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

(10) **Patent No.:** **US D843,976 S**

(45) **Date of Patent:** **** Mar. 26, 2019**

(54) **COIL FOR VOICE COIL MOTOR**

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

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(30) **Foreign Application Priority Data**

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(51) **LOC (11) Cl.** **14-01**

(52) **U.S. Cl.**
USPC **D14/221**

(58) **Field of Classification Search**
USPC D14/155, 157, 188, 204, 209.1, 213-214,
D14/217, 221-222, 224, 234, 238, 258,
D14/265

CPC B60R 7/04; B60R 7/043; B60R 11/0217;
B60R 11/0223; B60R 11/02; B60R
2011/0003; H04R 1/02; H04R 1/025;
H04R 5/023; H04R 7/00; H04R 9/04;
H04R 9/02

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,956,826 A * 5/1934 Engholm H04R 9/046
29/602.1
D100,131 S * 6/1936 Stevens D14/194
D241,038 S * 8/1976 Hibdon D14/214
4,088,847 A * 5/1978 Yukimoto H04R 9/046
381/400
D320,603 S * 10/1991 Jones D14/238

(Continued)

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(57) **CLAIM**

The ornamental design for a coil for voice coil motor, as shown and described.

DESCRIPTION

FIG. 1 is a right side perspective view of a coil for voice coil motor according to the invention;

FIG. 2 is a top plan view of the coil for voice coil motor of FIG. 1;

FIG. 3 is a left side elevation view of the coil for voice coil motor of FIG. 1;

FIG. 4 is a right side elevation view of the coil for voice coil motor of FIG. 1;

FIG. 5 is a front elevation view of the coil for voice coil motor of FIG. 1;

FIG. 6 is a rear elevation view of the coil for voice coil motor of FIG. 1;

FIG. 7 is a bottom plan view of coil for voice coil motor of FIG. 1;

FIG. 8 is a close-up perspective view of the coil for voice coil motor shown in FIG. 1, shown separately to show aspects of the design that may not be apparent in the full sized views;

FIG. 9 is a top plan view thereof;

FIG. 10 is a rear elevation view thereof;

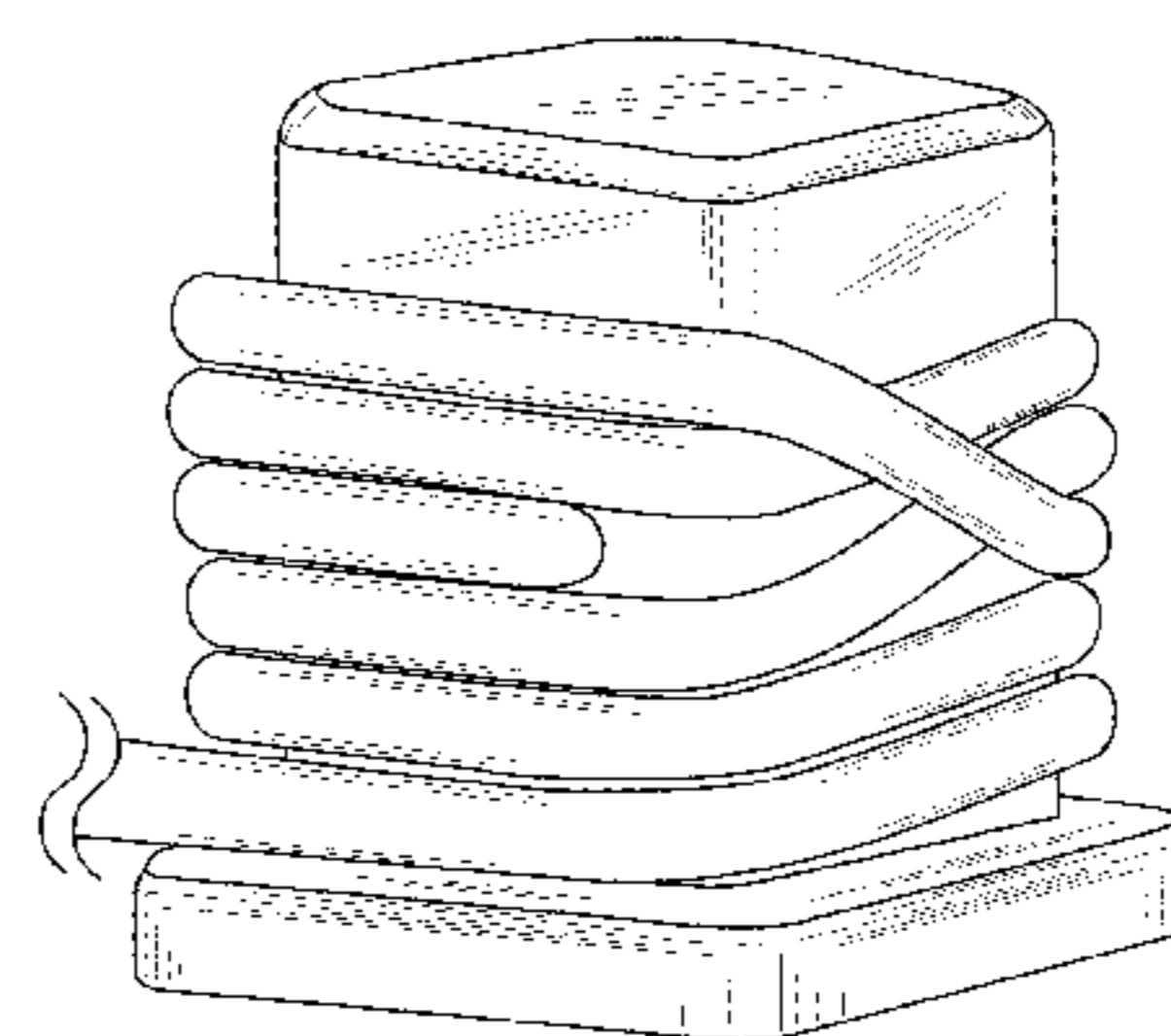
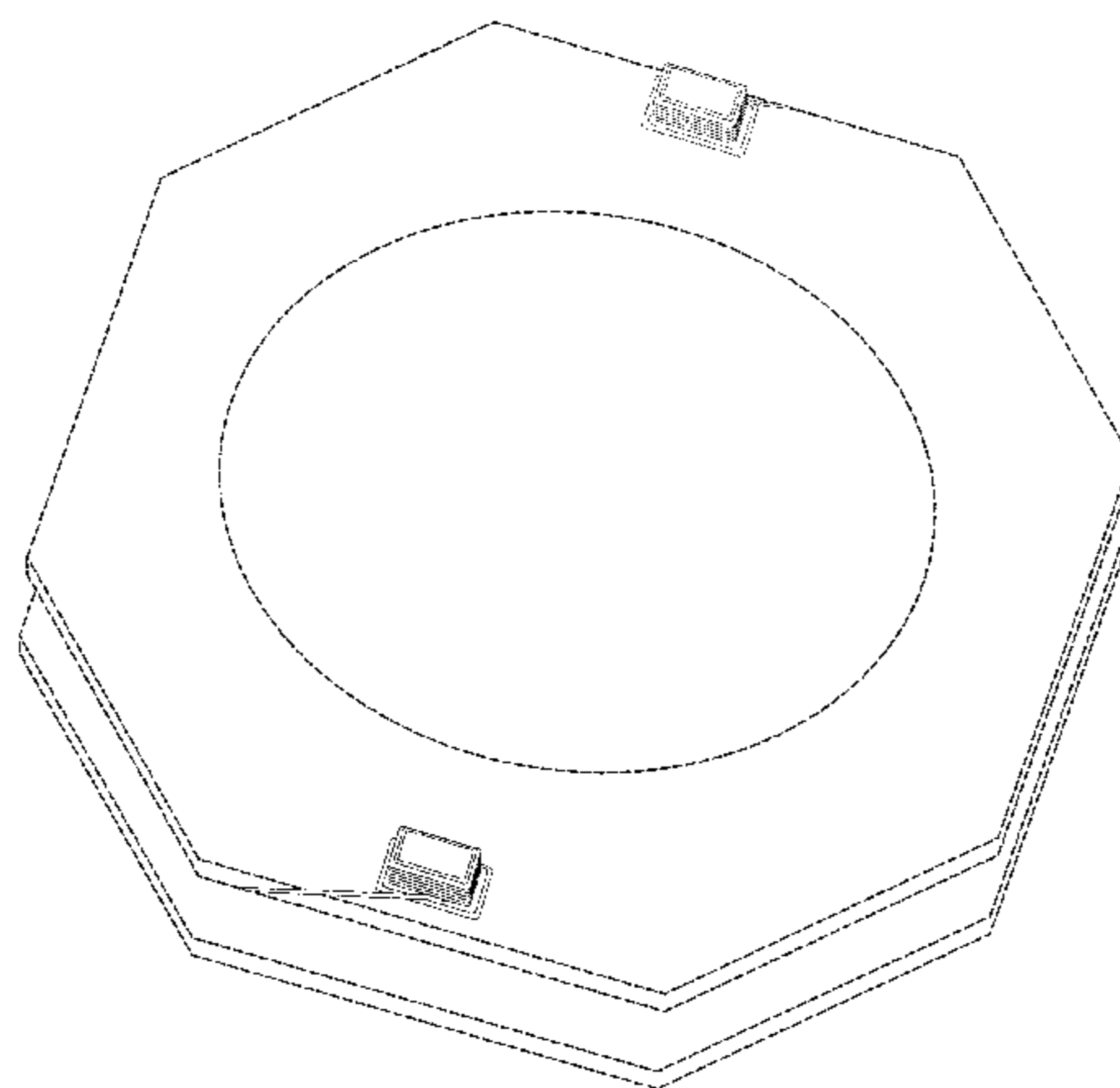
FIG. 11 is a front elevation view thereof;

FIG. 12 is a left elevation view thereof; and,

FIG. 13 is a right elevation view thereof.

The broken line showing of the voice coil motor in FIGS. 1-7 depicts environment and forms no part of the claimed design. The coil for voice coil motor is shown with a symbolic break in its length. The appearance of any portion of the article between or after the break lines forms no part of the claimed design.

1 Claim, 13 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D361,071 S * 8/1995 Mark D14/211
D442,547 S * 5/2001 Takebuchi D13/117
D721,651 S * 1/2015 Iwakura D13/117
D734,731 S * 7/2015 Kurs H01F 5/003
D13/182
9,305,695 B2 * 4/2016 Karasek H01F 17/045
D767,533 S * 9/2016 Mchatet D14/214
D798,814 S * 10/2017 Takagi D13/117
D812,590 S * 3/2018 Modestine D14/214
2002/0101319 A1 * 8/2002 Komiya H01F 17/045
336/174
2007/0053546 A1 * 3/2007 Ishigaki H04R 9/046
381/407
2009/0274337 A1 * 11/2009 Goto H04R 9/046
381/409
2010/0109827 A1 * 5/2010 Asou H01F 17/045
336/192
2012/0074899 A1 * 3/2012 Tsai H02J 5/005
320/108
2013/0049914 A1 * 2/2013 Huang H01F 27/292
336/192

* cited by examiner

FIG. 1

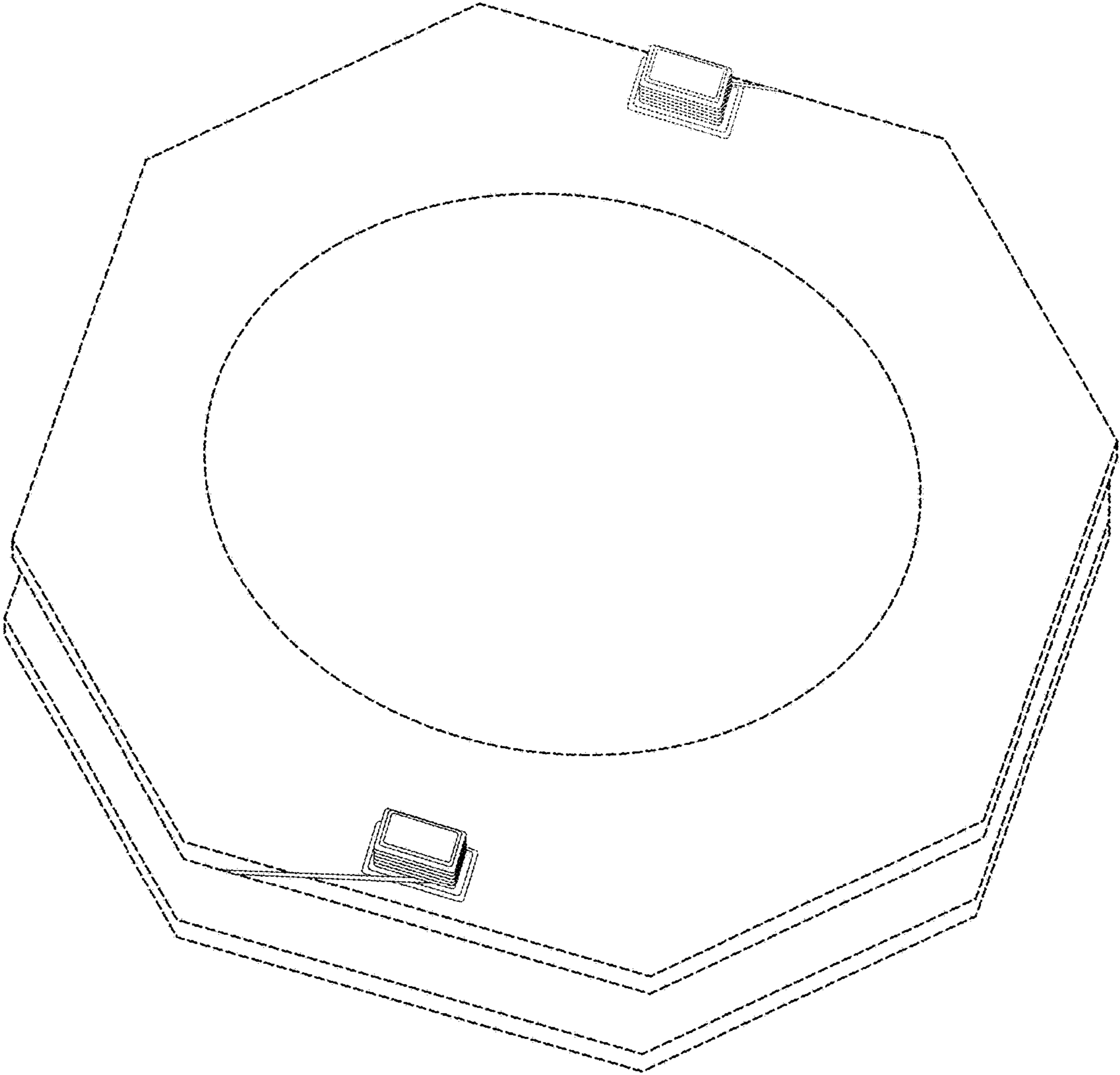


FIG. 2

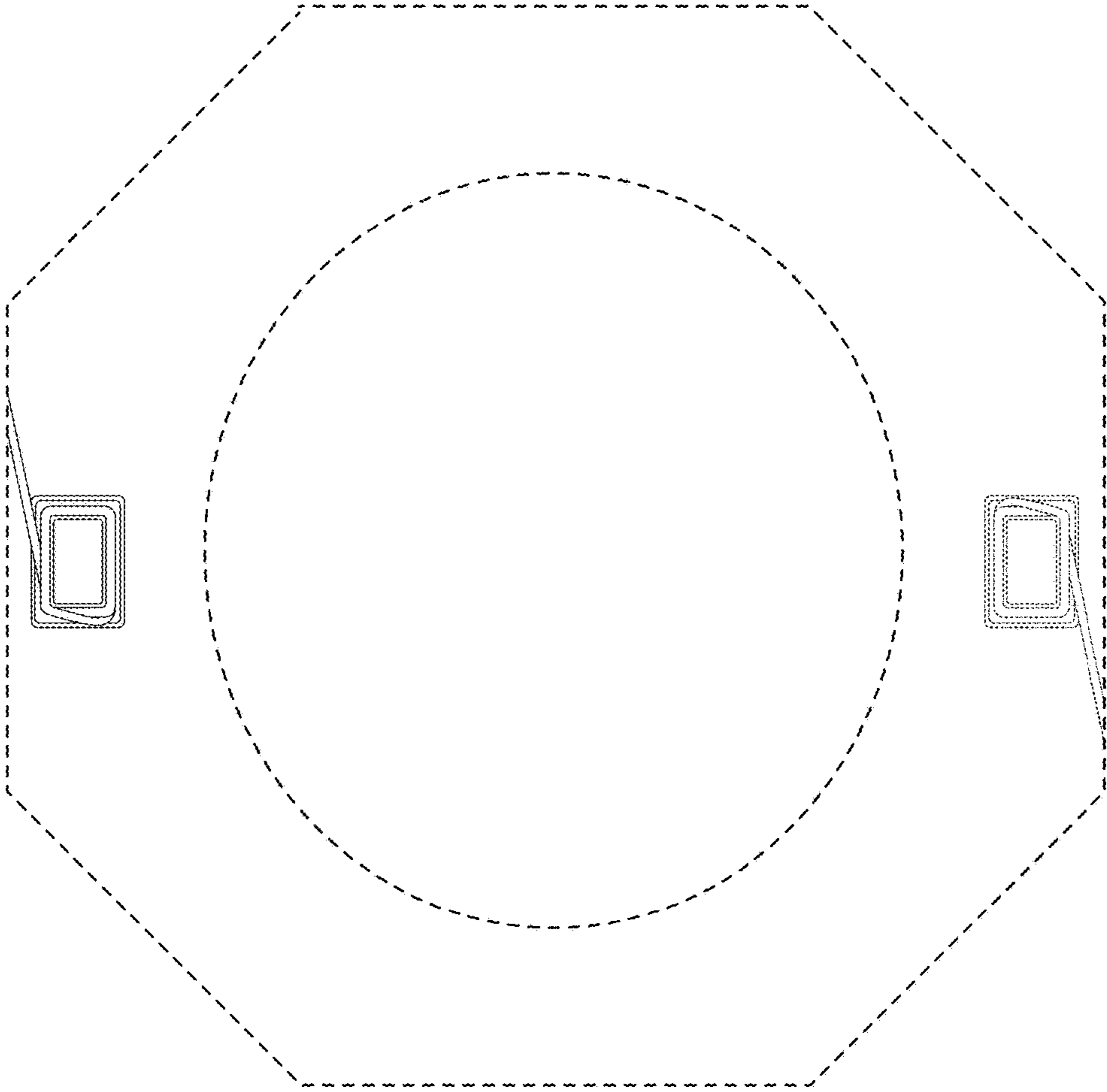


FIG. 3

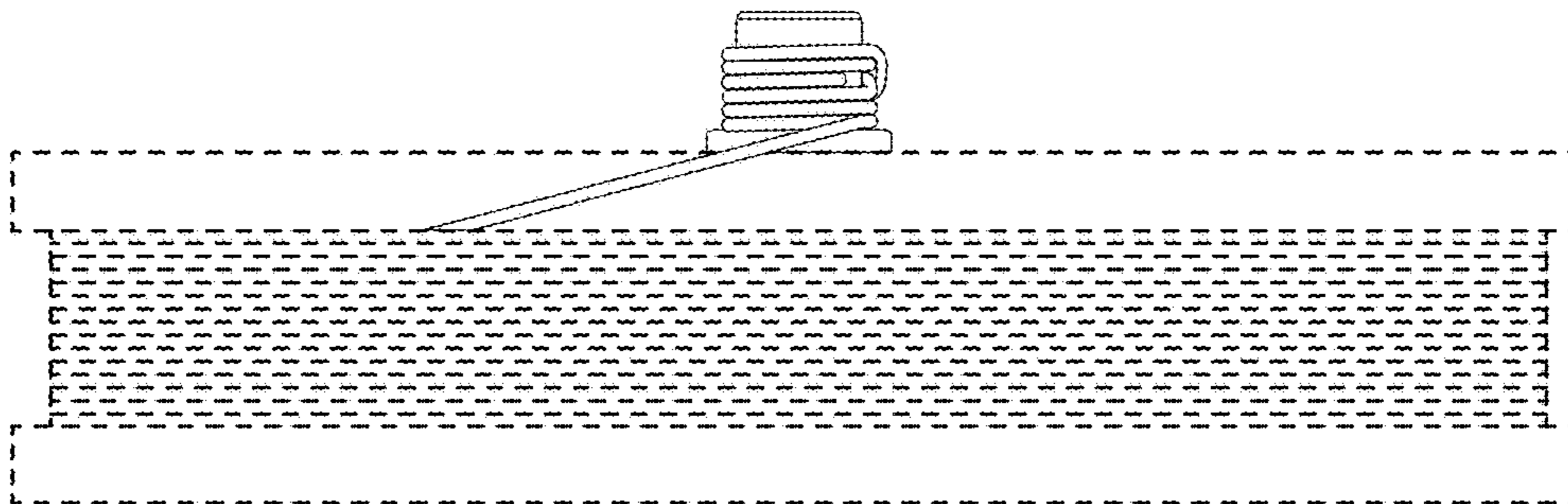


FIG. 4

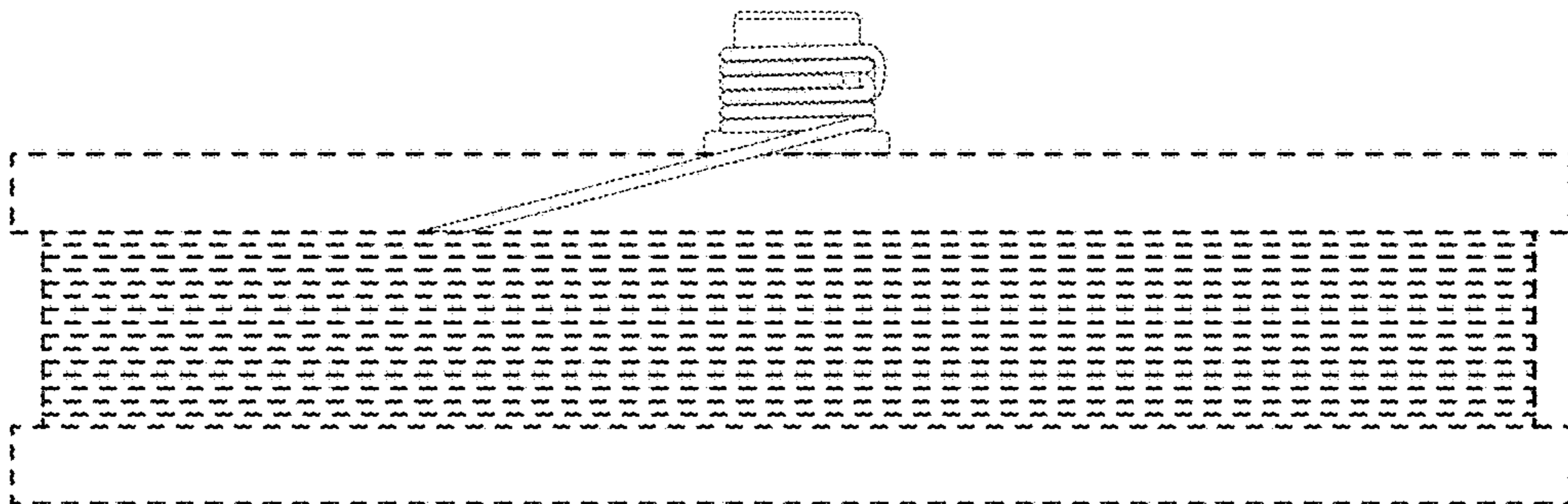


FIG. 5

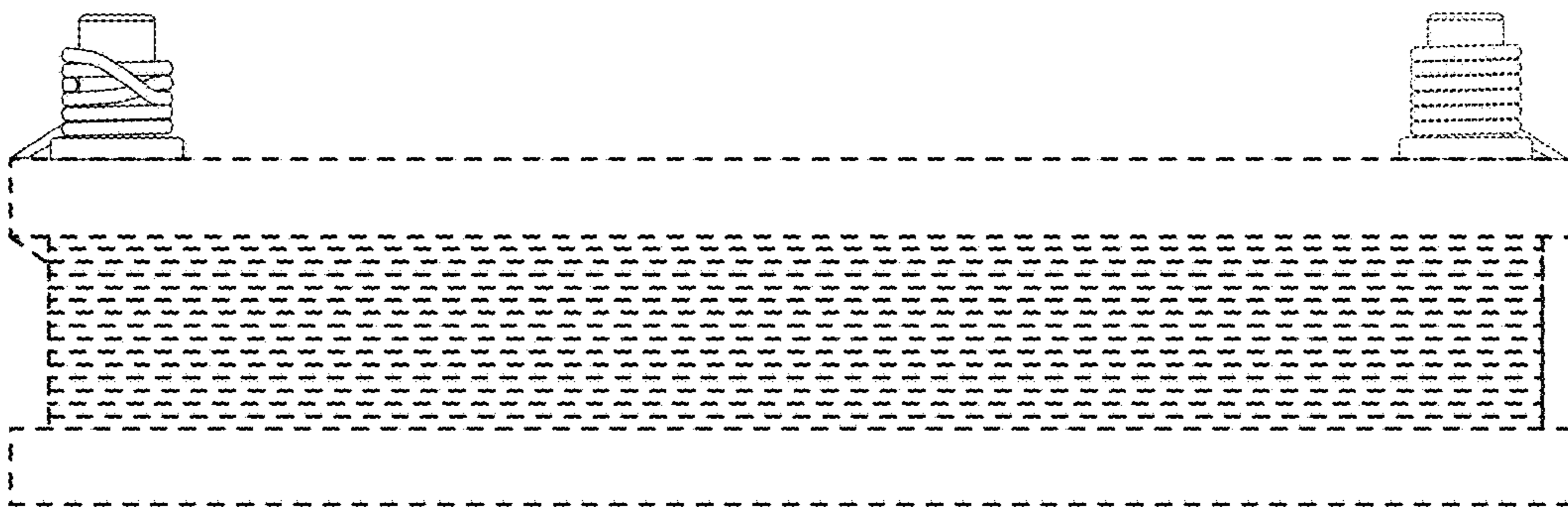


FIG. 6

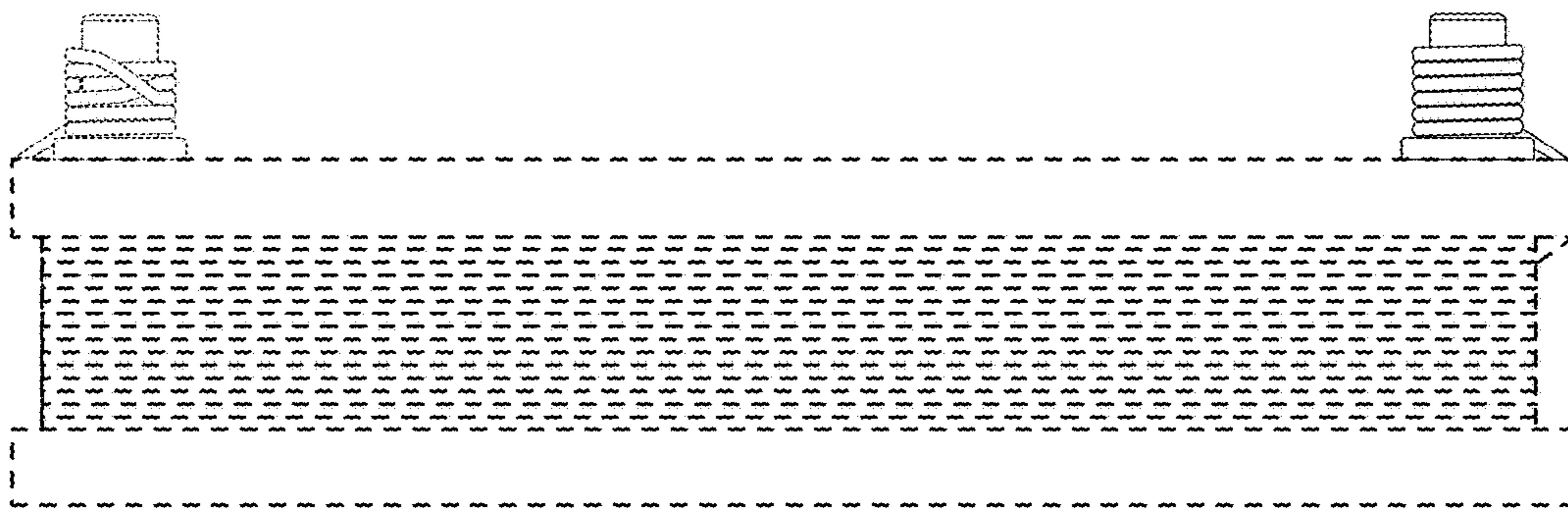


FIG. 7

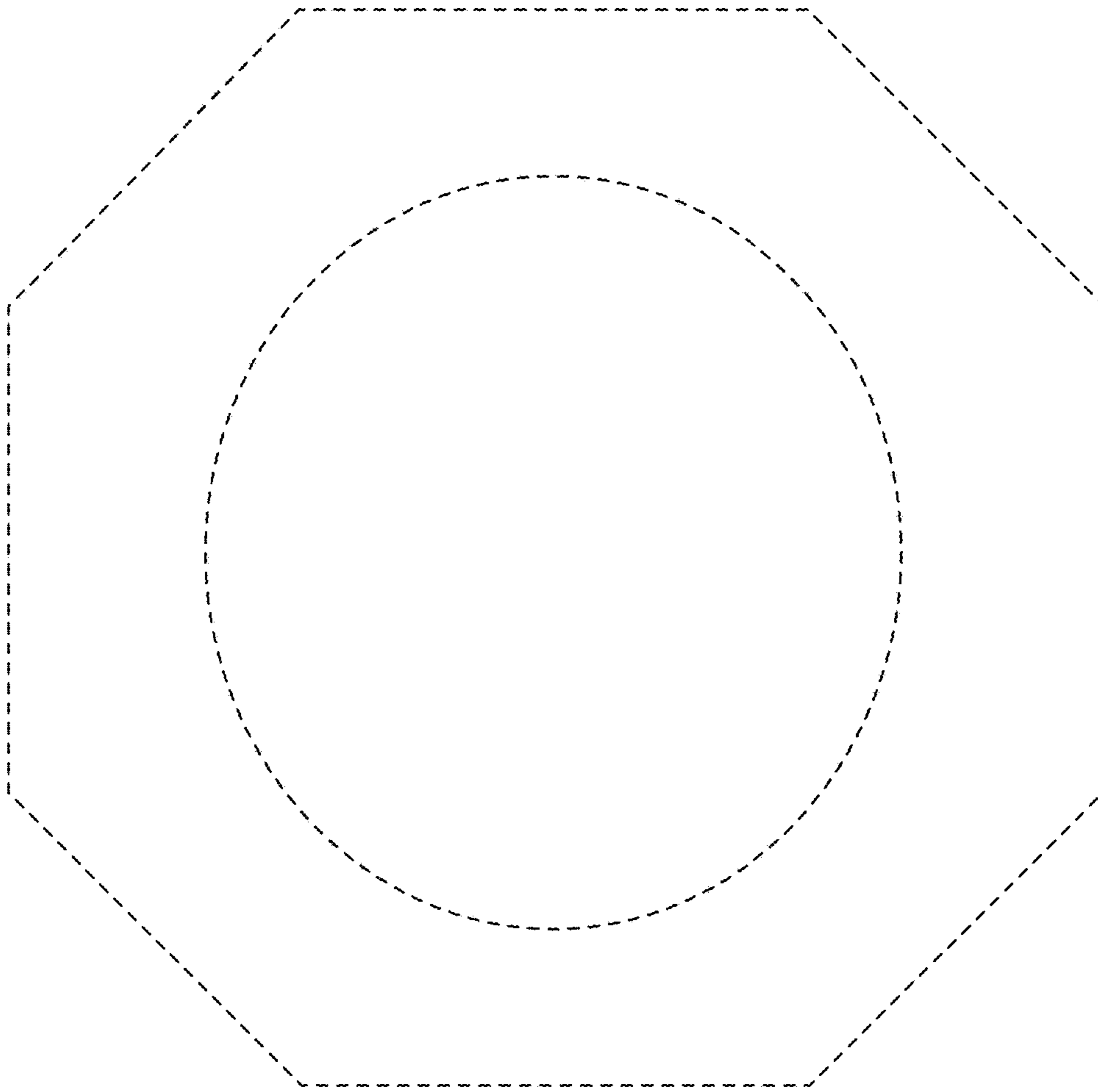


FIG. 8

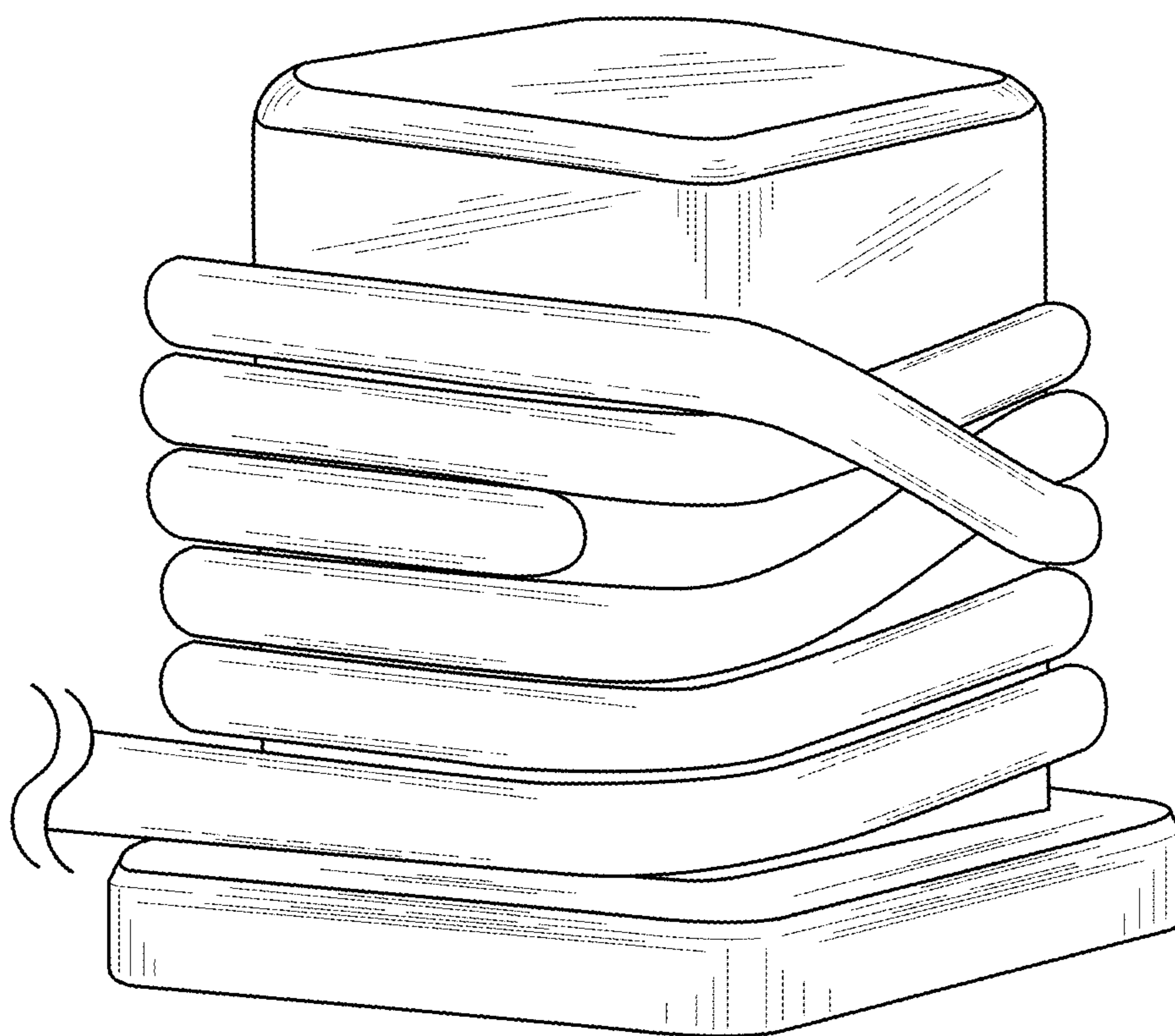


FIG. 9

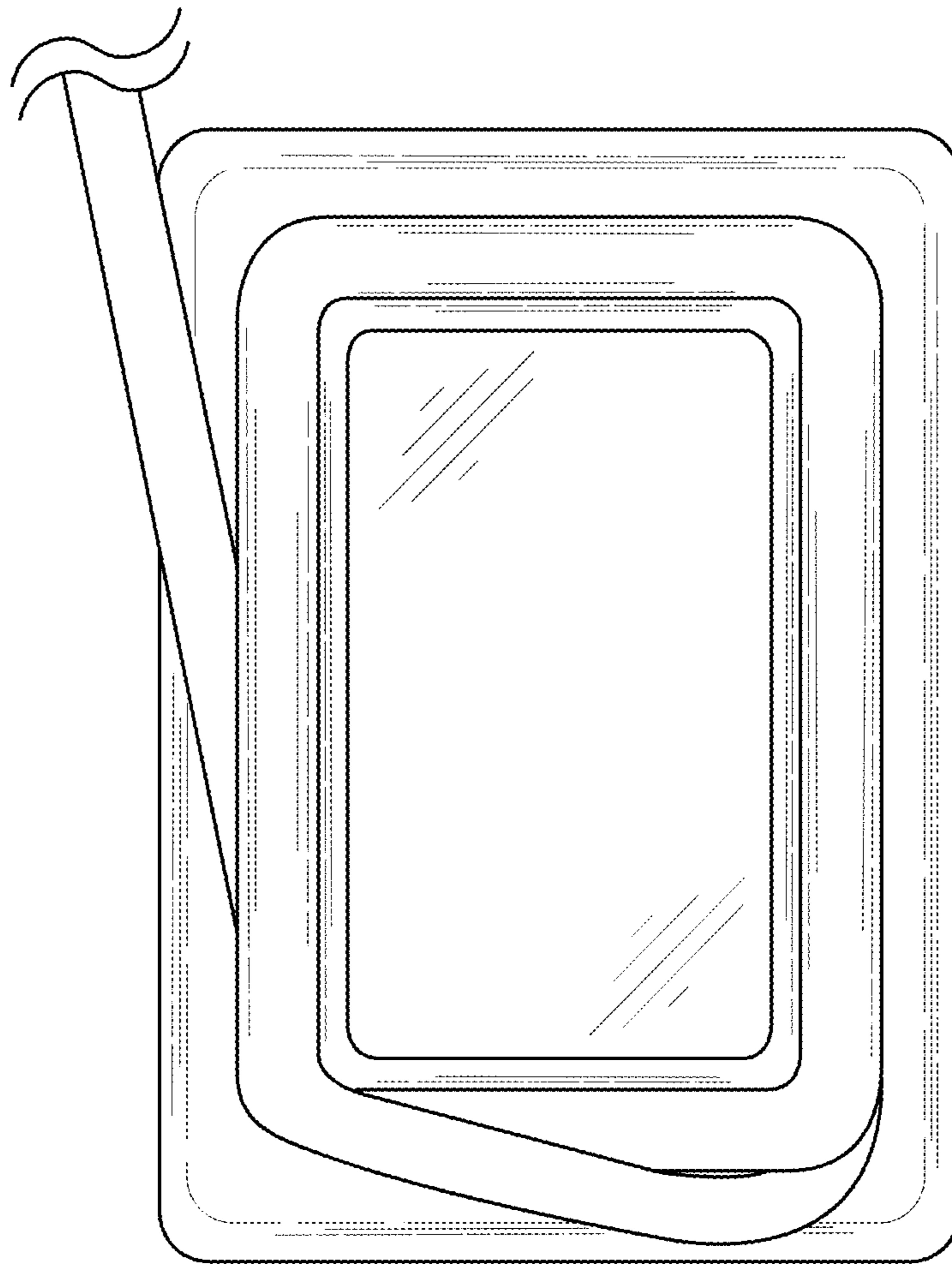


FIG. 10

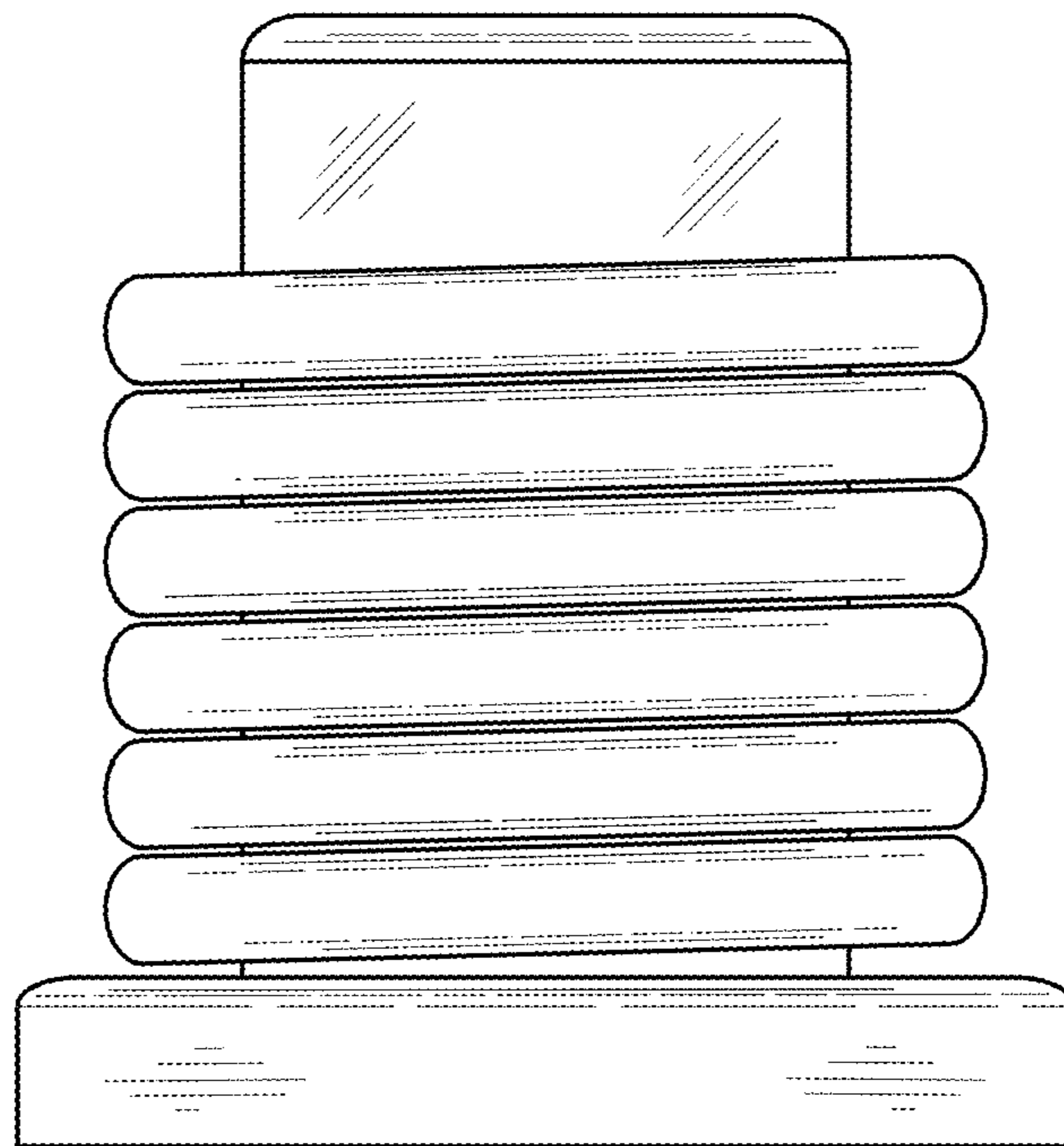


FIG. 11

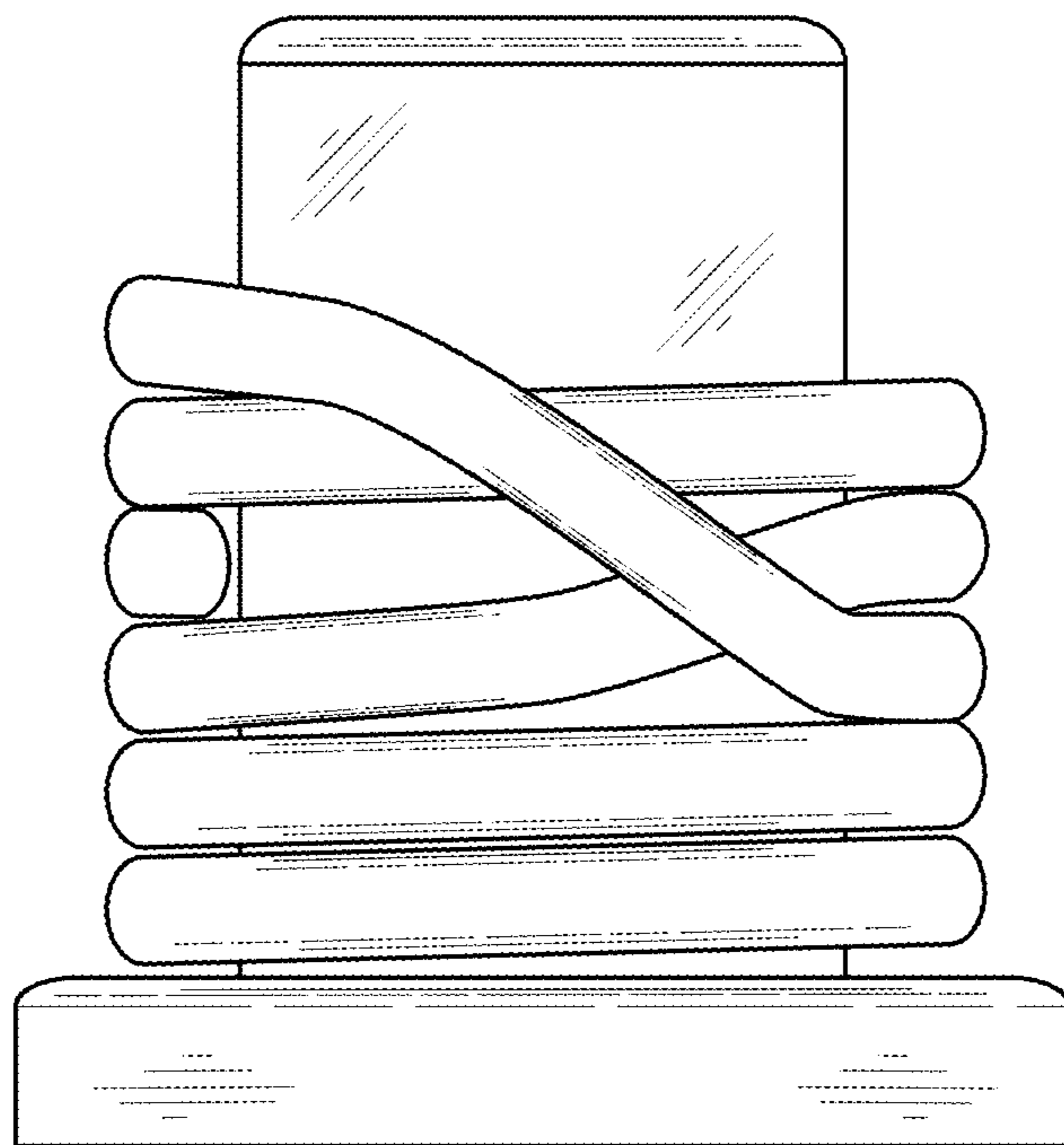


FIG. 12

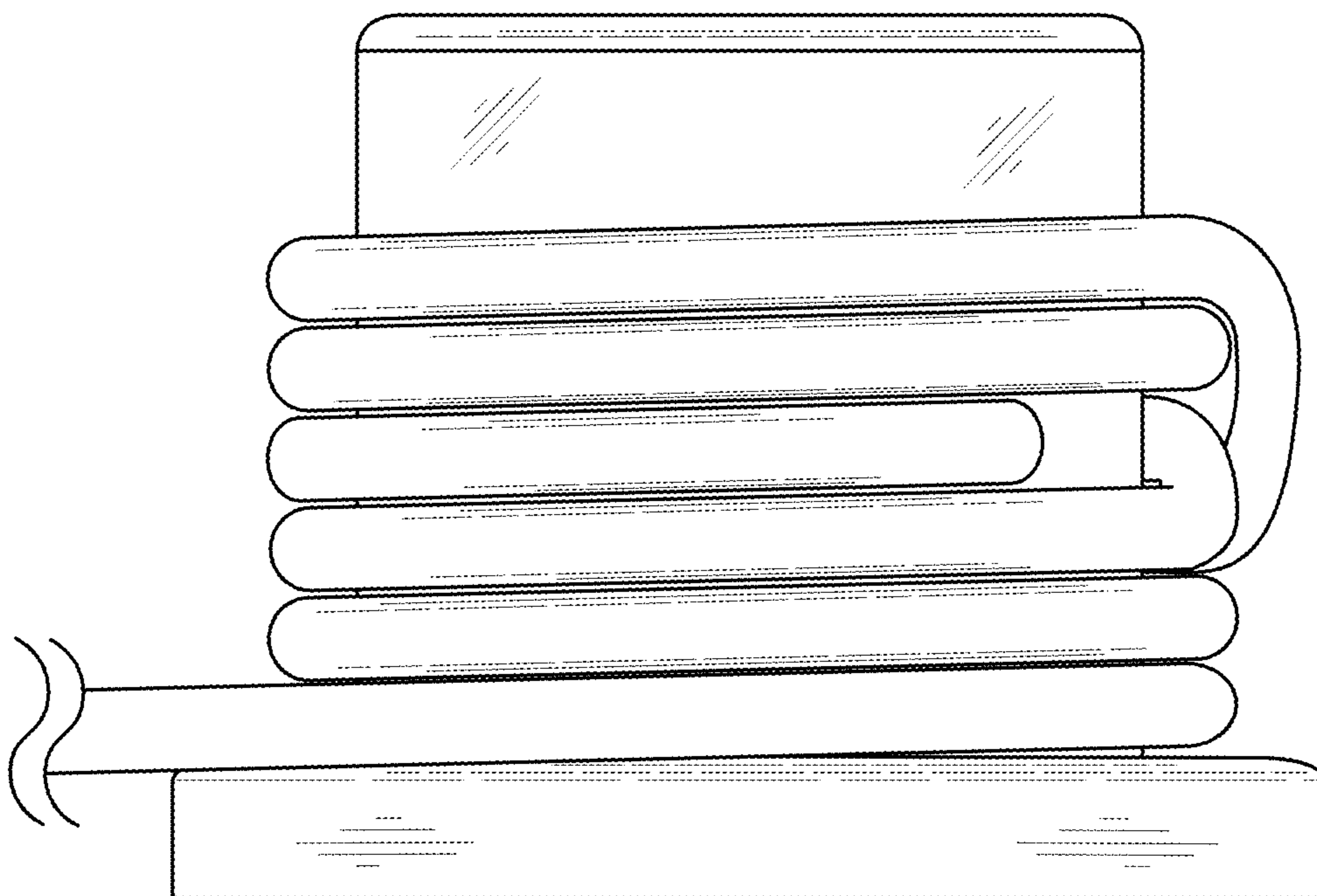


FIG. 13

