

US00D949686S

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

(10) **Patent No.:** **US D949,686 S**
(45) **Date of Patent:** **** Apr. 26, 2022**

(54) **TAMPER-EVIDENT BAG SEAL**

- (71) Applicant: **Inno-Pak, LLC**, Delaware, OH (US)
- (72) Inventors: **Denny V. Tao**, Katy, TX (US); **Nathan W. Schultz**, Westerville, OH (US); **Steven A. Mayer**, Indianapolis, IN (US)
- (73) Assignee: **Inno-Pak, LLC**, Delaware, OH (US)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/725,476**
- (22) Filed: **Feb. 25, 2020**

Related U.S. Application Data

- (63) Continuation-in-part of application No. 29/707,037, filed on Sep. 25, 2019.
- (51) **LOC (13) Cl.** **09-03**
- (52) **U.S. Cl.**
USPC **D9/433**
- (58) **Field of Classification Search**
USPC D3/20, 202, 203, 203.2, 203.6, 203.7, D3/207, 242, 318; D9/414-423,
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 1,410,404 A * 3/1922 Haines B65D 33/08 383/10
- 1,537,956 A 5/1925 Meyers
(Continued)

FOREIGN PATENT DOCUMENTS

- CN 2347943 Y 11/1999
- DE 2733041 A1 2/1978
(Continued)

OTHER PUBLICATIONS

Inno-Pak Handle Cuffs: Announced Aug. 24, 2020 [online]. Site visited [Oct. 20, 2021]. Available from Internet URL: <https://www.innopak.com/products/handle-cuffs/>.*

(Continued)

Primary Examiner — Catherine S Posthauer
(74) *Attorney, Agent, or Firm* — Ward and Smith, P.A.; Ryan K. Simmons

(57) **CLAIM**

The ornamental design for a tamper-evident bag seal, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a tamper evident bag seal showing a new design;
 FIG. 2 is a top plan view thereof;
 FIG. 3 is bottom plan view thereof;
 FIG. 4 is another perspective view of the tamper evident bag seal of FIG. 1 shown as installed on a bag in a sealed configuration;
 FIG. 5 is a front elevation view thereof;
 FIG. 6 is a rear elevation view thereof;
 FIG. 7 is a right side elevation view thereof;
 FIG. 8 is a left side elevation view thereof;
 FIG. 9 is a top plan view thereof;
 FIG. 10 is another perspective view of the tamper evident bag seal of FIG. 1 shown as installed on a bag in an unsealed or tampered evident configuration;
 FIG. 11 is a front elevation view thereof;
 FIG. 12 is a rear elevation view thereof;
 FIG. 13 is a right side elevation view thereof;
 FIG. 14 is a left side elevation view thereof;
 FIG. 15 is a top plan view thereof;
 FIG. 16 is a perspective view of a tamper evident bag seal showing an alternate embodiment;
 FIG. 17 is a top plan view thereof;
 FIG. 18 is bottom plan view thereof;

(Continued)

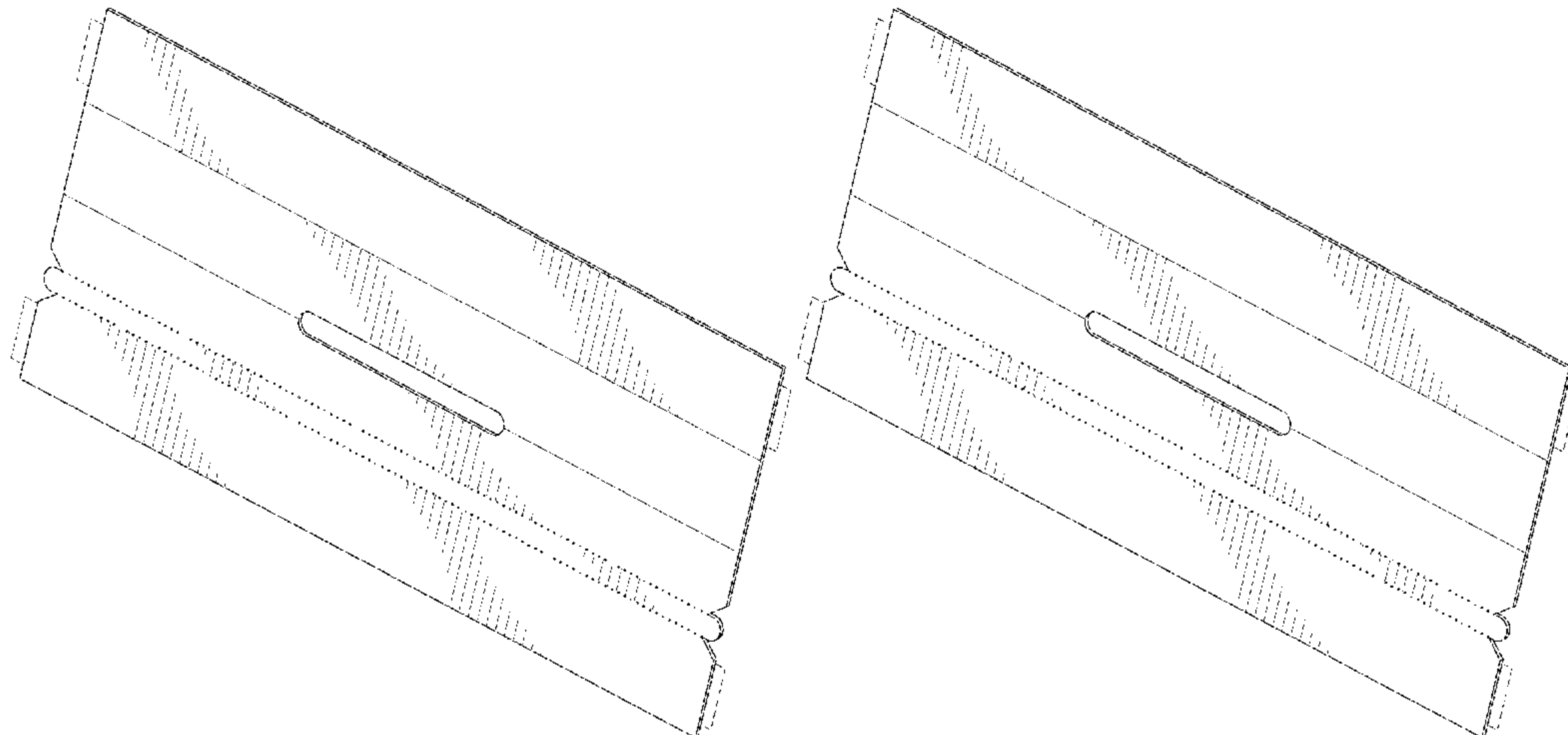


FIG. 19 is another perspective view of the tamper evident bag seal of FIG. 16 shown as installed on a bag in a sealed configuration;

FIG. 20 is a front elevation view thereof;

FIG. 21 is a rear elevation view thereof;

FIG. 22 is a right side elevation view thereof;

FIG. 23 is a left side elevation view thereof;

FIG. 24 is a top plan view thereof;

FIG. 25 is another perspective view of the tamper evident bag seal of FIG. 16 shown as installed on a bag in an unsealed or tampered evident configuration;

FIG. 26 is a front elevation view thereof;

FIG. 27 is a rear elevation view thereof;

FIG. 28 is a right side elevation view thereof;

FIG. 29 is a left side elevation view thereof; and,

FIG. 30 is a top plan view thereof.

In the drawings the evenly broken lines are shown for the purpose of illustrating both parts of the article as well as environmental subject matter of an exemplary bag, none of which form part of the claim. The dot-dash lines represent the boundaries of the claim and form no part thereof. The dotted lines represent perforations that form part of the claim. In FIGS. 1, 2, 3, 16, 17, and 18, the tab features protruding from the side edges of the article and rendered in evenly broken lines show features removed for installation of the article onto the exemplary bag and form no part of the claim.

1 Claim, 28 Drawing Sheets

(58) Field of Classification Search

USPC D9/430-433, 434, 443, 456, 457, 711, D9/713, 721-722, 737, 756, 758, 759, D9/760; D20/10, 11, 22, 23, 27, 28, 40, D20/42, 44
 CPC B65D 5/54; B65D 5/4212; B65D 5/4608; B65D 5/60; B65D 2203/00; B65D 5/00; B65D 5/02; B65D 5/18; B65D 5/20; B65D 5/22; B65D 5/4245; B65D 43/153; B65D 43/22; B65D 81/264; B65D 33/18; B65D 33/08; B65D 33/12; B65D 2401/15; B65D 17/4014; B65D 17/0014; B65D 17/0025; B65D 17/0044; B65D 23/10; A45D 33/18; A45D 34/00; A45D 2034/007; A45D 2040/0012; A01N 1/0263; A47J 45/077; A47J 45/07; A63H 27/001

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

1,792,885 A 2/1931 Andrews
 2,050,967 A 8/1936 Farmer
 2,128,196 A 8/1938 Max
 2,149,030 A 2/1939 Arlington
 2,693,836 A 11/1954 Hayes
 2,846,134 A 8/1958 Esber
 2,934,255 A 4/1960 McDuffie
 3,203,621 A 8/1965 Wright
 D205,970 S * 10/1966 Leifeld D9/414
 3,770,188 A 11/1973 Bressickello
 D229,485 S * 12/1973 Petersen D9/416

3,811,613 A 5/1974 Harrison
 D233,083 S * 10/1974 Rosa D20/40
 4,243,171 A 1/1981 Prin
 4,276,982 A 7/1981 Sibrava et al.
 D277,555 S * 2/1985 Pattillo D9/434
 4,723,300 A 2/1988 Aranow
 4,790,670 A 12/1988 Barbaro
 4,955,981 A 9/1990 Provost
 5,035,515 A 7/1991 Crossman et al.
 5,096,113 A 3/1992 Focke
 5,226,941 A 7/1993 Uibel et al.
 D372,864 S * 8/1996 Hansen D9/434
 5,608,949 A 3/1997 Cooley et al.
 5,711,751 A 1/1998 Harmanoglu
 5,824,380 A 10/1998 Hagen
 5,881,432 A * 3/1999 Good A45F 5/10
 16/426
 D438,797 S * 3/2001 Bozlee D9/434
 D442,085 S * 5/2001 Bozlee D9/434
 6,286,681 B1 9/2001 Wilfong et al.
 D451,389 S * 12/2001 Bozlee D9/434
 6,361,209 B1 3/2002 LaRue et al.
 D462,904 S * 9/2002 Mellon D9/434
 D501,134 S 1/2005 Takahashi et al.
 D502,872 S * 3/2005 Fleming D9/434
 6,913,389 B2 7/2005 Kannankeril et al.
 7,004,632 B2 2/2006 Hamilton et al.
 7,090,272 B2 * 8/2006 Novakovich A45F 5/1046
 294/137
 7,427,161 B2 9/2008 Sill et al.
 8,033,447 B2 10/2011 Katoh
 D739,766 S 9/2015 Glass et al.
 9,434,513 B2 9/2016 Lux et al.
 9,630,748 B2 4/2017 Keller
 D786,976 S * 5/2017 Keating D20/27
 D801,826 S 11/2017 O'Connor et al.
 D811,896 S 3/2018 Wigman et al.
 D812,490 S 3/2018 Wigman et al.
 D821,223 S 6/2018 Tan
 D826,043 S * 8/2018 Dacey D9/433
 D828,763 S 9/2018 Tan
 D830,849 S 10/2018 Tan
 10,259,616 B2 4/2019 Korinek et al.
 D860,807 S 9/2019 Sill
 2005/0041894 A1 2/2005 Hanson
 2005/0047686 A1 3/2005 Elsaesser
 2006/0045390 A1 * 3/2006 Sill B65D 33/246
 383/6
 2006/0196787 A1 9/2006 Lewis
 2007/0292053 A1 12/2007 Lin et al.
 2013/0315507 A1 11/2013 Vidal et al.
 2015/0360821 A1 12/2015 Greenwood et al.
 2019/0112116 A1 4/2019 Su et al.
 2021/0086950 A1 * 3/2021 Sill B65D 33/18

FOREIGN PATENT DOCUMENTS

DE 29500157 U1 2/1995
 DE 19831584 A1 1/2000
 DE 10-2009-007985 A1 2/2010
 EP 0 515 086 A1 11/1992
 FR 2838406 A1 10/2003
 GB 487330 A 6/1938
 JP 2017-061324 A 3/2017
 NL 1040069 C2 8/2014
 WO 2004071890 A1 8/2004

OTHER PUBLICATIONS

International Search Report and Witten Opinion from International Application No. PCT/US2019/030891, dated Jul. 26, 2019, 13 pages.

* cited by examiner

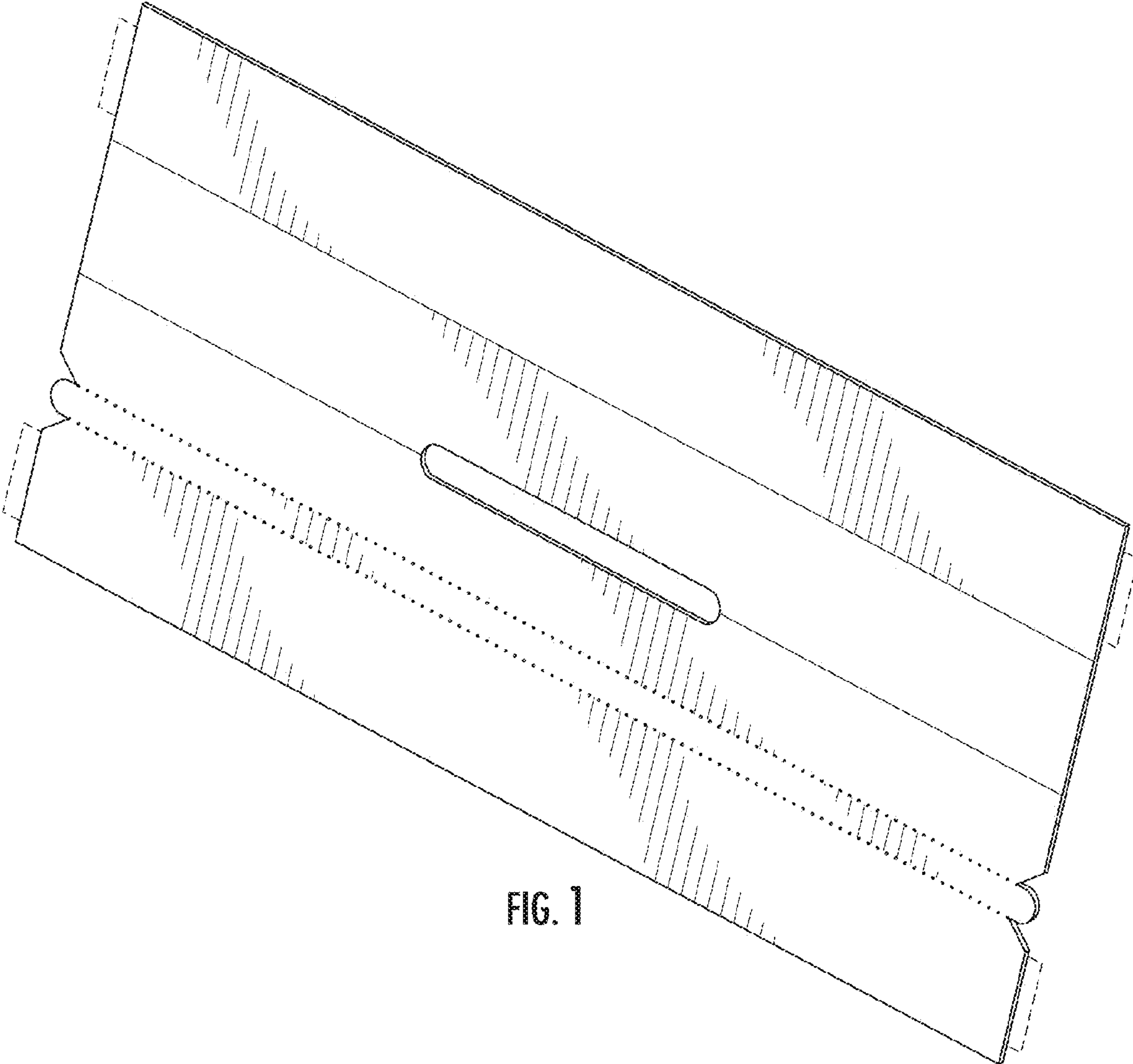


FIG. 1

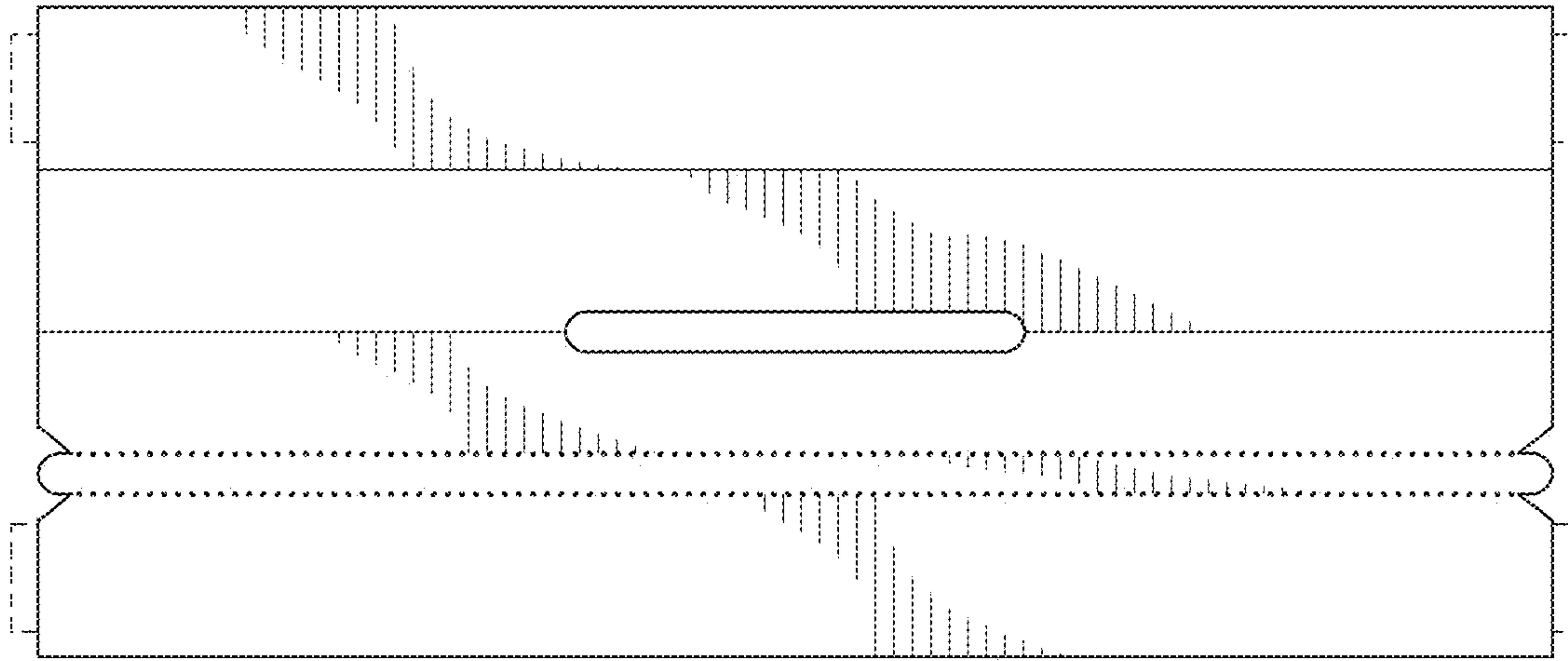


FIG. 2

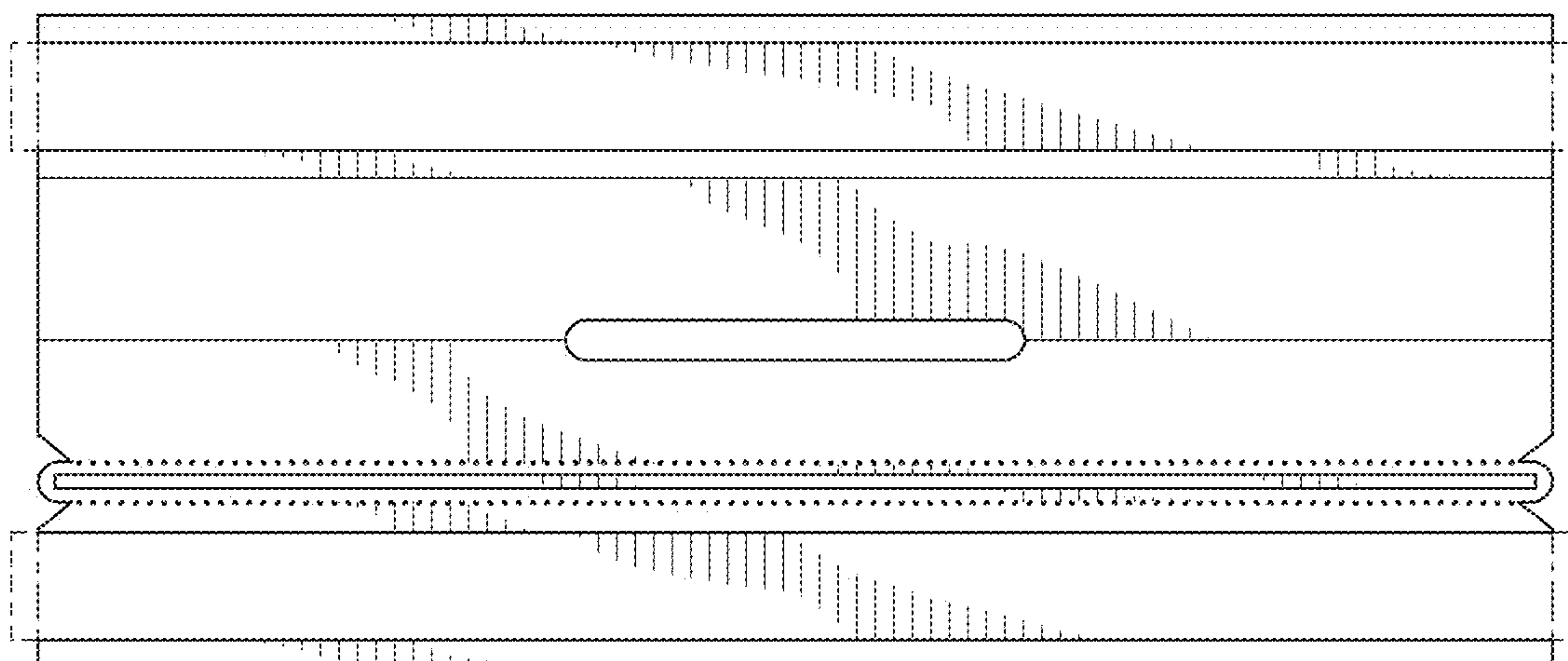


FIG. 3

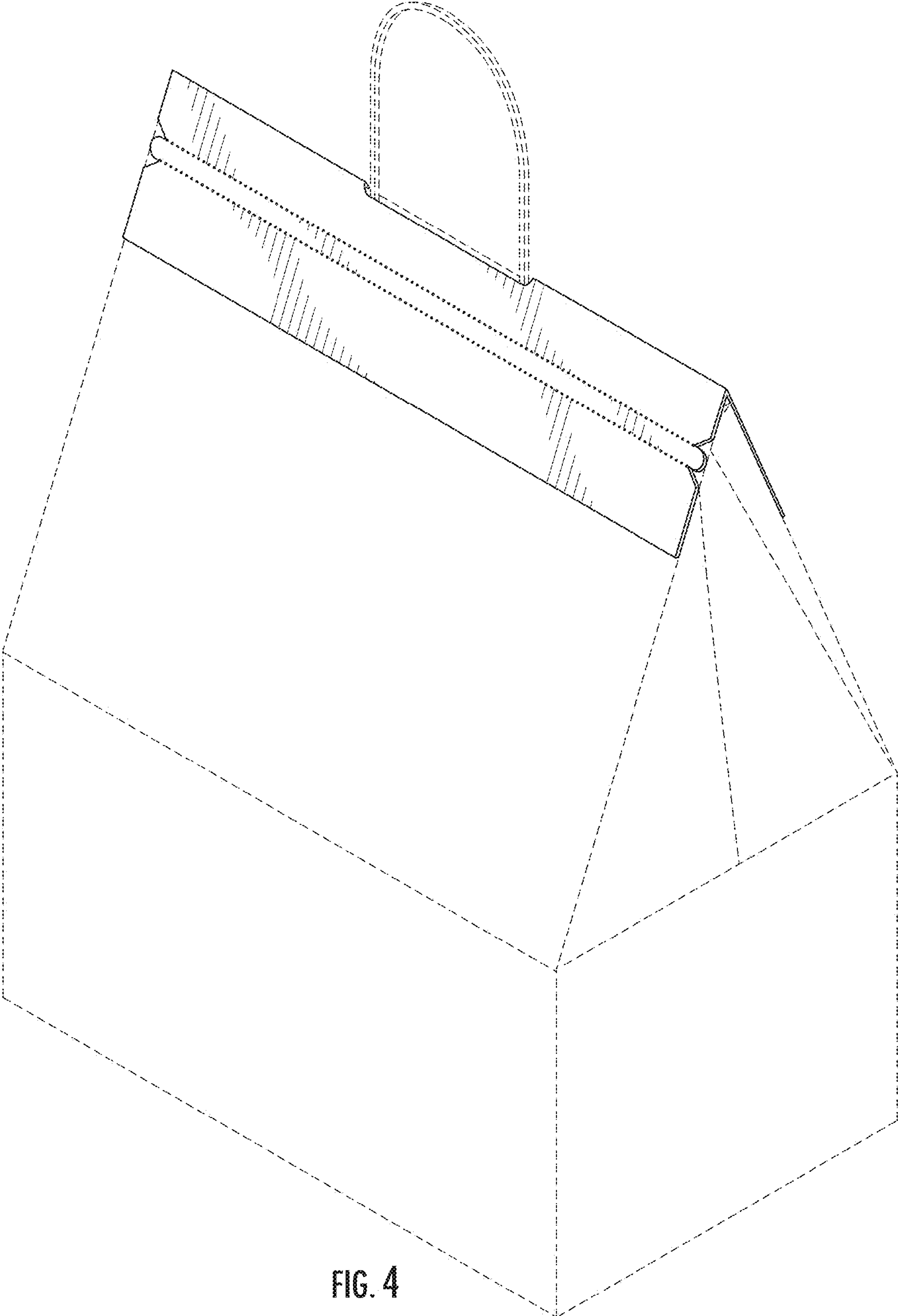


FIG. 4

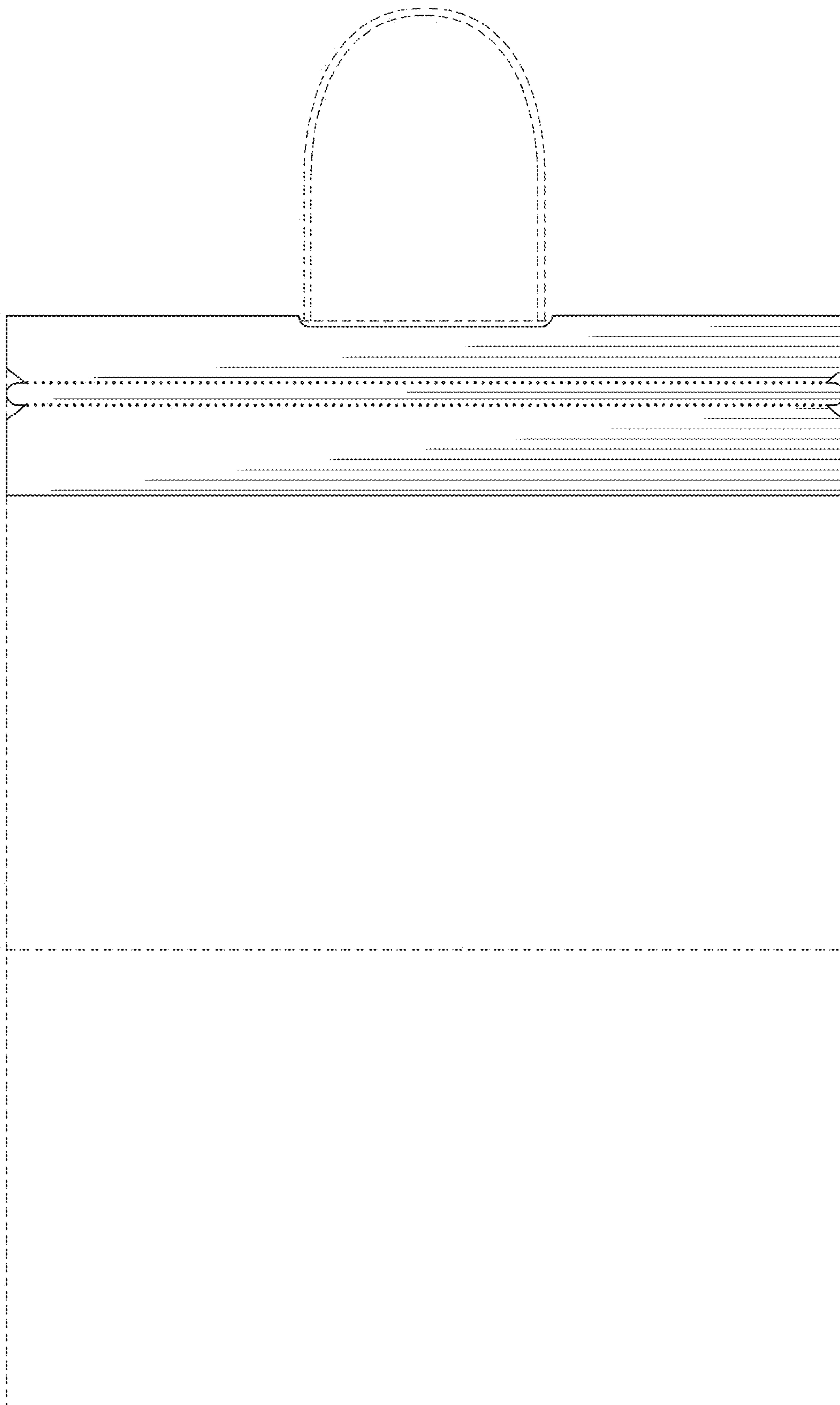


FIG. 5

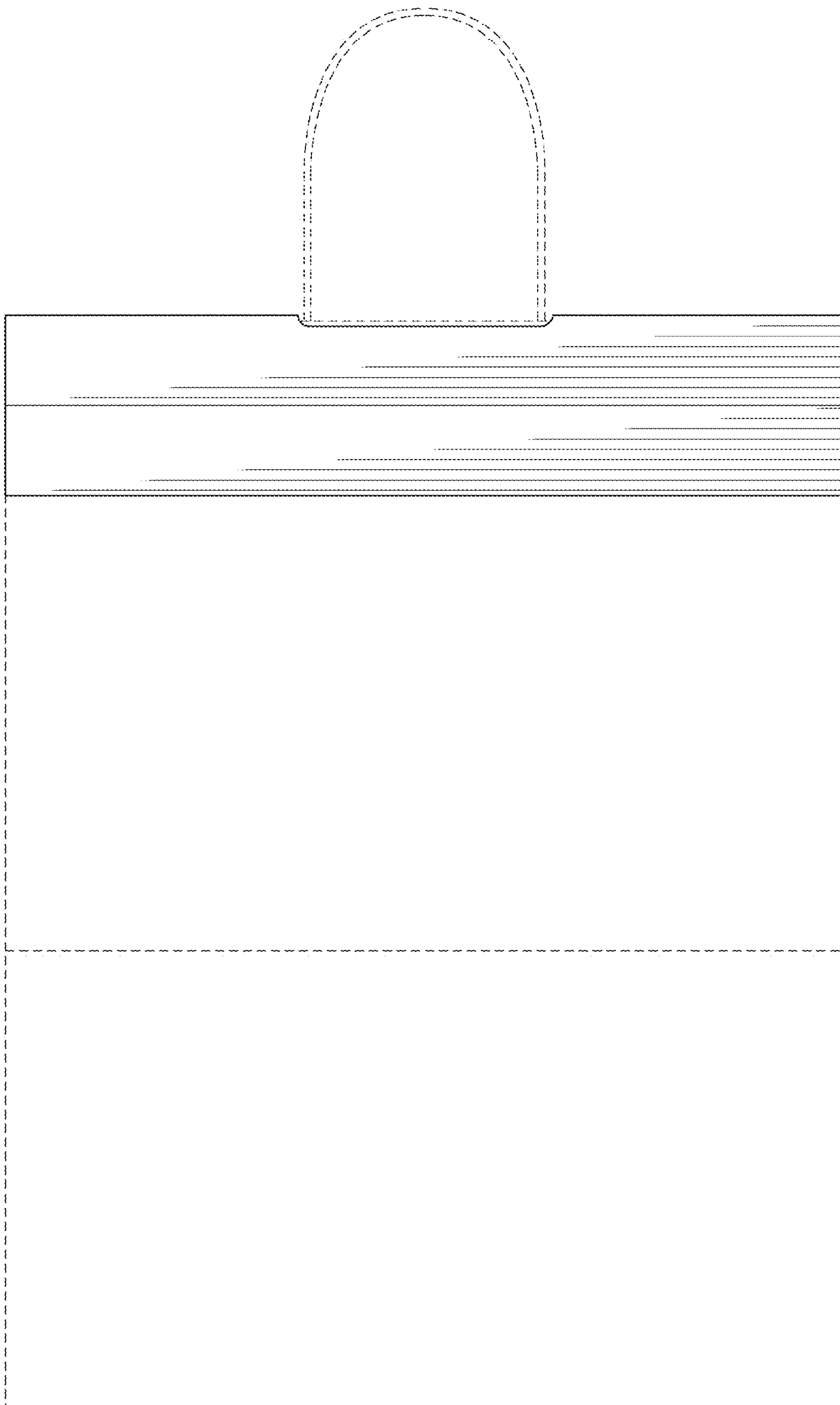


FIG. 6

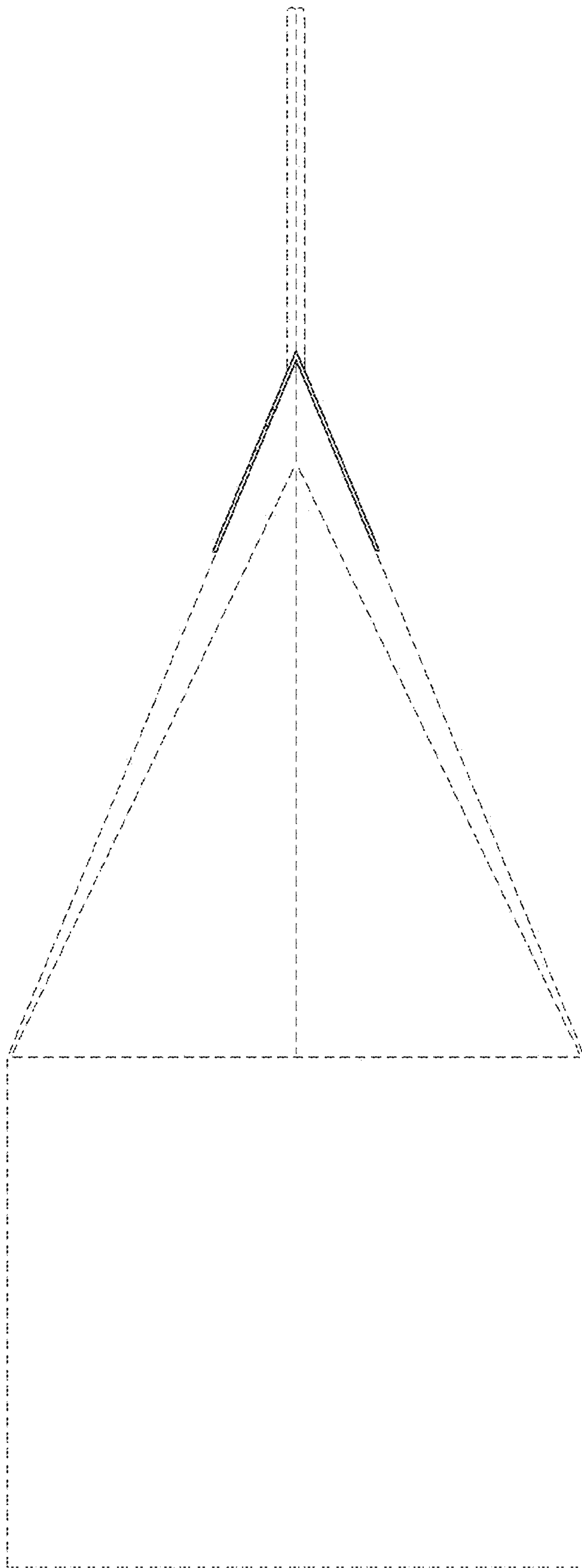


FIG. 7

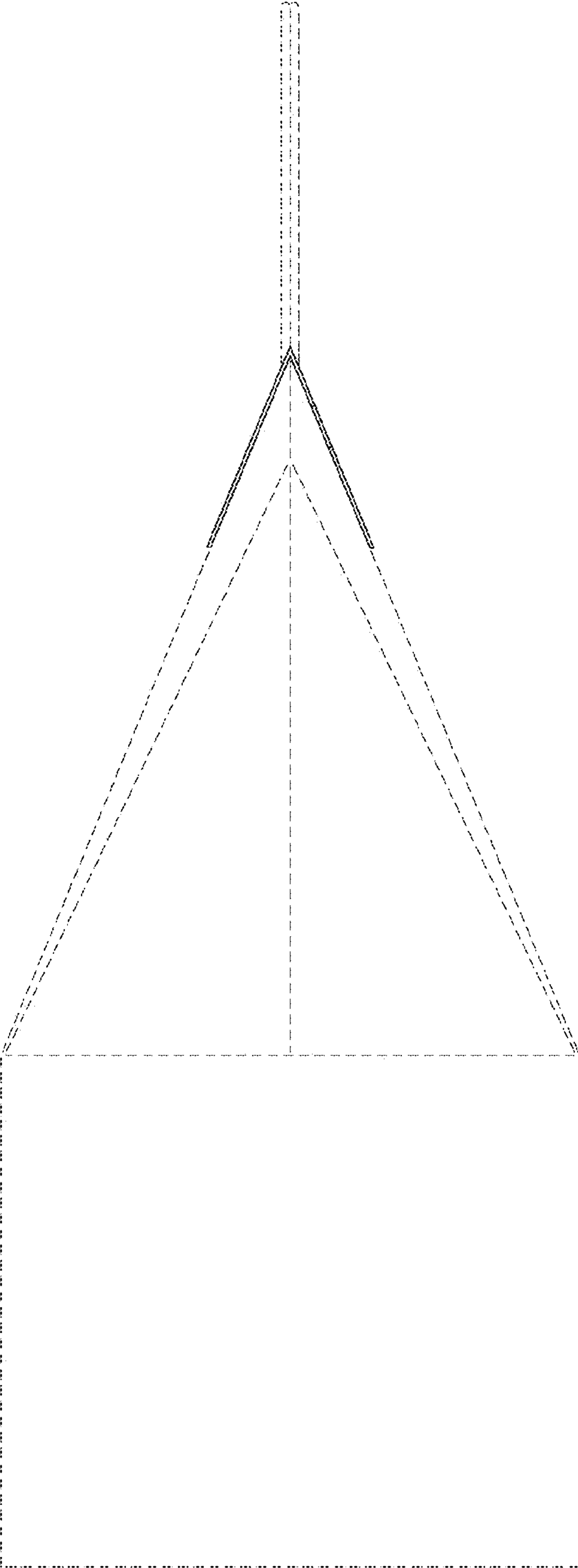


FIG. 8

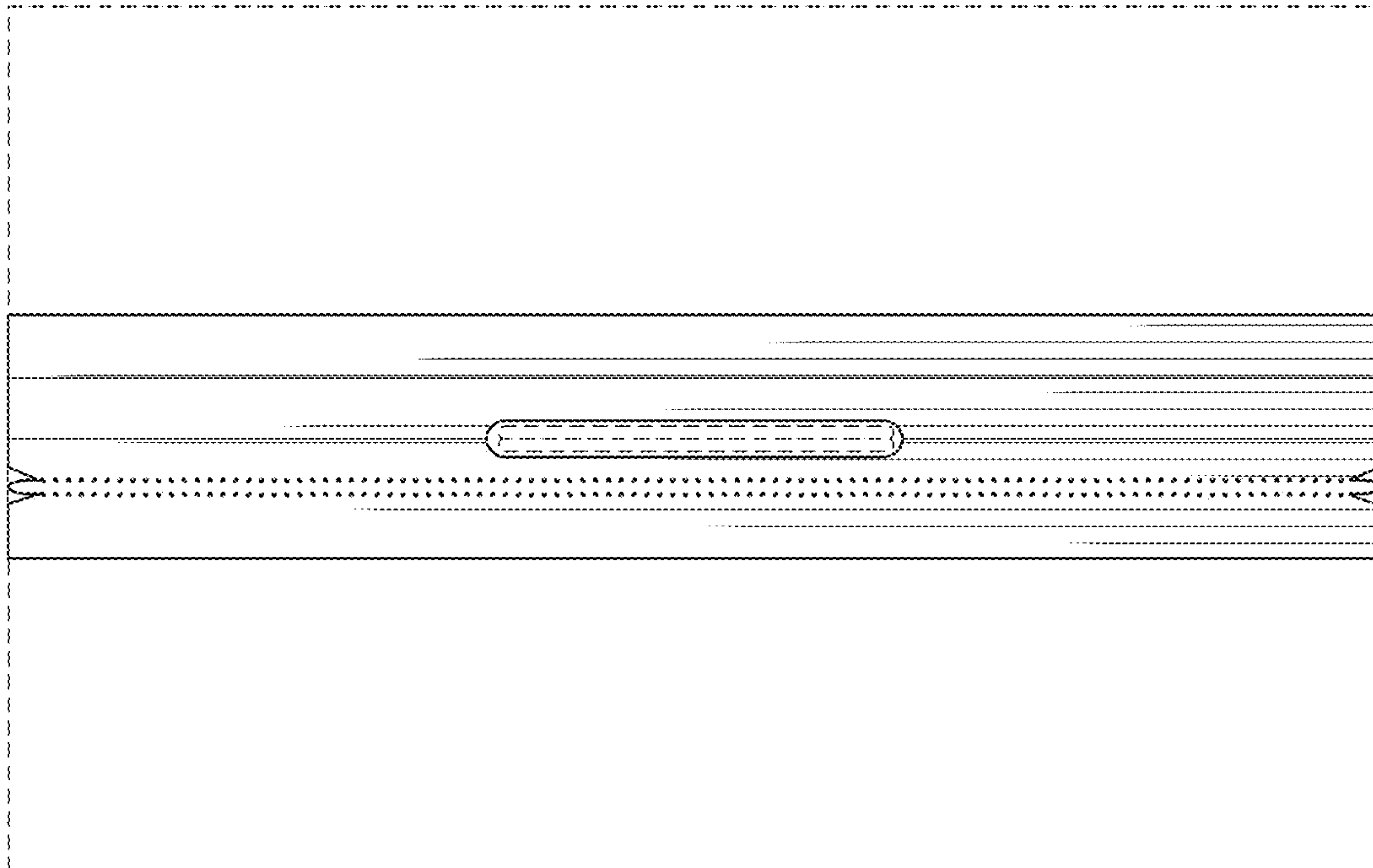


FIG. 9

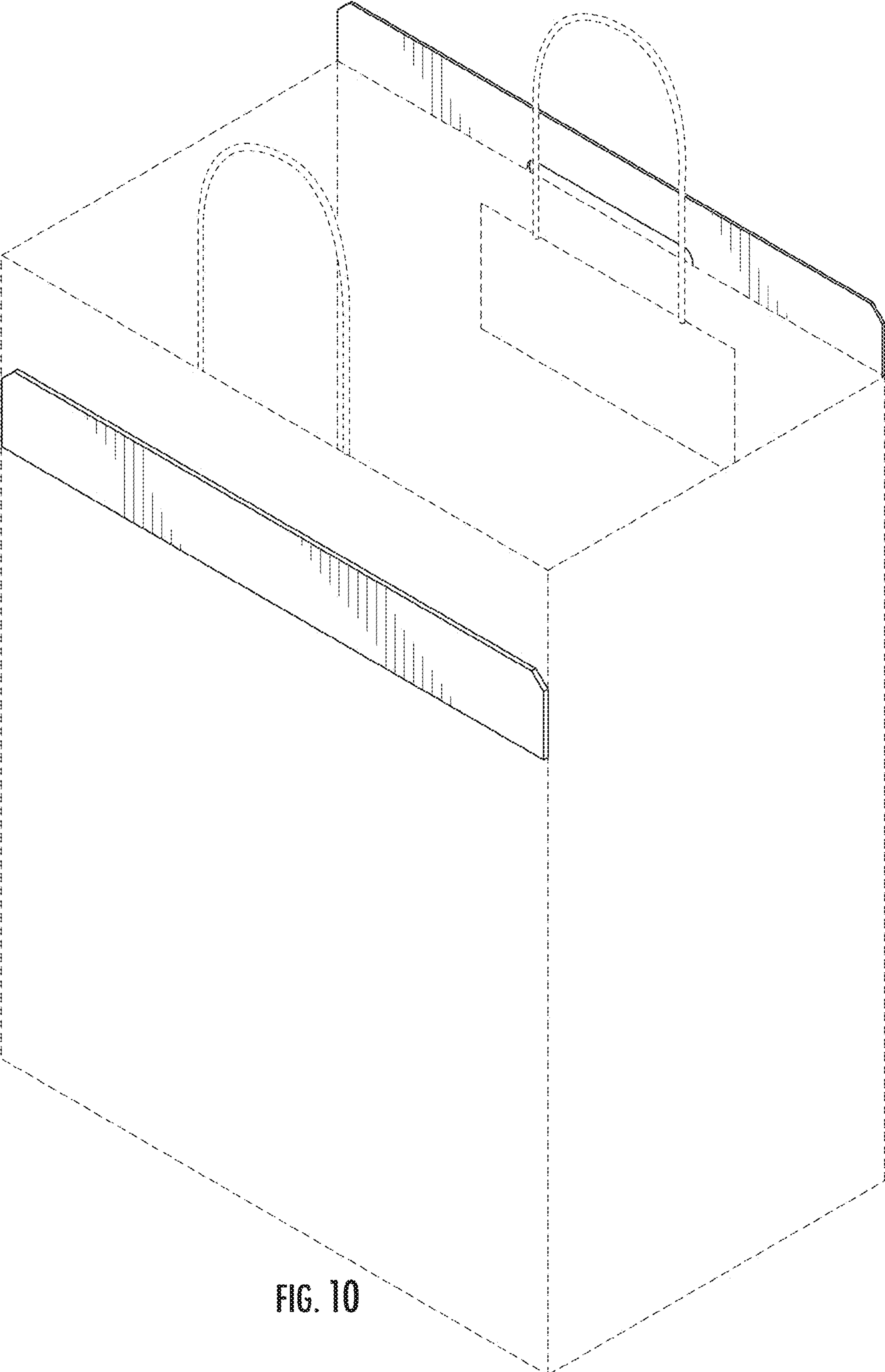


FIG. 10

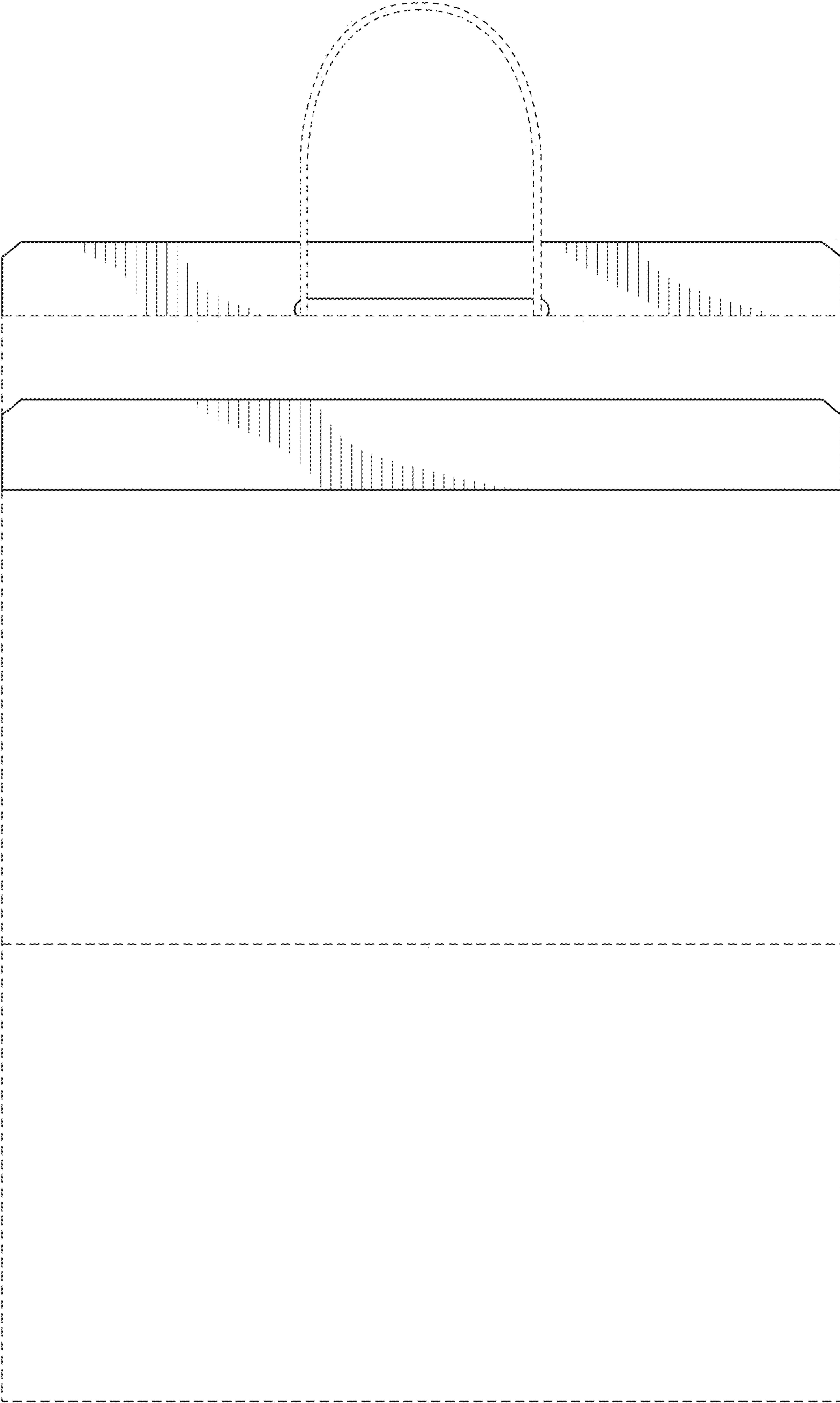


FIG. 11

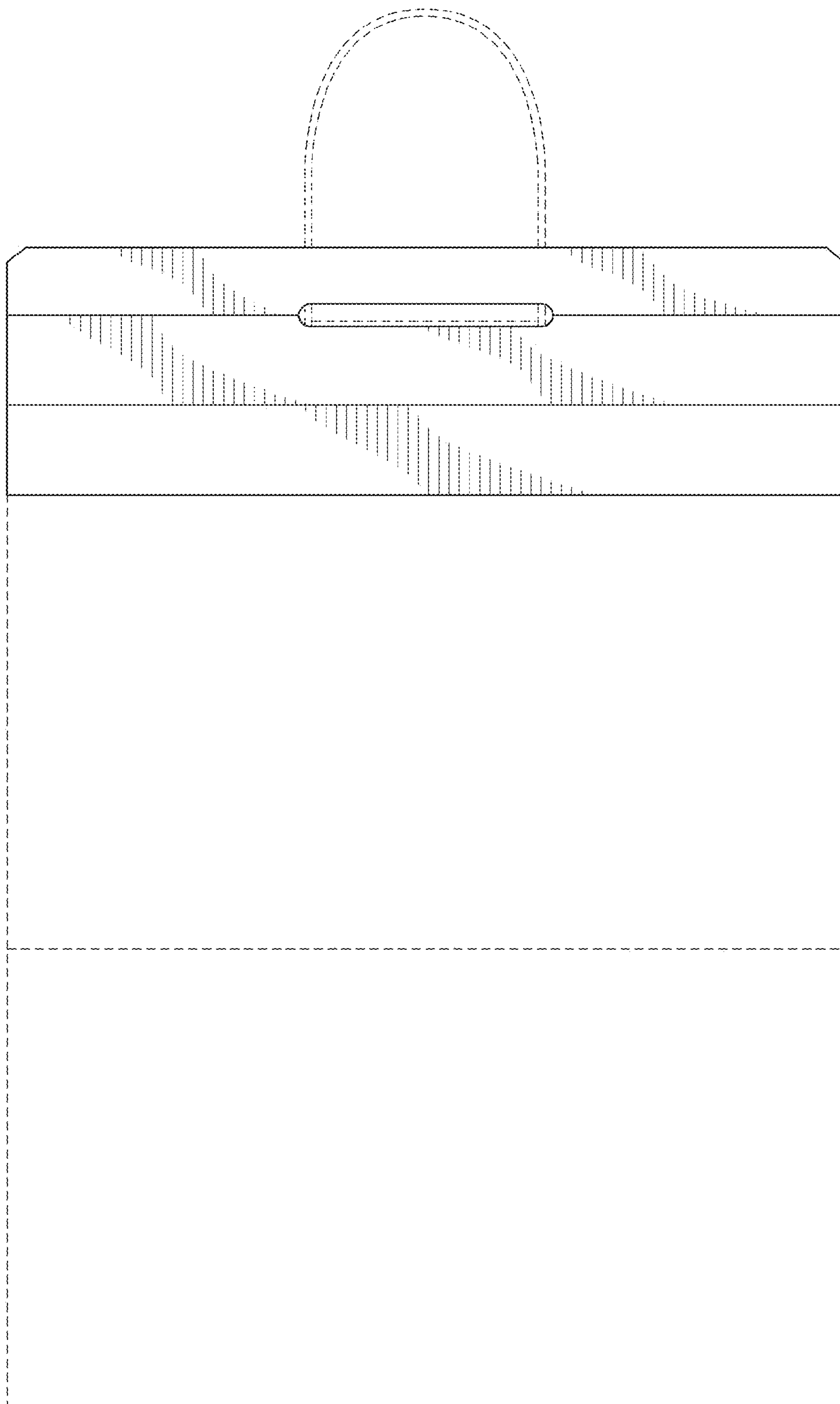


FIG. 12

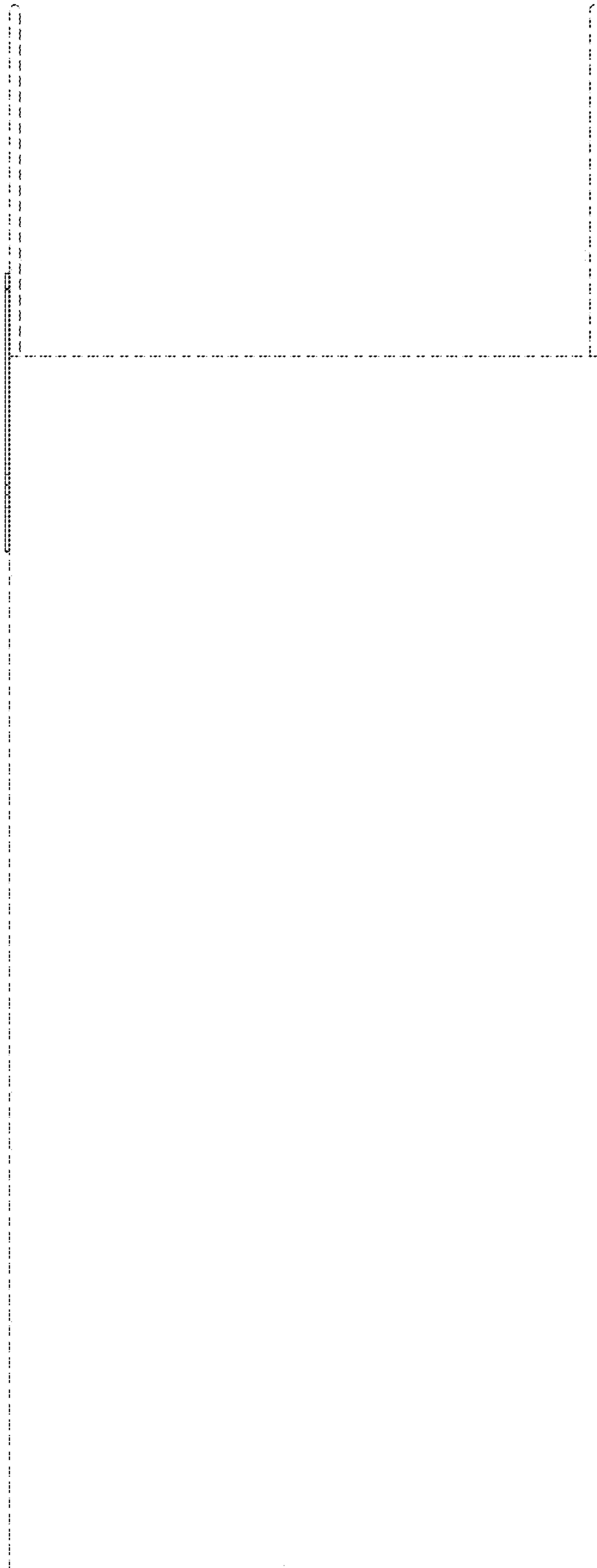


FIG. 13

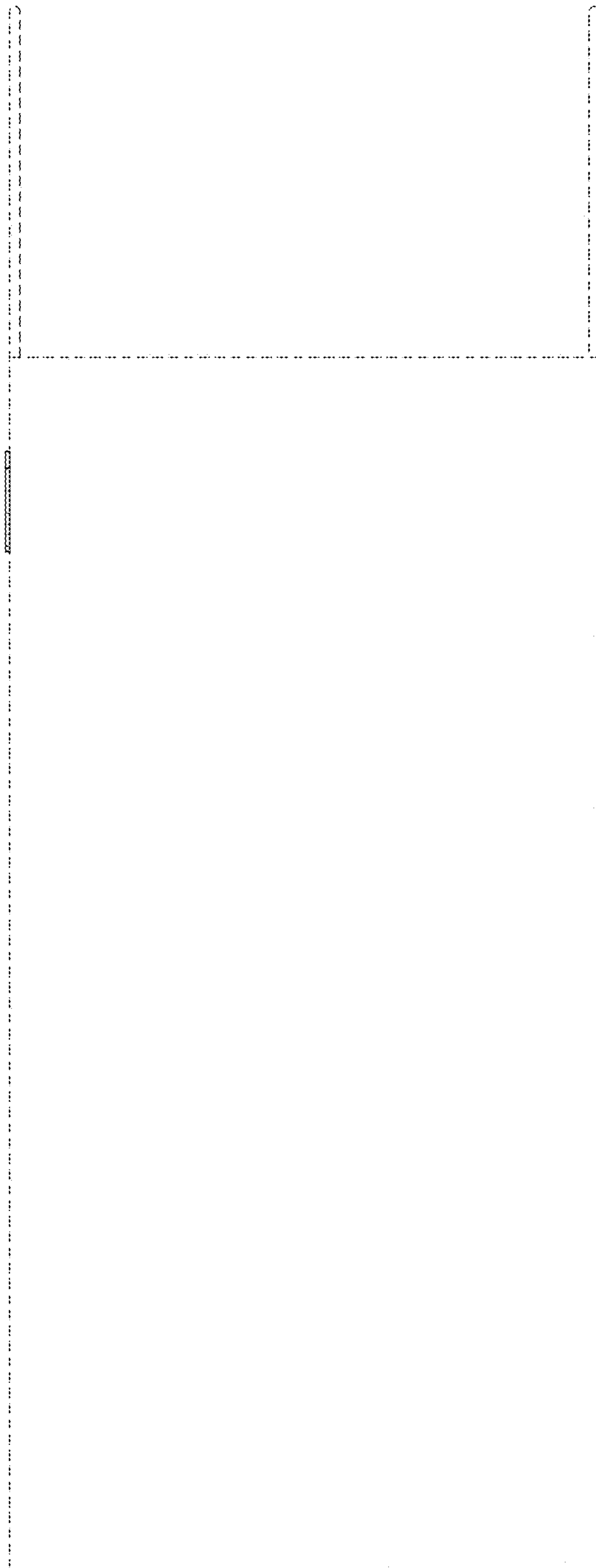


FIG. 14

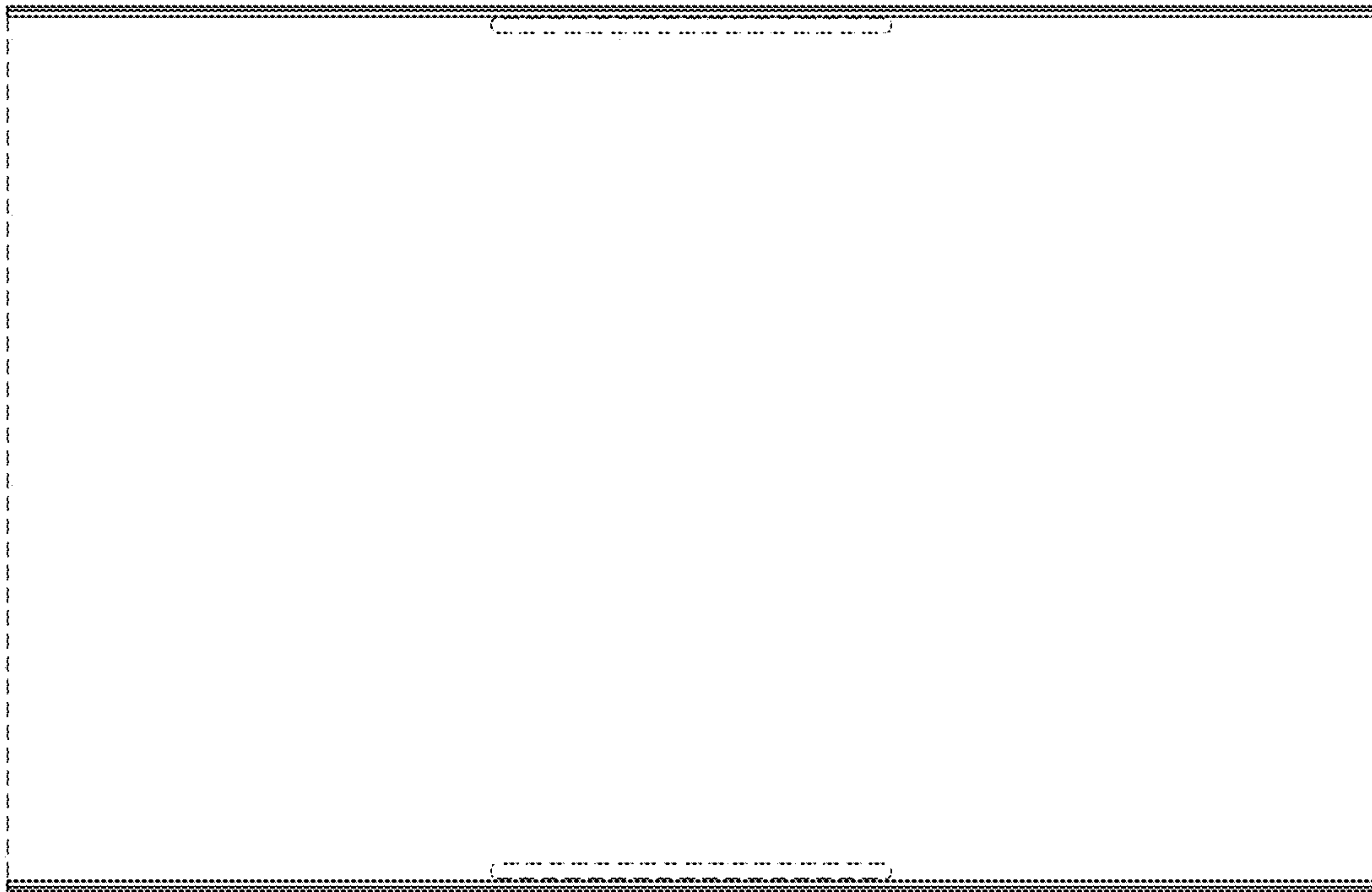


FIG. 15

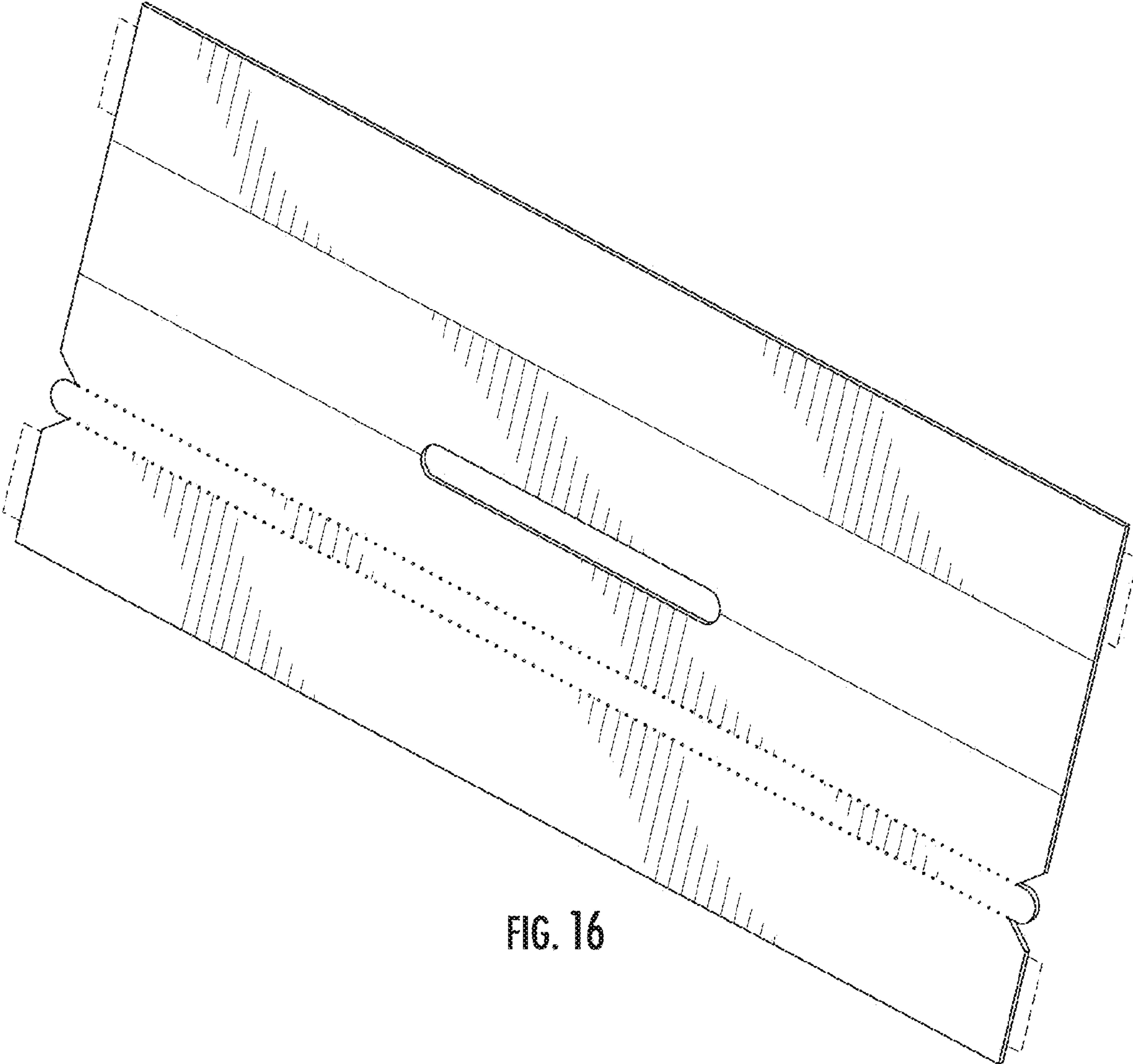


FIG. 16

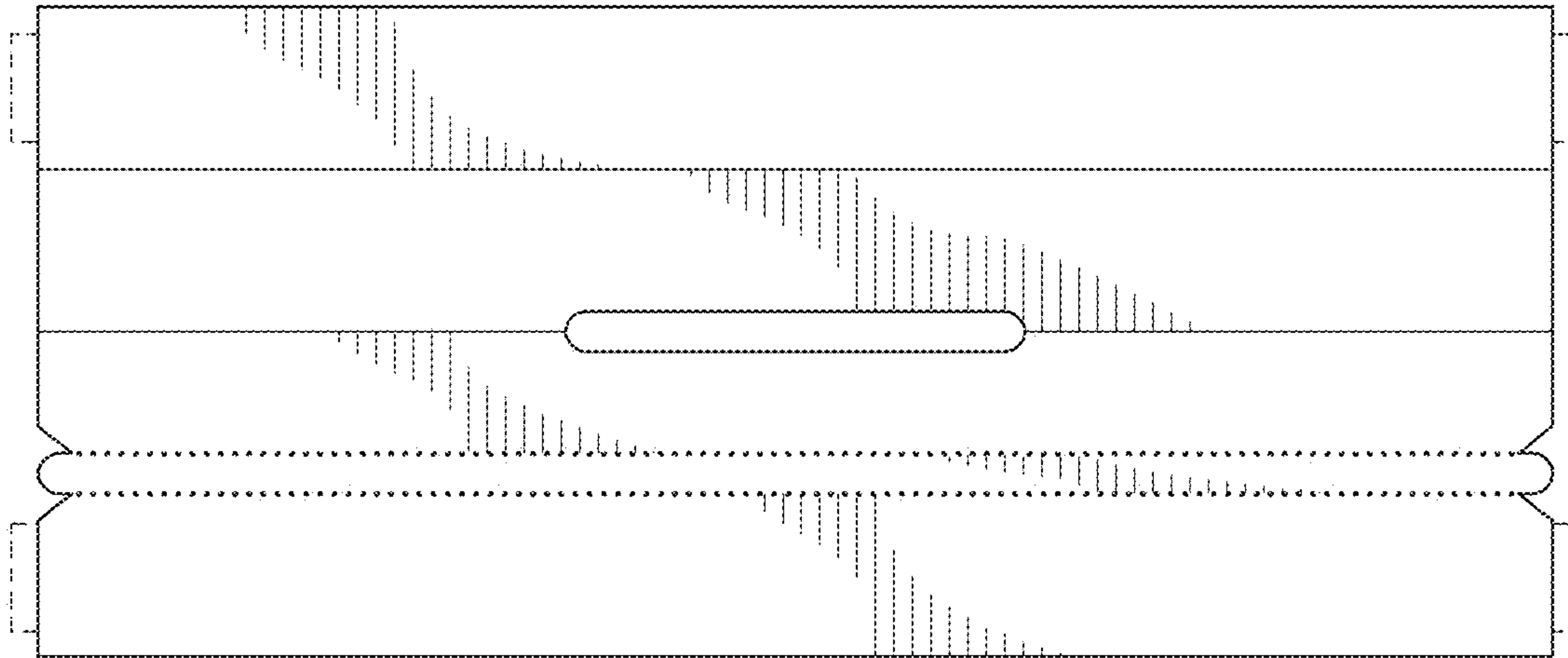


FIG. 17

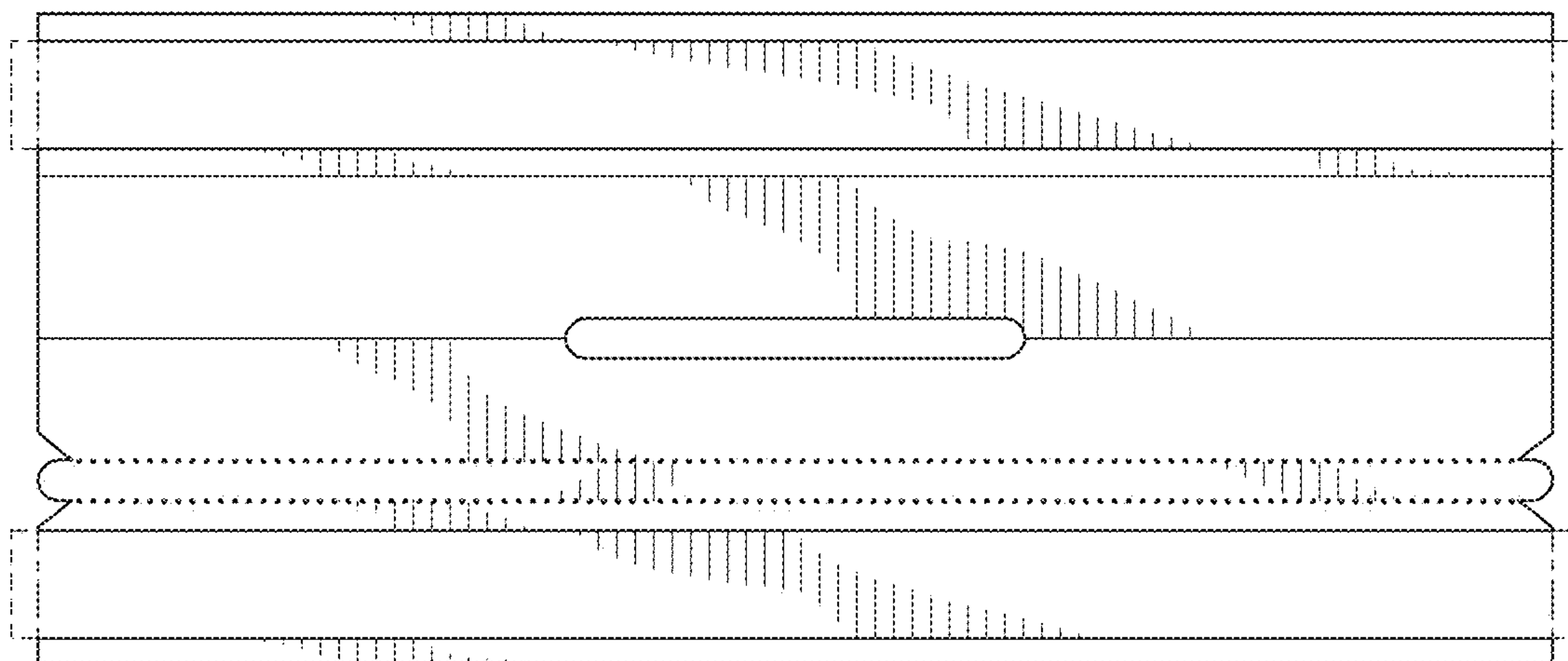


FIG. 18

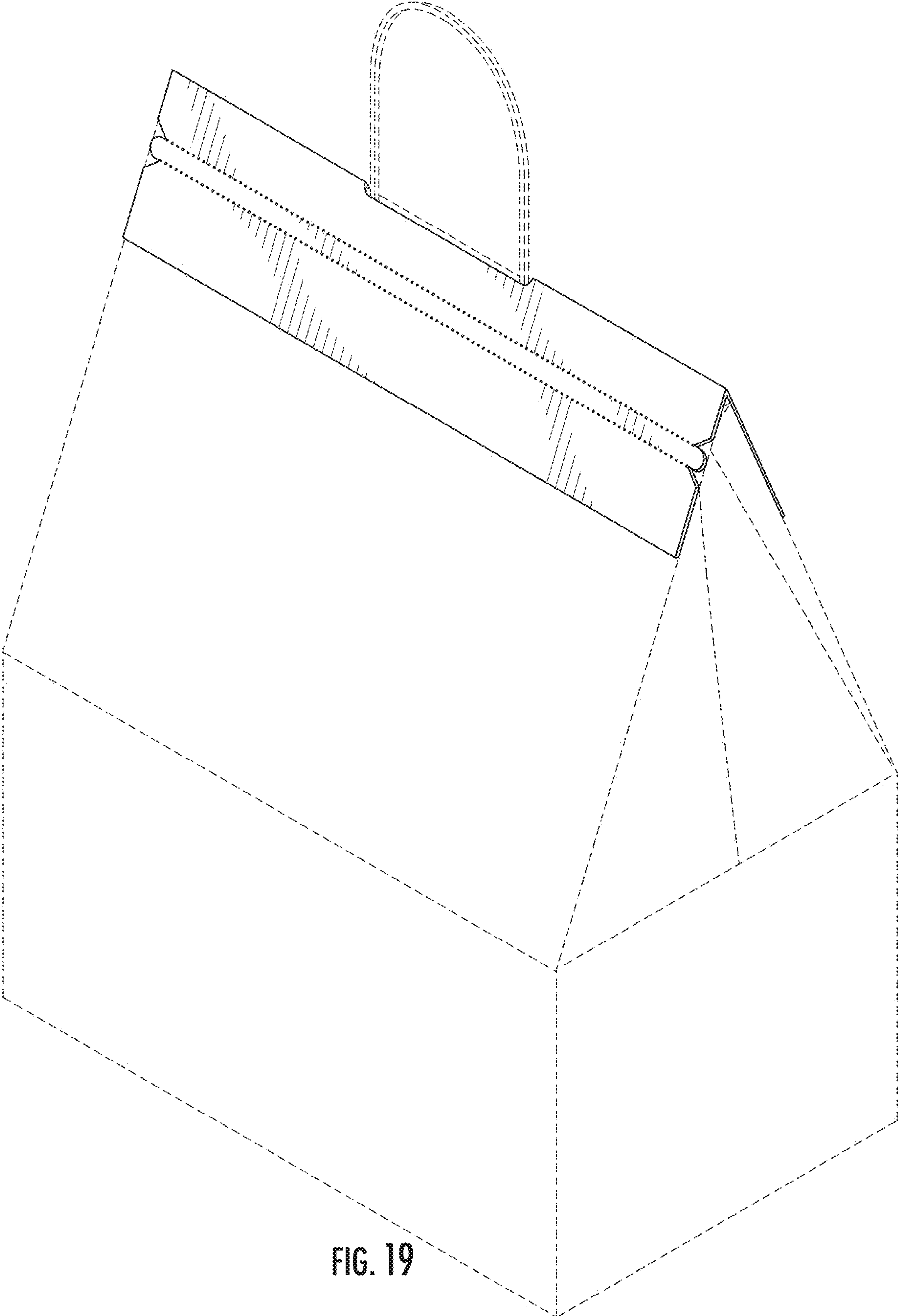


FIG. 19

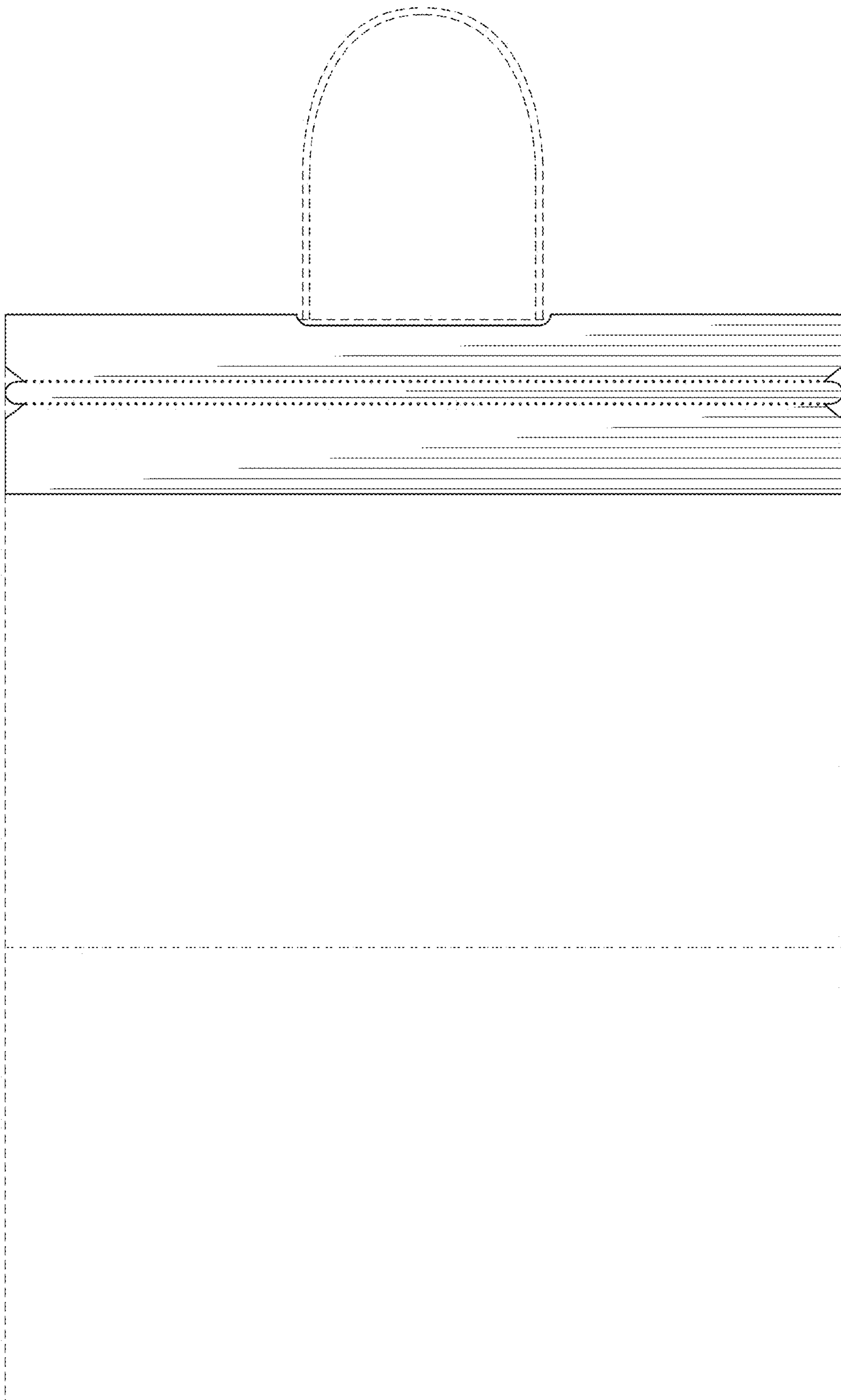


FIG. 20

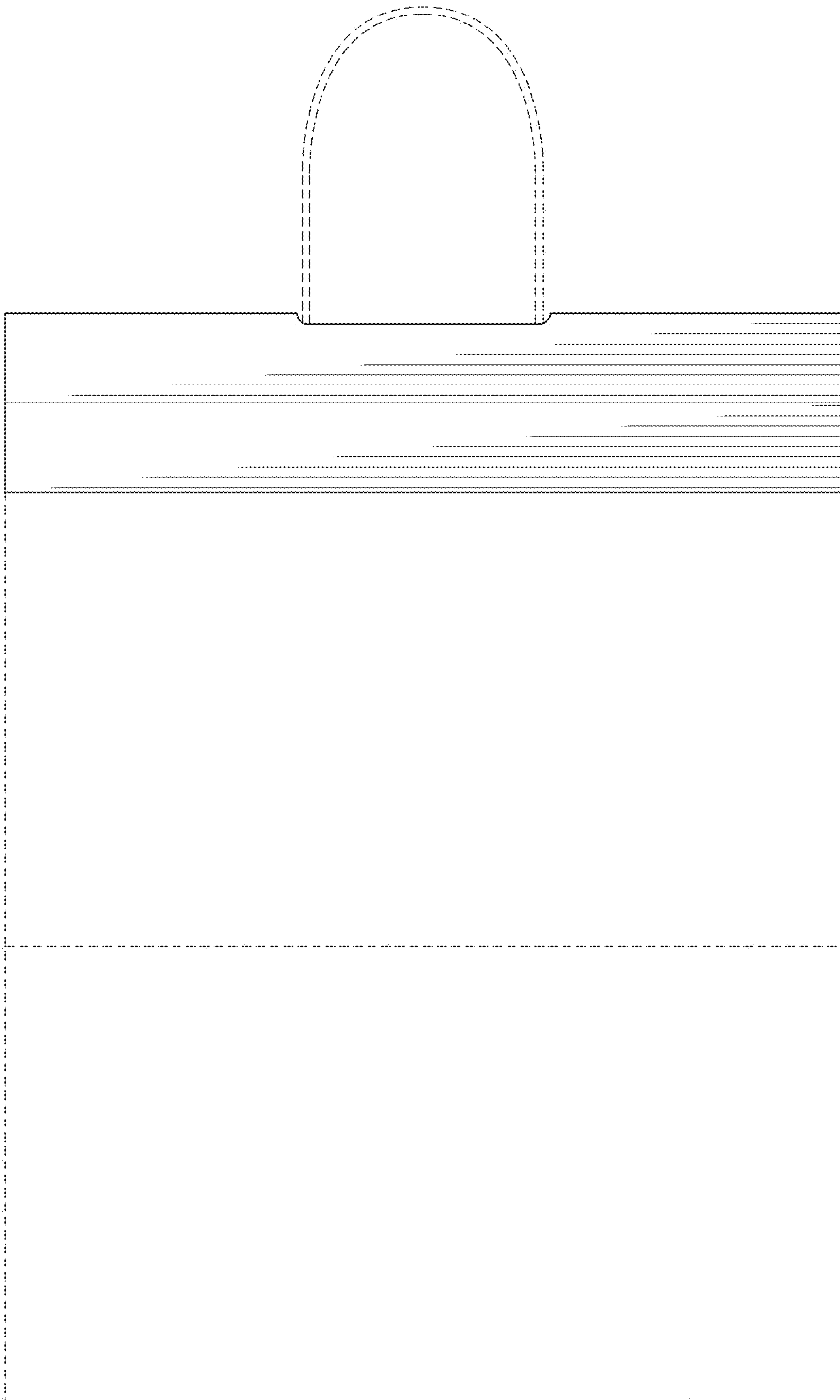


FIG. 21

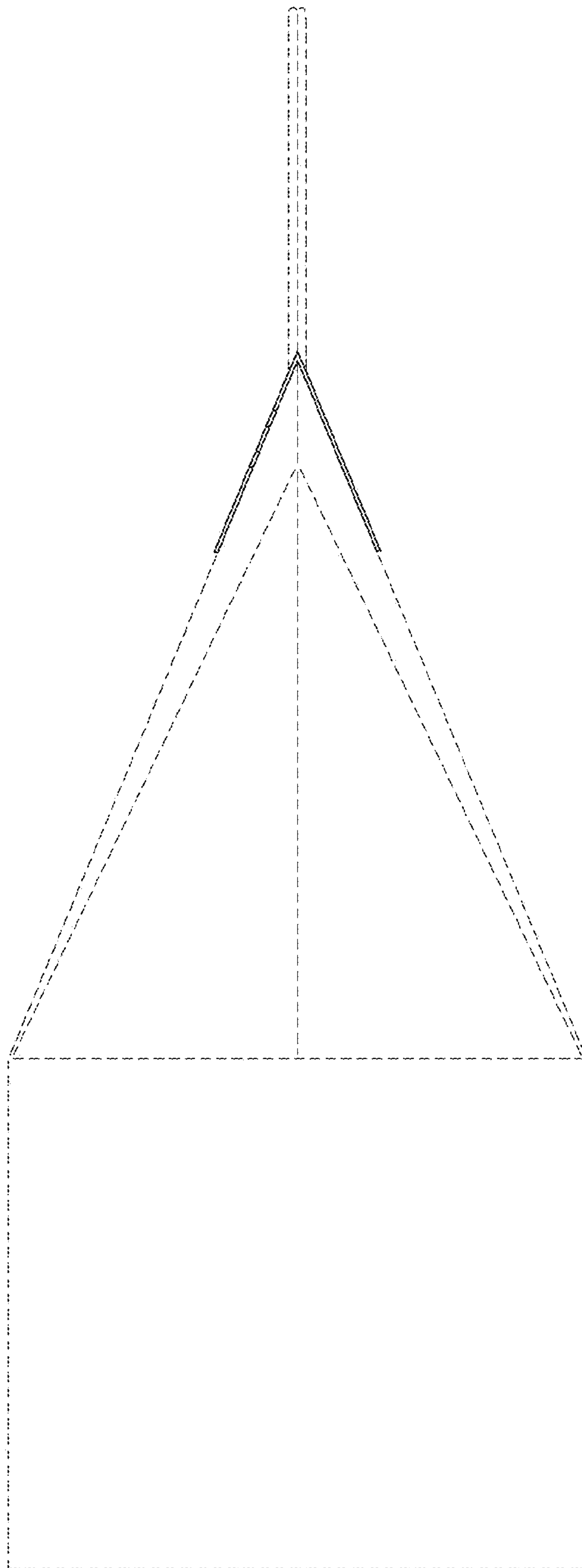


FIG. 22

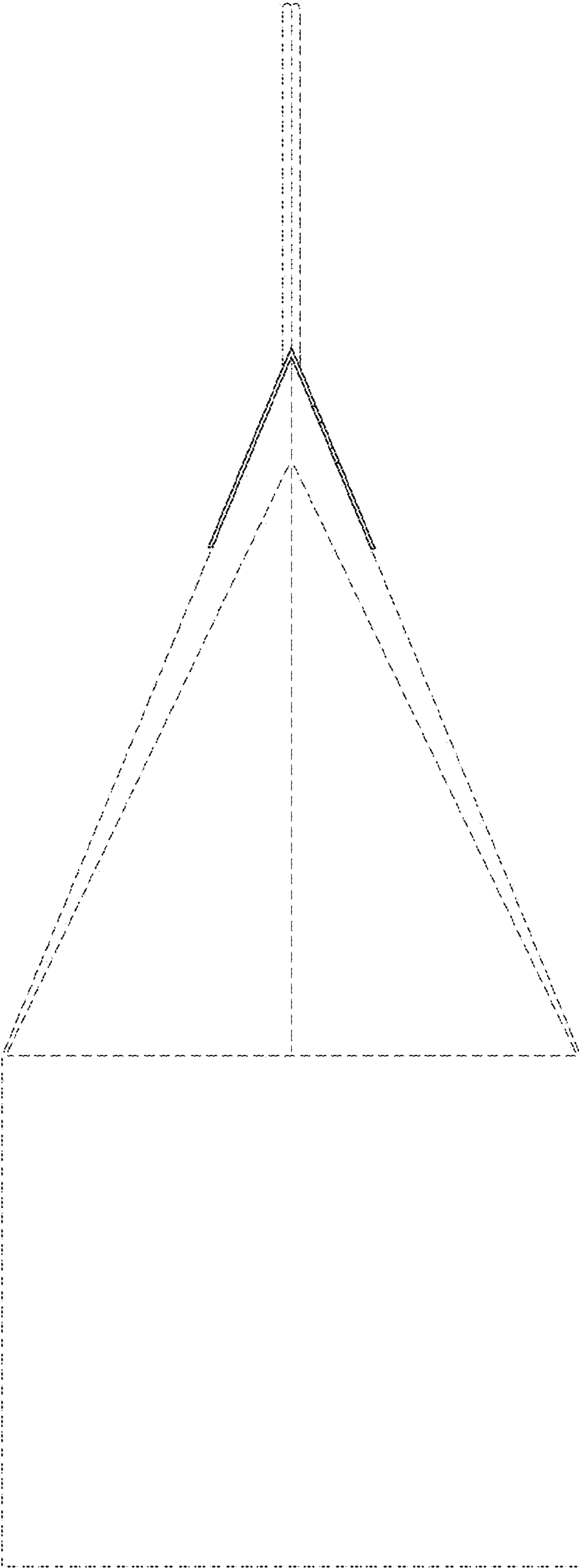


FIG. 23

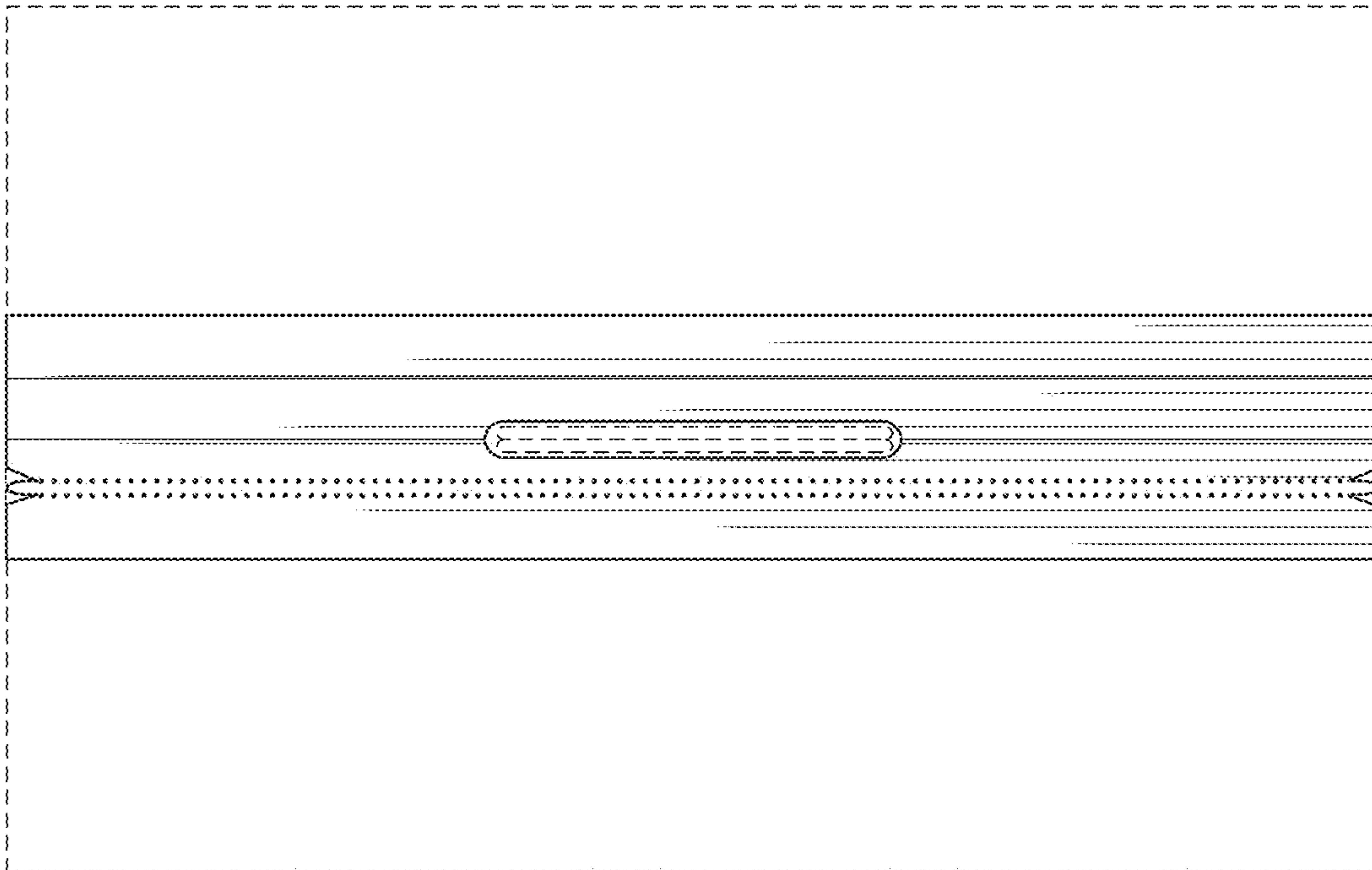


FIG. 24

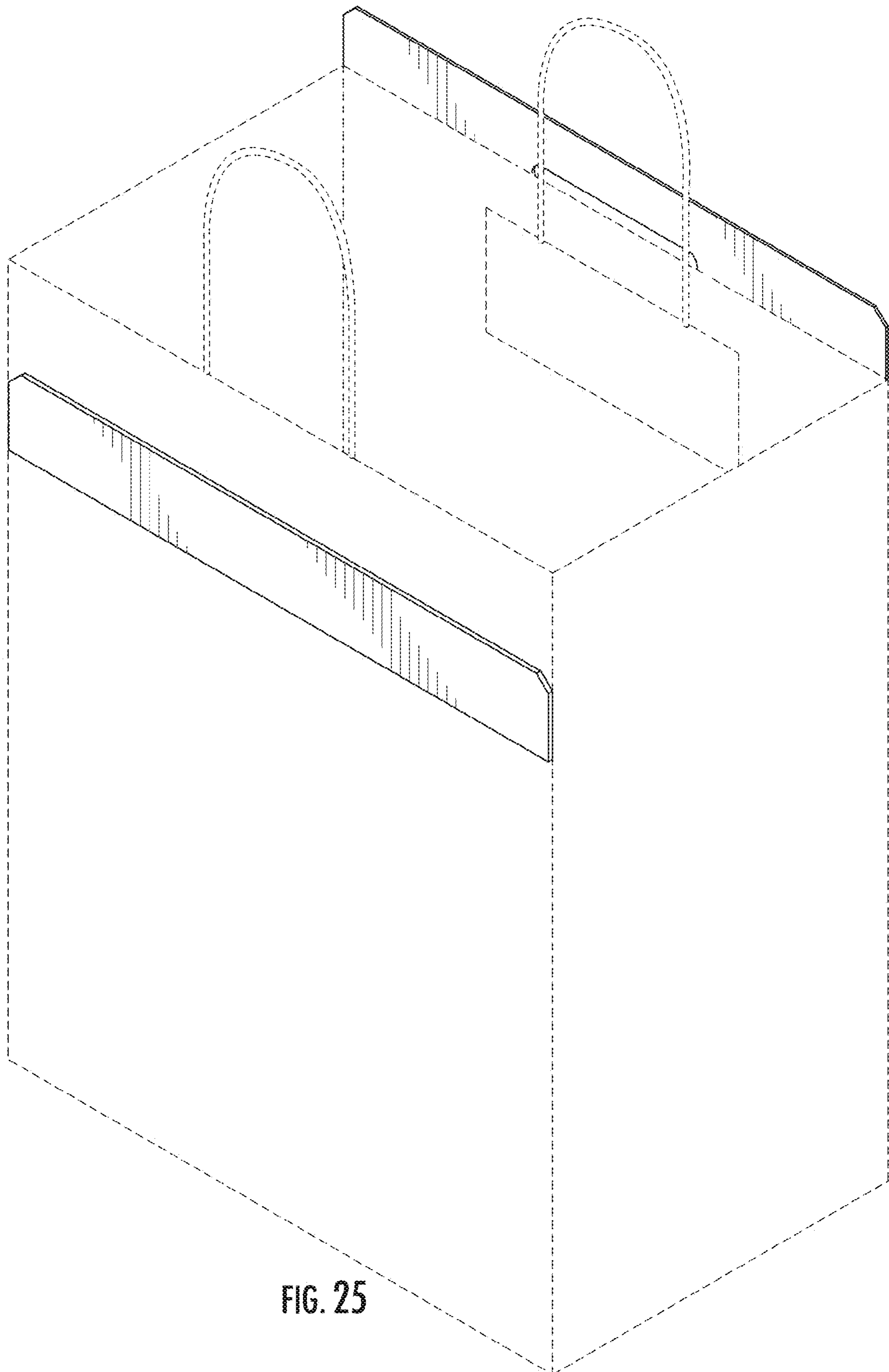


FIG. 25

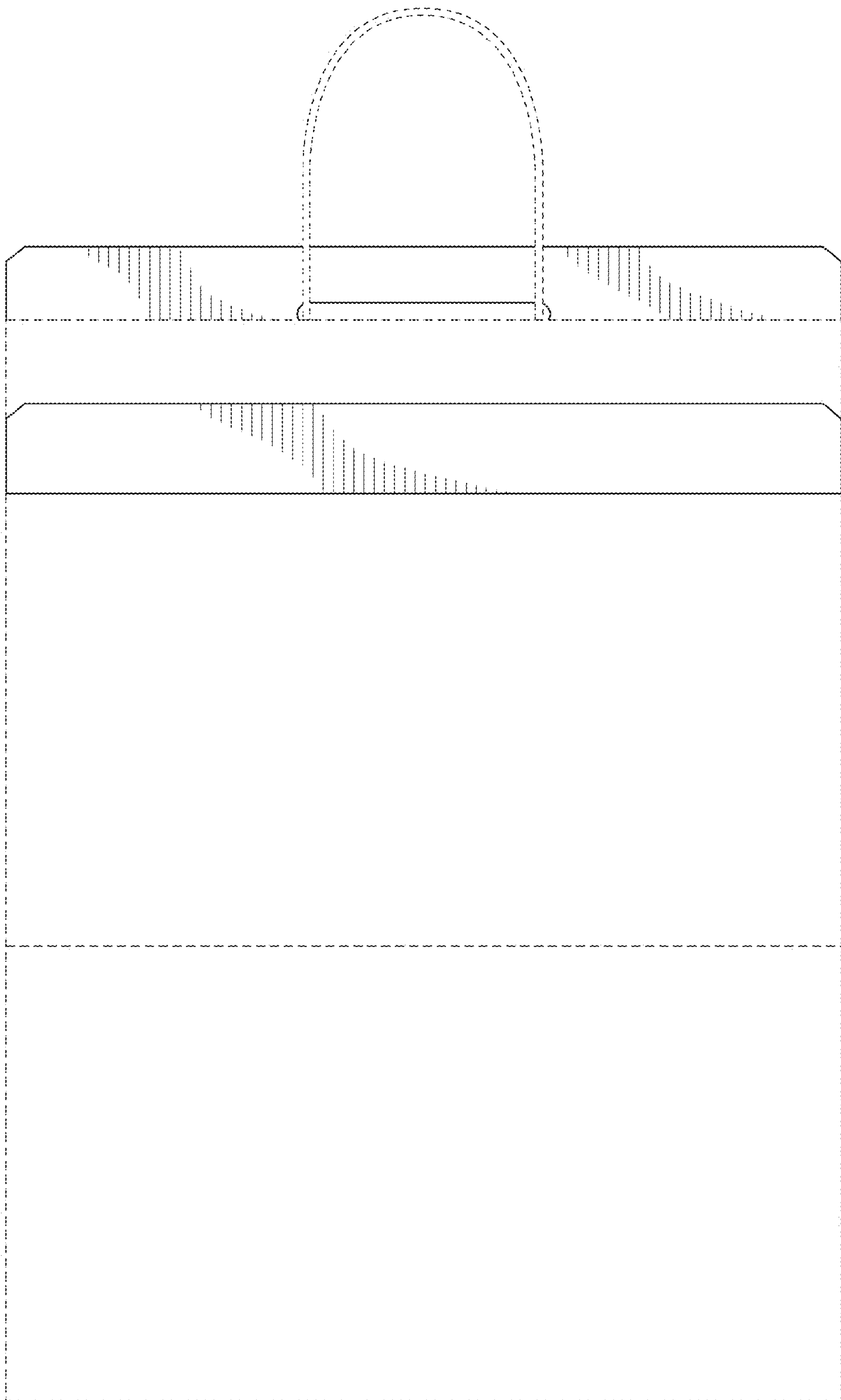


FIG. 26

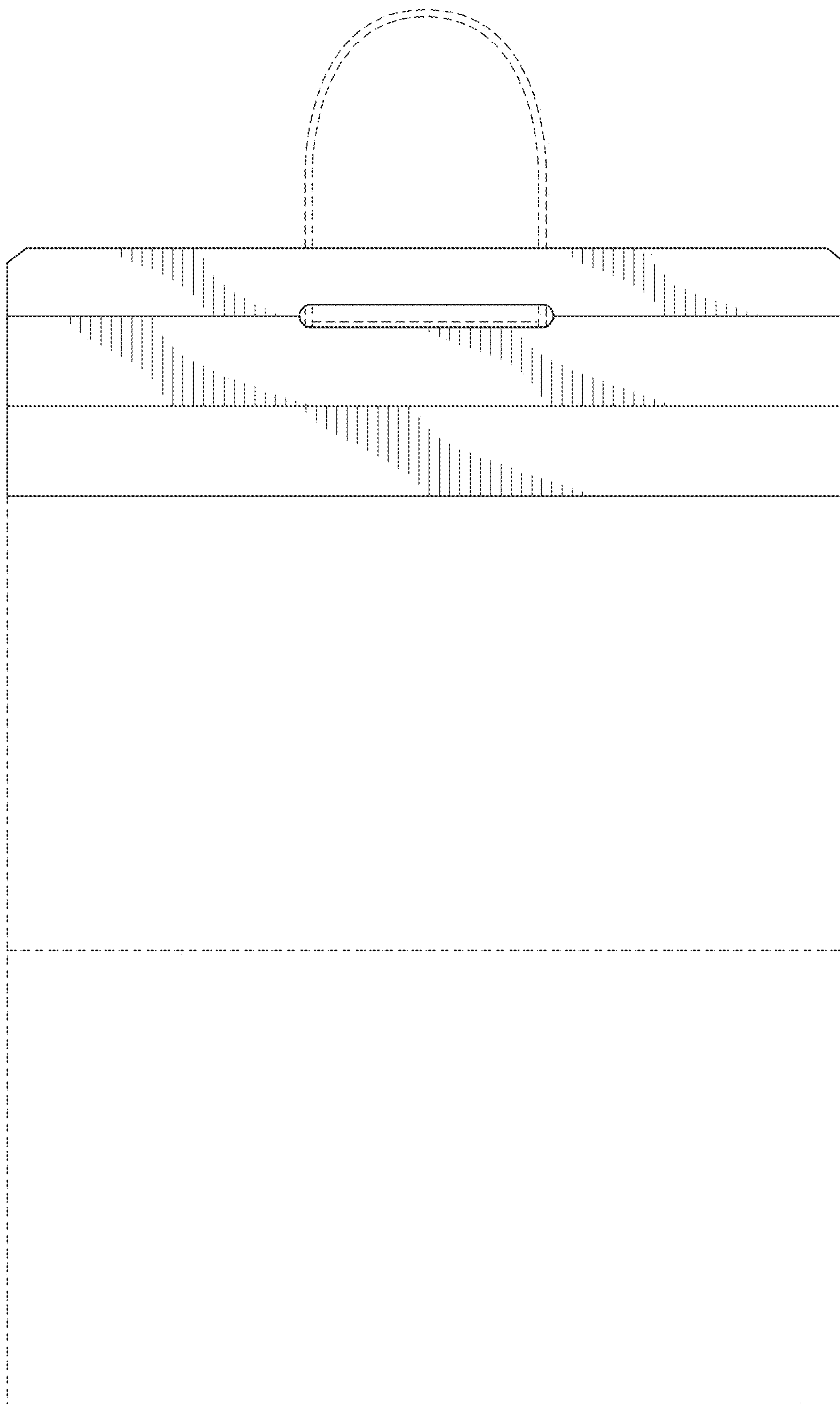


FIG. 27

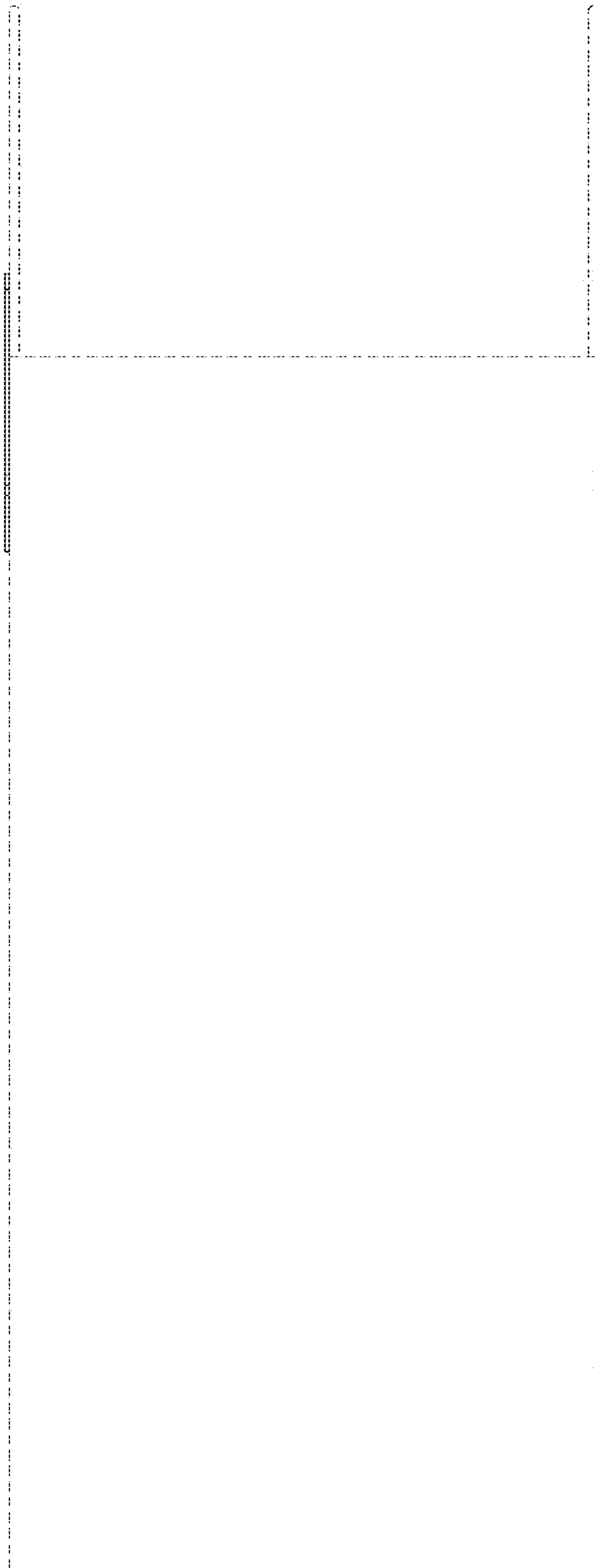


FIG. 28

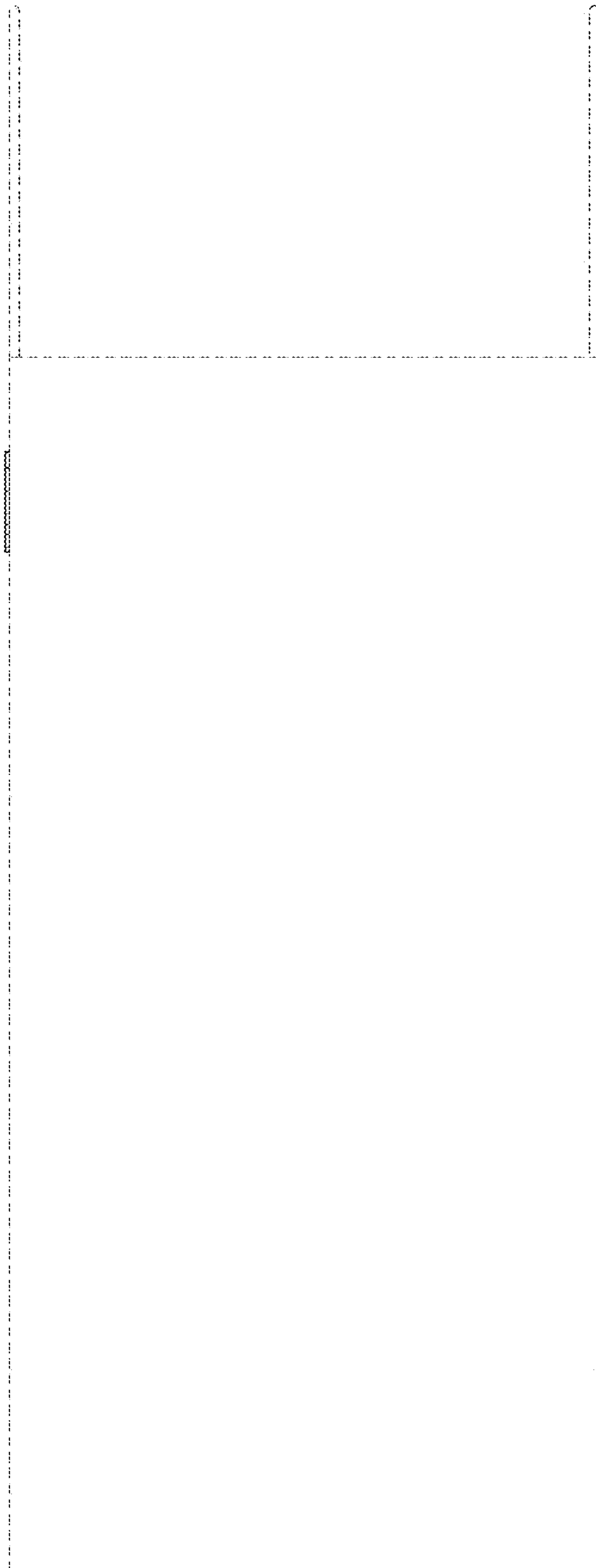


FIG. 29

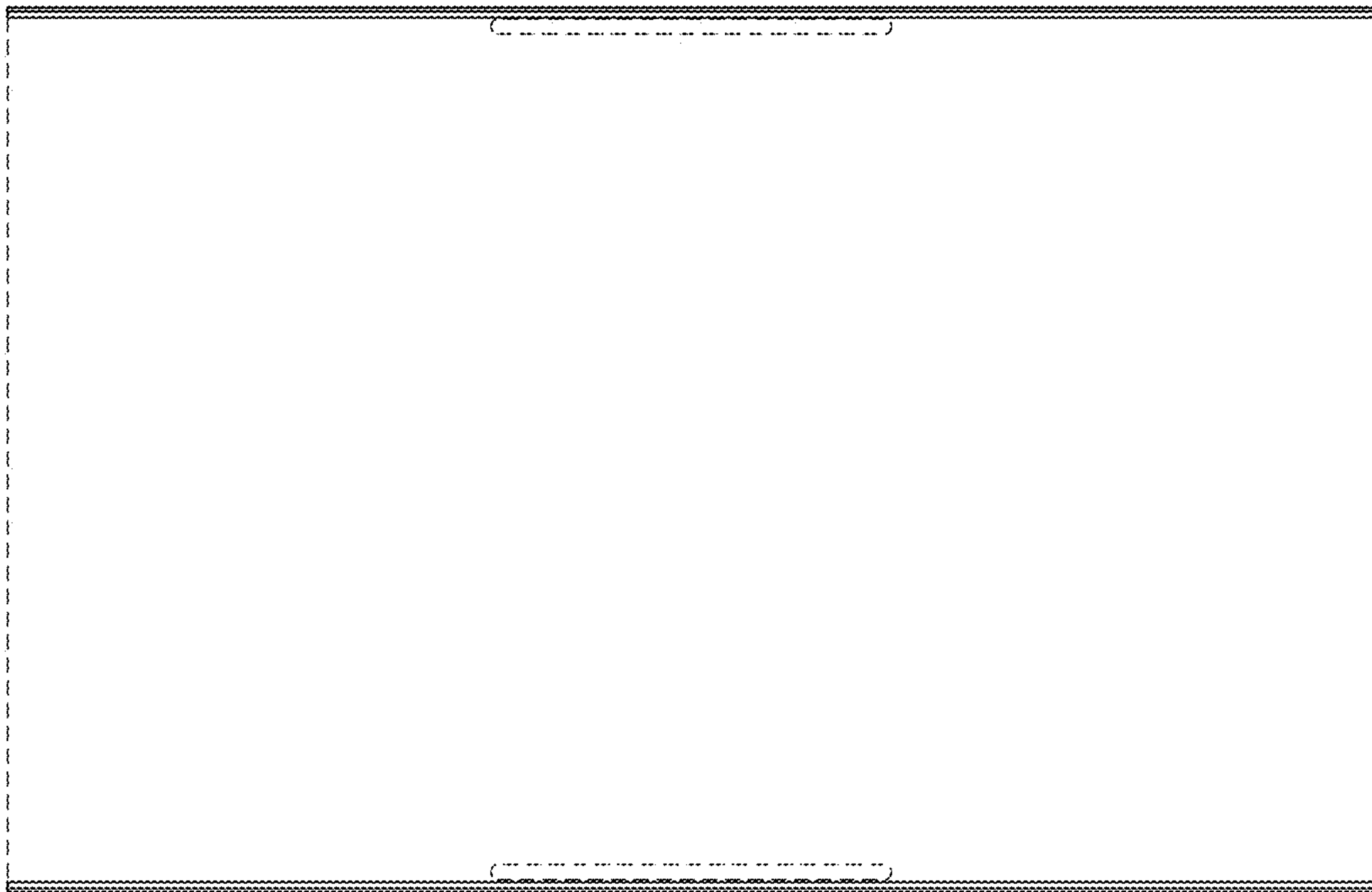


FIG. 30