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

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(45) **Date of Patent:** **** Sep. 19, 2017**

(54) **BATTERY CHARGER MODULE**

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(72) Inventors: **Neil Oliver**, Staffordshire (GB); **David Asplin**, Staffordshire (GB); **Steve Dodds**, Staffordshire (GB)

(73) Assignee: **Accutronics Ltd.** (GB)

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

(21) Appl. No.: **29/561,226**

(22) Filed: **Apr. 14, 2016**

Related U.S. Application Data

(62) Division of application No. 29/485,393, filed on Mar. 18, 2014, now Pat. No. Des. 757,645.

(30) **Foreign Application Priority Data**

Sep. 18, 2013 (EP) 002311787

(51) **LOC (10) Cl.** **13-02**

(52) **U.S. Cl.**
USPC **D13/103**

(58) **Field of Classification Search**
USPC D13/103, 106, 107, 110, 184, 82, 120,
D13/159; 429/96, 97, 99, 100, 105, 163,
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,105,909 A * 10/1963 Jones H01M 10/4207
180/68.5

D206,804 S * 1/1967 Cunity D13/107
(Continued)

Primary Examiner — Paula Greene

(57) **CLAIM**

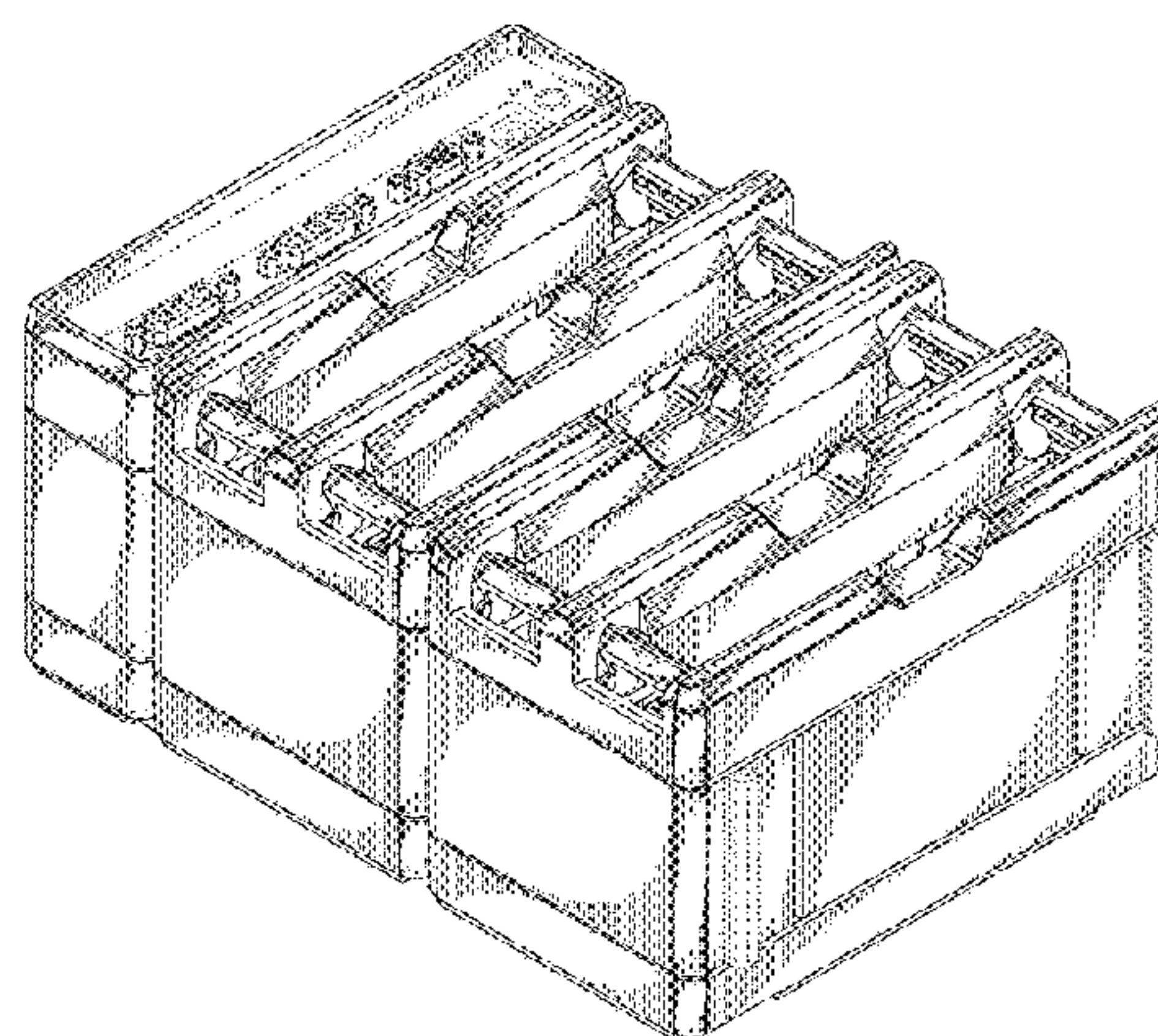
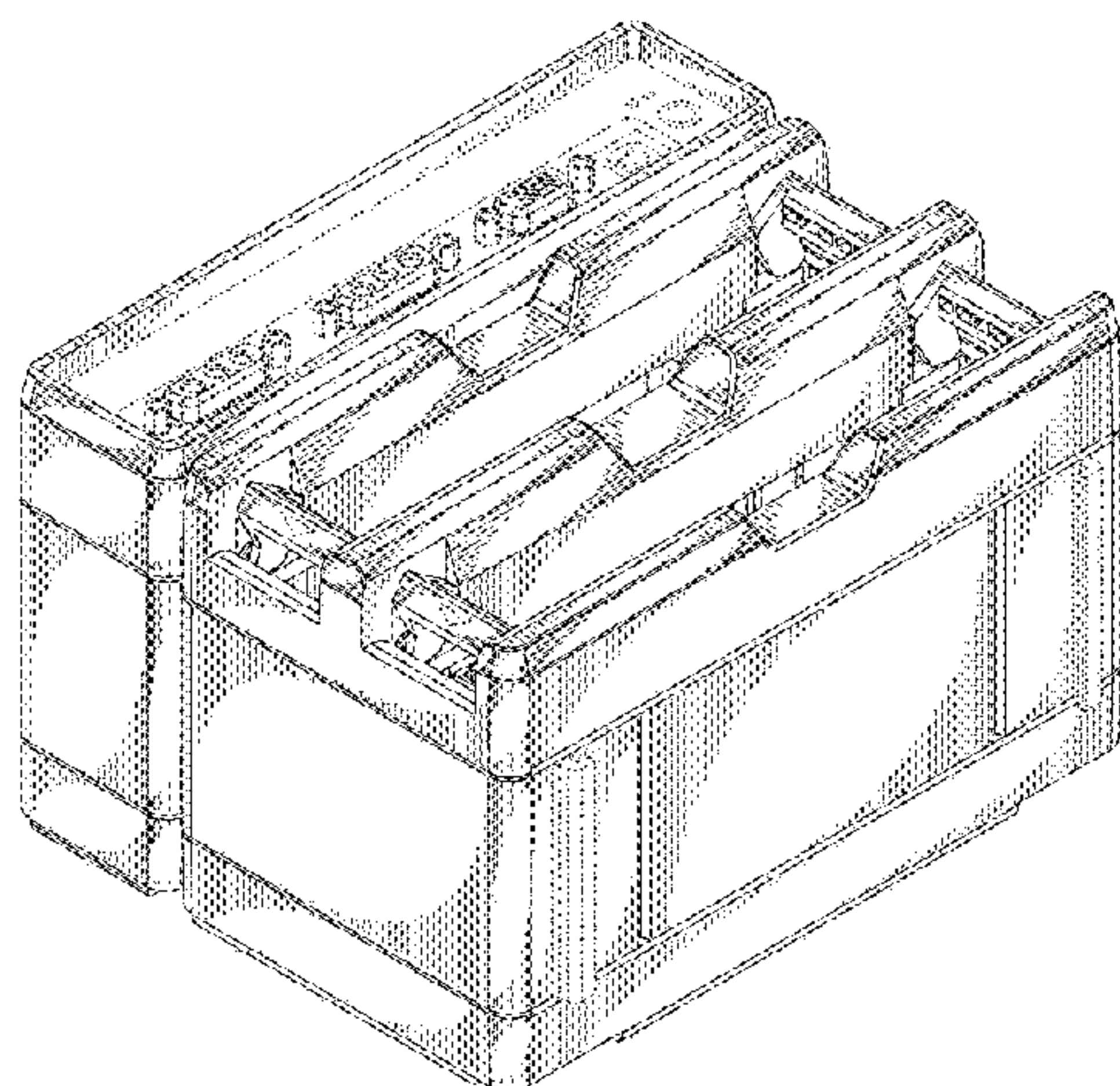
An ornamental design for the battery charger module, as shown and described.

DESCRIPTION

FIG. 1 is a first perspective view of our new control module coupled to an embodiment of our new end charger;

FIG. 2 is a second perspective view of the design of FIG. 1; FIG. 3 is a front view of the design of FIG. 1; FIG. 4 is a top view of the design of FIG. 1; FIG. 5 is a bottom view of the design of FIG. 1; FIG. 6 is a left hand side view of the design of FIG. 1; FIG. 7 is a right hand side view of the design of FIG. 1; FIG. 8 is a first perspective view of our new control module coupled to another embodiment of our end charger; FIG. 9 is a second perspective view of the design of FIG. 8; FIG. 10 is a front view of the design of FIG. 8; FIG. 11 is a top view of the design of FIG. 8; FIG. 12 is a bottom view of the design of FIG. 8; FIG. 13 is a left hand side view of the design of FIG. 8; FIG. 14 is a right hand side view of the design of FIG. 8; FIG. 15 is a first perspective view of our new control module coupled to another embodiment of end charger; FIG. 16 is a second perspective view of the design of FIG. 15; FIG. 17 is a front view of the design of FIG. 15; FIG. 18 is a top view of the design of FIG. 15; FIG. 19 is a bottom view of the design of FIG. 15; FIG. 20 is a left hand side view of the design of FIG. 15; FIG. 21 is a right hand side view of the design of FIG. 15; FIG. 22 is a first perspective view of our new control module coupled to another embodiment of our end charger; FIG. 23 is a second perspective view of the design of FIG. 22; FIG. 24 is a front view of the design of FIG. 22; FIG. 25 is a top view of the design of FIG. 22; FIG. 26 is a bottom view of the design of FIG. 22; FIG. 27 is a left hand side view of the design of FIG. 22; and, FIG. 28 is a right hand side view of the design of FIG. 22. The broken lines in the above described FIGS. 1-28 are for illustrative purposes only and form no part of the claimed design.

1 Claim, 23 Drawing Sheets



(58) **Field of Classification Search**

USPC 429/82, 120, 176; 320/103, 107, 110,
 320/120, 125
 CPC H01M 2/10; H01M 10/46; H01M 10/44;
 H01M 10/6556; H01M 10/50
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,579,075 A * 5/1971 Floyd H02J 7/0045
 320/110
 3,696,283 A 10/1972 Ackley, III
 D225,109 S 11/1972 Flider
 D236,493 S 8/1975 Kaye
 4,403,182 A 9/1983 Yeh
 D278,703 S 5/1985 Chiodo et al.
 D286,770 S 11/1986 Melcher
 5,039,929 A * 8/1991 Veistroffer H02J 7/008
 320/107
 D336,631 S * 6/1993 Ivester D13/108
 5,221,210 A 6/1993 Bormuth et al.
 D366,631 S 1/1996 Weder et al.
 D377,790 S * 2/1997 Ober D14/453
 D377,986 S * 2/1997 Pollard D25/124
 D388,764 S 1/1998 Bartling et al.
 D409,562 S 5/1999 Johansson et al.

D519,919 S 5/2006 Yokota
 D555,587 S 11/2007 Yamamoto et al.
 D610,539 S 2/2010 Dahan et al.
 D614,124 S 4/2010 Mistyurik
 D623,125 S 9/2010 Kawabata et al.
 D643,811 S * 8/2011 Qualls D13/106
 8,054,041 B2 11/2011 Kim et al.
 D654,019 S 2/2012 Ikegame
 8,312,937 B2 11/2012 Turner et al.
 D674,333 S 1/2013 Lemelman et al.
 D675,622 S 2/2013 Petrick et al.
 D680,950 S 4/2013 Nam et al.
 D693,292 S 11/2013 Salvi et al.
 D721,647 S * 1/2015 Dekeuster D13/104
 D727,254 S 4/2015 Kinoshita
 D731,412 S 6/2015 Gao et al.
 D731,415 S 6/2015 Arakelian et al.
 D733,043 S 6/2015 Hasbrook et al.
 D733,045 S 6/2015 Venida et al.
 D757,645 S 5/2016 Oliver et al.
 2001/0007728 A1 7/2001 Ogata et al.
 2006/0093899 A1 5/2006 Jeon et al.
 2012/0194132 A1 8/2012 Ikegame
 2012/0214038 A1 * 8/2012 Kim H01M 2/1061
 429/99
 2015/0214586 A1 * 7/2015 Yeow H01M 10/625
 429/120
 2016/0248072 A1 * 8/2016 Jang H01M 2/30

* cited by examiner

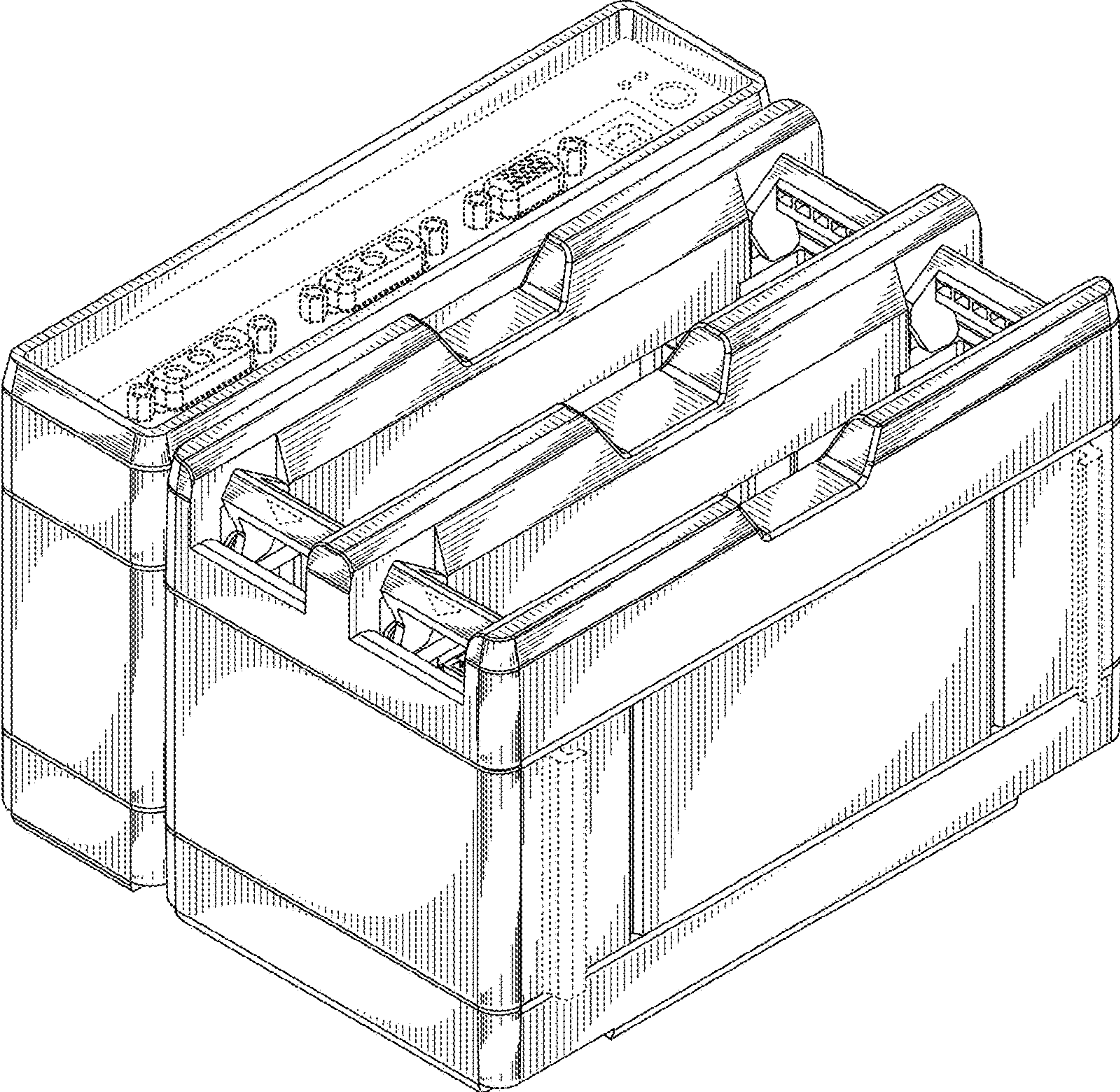


FIG. 1

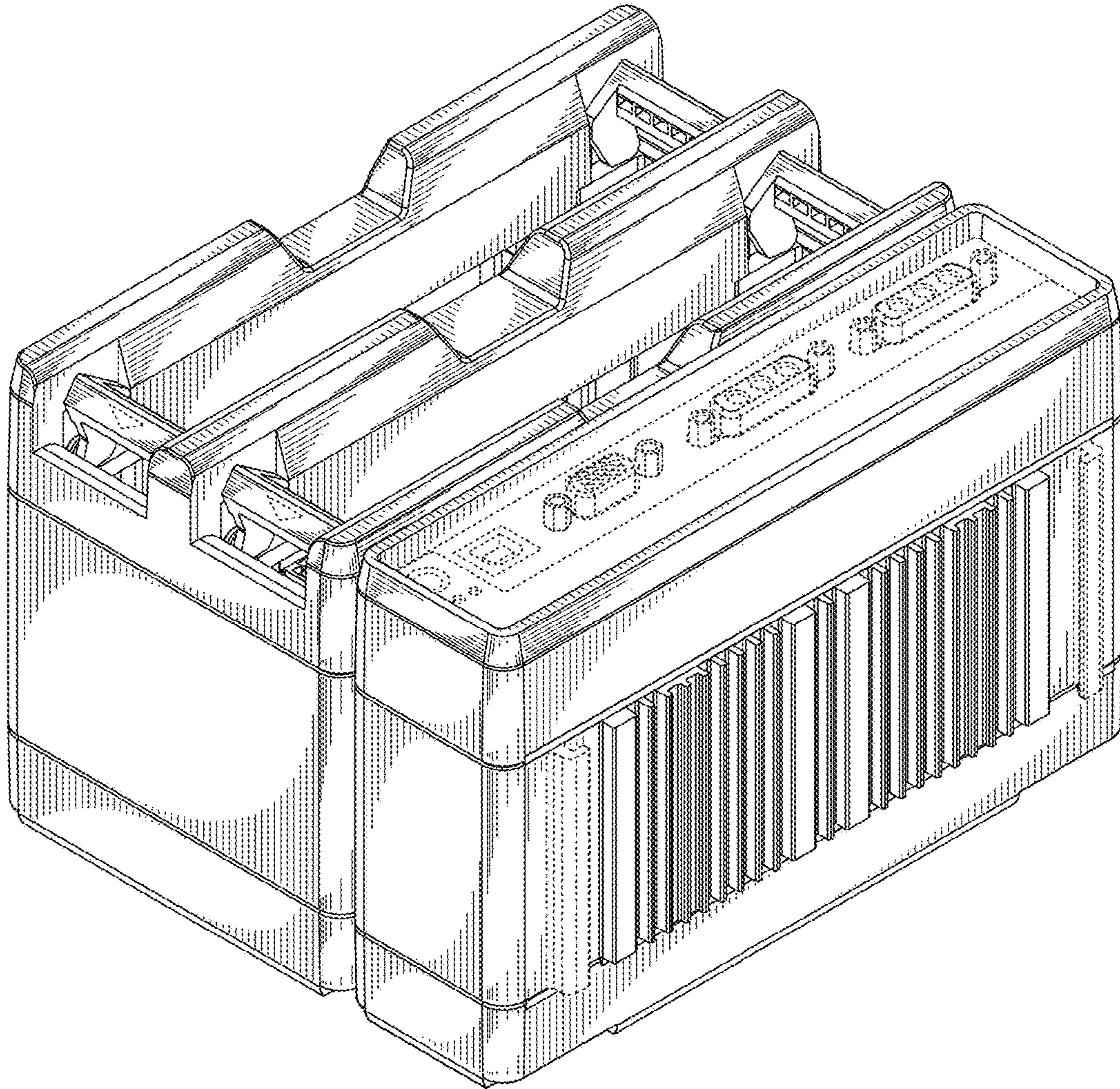


FIG. 2

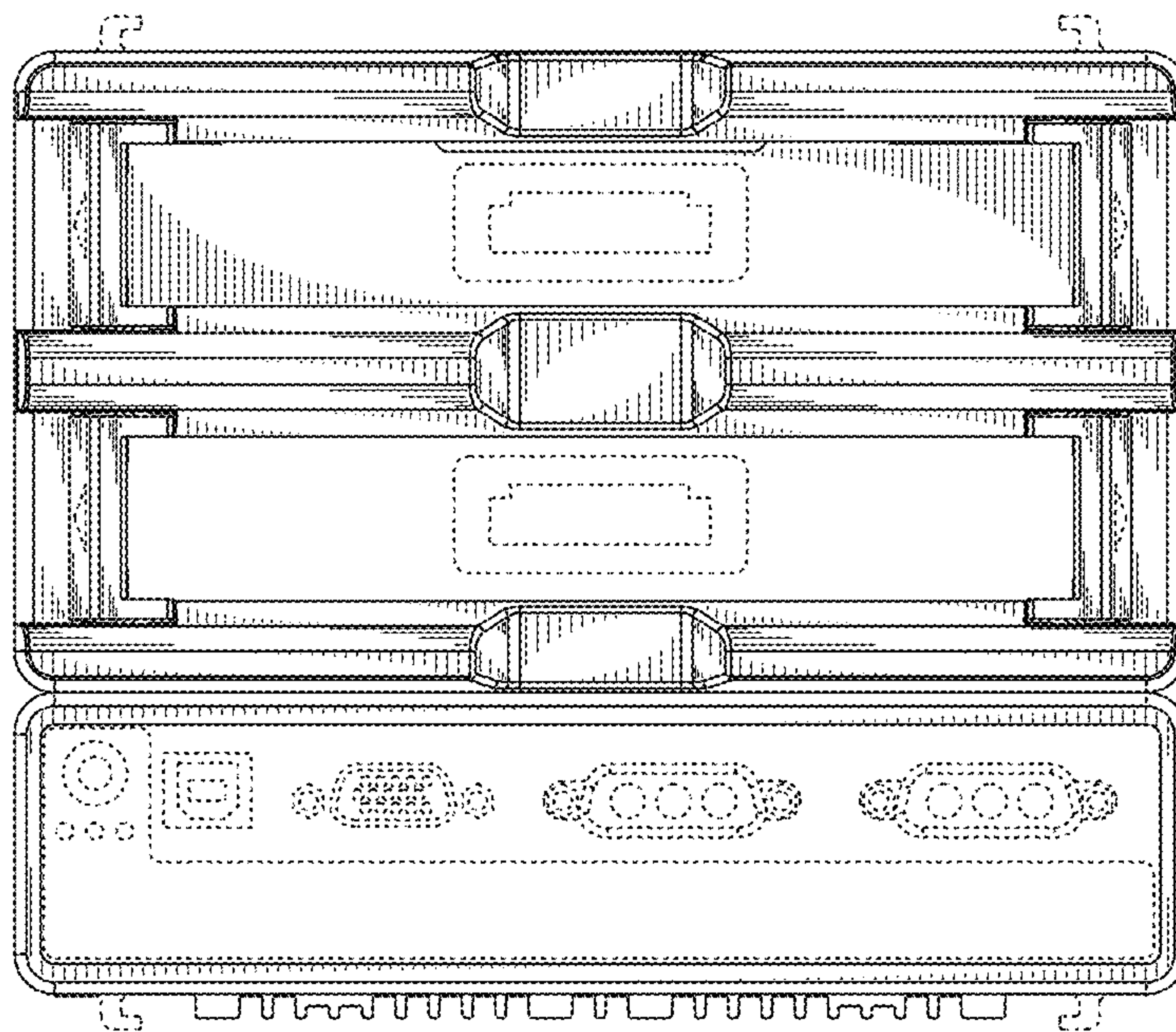


FIG. 3

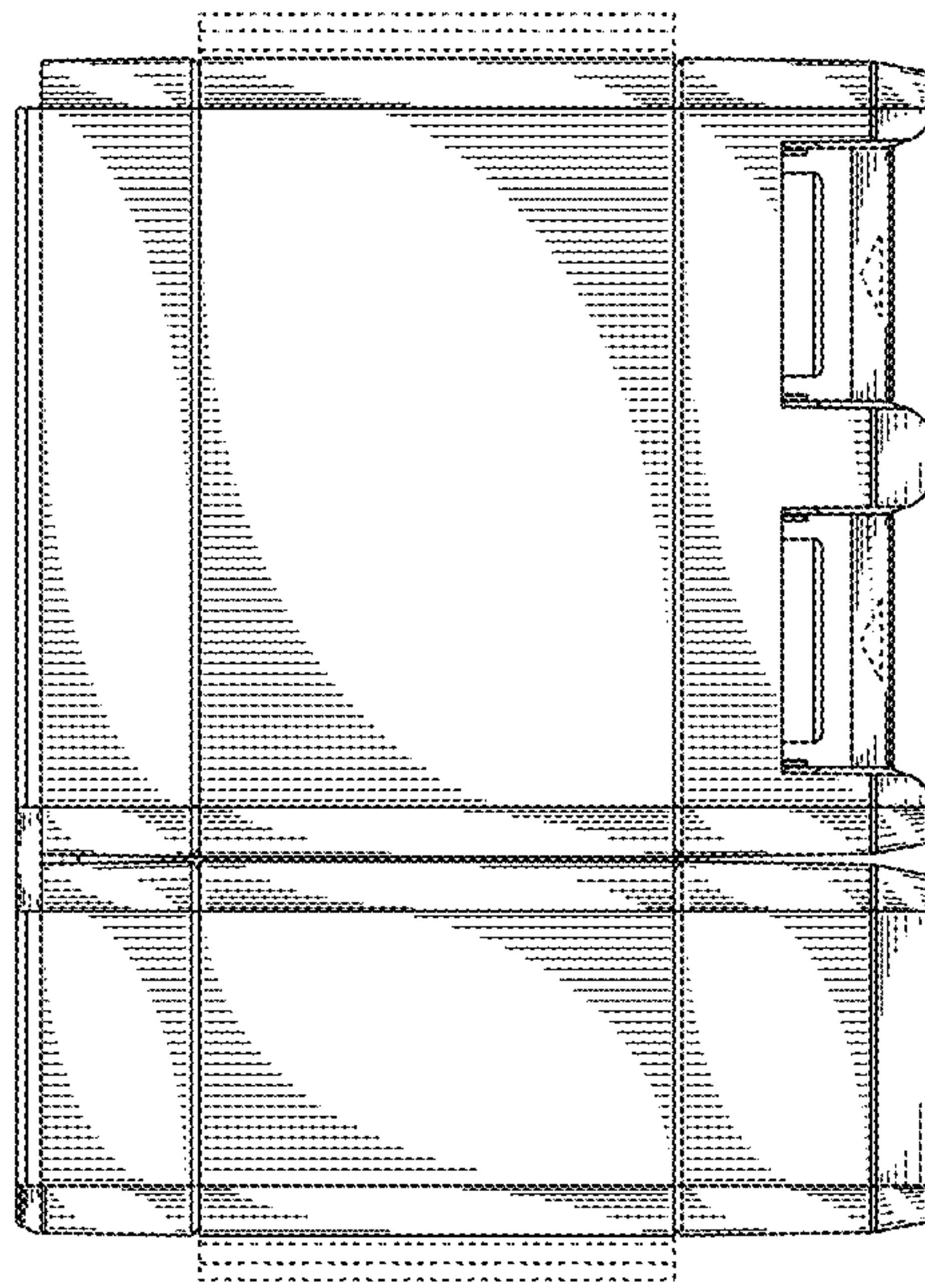


FIG. 4

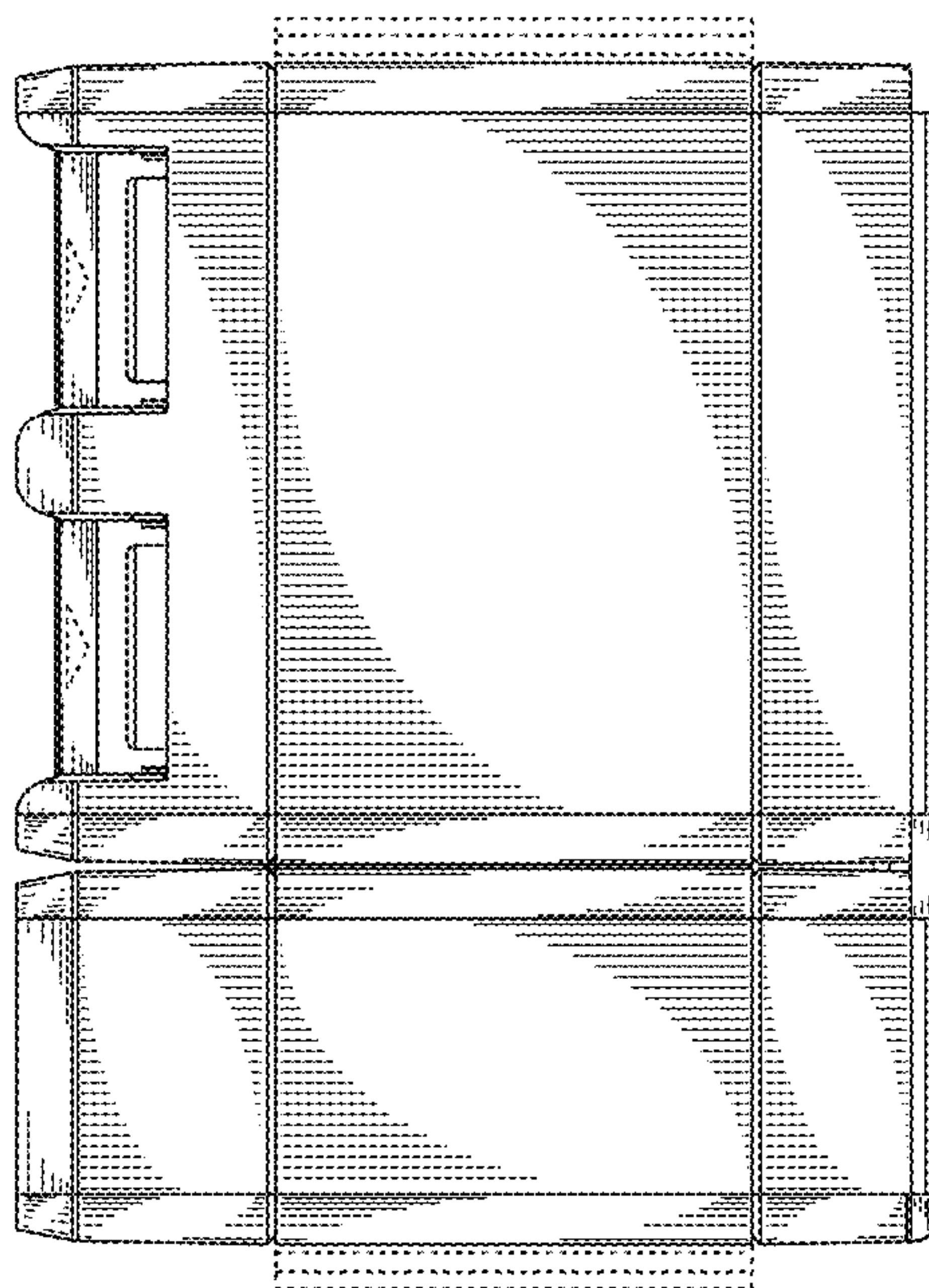


FIG. 5

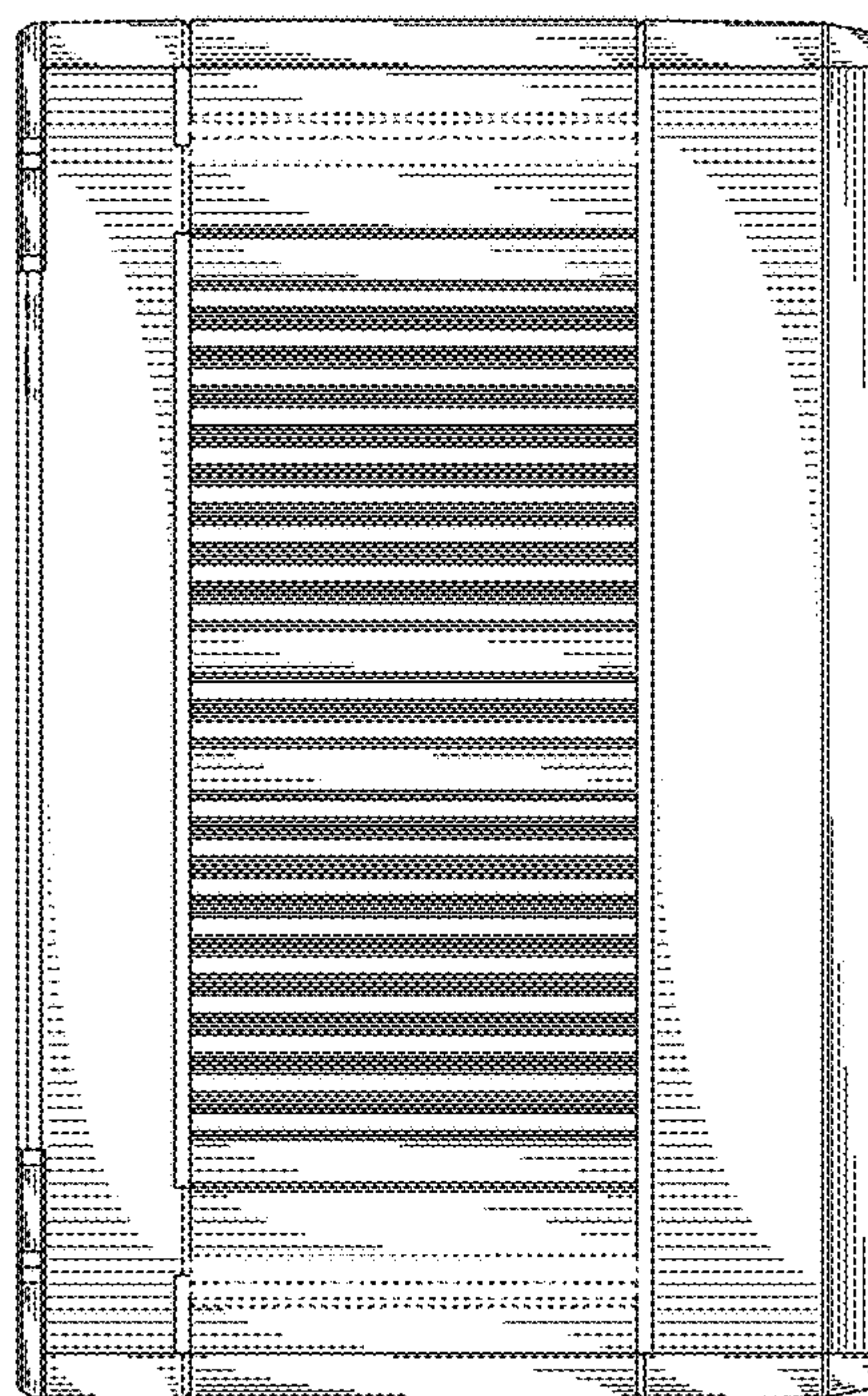


FIG. 6

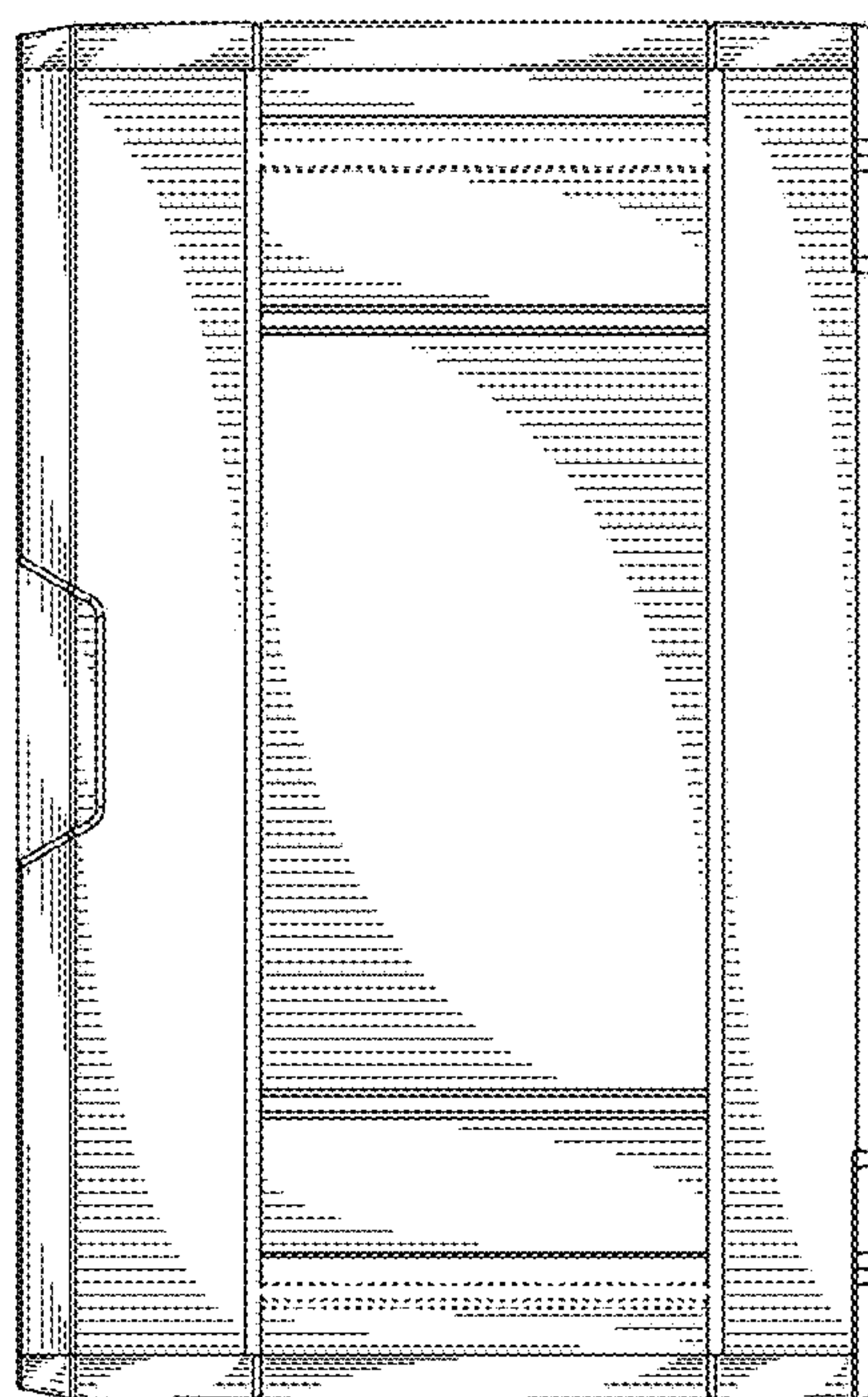


FIG. 7

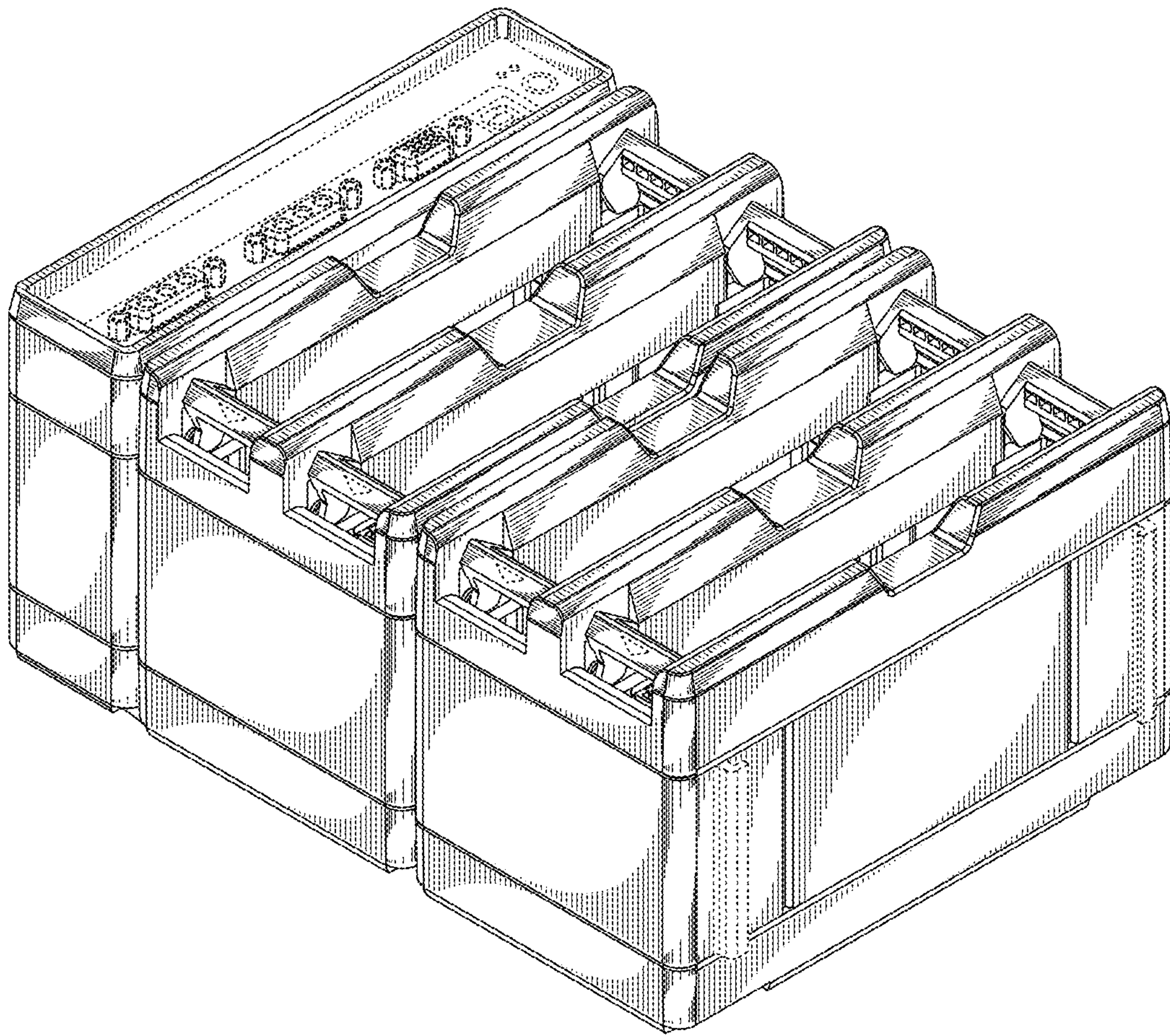


FIG. 8

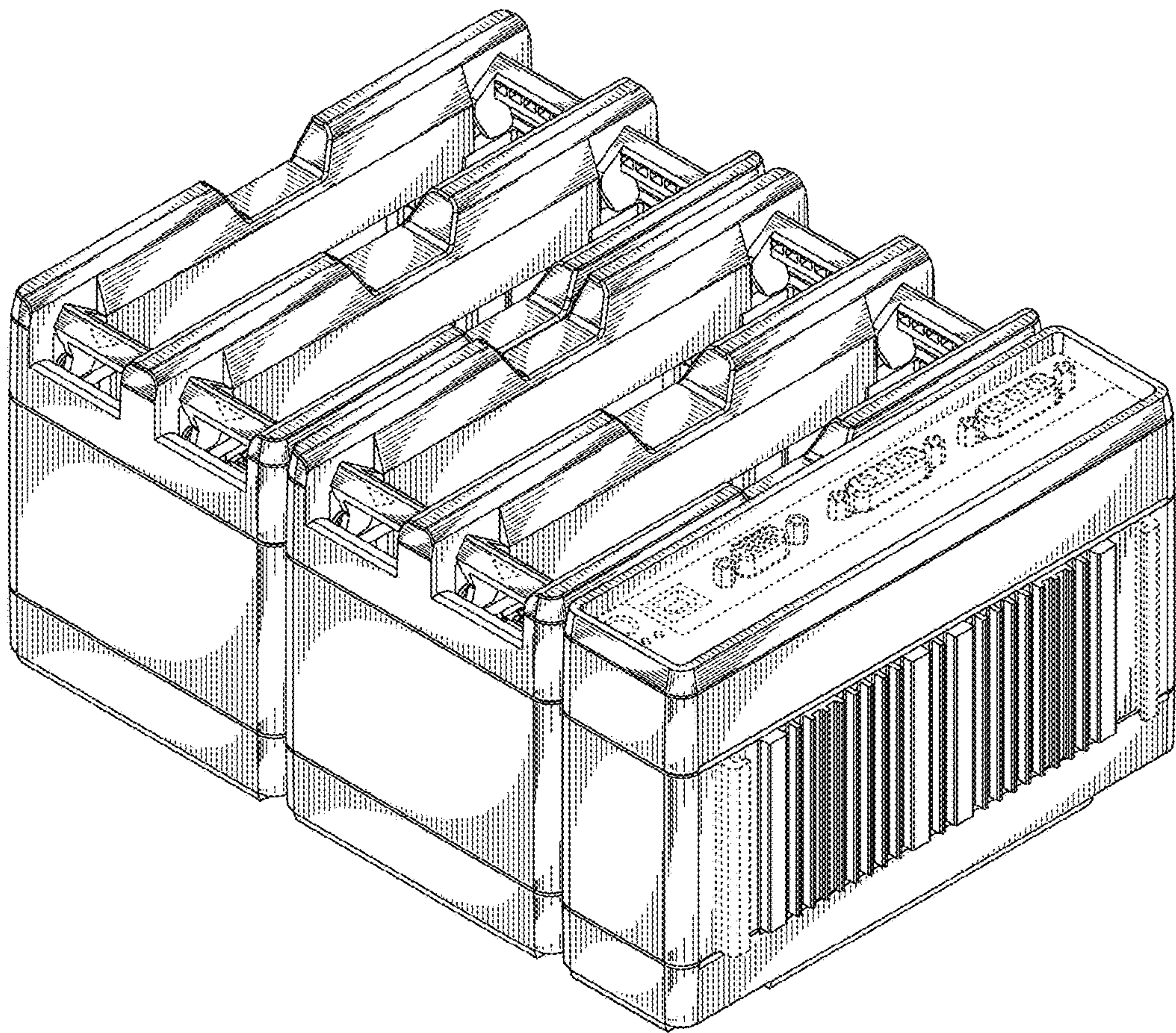


FIG. 9

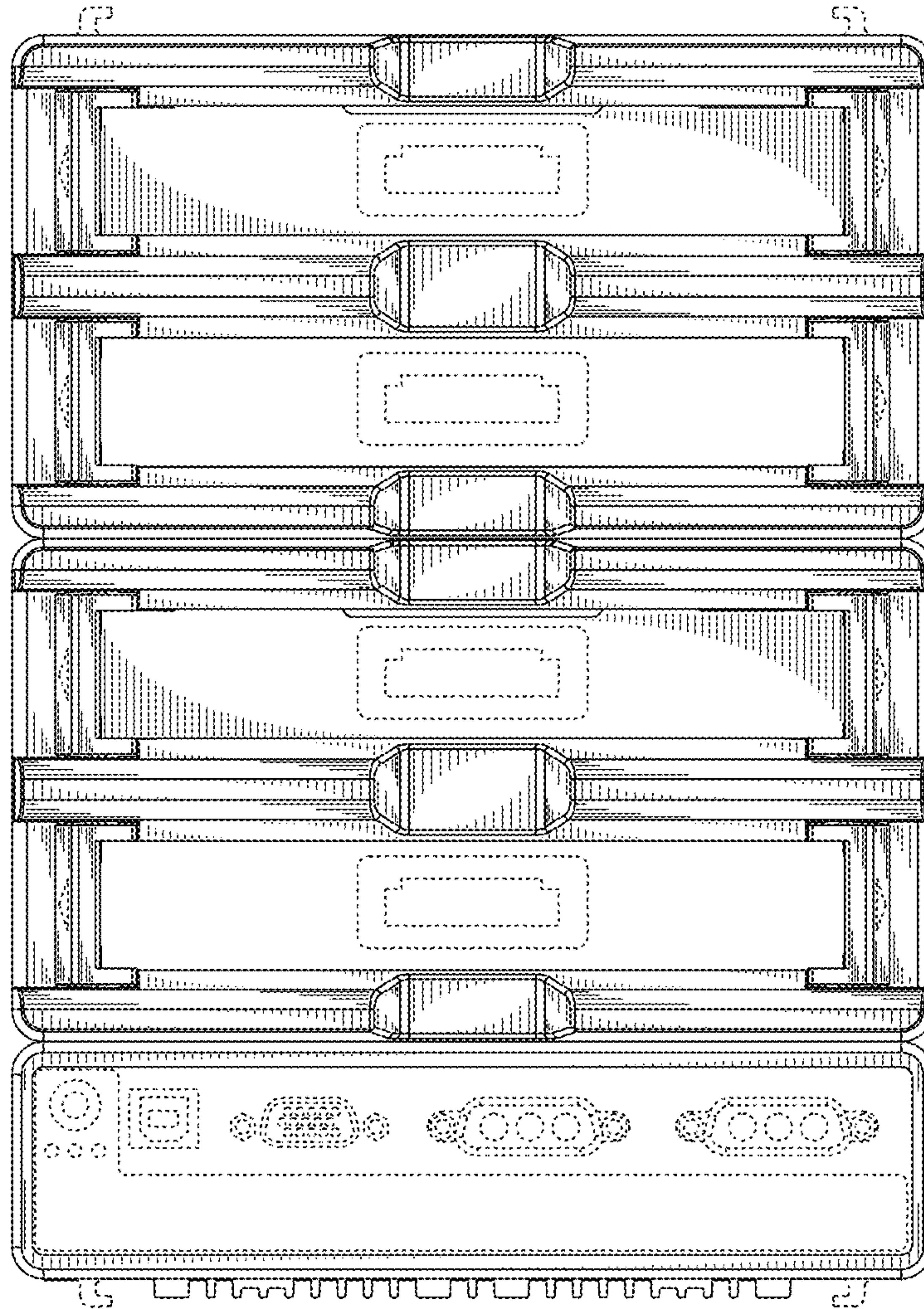


FIG. 10

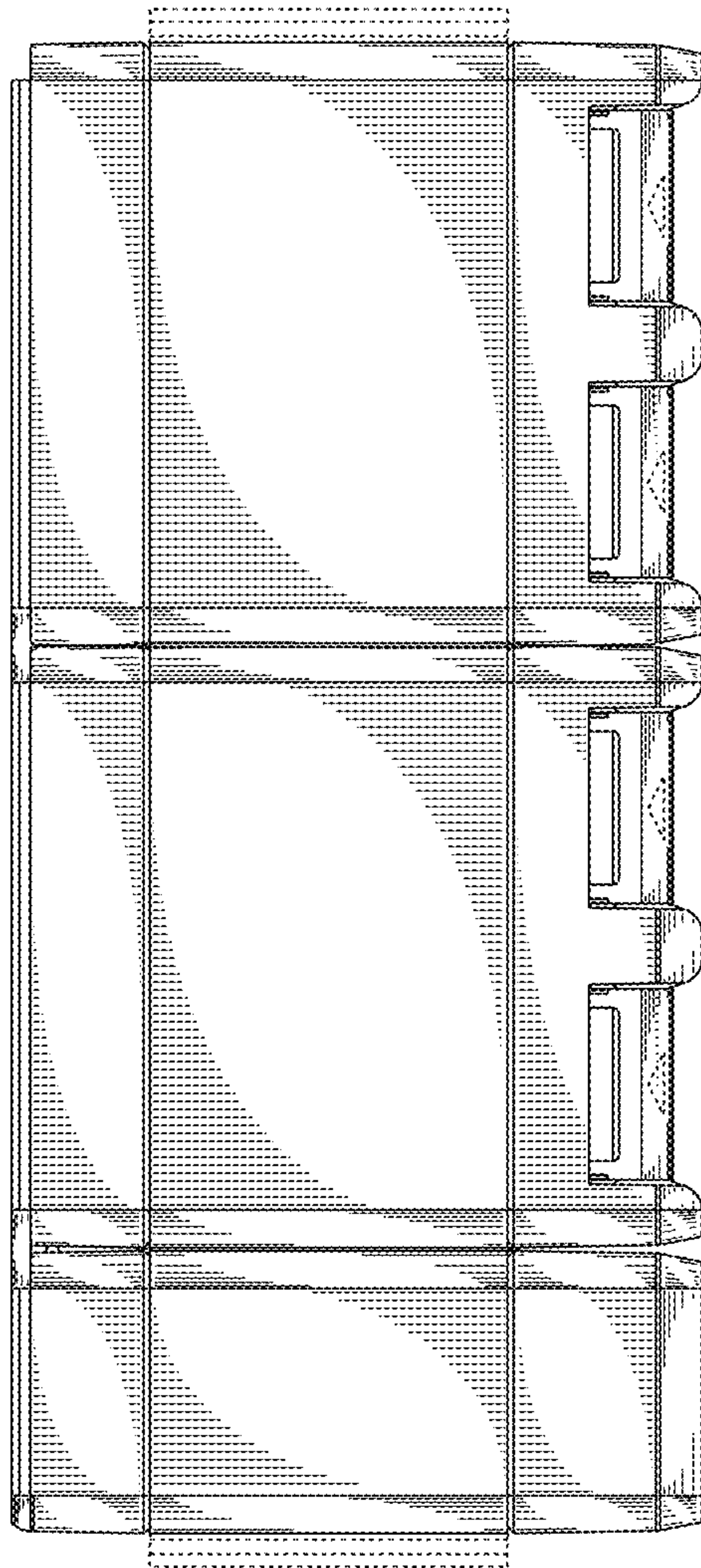


FIG. 11

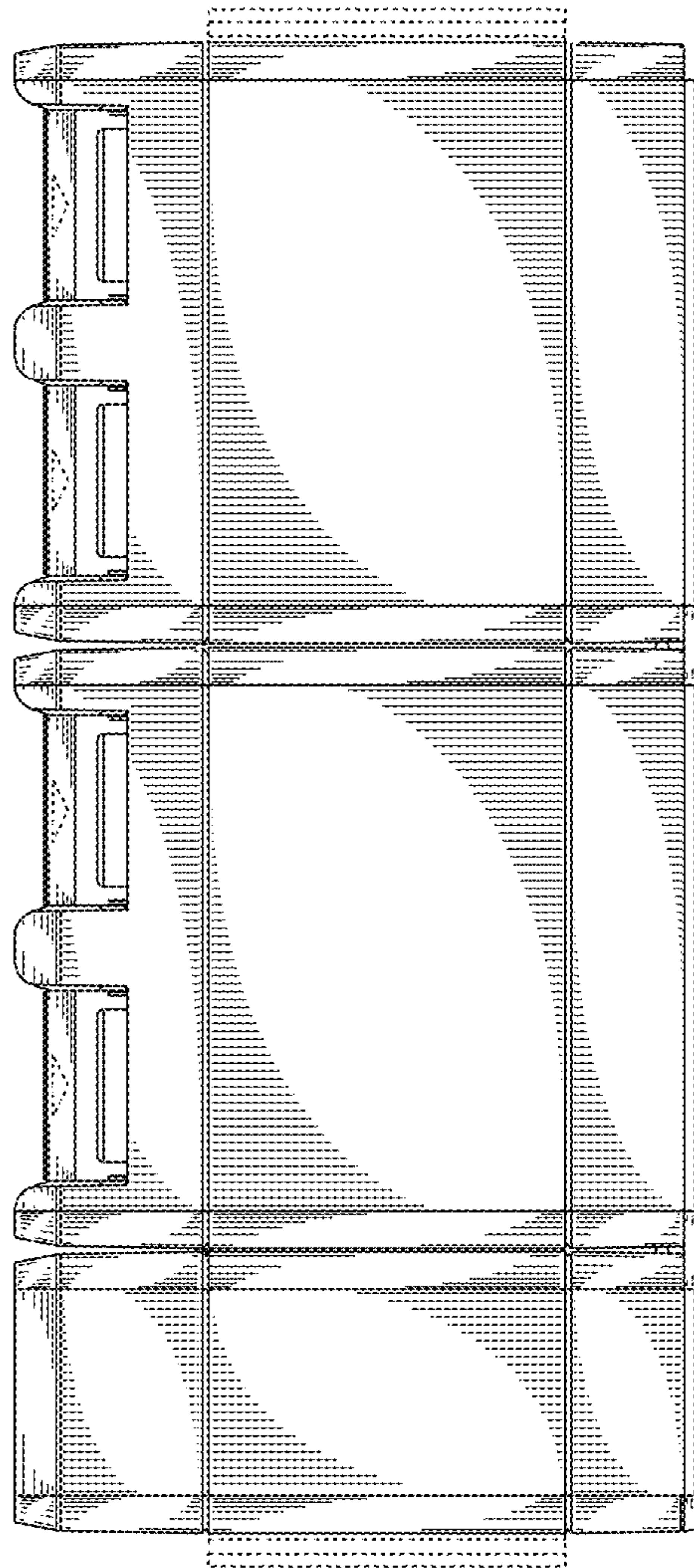


FIG. 12

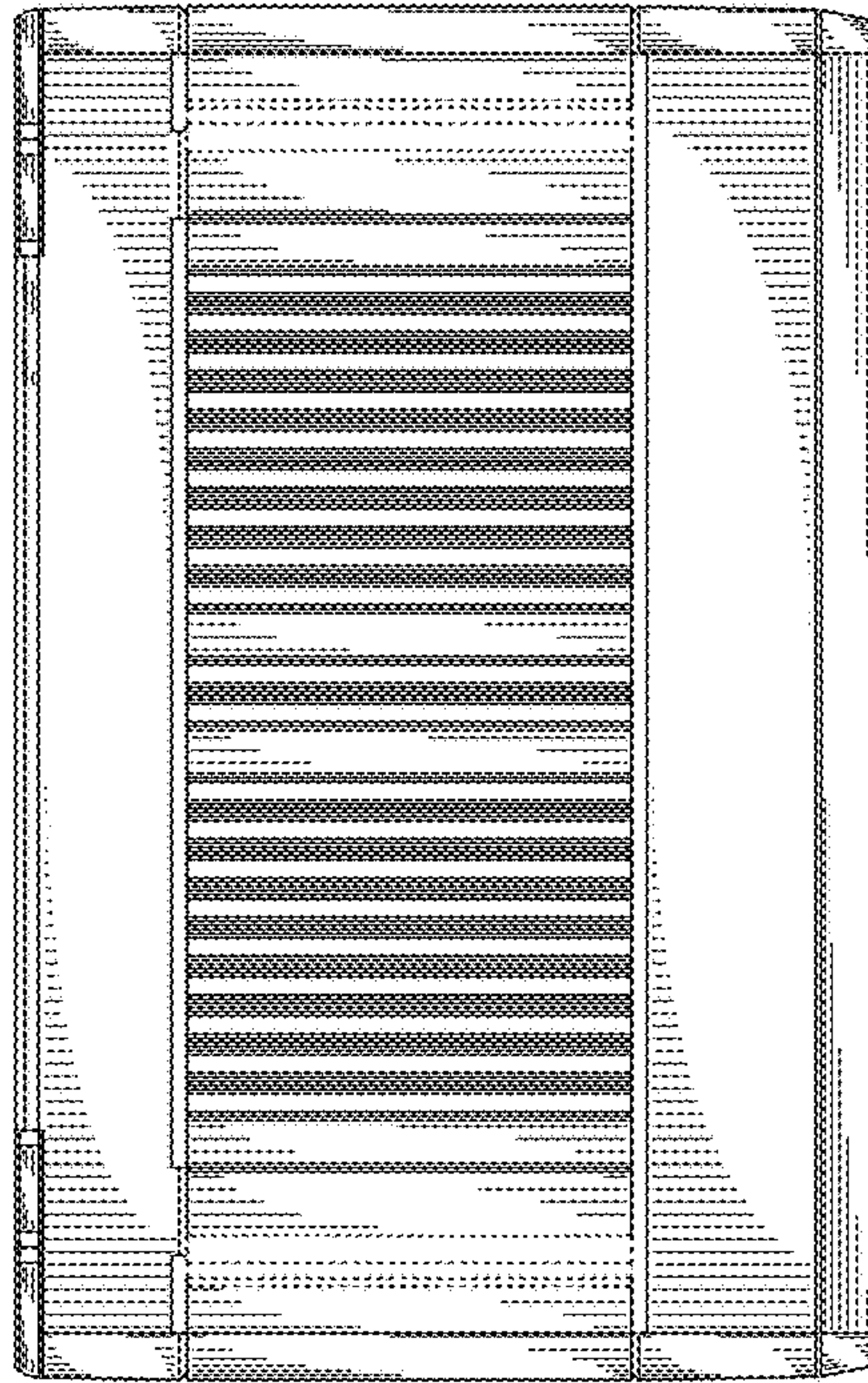


FIG. 13

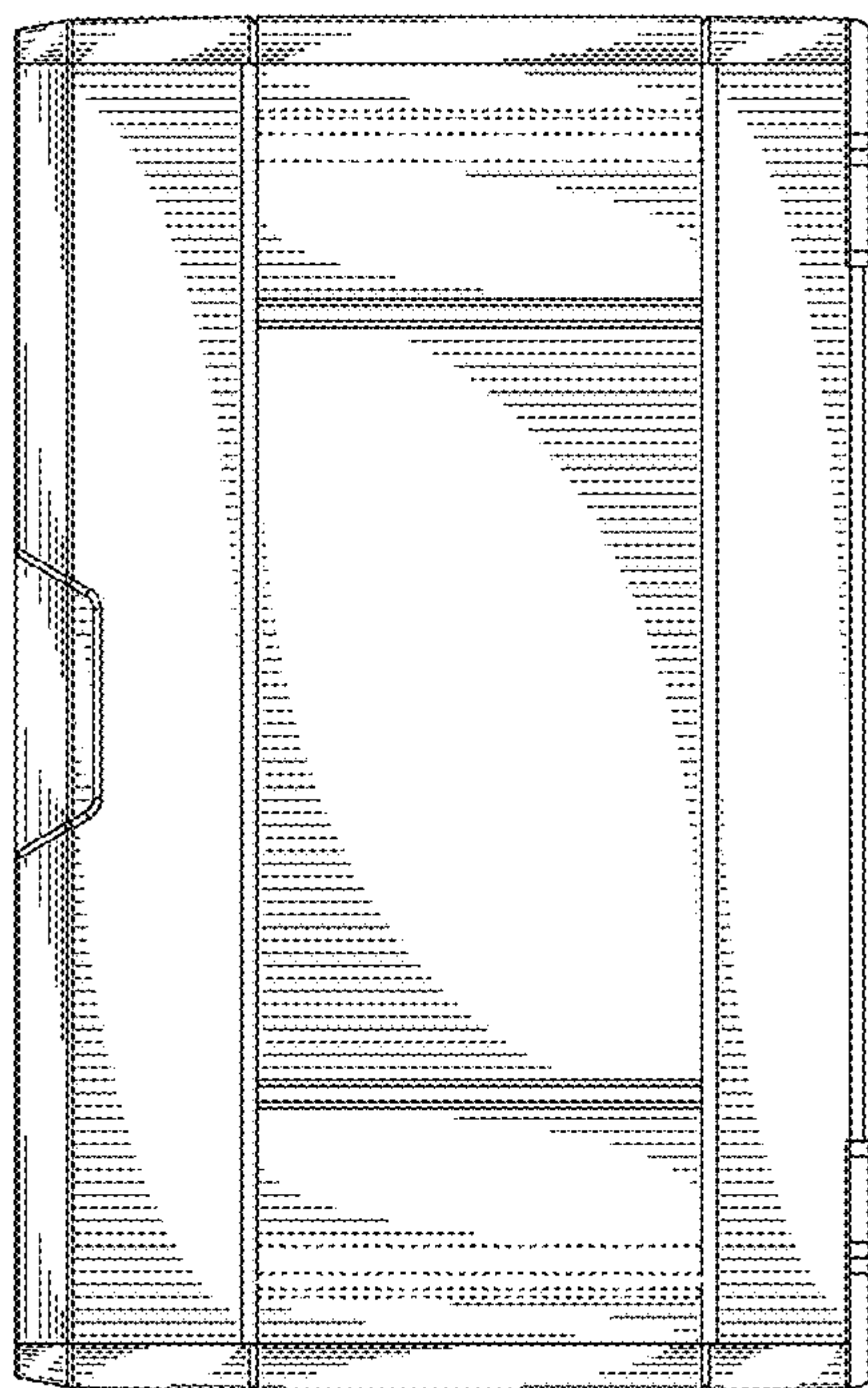


FIG. 14

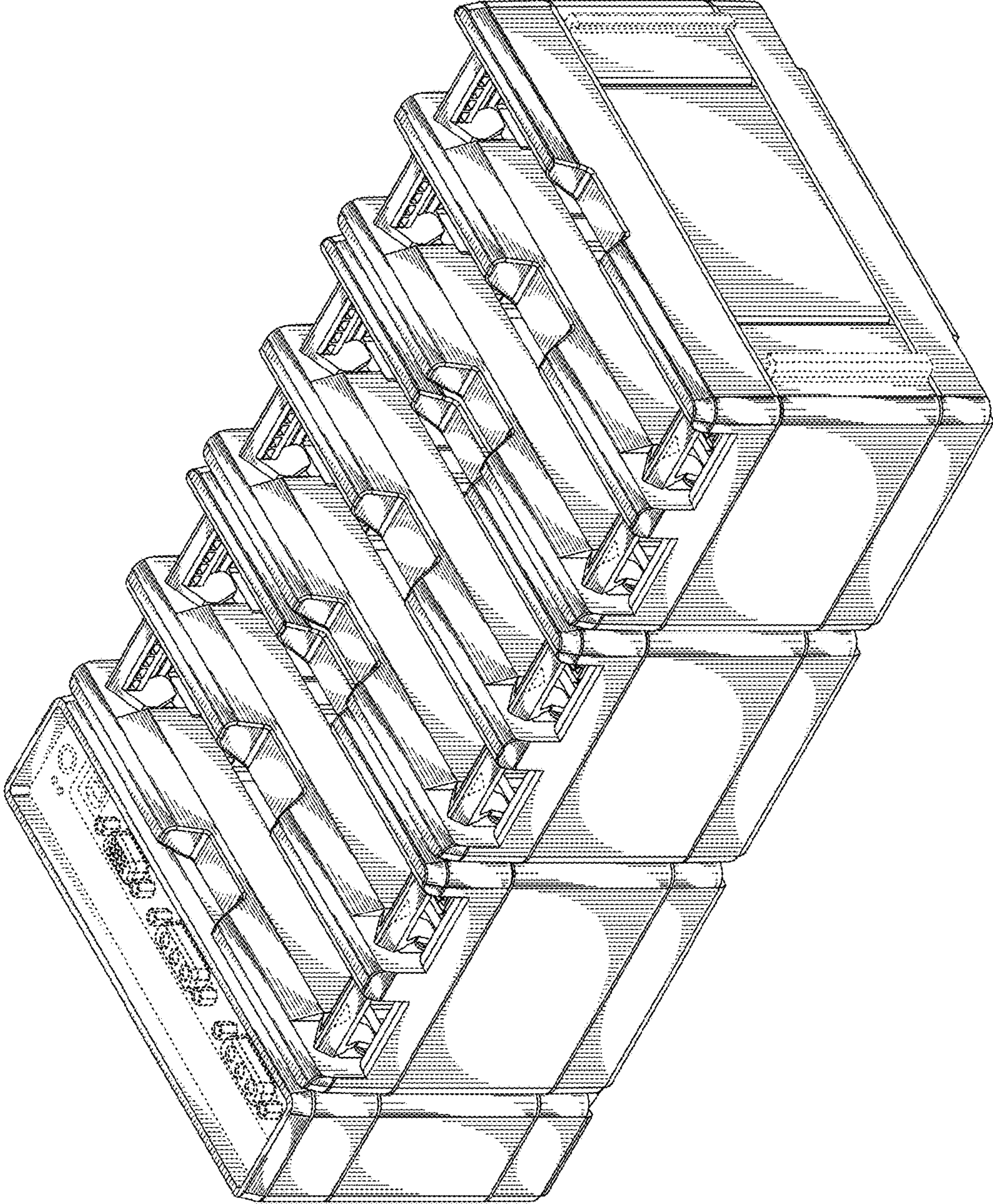


FIG. 15

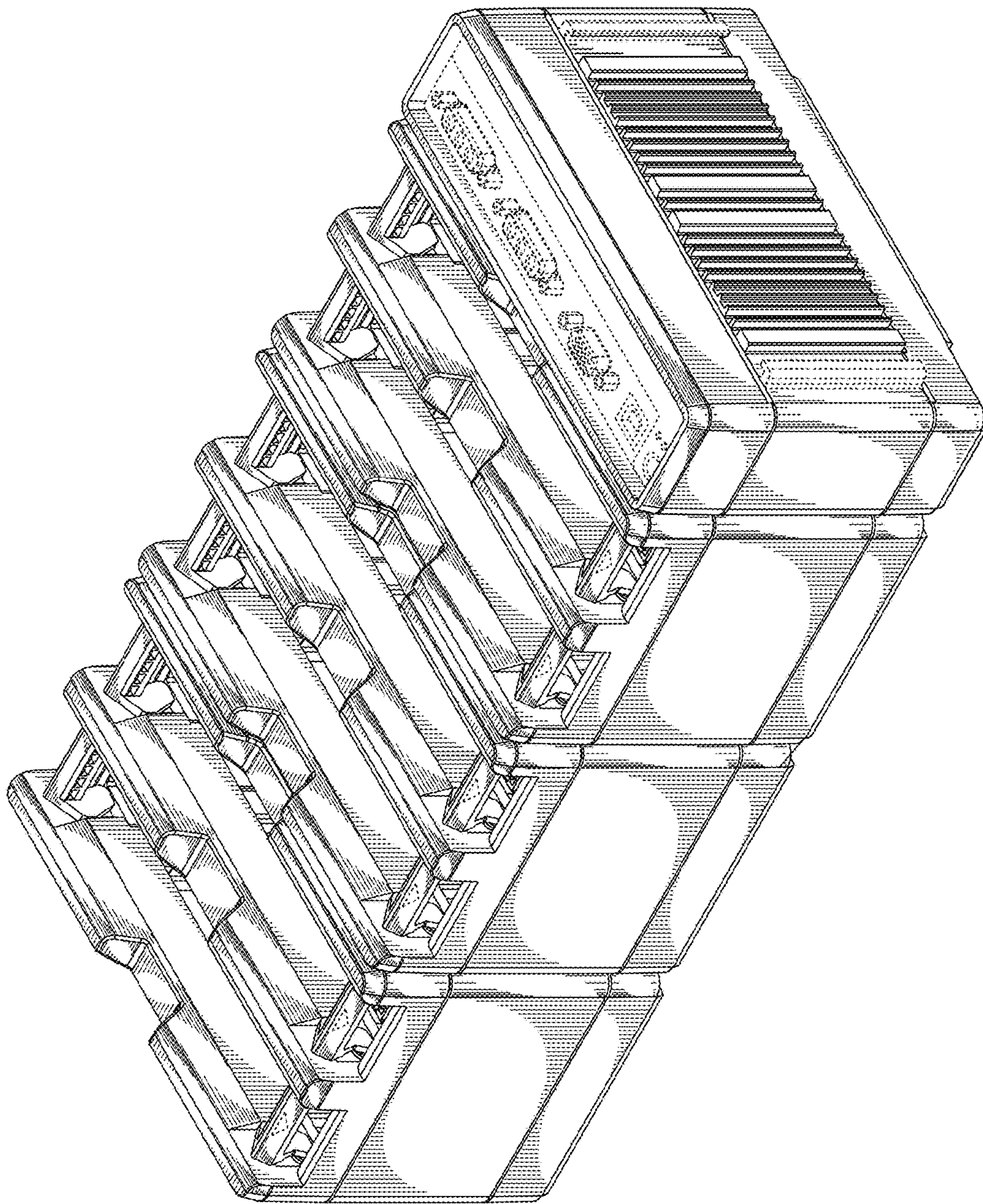


FIG. 16

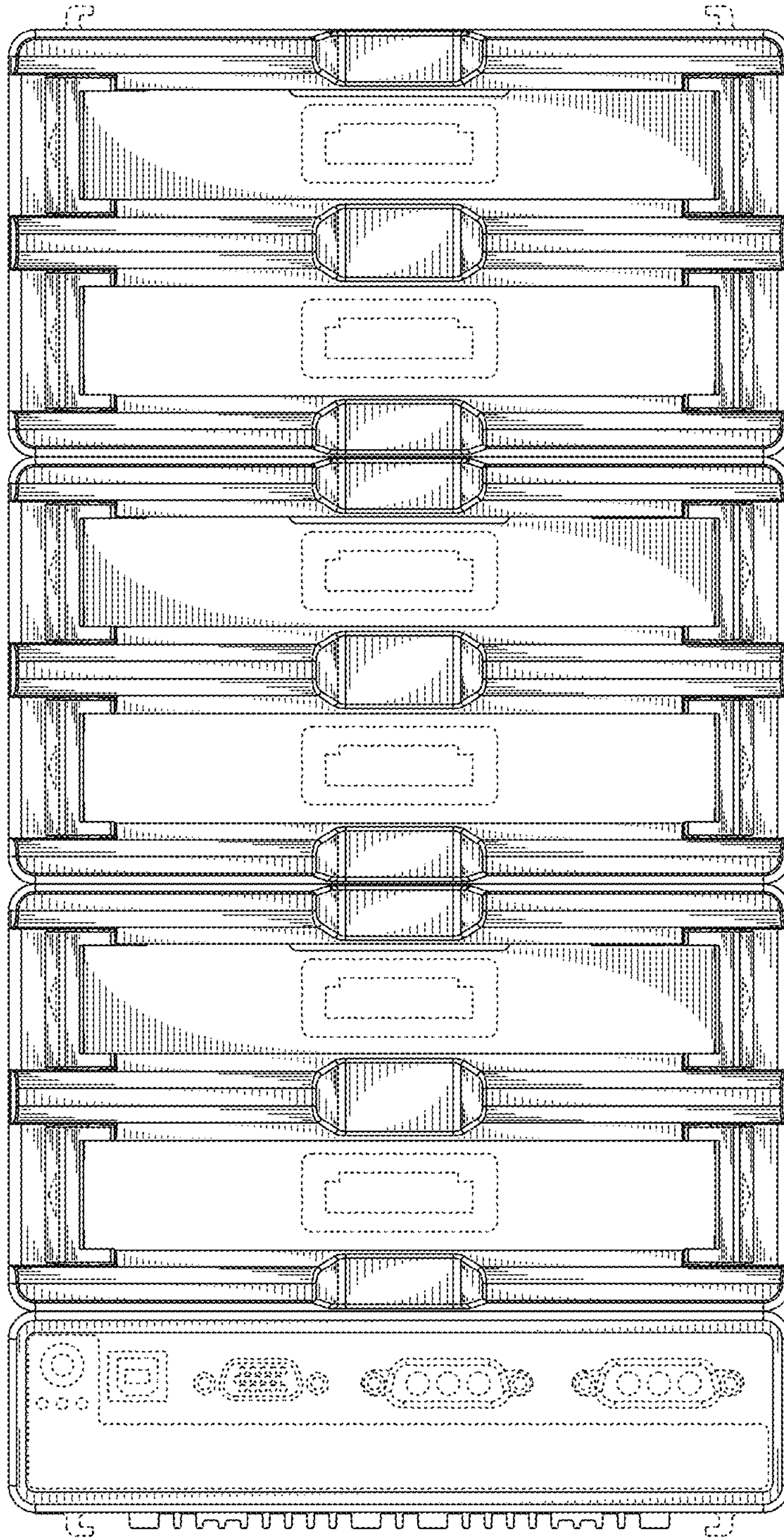


FIG. 17

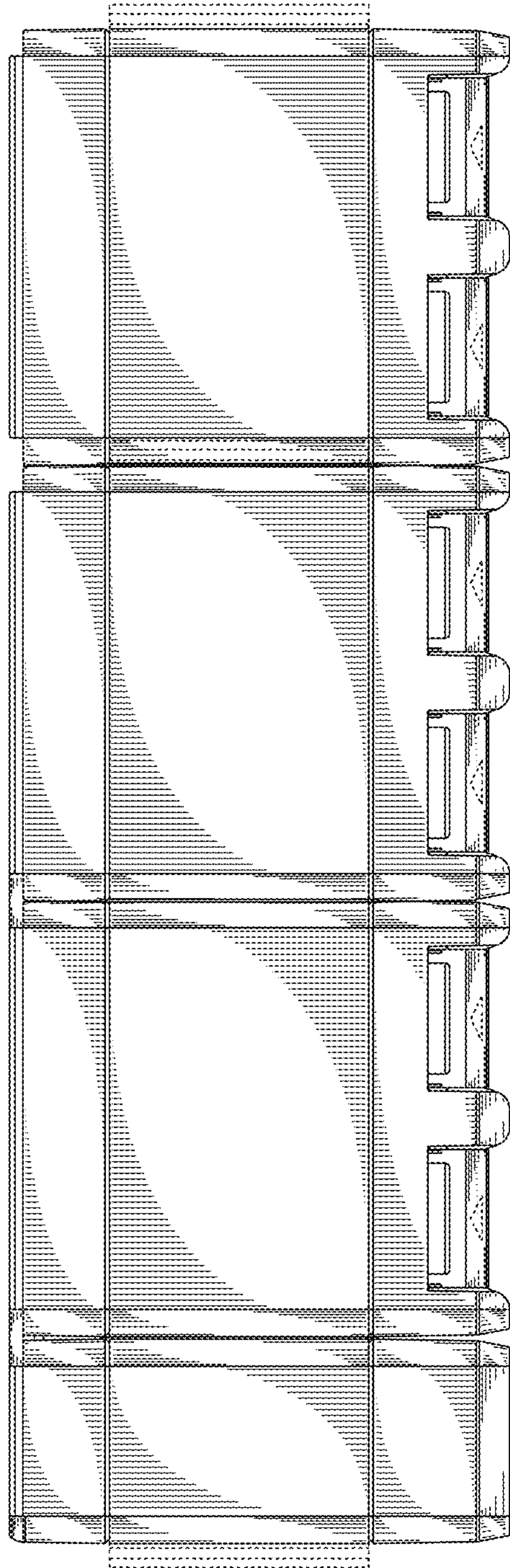


FIG. 18

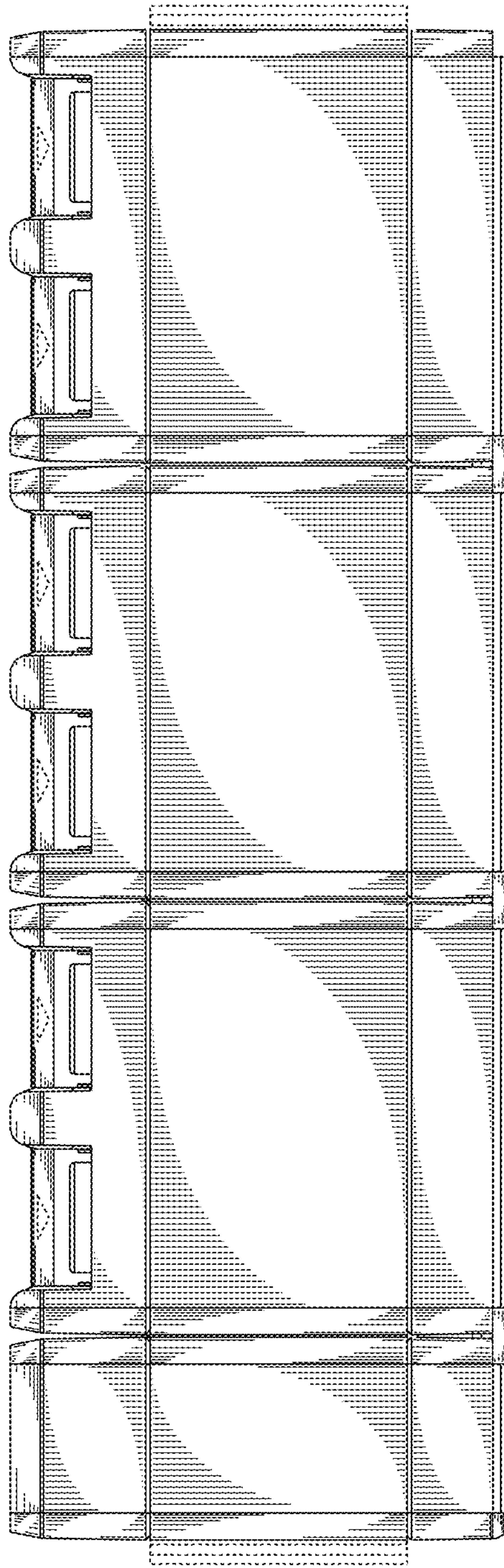


FIG. 19

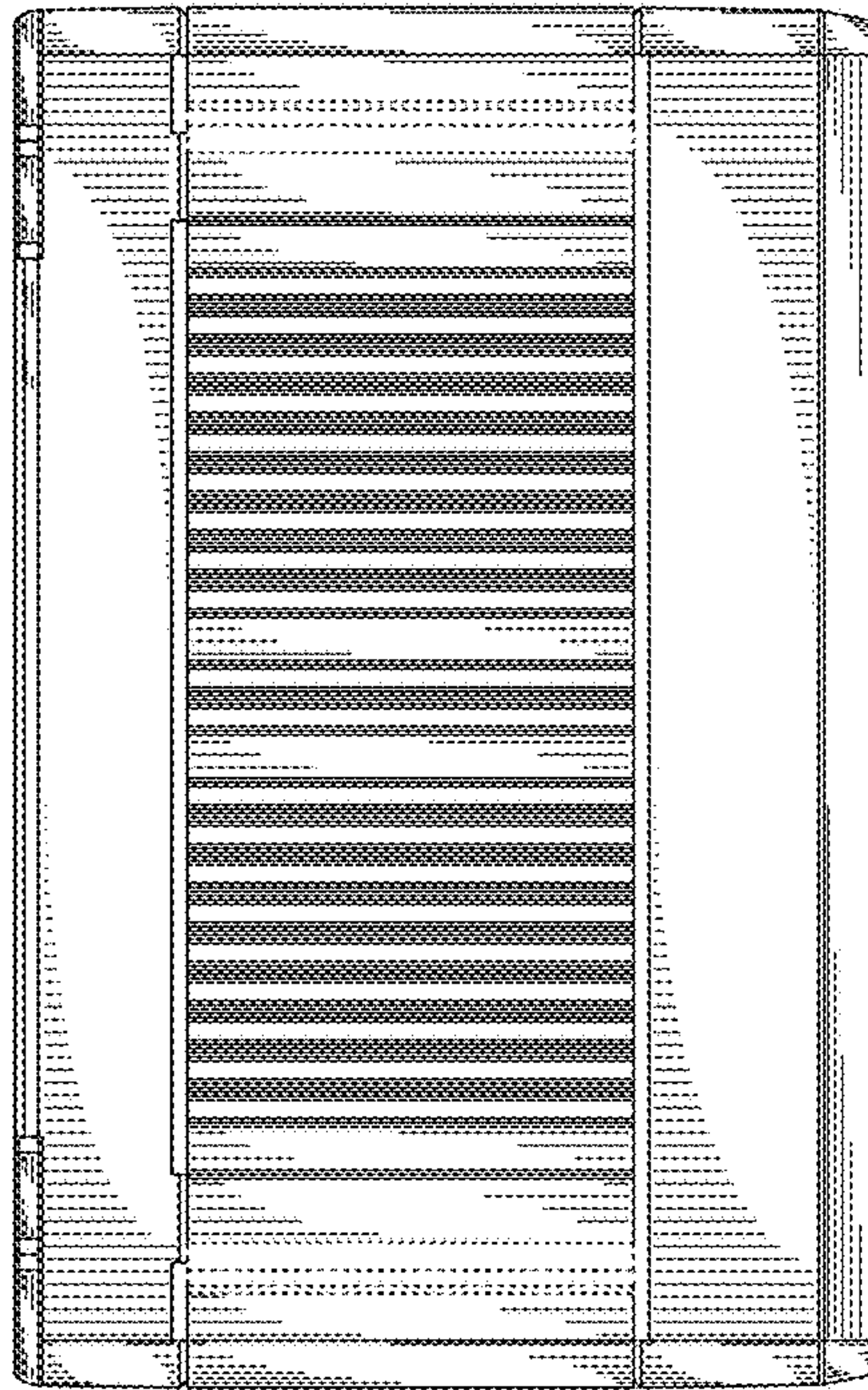


FIG. 20

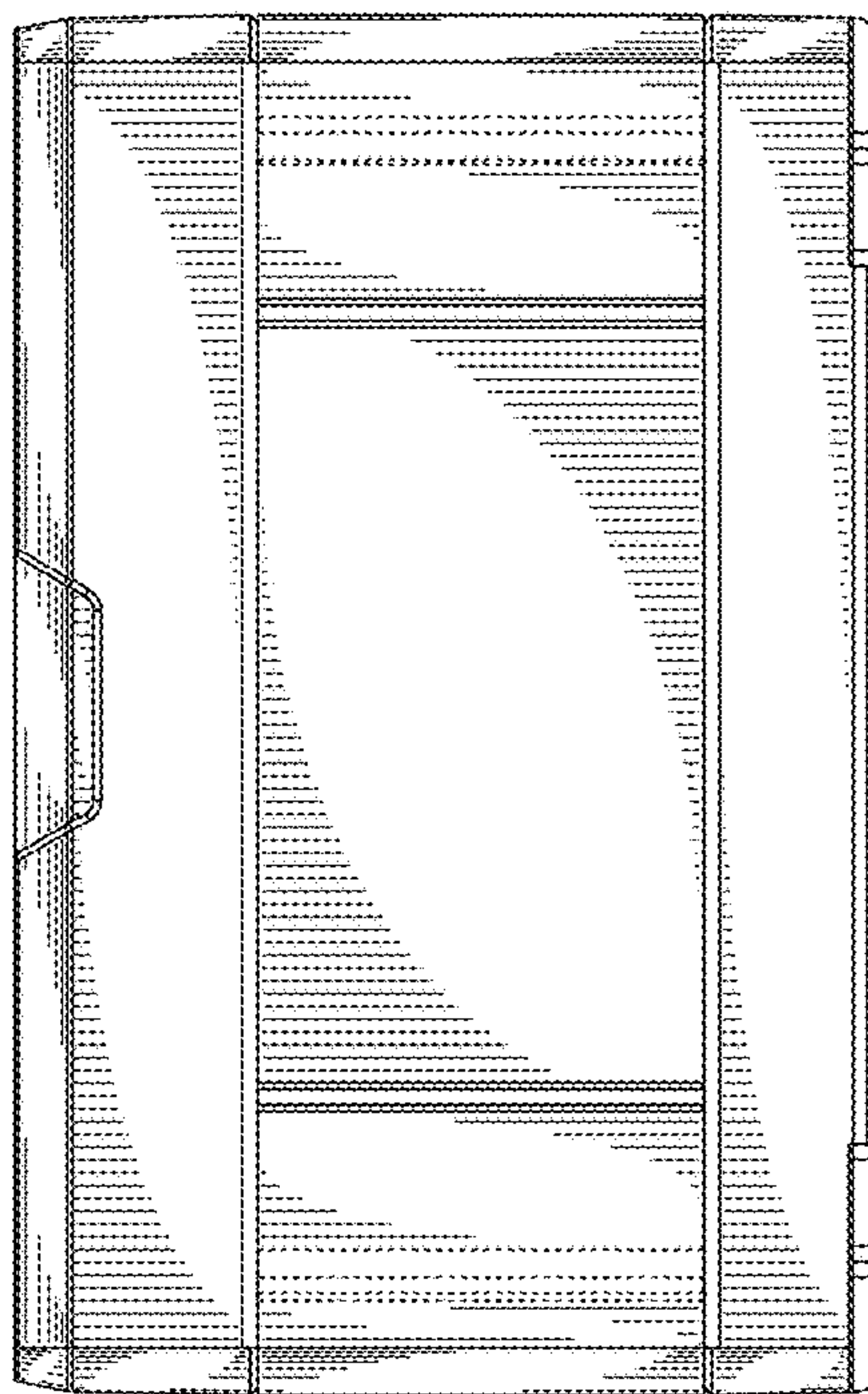


FIG. 21

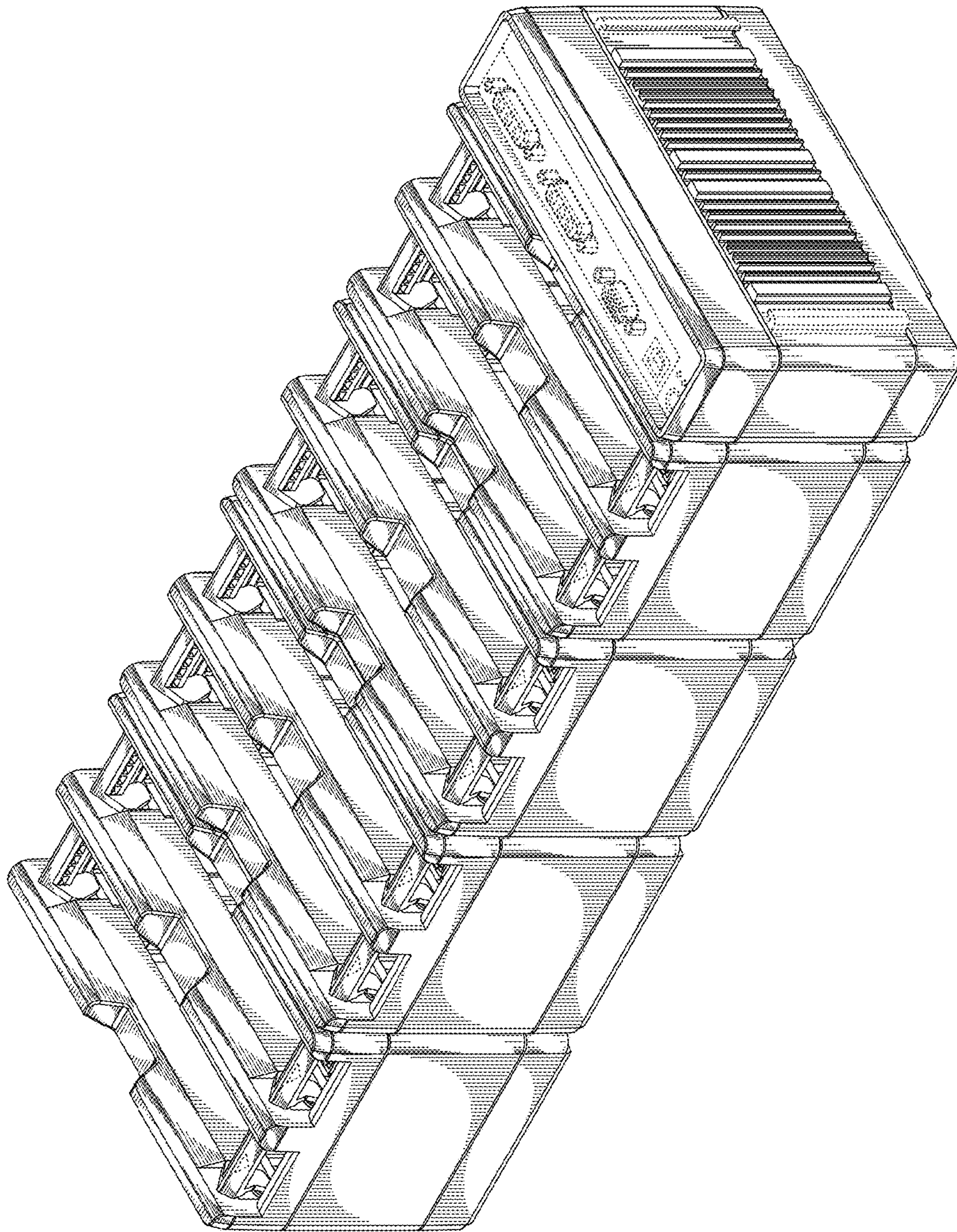


FIG. 22

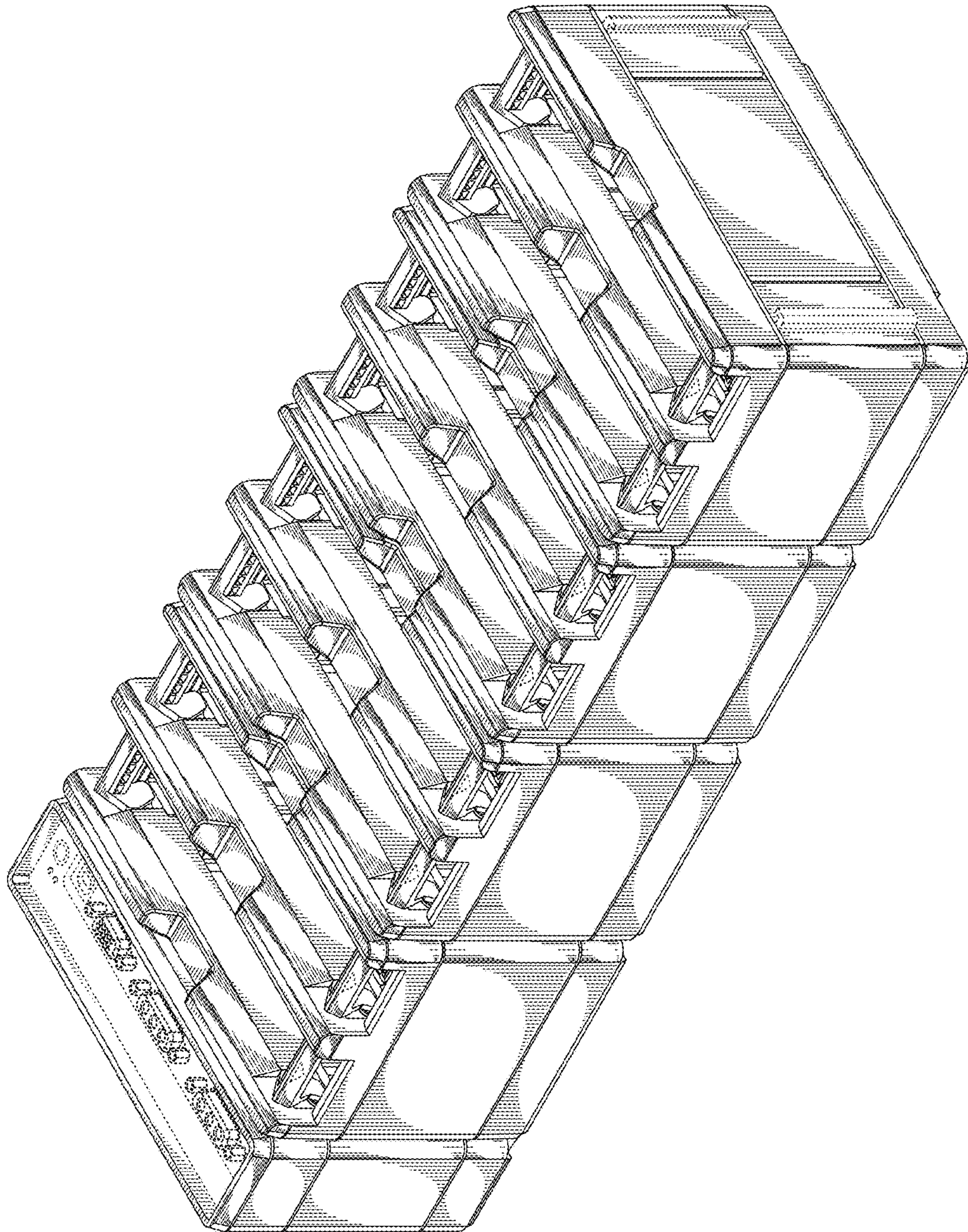


FIG. 23

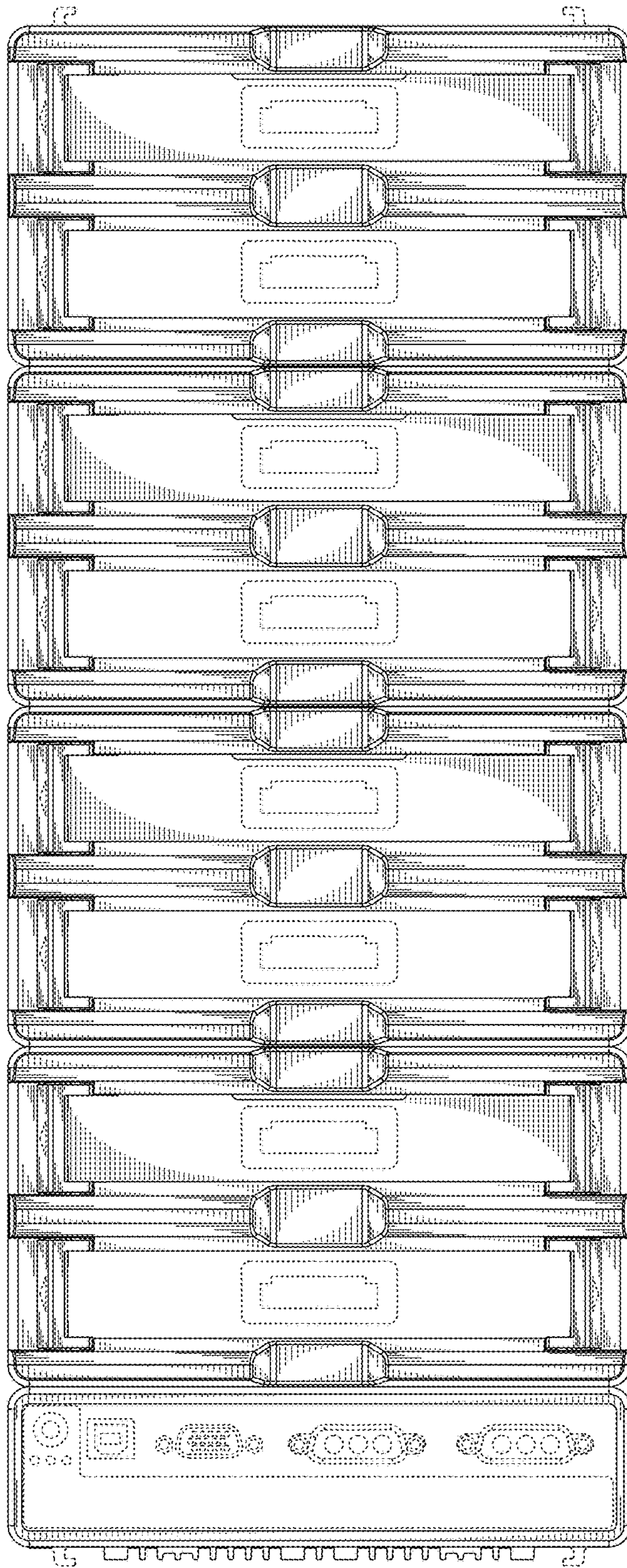


FIG. 24

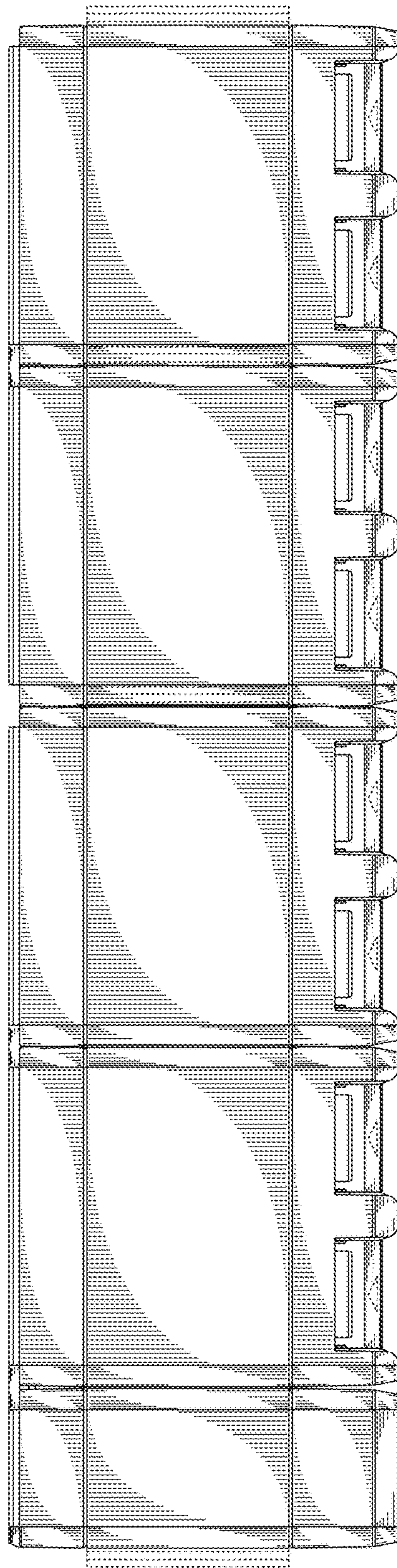


FIG. 25

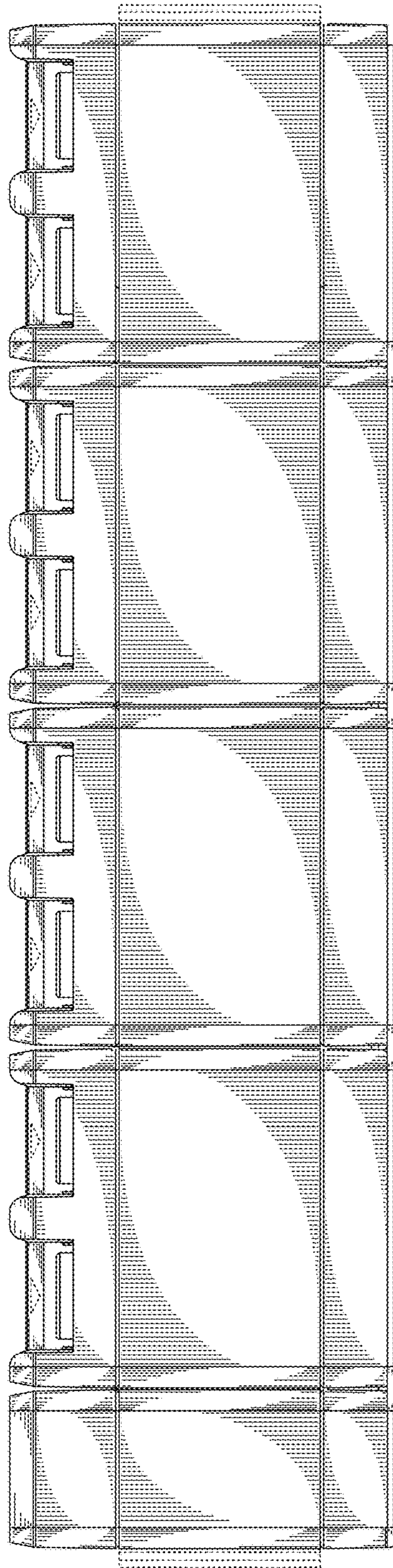


FIG. 26

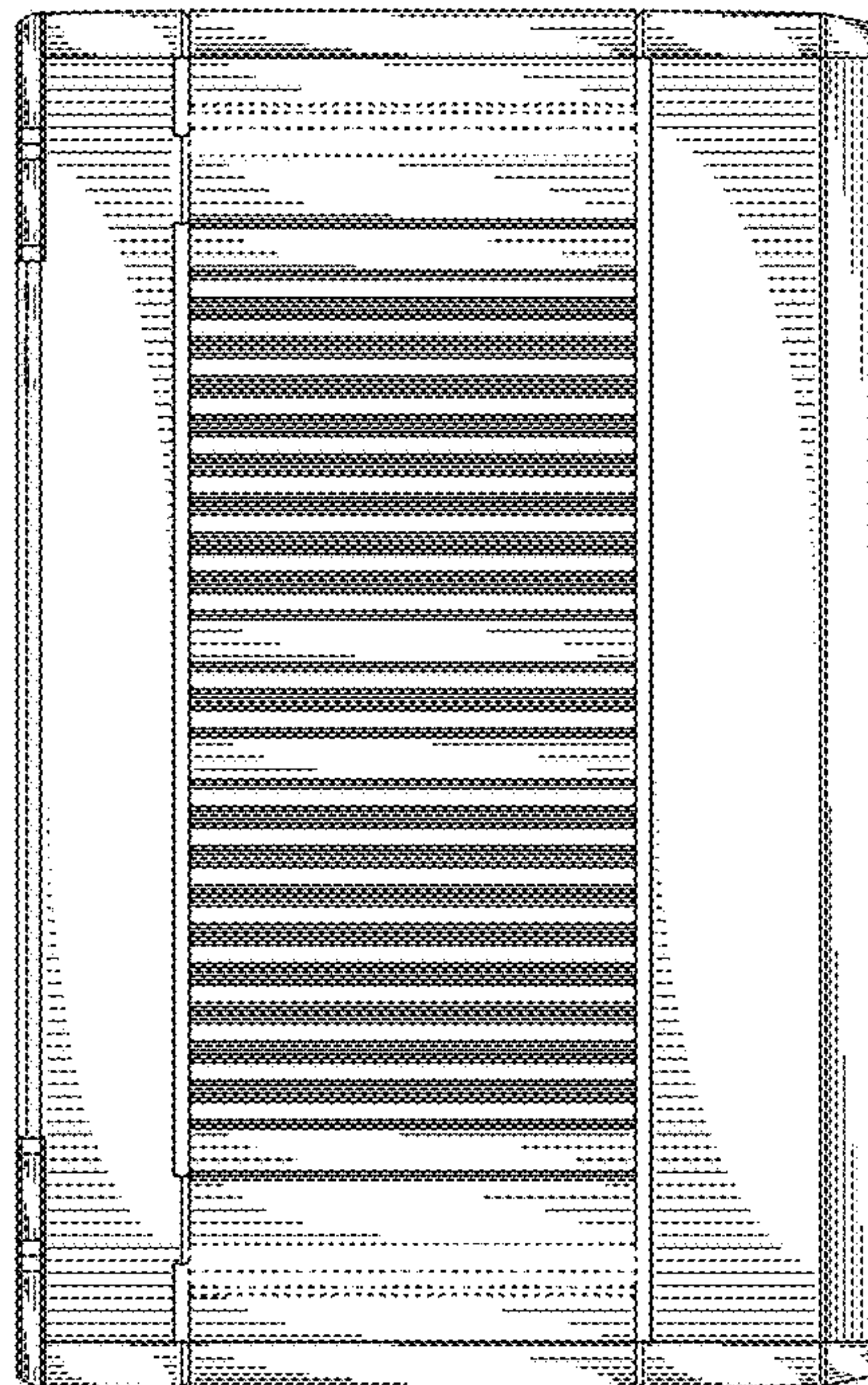


FIG. 27

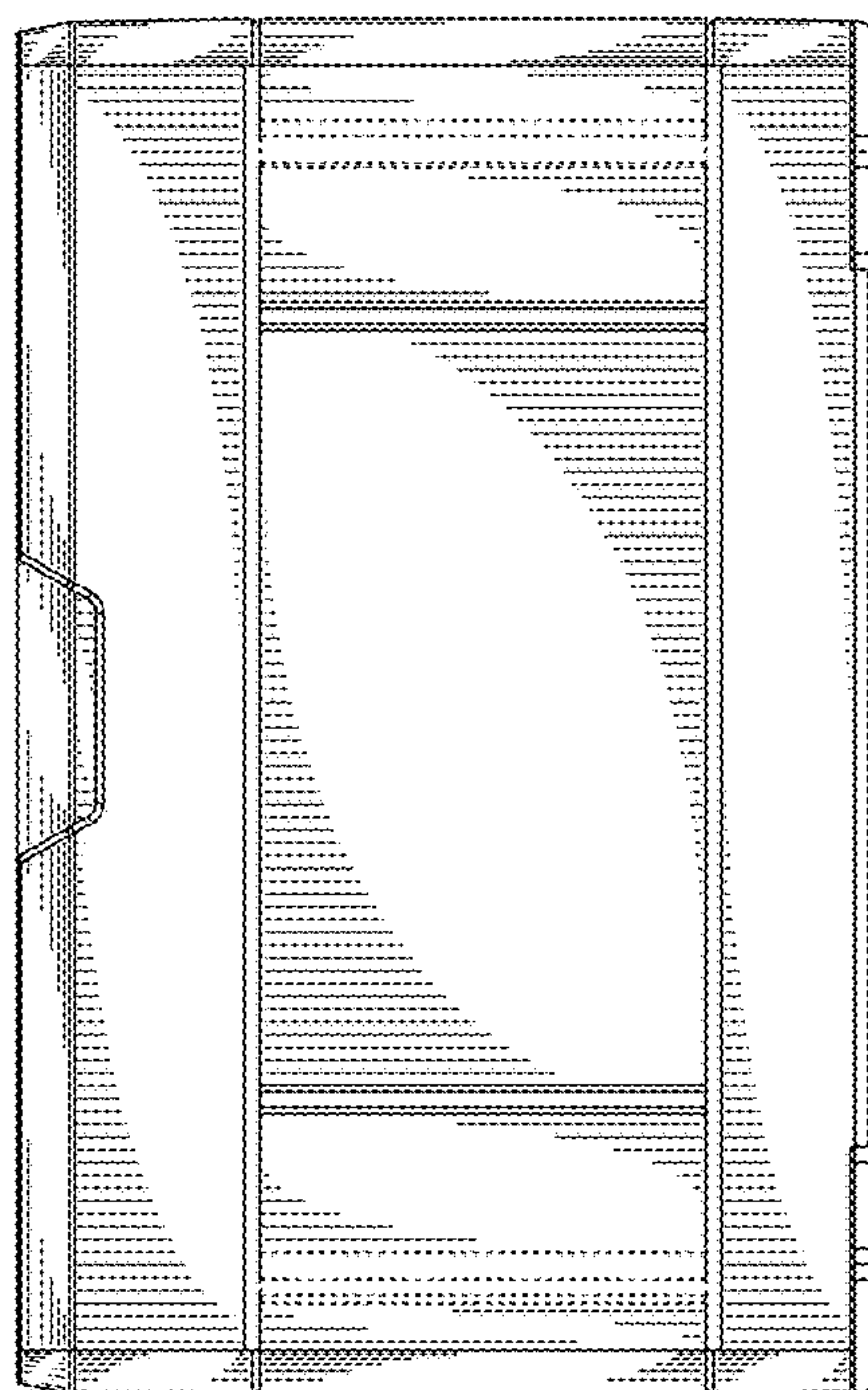


FIG. 28