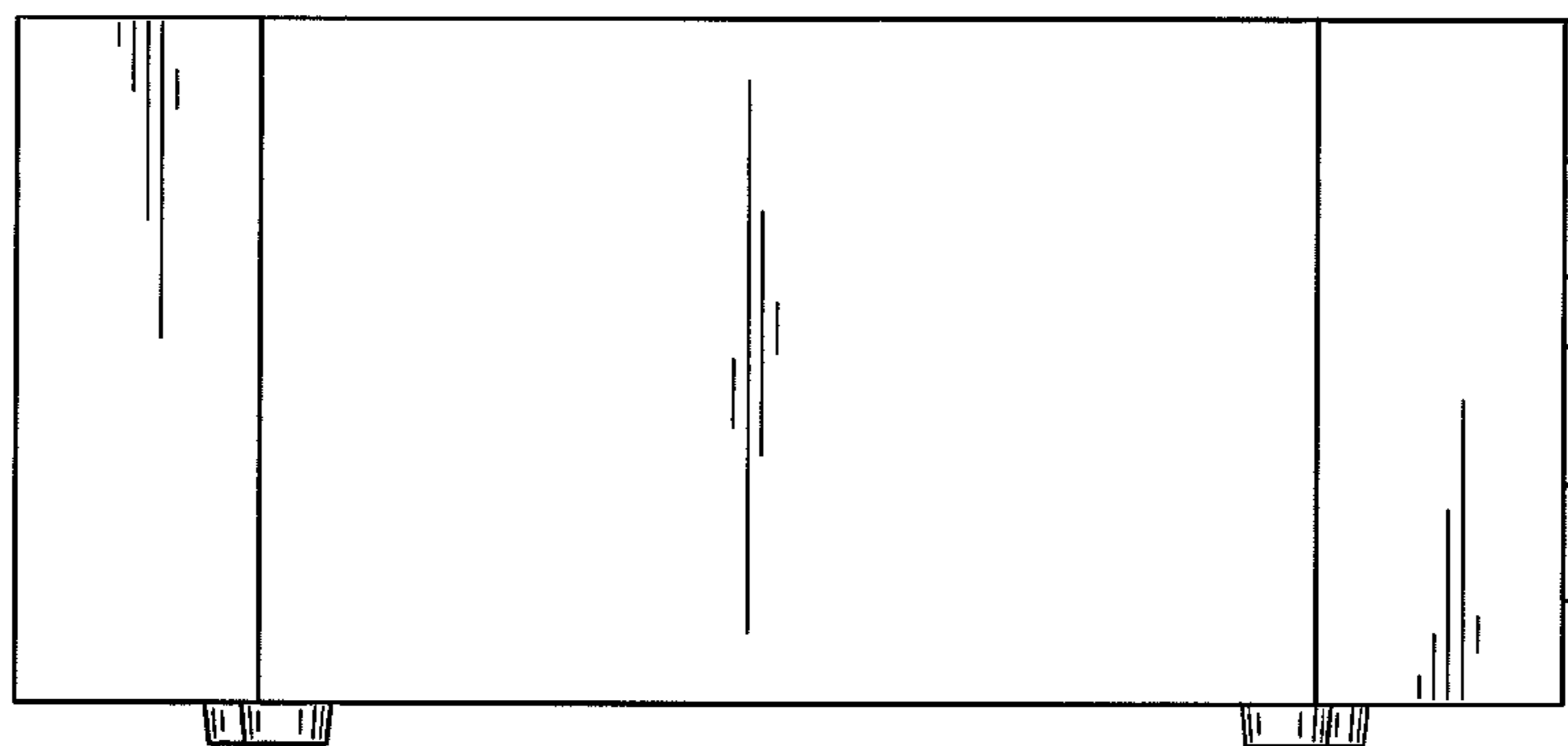


FIG. 3

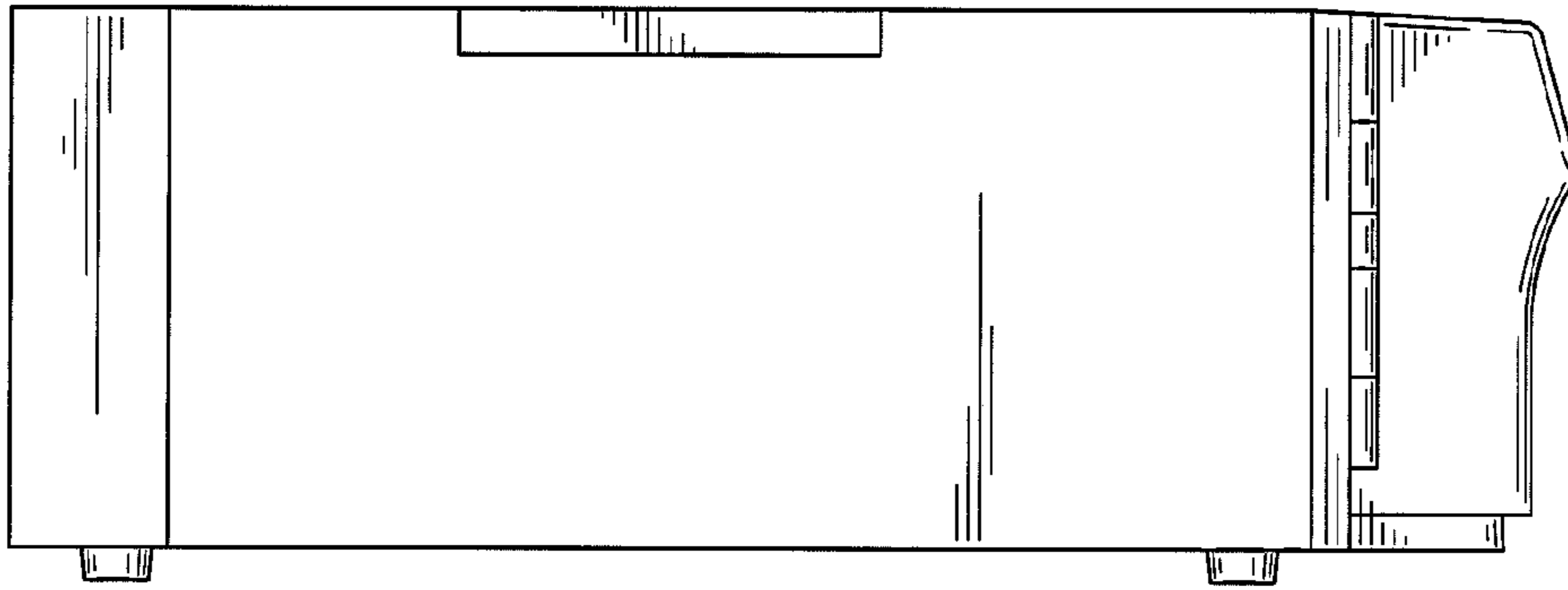


FIG. 4

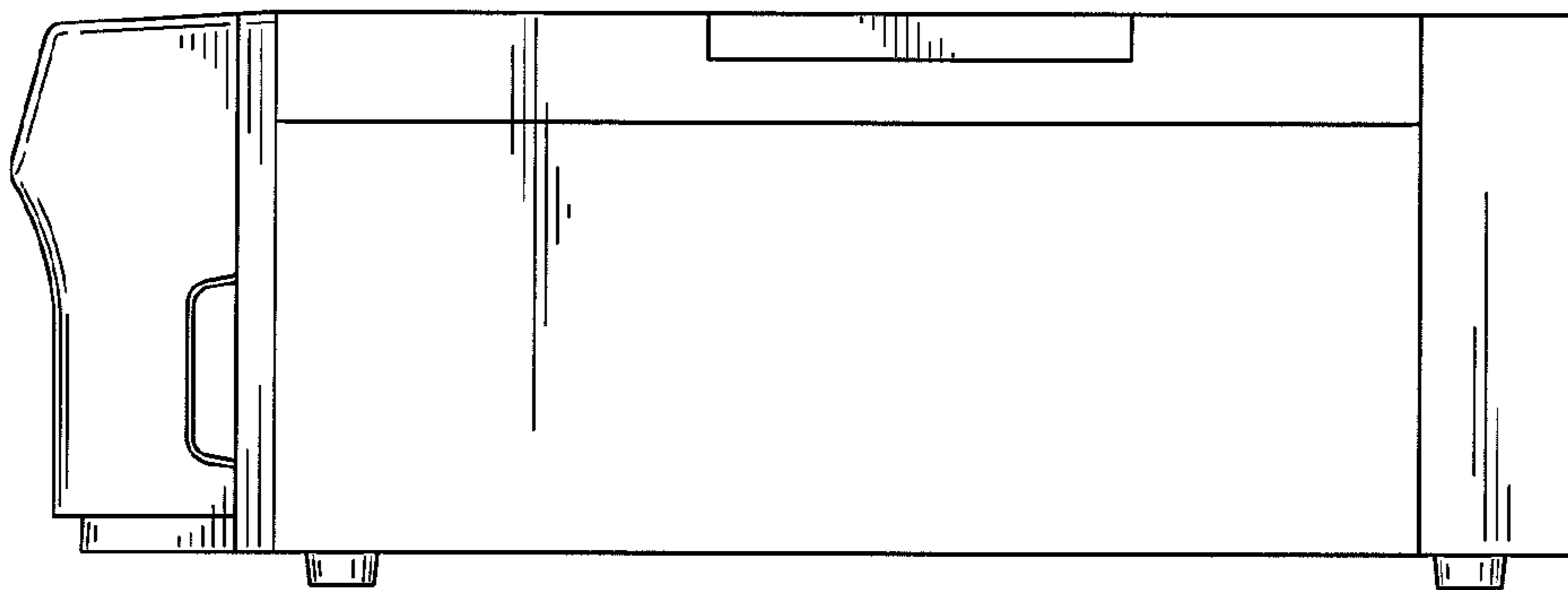


FIG. 5

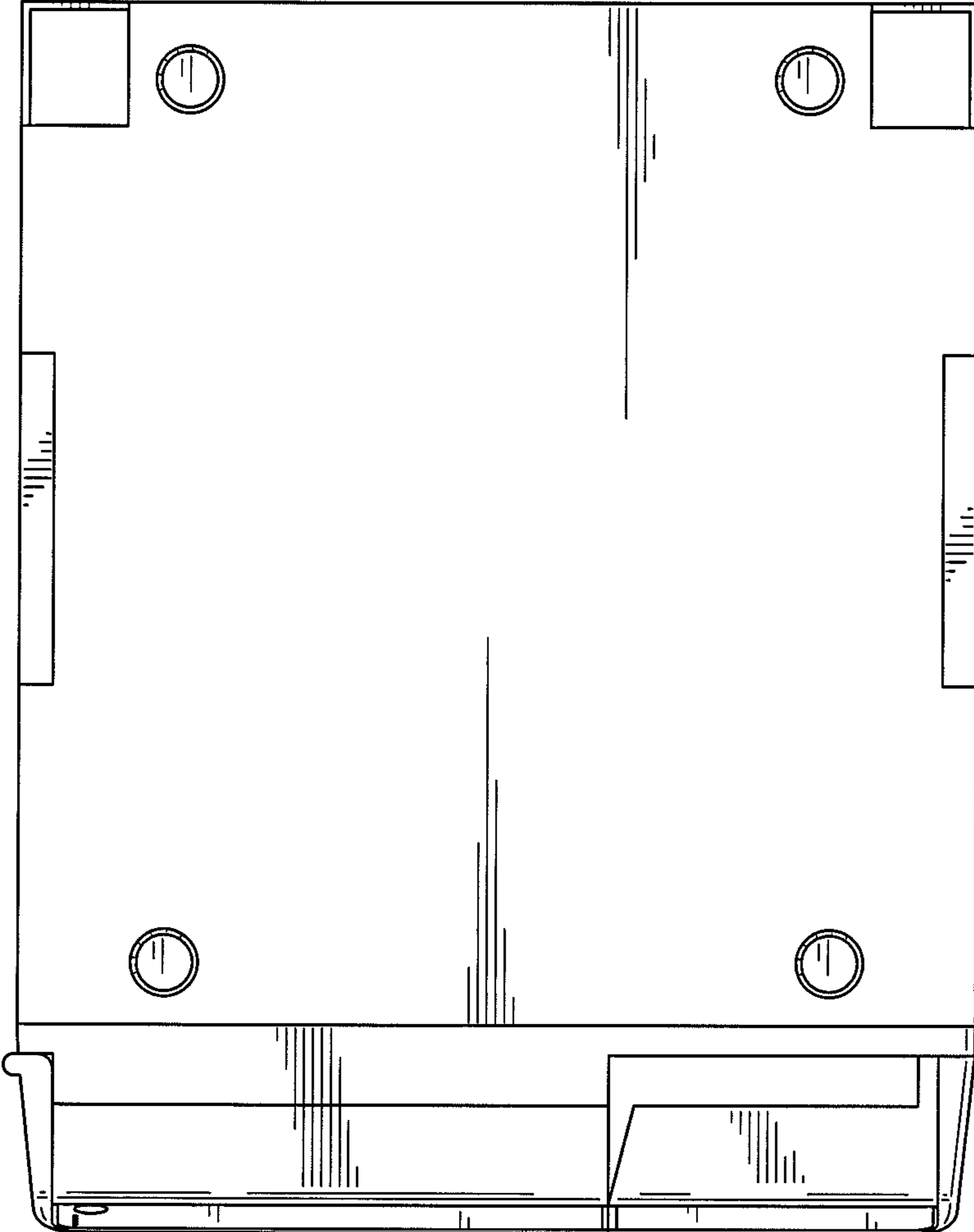


FIG. 6

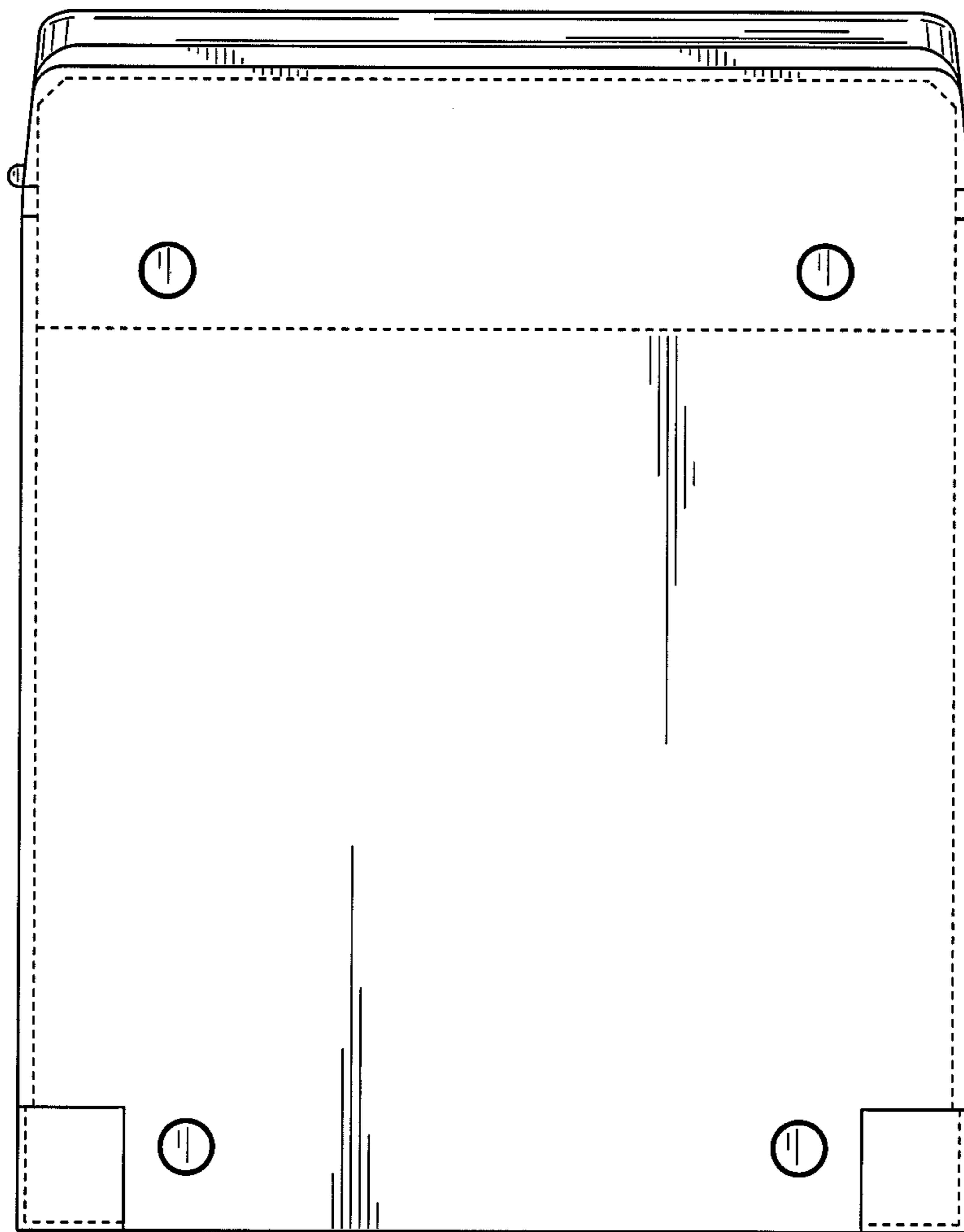


FIG. 7