



US00D914197S

(12) **United States Design Patent** (10) **Patent No.:** **US D914,197 S**
Gray et al. (45) **Date of Patent:** **** Mar. 23, 2021**

(54) **SYRINGE PUMP** 4,187,057 A 2/1980 Xanthopoulos
4,189,286 A 2/1980 Murry et al.
(71) Applicants: **DEKA Products Limited Partnership,** 4,191,184 A 3/1980 Carlisle
Manchester, NH (US); **CAREFUSION** 4,201,525 A 5/1980 Brown et al.
303, INC., San Diego, CA (US) 4,231,725 A 11/1980 Hogan
(Continued)

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(73) Assignees: **DEKA Products Limited Partnership,**
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(**) Term: **15 Years**

(21) Appl. No.: **29/651,465**

(22) Filed: **Aug. 16, 2018**

(51) **LOC (13) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/111**

(58) **Field of Classification Search**
USPC D24/107–108, 111, 169, 185–186;
D4/102–102, 109–111, 138; D7/384, 413
CPC A61M 5/142; A61M 2205/502; A61M
5/1452; A61M 2205/505; A01K 39/04
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,267,364 A * 8/1966 Page G01N 15/0656
324/450
3,393,673 A * 7/1968 Mattingly A61C 1/0092
601/162
D241,883 S * 10/1976 King D24/111
4,025,241 A 5/1977 Clemens
D246,258 S * 11/1977 Ekert D24/111

FOREIGN PATENT DOCUMENTS

JP D1578811 * 11/2018

OTHER PUBLICATIONS

Graseby 2100 Syringe Infusion Pump, All India website 2020,
<https://www.indiamart.com/proddetail/graseby-2100-syringe-infusion-pump-19908015512> . . . site visited Jun. 12, 2020.*

(Continued)

Primary Examiner — John R Yeh

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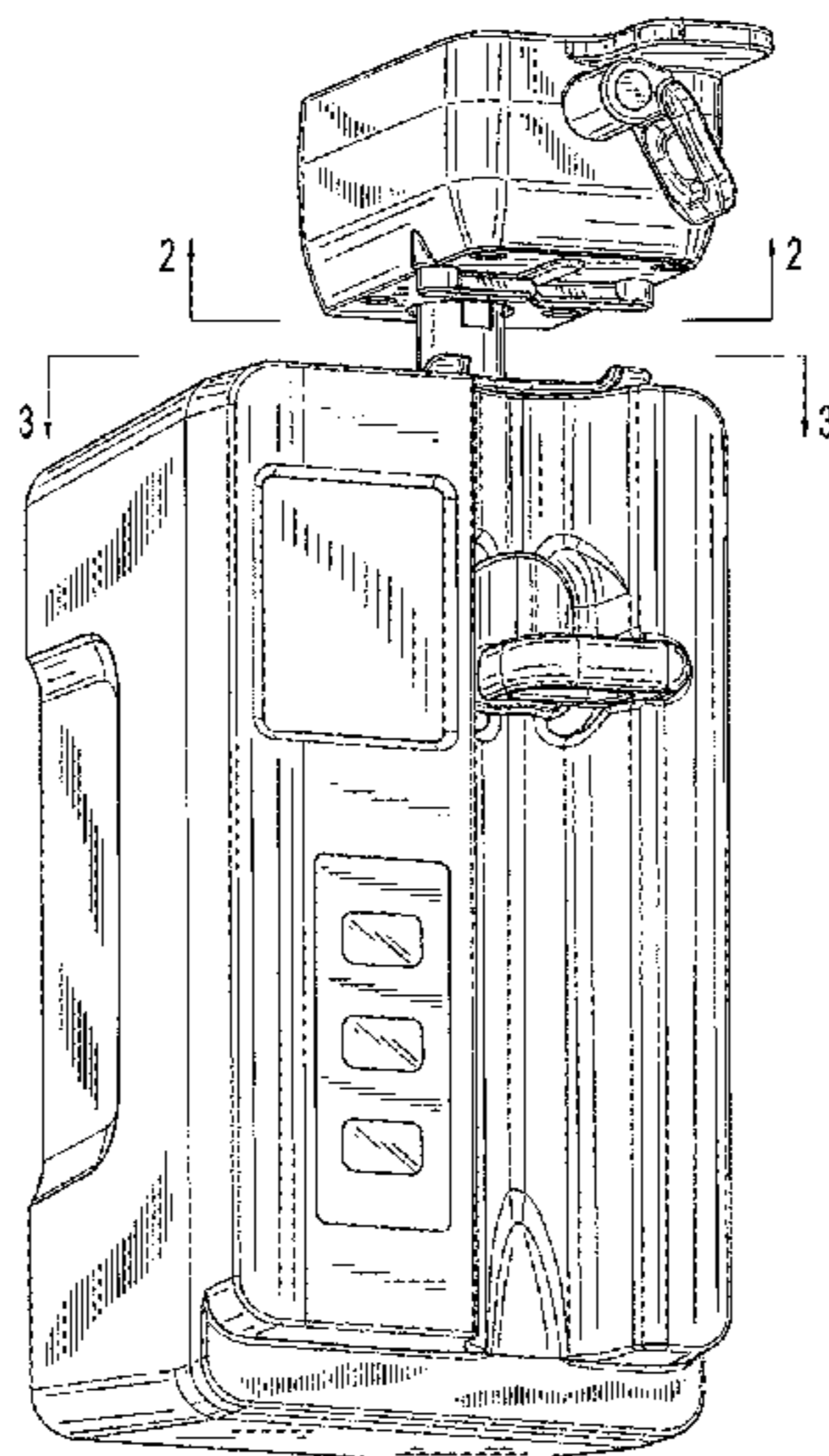
(57) **CLAIM**

The ornamental design for a syringe pump, as shown and described.

DESCRIPTION

FIG. 1 is a front, top, and right-side perspective view for a syringe pump, showing our new design;
FIG. 2 is an upwards sectional view taken from FIG. 1 thereof;
FIG. 3 is a downwards sectional view taken from FIG. 1 thereof;
FIG. 4 is a front elevation view thereof;
FIG. 5 is a back elevation view thereof;
FIG. 6 is a right side elevation view thereof;
FIG. 7 is a left-side elevation view thereof;
FIG. 8 is a top plan view thereof; and,
FIG. 9 is a bottom plan view thereof.
The broken lines depict portions of the syringe pump that form no part of the claimed design.

1 Claim, 9 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,479,797 A 10/1984 Kobayashi et al.
 4,496,295 A 1/1985 King
 4,515,535 A 5/1985 D'Silva
 4,537,561 A 8/1985 Xanthopoulos
 4,552,516 A 11/1985 Stanley
 4,599,055 A 7/1986 Dykstra
 D285,347 S 8/1986 Nelson et al.
 4,668,227 A * 5/1987 Kay A61B 90/70
 134/57 R
 4,720,249 A 1/1988 Krebs et al.
 4,728,265 A 3/1988 Cannon
 4,950,245 A 8/1990 Brown et al.
 5,009,641 A * 4/1991 Gorton A61M 5/142
 604/131
 5,011,378 A * 4/1991 Brown A61M 5/142
 417/360
 5,057,081 A 10/1991 Sunderland et al.
 5,096,669 A 3/1992 Lauks et al.
 D348,730 S 7/1994 Walker et al.
 5,567,136 A * 10/1996 Johnson A61M 5/142
 417/572
 D380,546 S 7/1997 Clegg et al.
 D587,365 S 2/2009 Boaz
 D587,802 S 3/2009 Boaz
 D674,083 S 1/2013 Boaz
 D679,379 S * 4/2013 Katsura D24/111
 D693,712 S 11/2013 Noda et al.
 D714,459 S 9/2014 Develon
 D730,514 S 5/2015 Boaz et al.
 9,151,646 B2 10/2015 Kamen et al.
 9,364,394 B2 6/2016 Demers et al.
 9,400,873 B2 7/2016 Kamen et al.
 D767,756 S * 9/2016 Sabin D24/111
 9,435,455 B2 9/2016 Peret et al.
 9,636,455 B2 5/2017 Kamen et al.
 9,675,756 B2 6/2017 Kamen et al.
 9,677,555 B2 6/2017 Kamen et al.
 D801,519 S 10/2017 Sabin et al.
 9,789,247 B2 10/2017 Kamen et al.
 RE46,598 E * 11/2017 Gill D24/169
 D804,017 S * 11/2017 Sabin D24/111
 9,808,572 B2 11/2017 Kamen et al.
 10,044,791 B2 8/2018 Kamen et al.
 10,082,241 B2 9/2018 Janway et al.
 10,242,159 B2 3/2019 Kamen et al.
 10,265,463 B2 4/2019 Biasi et al.

D847,974 S * 5/2019 Mcnall, III D24/111
 10,380,321 B2 8/2019 Kamen et al.
 10,391,241 B2 8/2019 Desch et al.
 10,453,157 B2 10/2019 Kamen et al.
 D879,948 S 3/2020 Bunoz
 D882,761 S * 4/2020 Cabiri A61M 5/158
 D24/111
 D884,156 S * 5/2020 Haug D24/111
 2005/0069419 A1 3/2005 Cull et al.
 2005/0069437 A1 3/2005 Mittelstein et al.
 2009/0087326 A1 4/2009 Voltenburg, Jr. et al.
 2009/0205662 A1 * 8/2009 Kwok A61M 16/0051
 128/204.23
 2009/0294339 A1 * 12/2009 Biewer A61M 1/28
 210/85
 2011/0152831 A1 6/2011 Rotem et al.
 2011/0184383 A1 * 7/2011 Hasegawa A61M 5/1458
 604/506
 2012/0027622 A1 2/2012 Ashburn
 2012/0203195 A1 * 8/2012 Pope A61M 5/1452
 604/500
 2013/0115120 A1 5/2013 Jarnagin et al.
 2013/0317837 A1 11/2013 Ballantyne et al.
 2014/0180711 A1 6/2014 Kamen et al.
 2015/0202362 A1 * 7/2015 Wolff A61M 5/14232
 604/152
 2017/0216516 A1 8/2017 Dale et al.
 2018/0318498 A1 * 11/2018 Grant G06F 3/04847
 2018/0318527 A1 * 11/2018 Watanabe A61M 5/20
 2019/0261689 A1 * 8/2019 Bowen A61M 11/042
 2020/0054823 A1 2/2020 Baier et al.

OTHER PUBLICATIONS

Alaris CareFusion Medley 8110 Syringe Pump, Avobus website
 2020, <https://avobus.com/kw/shop/product/alaris-carefusion-medley-8110-syringe-pump-module> . . . site visited Jun. 12, 2020.*
 User Manual Alaris System With Guardrails Suite MX (with Alaris
 PC Unit, Model 8015 Software Version 9.33). (2017). San Diego,
 California: Carefusion.
 Technical Service Manual Alaris PC Unit, Models 8000 and 8015
 Alaris Pump Module, Model 8100. (2007). San Diego, California:
 Cardinal Health.
 Technical Service Manual Alaris Syringe Module, 8110 Series
 Alaris PCA Module, 8120 Series. (2010). San Diego, California:
 Carefusion.

* cited by examiner

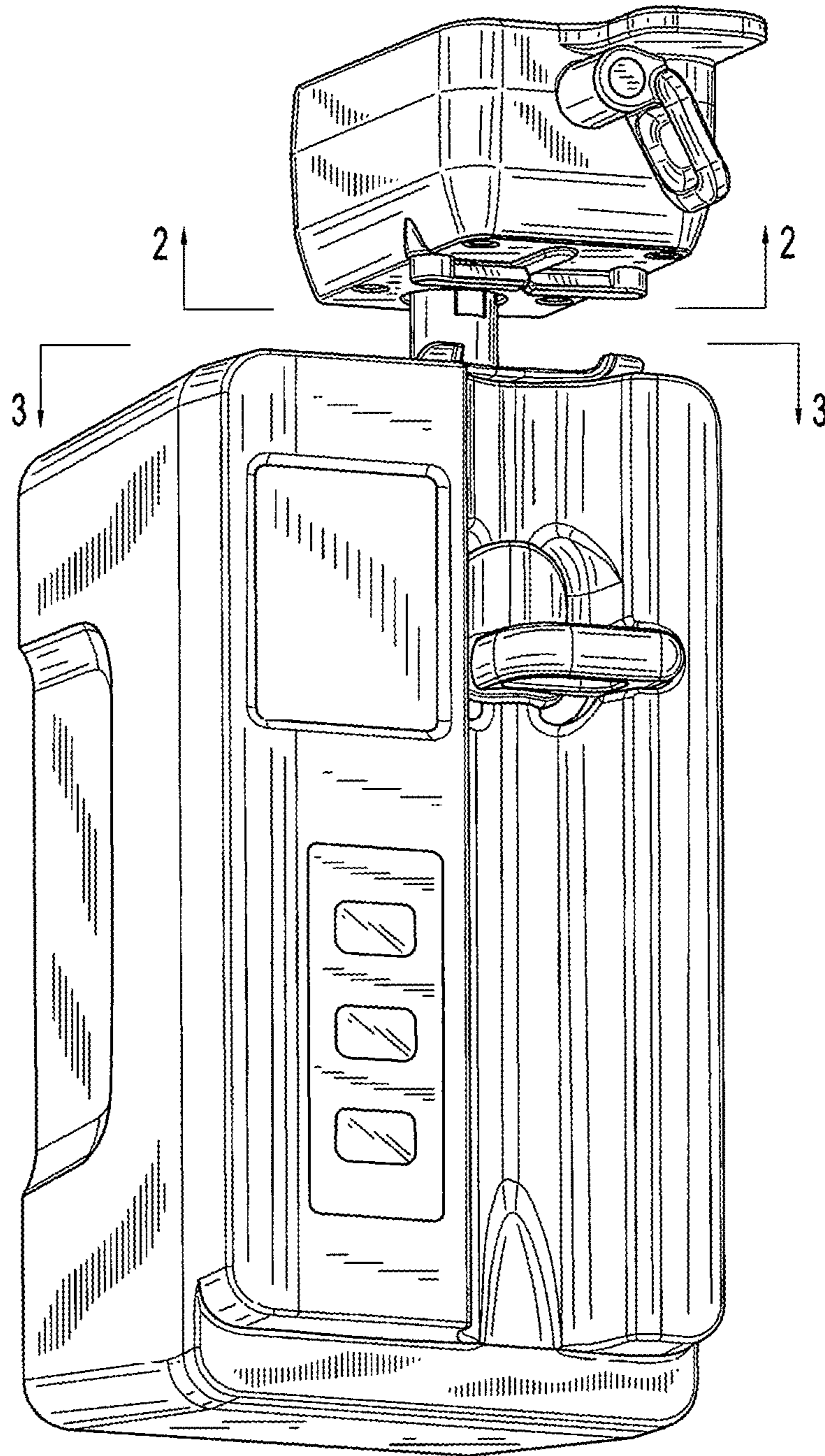


FIG. 1

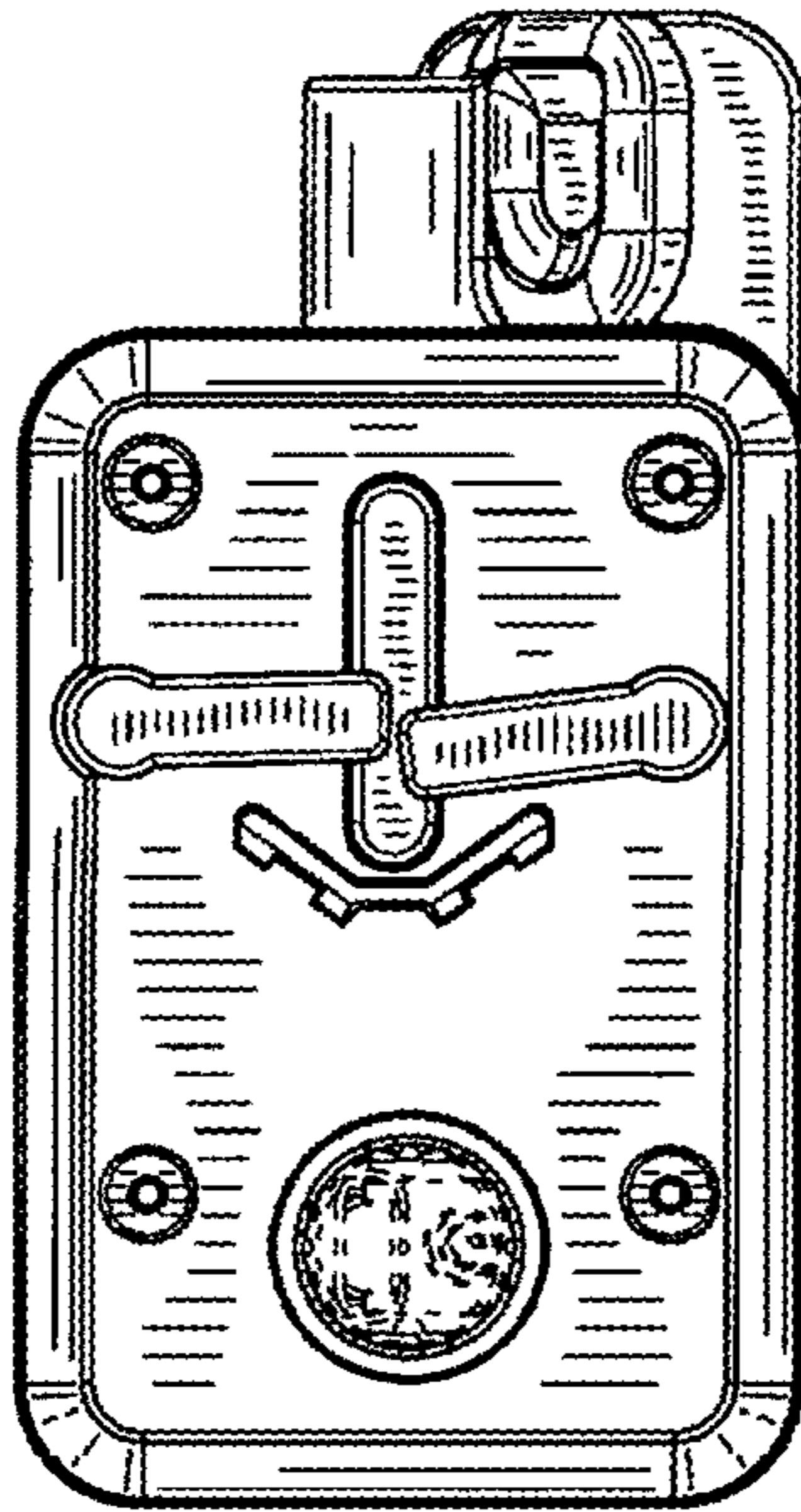


FIG. 2

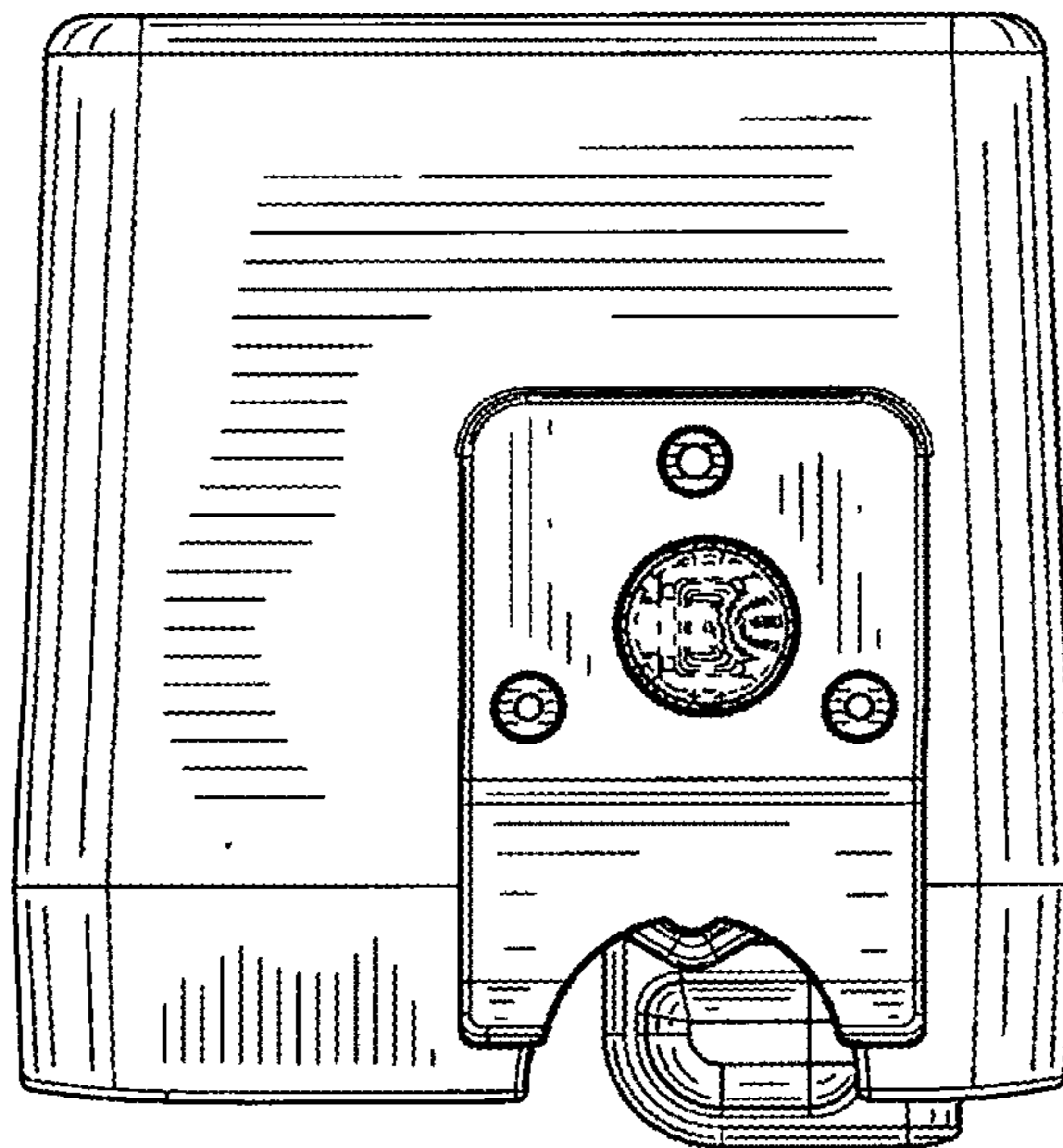


FIG. 3

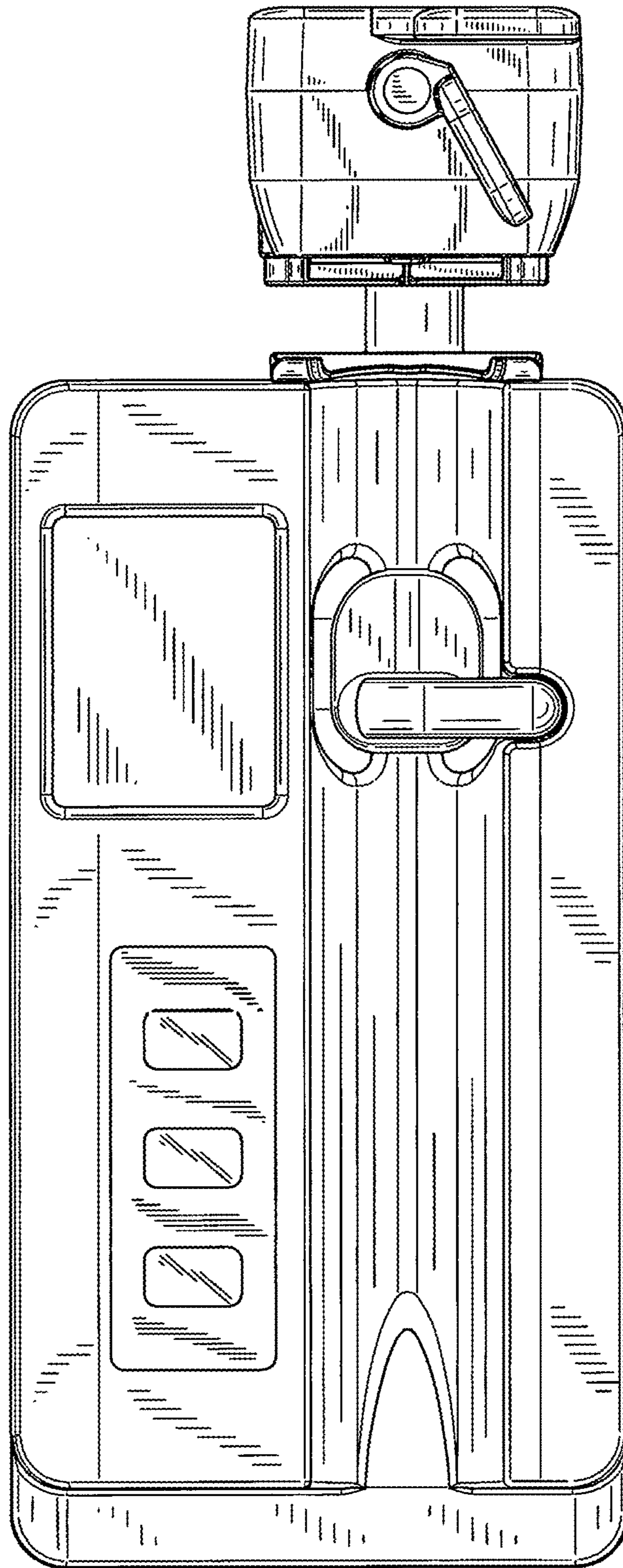


FIG. 4

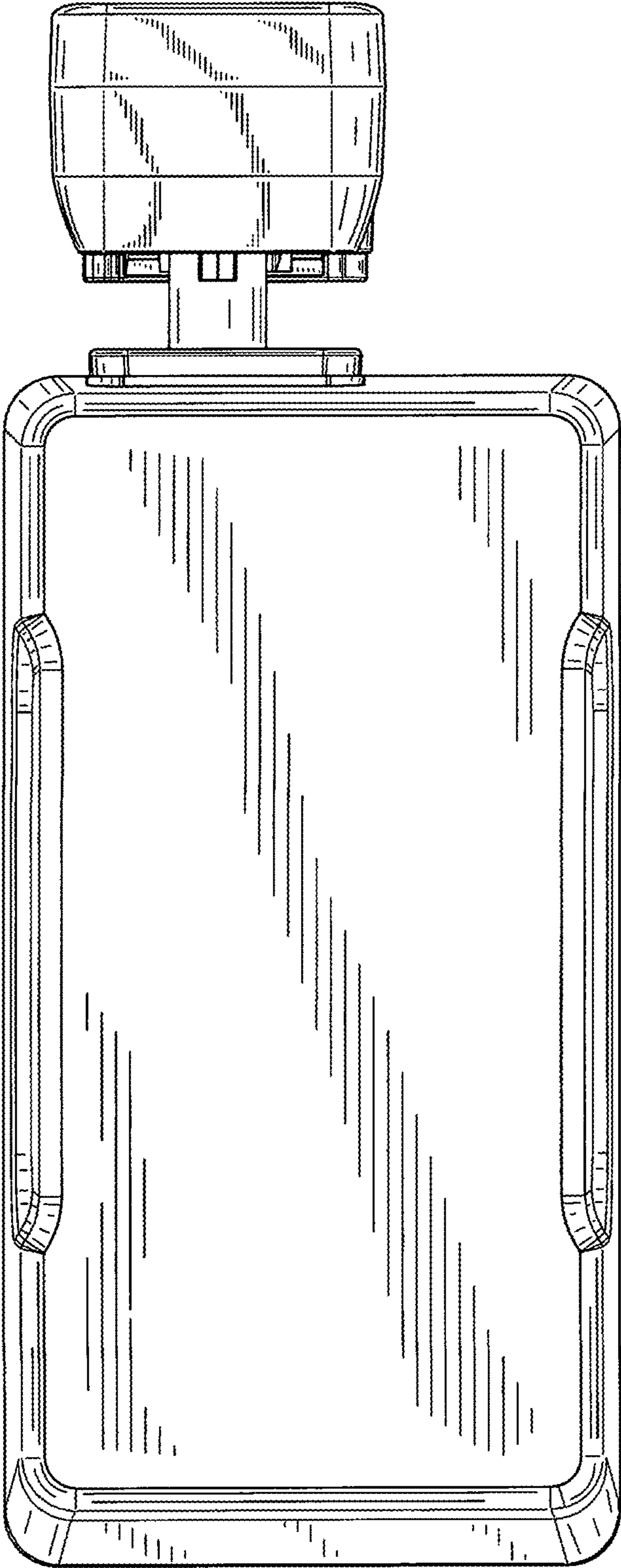


FIG. 5

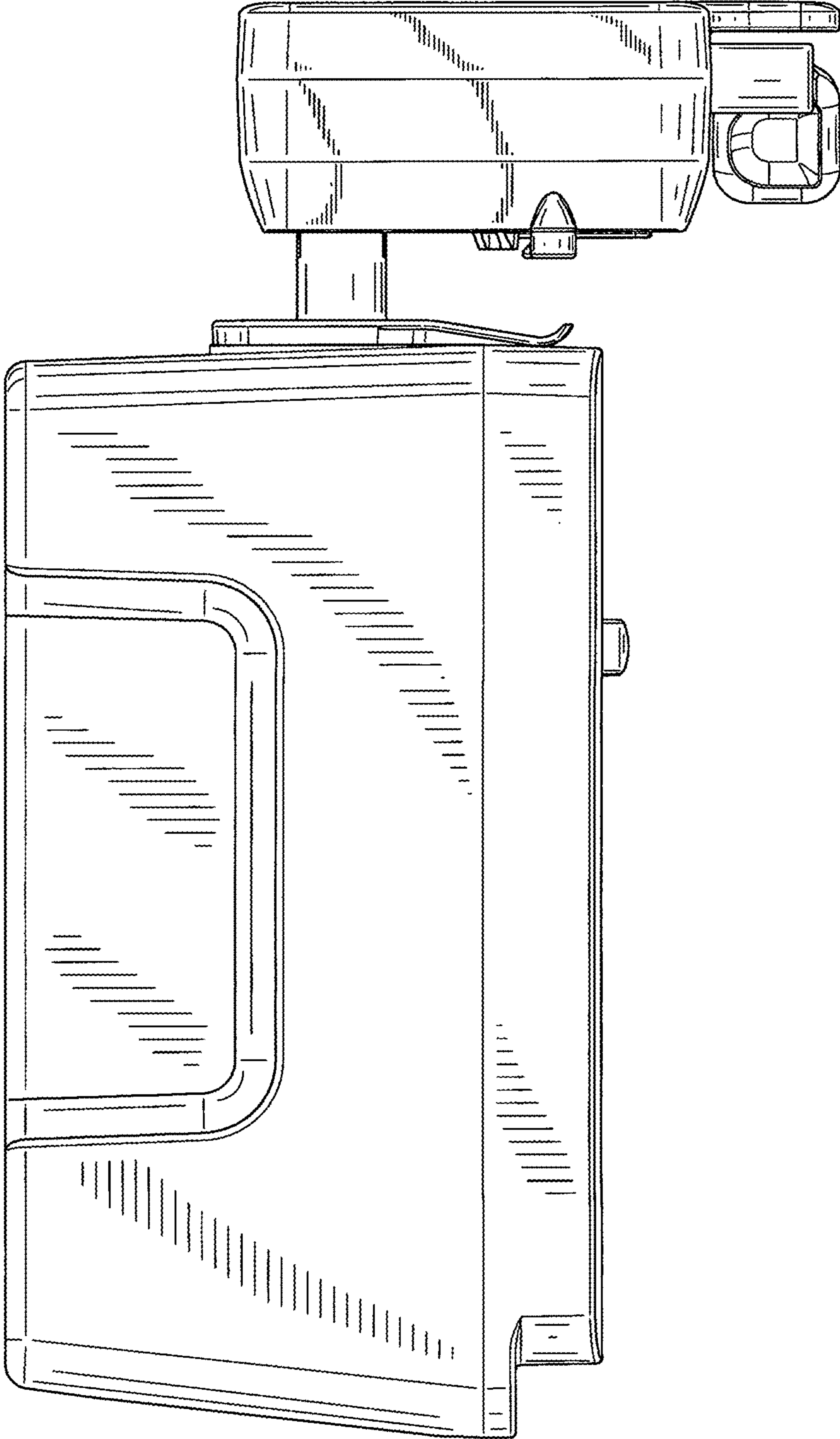


FIG. 6

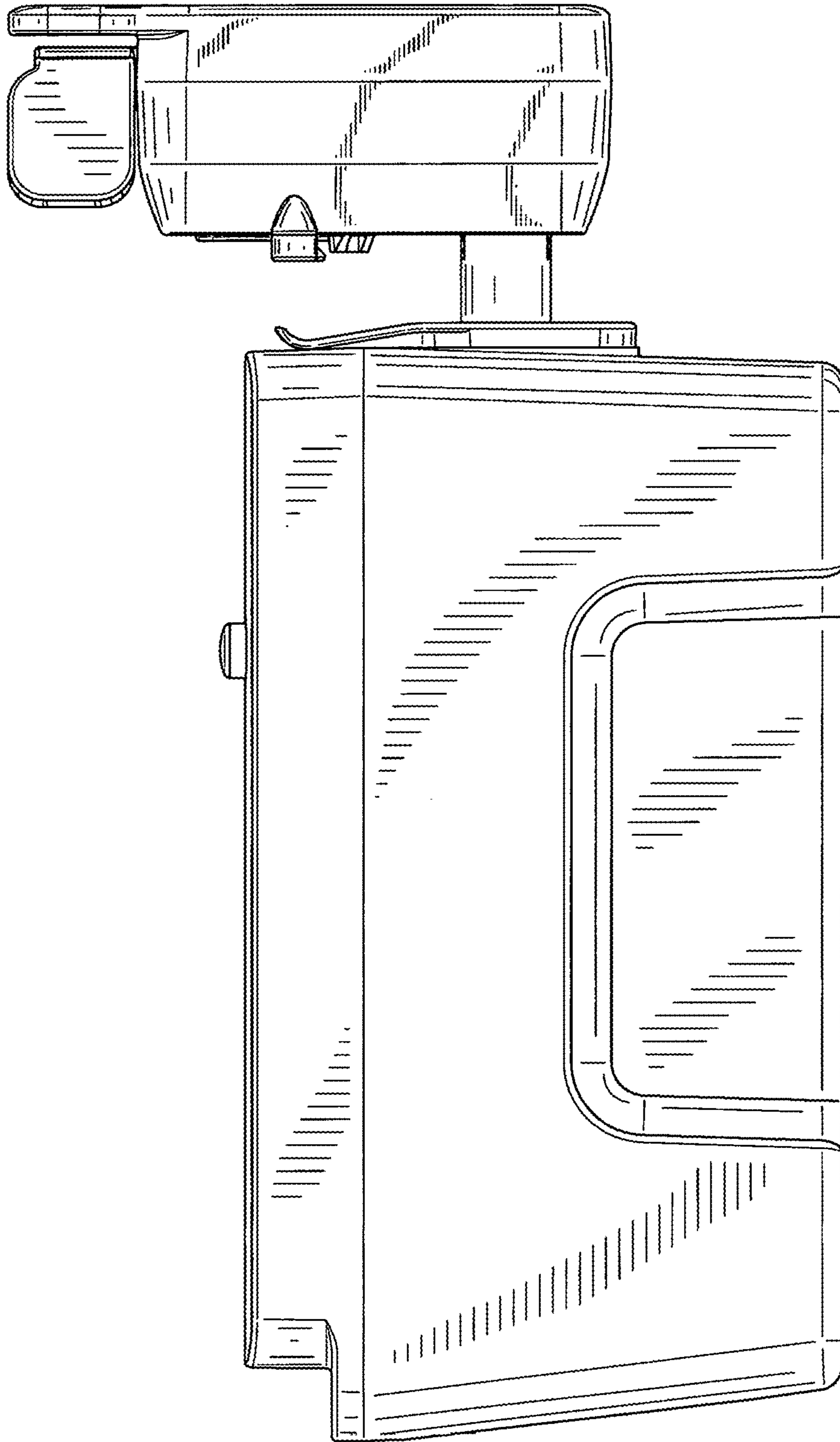


FIG. 7

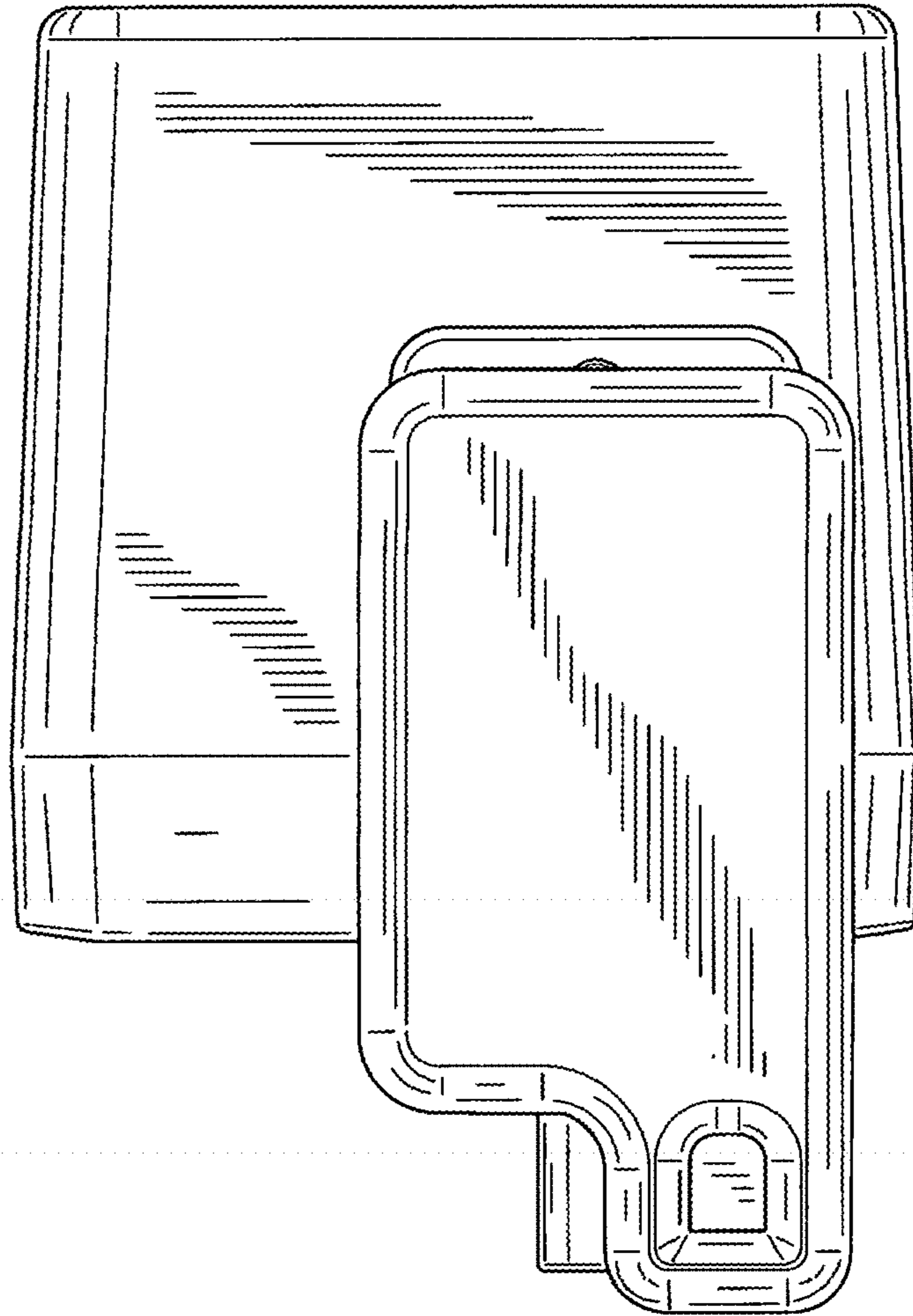


FIG. 8

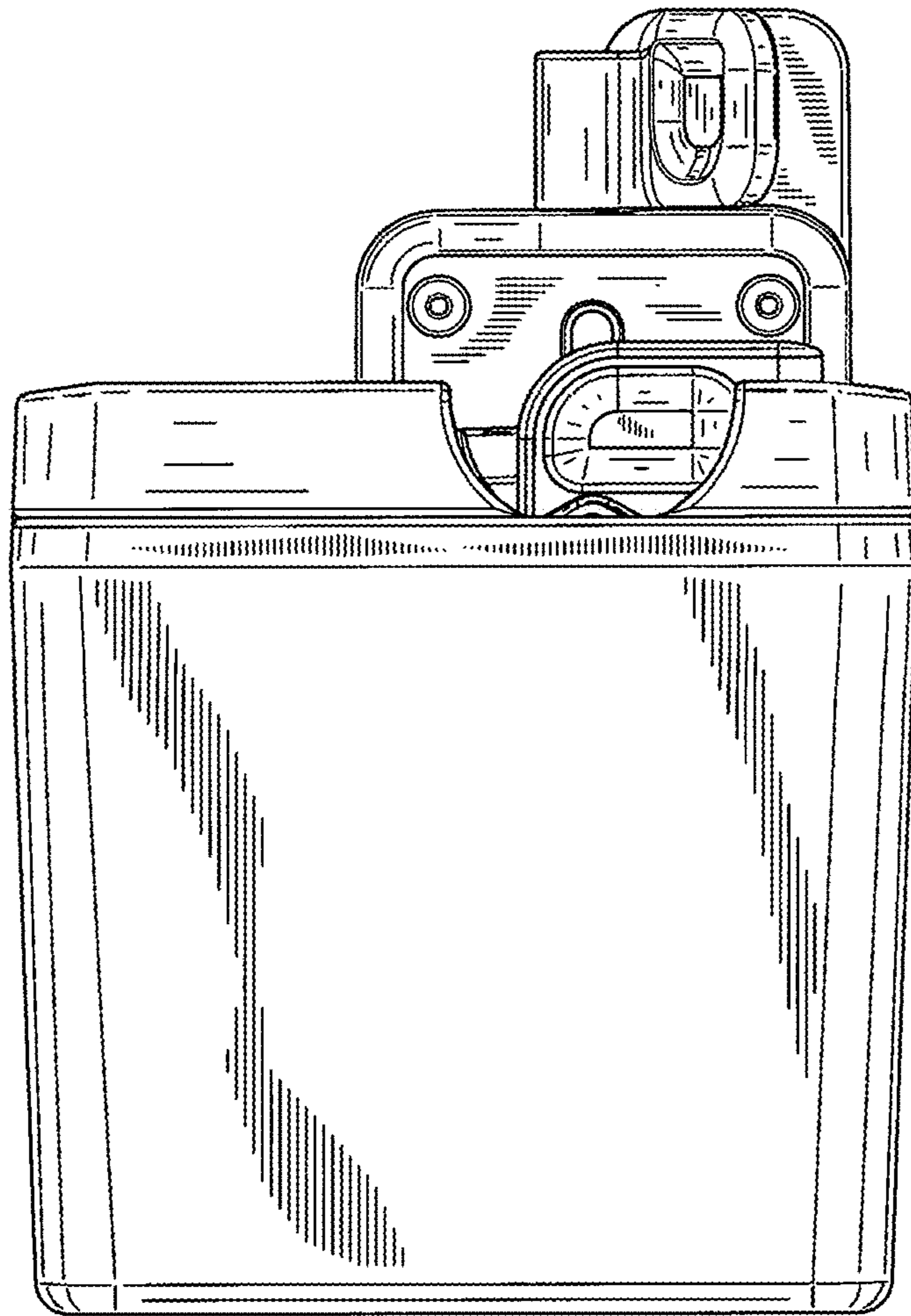


FIG. 9

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : D914,197 S
APPLICATION NO. : 29/651465
DATED : March 23, 2021
INVENTOR(S) : Larry B. Gray et al.

Page 1 of 11

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page

Replace the Figure printed on the Title Page with Replacement Figure 1 as shown in the attached Replacement Sheets.

In the Drawings

Replace Figures 1-9 with Figures 1-9 as shown in the attached Replacement Sheets.

Signed and Sealed this
Second Day of August, 2022
Katherine Kelly Vidal

Katherine Kelly Vidal
Director of the United States Patent and Trademark Office

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Primary Examiner — John R Yeh

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

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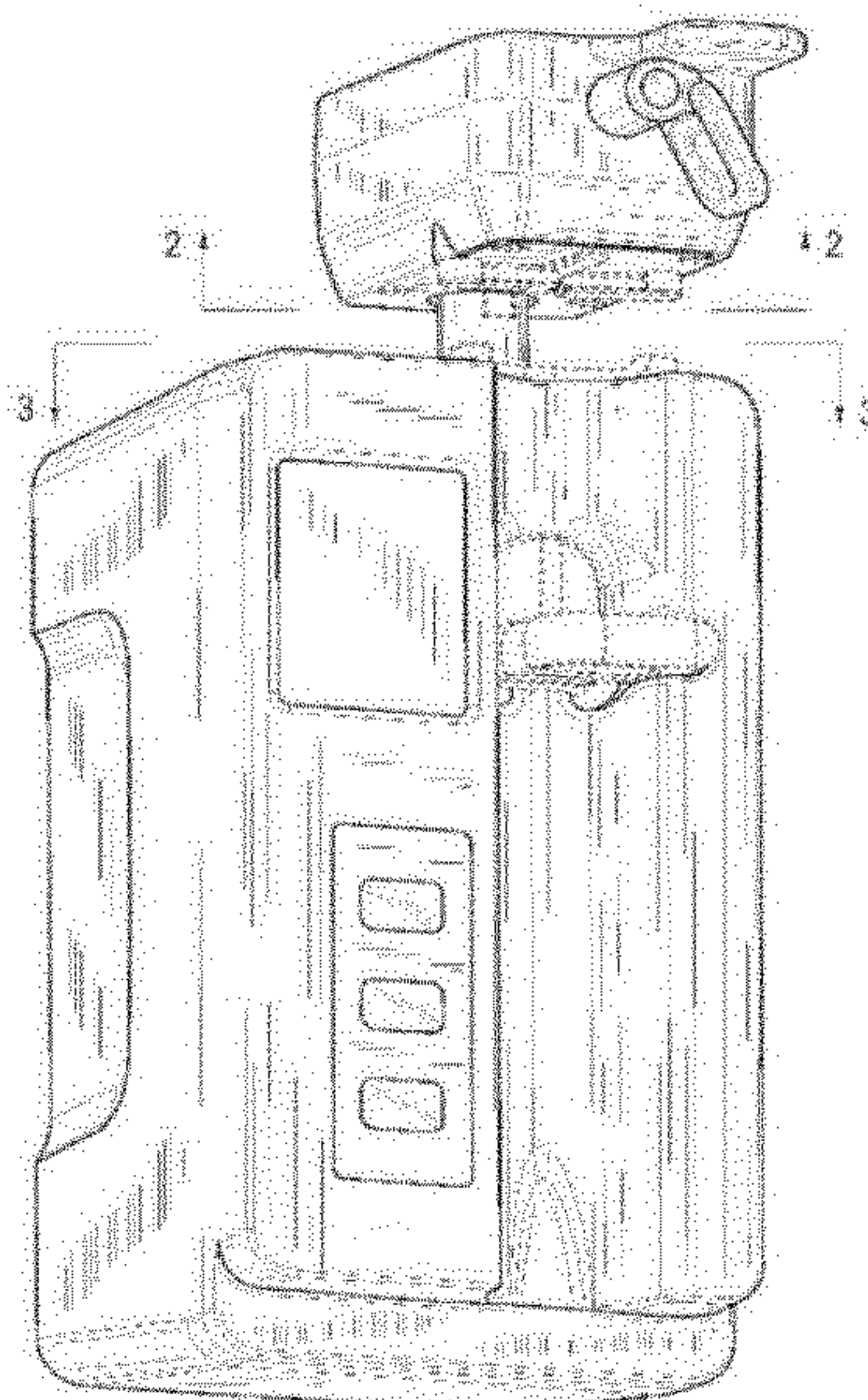
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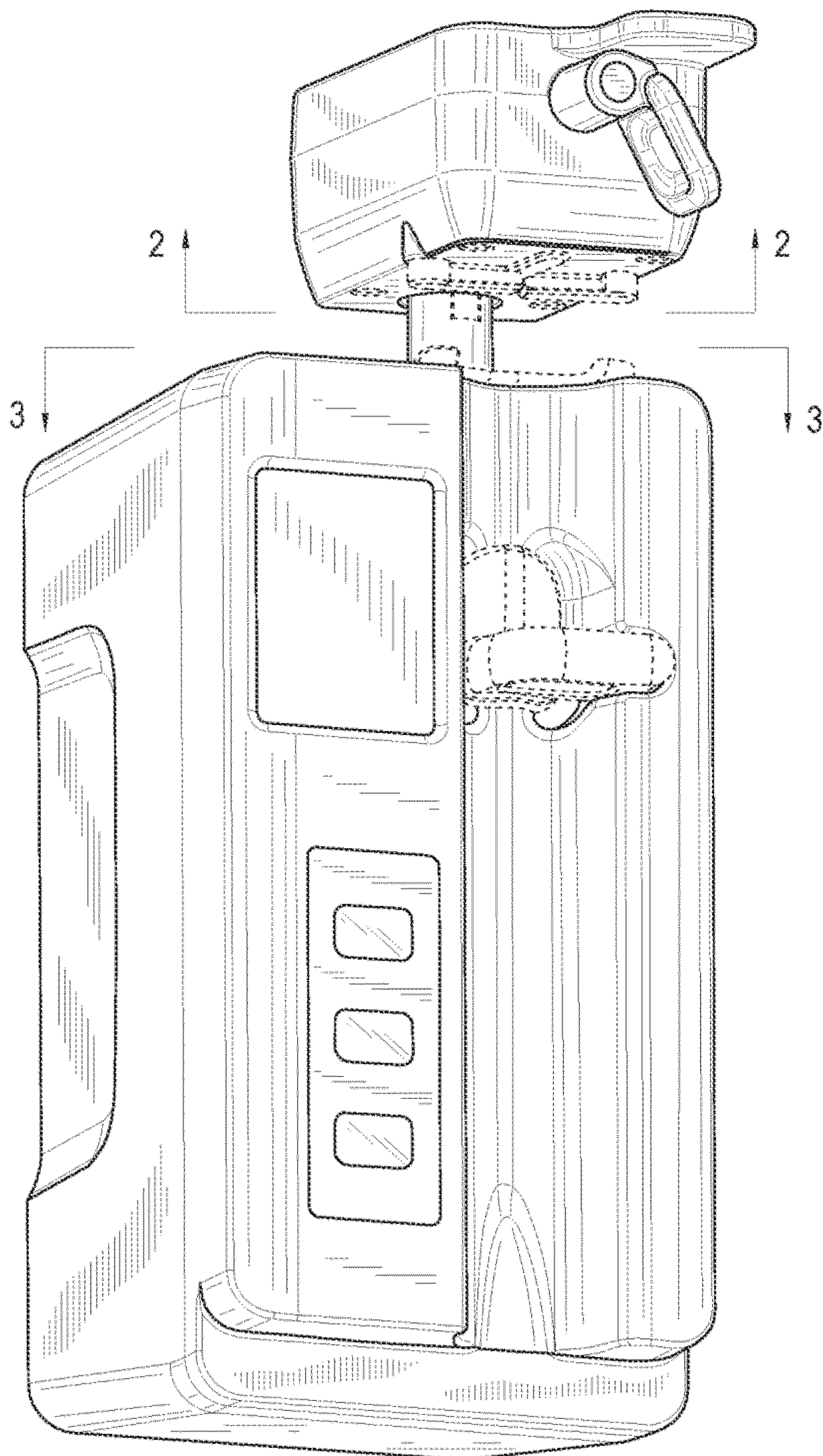


FIG. 1

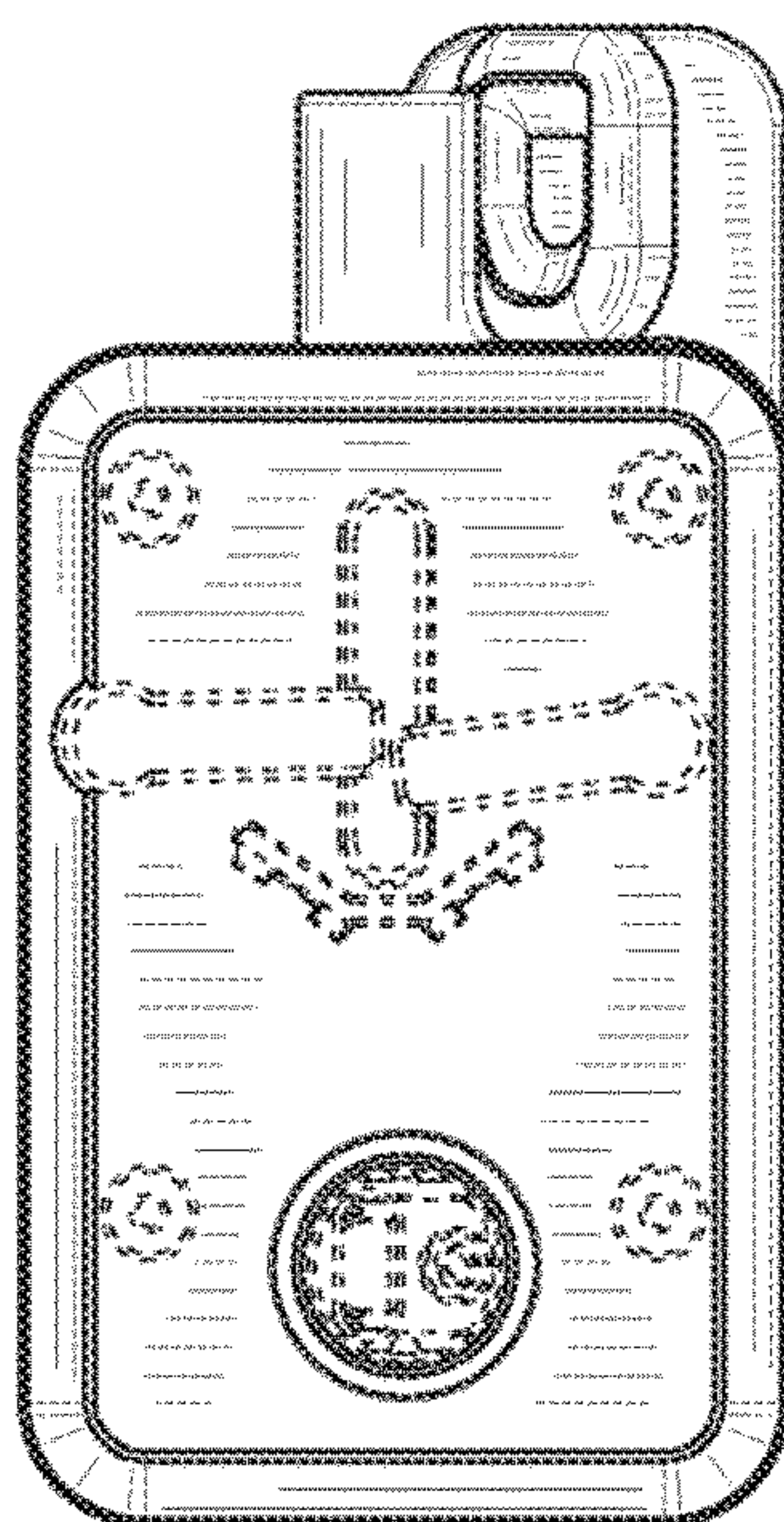


FIG. 2

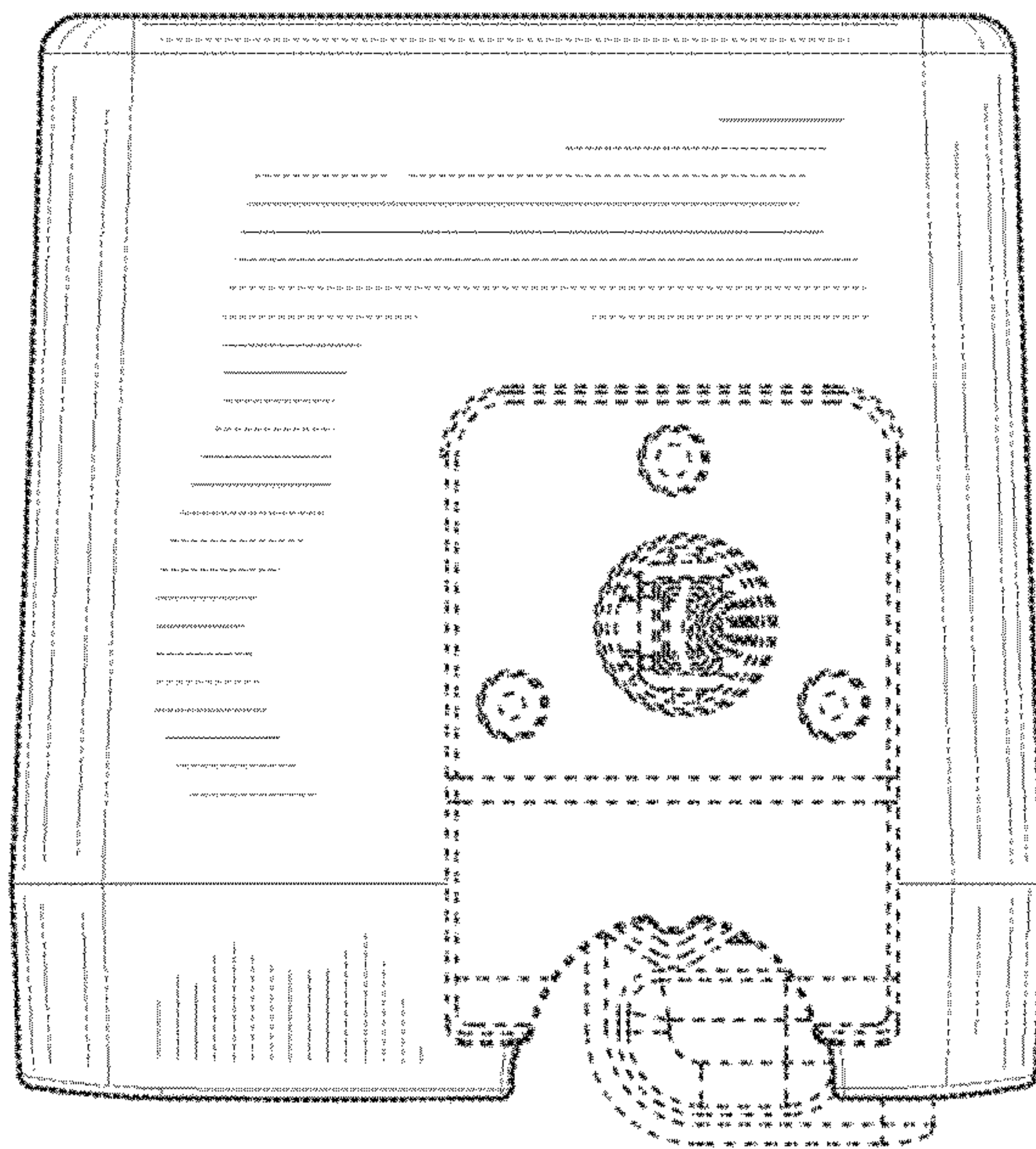


FIG. 3

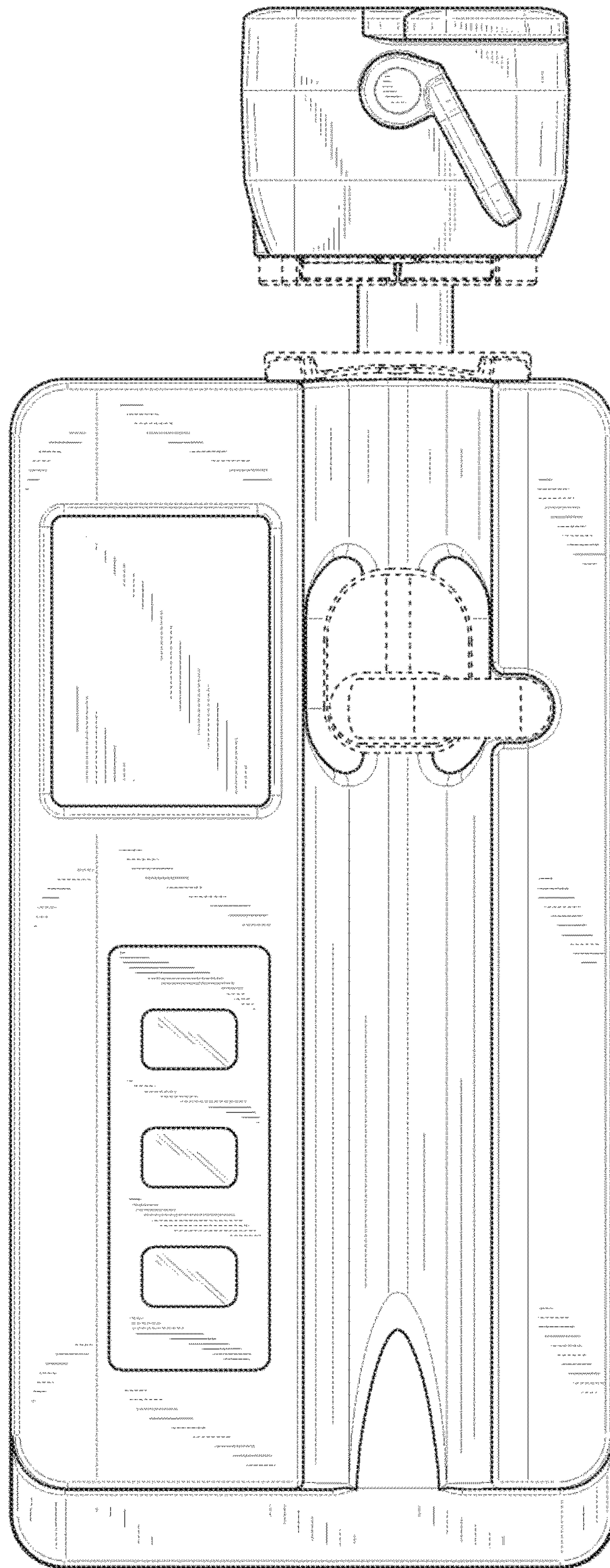


FIG. 4

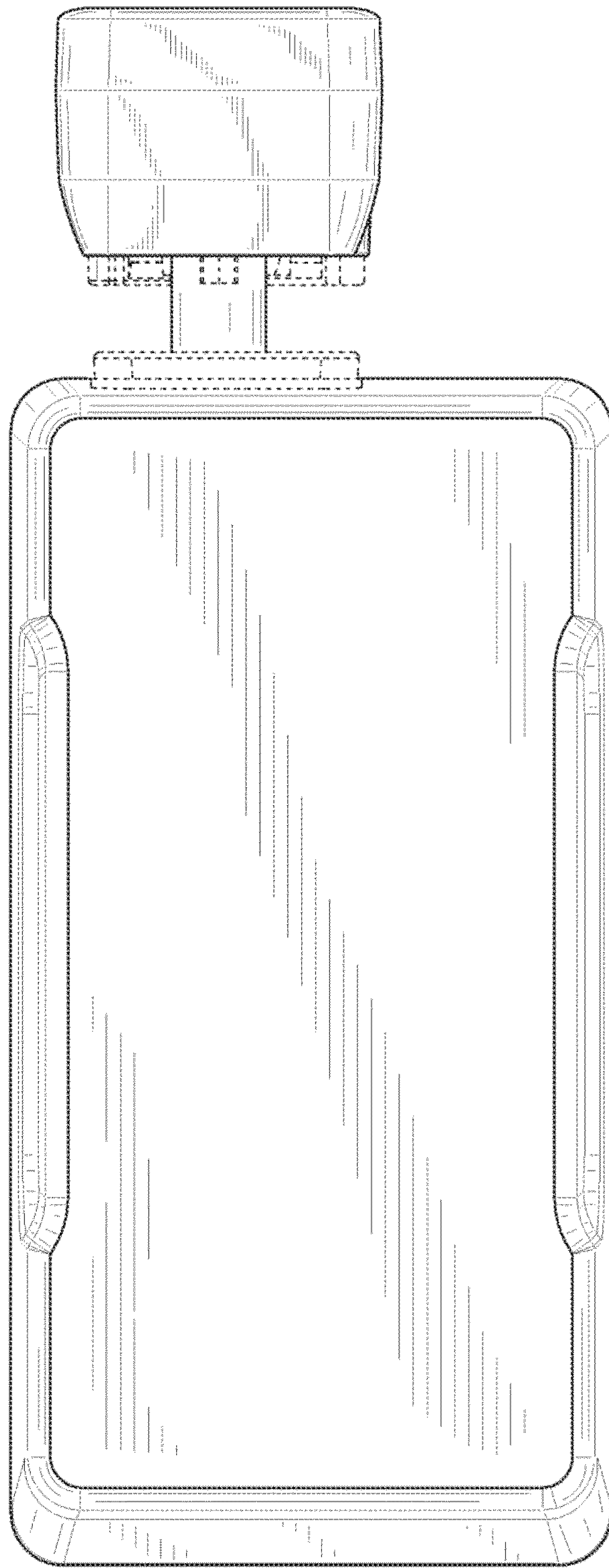


FIG. 5

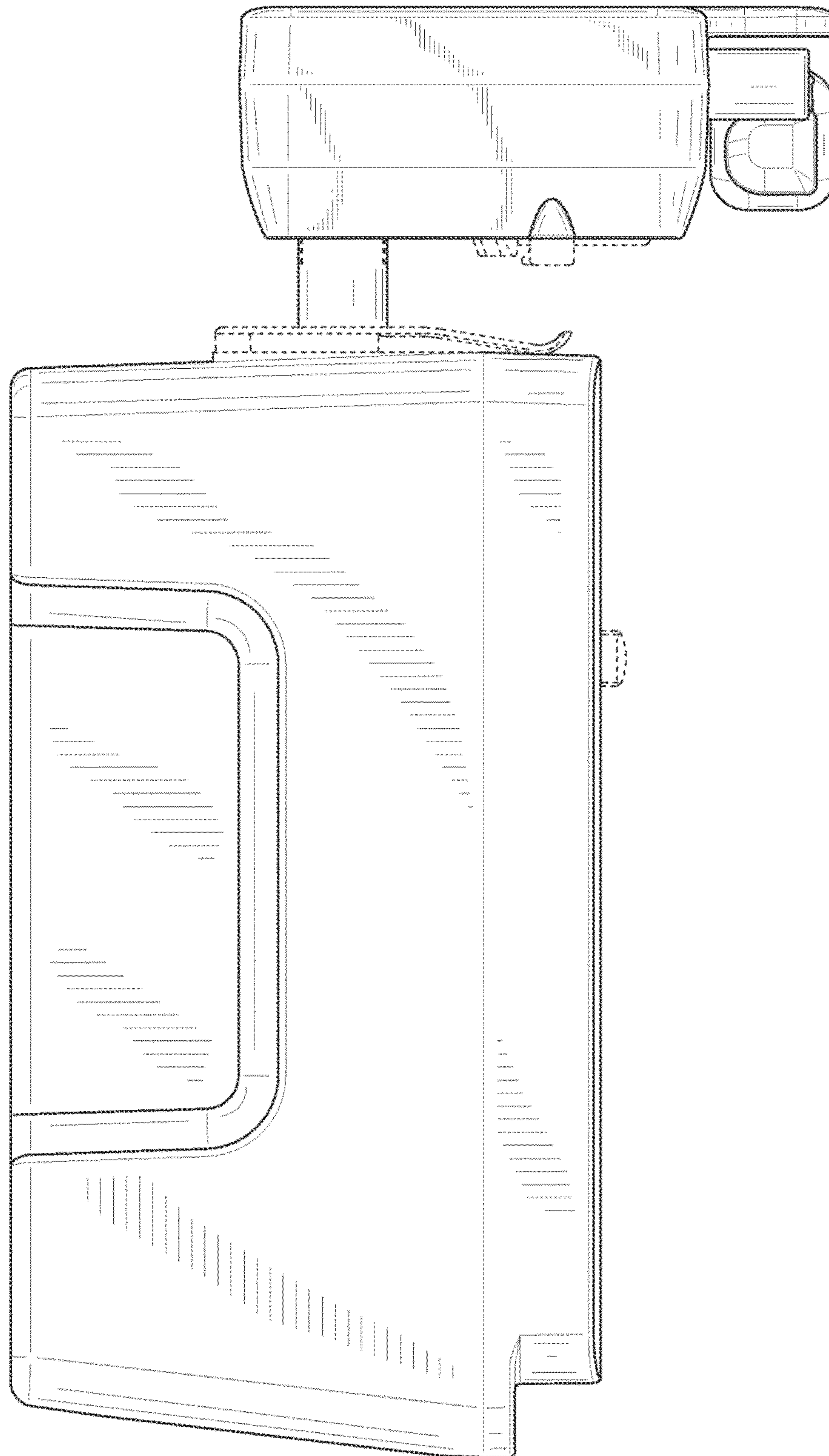


FIG. 6

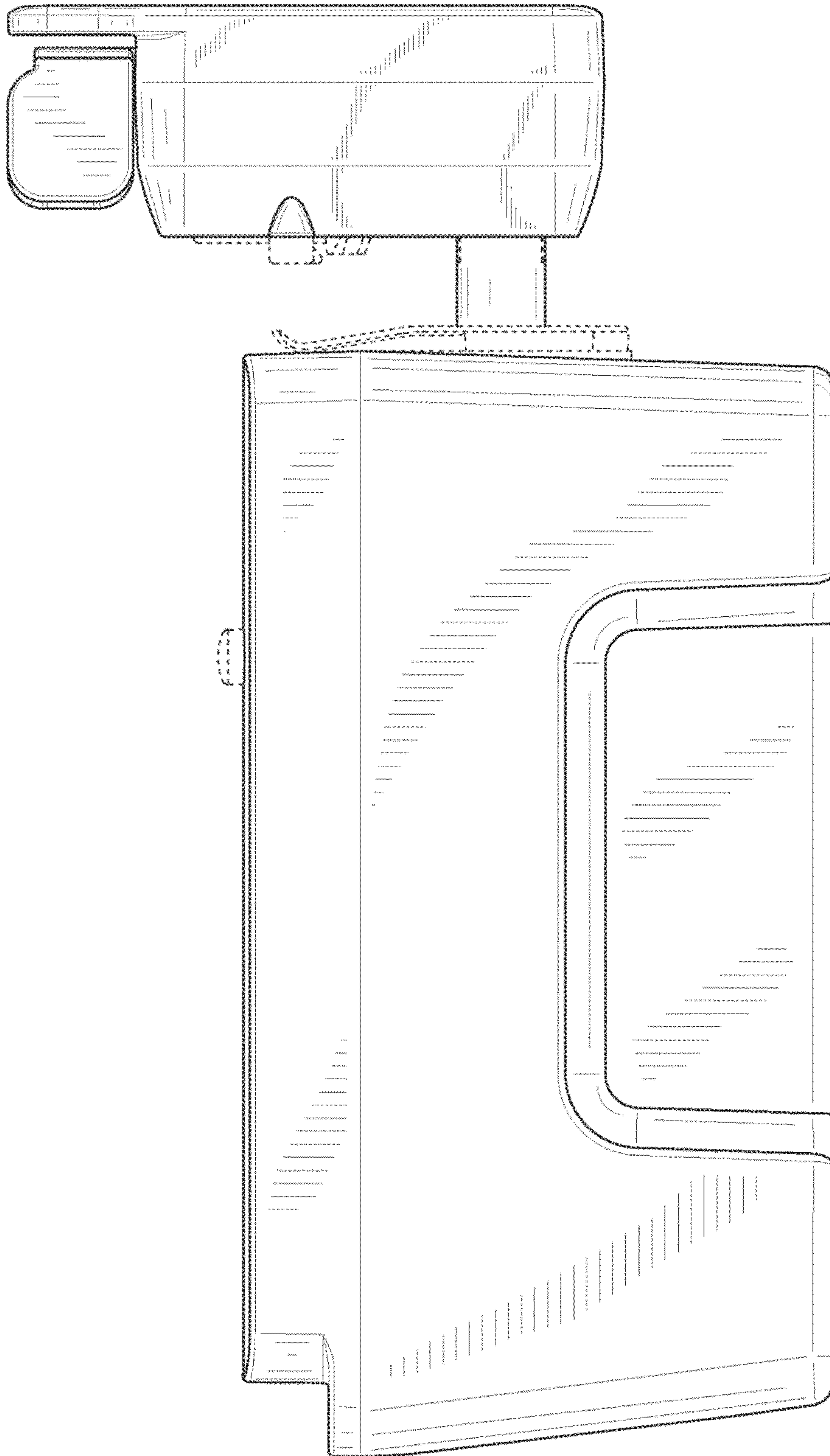


FIG. 7

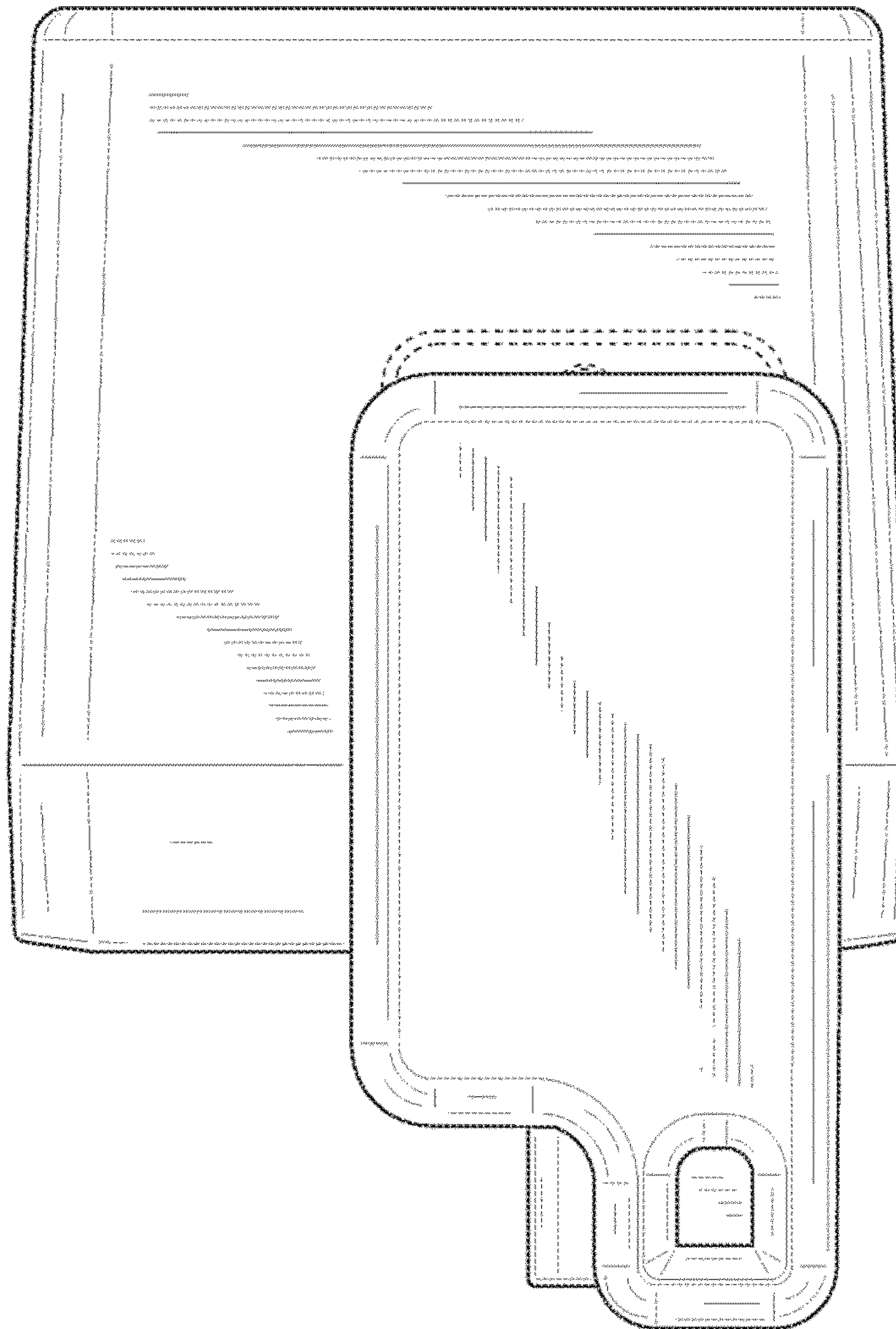


FIG. 8

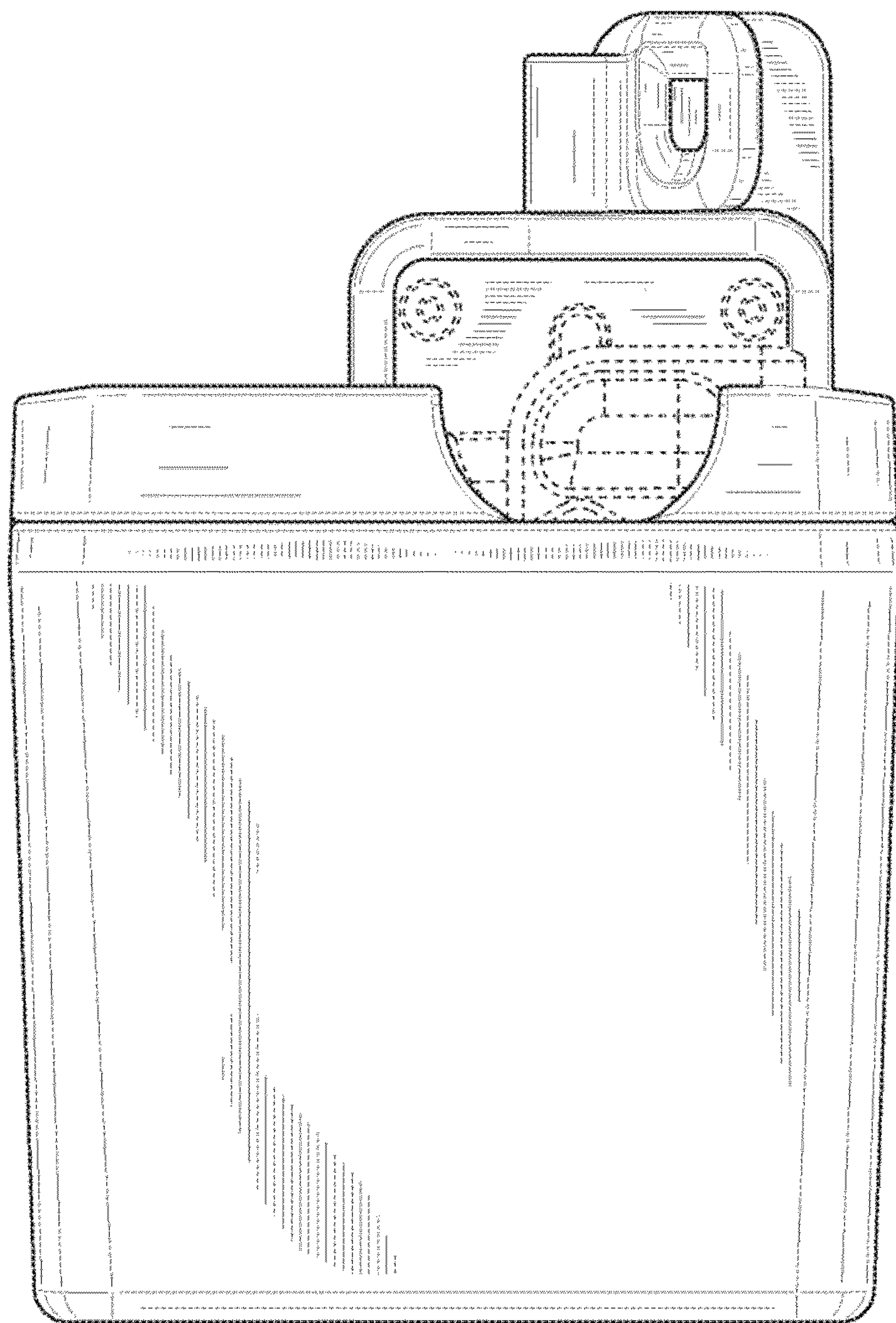


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