



US00D729710S

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

(10) **Patent No.:** **US D729,710 S**
(45) **Date of Patent:** **** May 19, 2015**

(54) **HANDLE SWITCH**

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

(21) Appl. No.: **29/473,889**

(22) Filed: **Nov. 26, 2013**

(30) **Foreign Application Priority Data**

Jun. 3, 2013 (JP) 2013-012333

(51) **LOC (10) Cl.** **12-16**

(52) **U.S. Cl.**
USPC **D12/179; D12/174**

(58) **Field of Classification Search**
CPC B62K 11/04; B62K 21/125; B62D 33/073;
B66F 9/20; F16H 59/105; H01H 2009/068
USPC D12/110, 111, 114, 174, 178, 180;
180/219, 230, 315, 321, 328, 336;
74/473.13-473.15, 488, 489, 500.5,
74/501.6, 502.2, 523, 551.8, 551.9;
200/61.27, 61.3, 61.54, 61.85;
362/473; 307/10.1

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D265,816 S * 8/1982 Matre D12/174
4,497,988 A * 2/1985 Brown 200/61.85

(Continued)

FOREIGN PATENT DOCUMENTS

JP 06321160 A * 11/1994 B62K 23/00
JP 2010064618 A * 3/2010 B62K 23/04
JP 2013071718 A * 4/2013 B62K 23/04

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(57) **CLAIM**

The ornamental design for a handle switch, as shown and described.

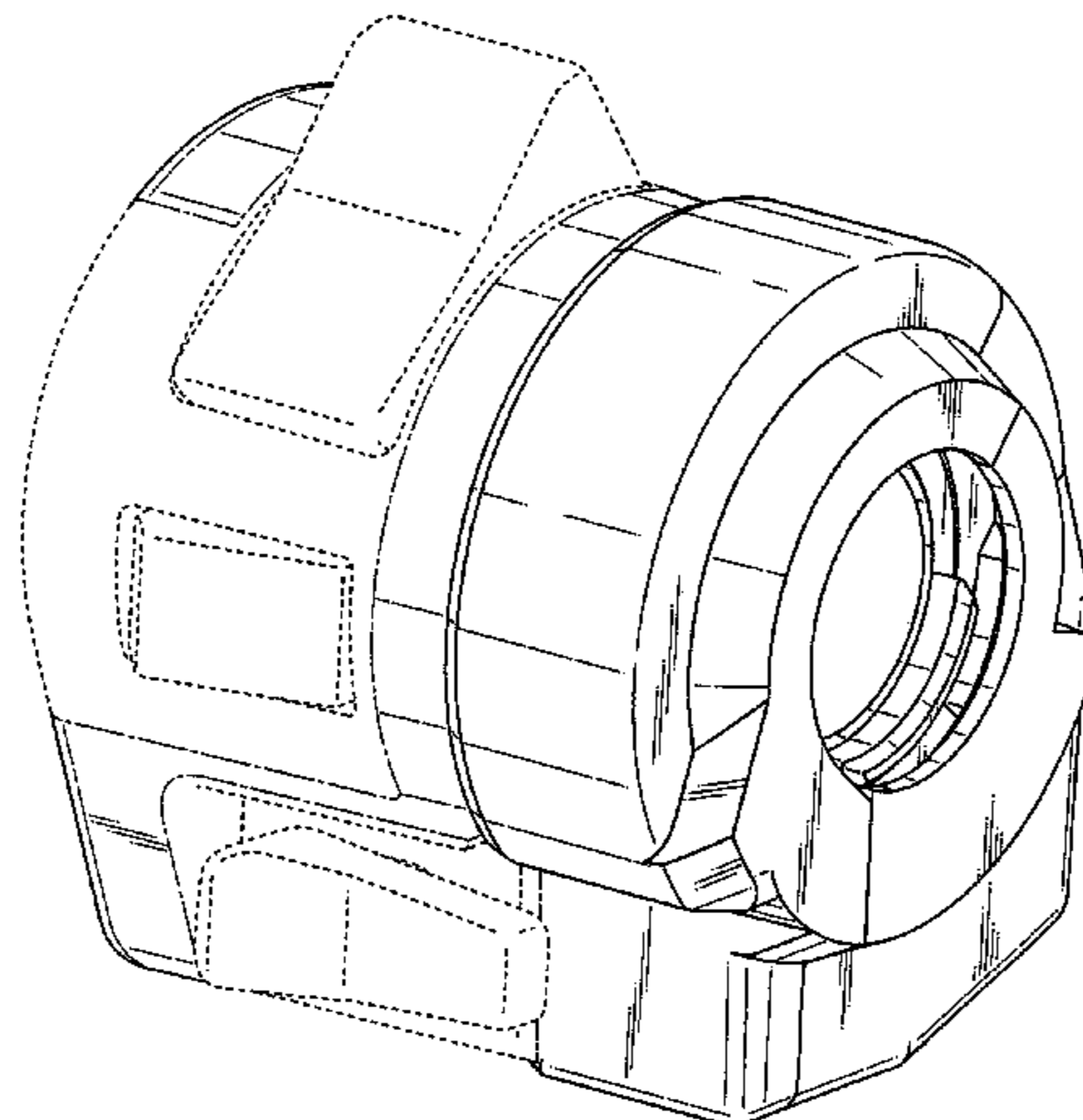
DESCRIPTION

FIG. 1 is a perspective view of a handle switch in a first embodiment in accordance with the present invention; FIG. 2 is a front view of the handle switch of FIG. 1; FIG. 3 is a rear view thereof; FIG. 4 is a left-side view of the handle switch depicted in FIG. 1; FIG. 5 is a right-side view of the handle switch depicted in FIG. 1; FIG. 6 is a top plan view thereof; FIG. 7 is a bottom plan view thereof; FIG. 8 is a perspective view of a handle switch in a second embodiment in accordance with the present invention; FIG. 9 is a front view of the handle switch of FIG. 8; FIG. 10 is a rear view thereof; FIG. 11 is a left-side view of the handle switch depicted in FIG. 8; FIG. 12 is a right-side view of the handle switch depicted in FIG. 8; FIG. 13 is a top plan view thereof; FIG. 14 is a bottom plan view thereof; FIG. 15 is another perspective view of the handle switch of the first embodiment of FIG. 1 showing front, right-side and bottom views; and, FIG. 16 is another perspective view of the handle switch of the second embodiment of FIG. 8 showing front, right-side and bottom views.

The broken lines illustrate small switches in first and second embodiments of the invention and form no part of the claimed design.

The uniformly spaced broken lines shown in the drawings illustrate portions of the handle switch; whereas the dash-dot broken lines indicate boundaries for the claim. Neither one of the broken lines form a part of the claimed design.

1 Claim, 16 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,847,454 A * 7/1989 Hiruma 200/61.85
D533,489 S * 12/2006 Tokumoto D12/179
D534,843 S * 1/2007 Higashi D12/174
D546,741 S * 7/2007 Iteya et al. D12/179

D556,645 S * 12/2007 Madden D12/126
D575,203 S * 8/2008 Madden D12/126
7,527,120 B2 * 5/2009 Tatewaki et al. 180/230
8,357,864 B2 * 1/2013 Murasawa et al. 200/61.88
2003/0032327 A1 * 2/2003 LaBonte 439/527
2010/0059304 A1 * 3/2010 Deguchi 180/336
2011/0108397 A1 * 5/2011 Kodaira et al. 200/61.54

* cited by examiner

Fig. 1

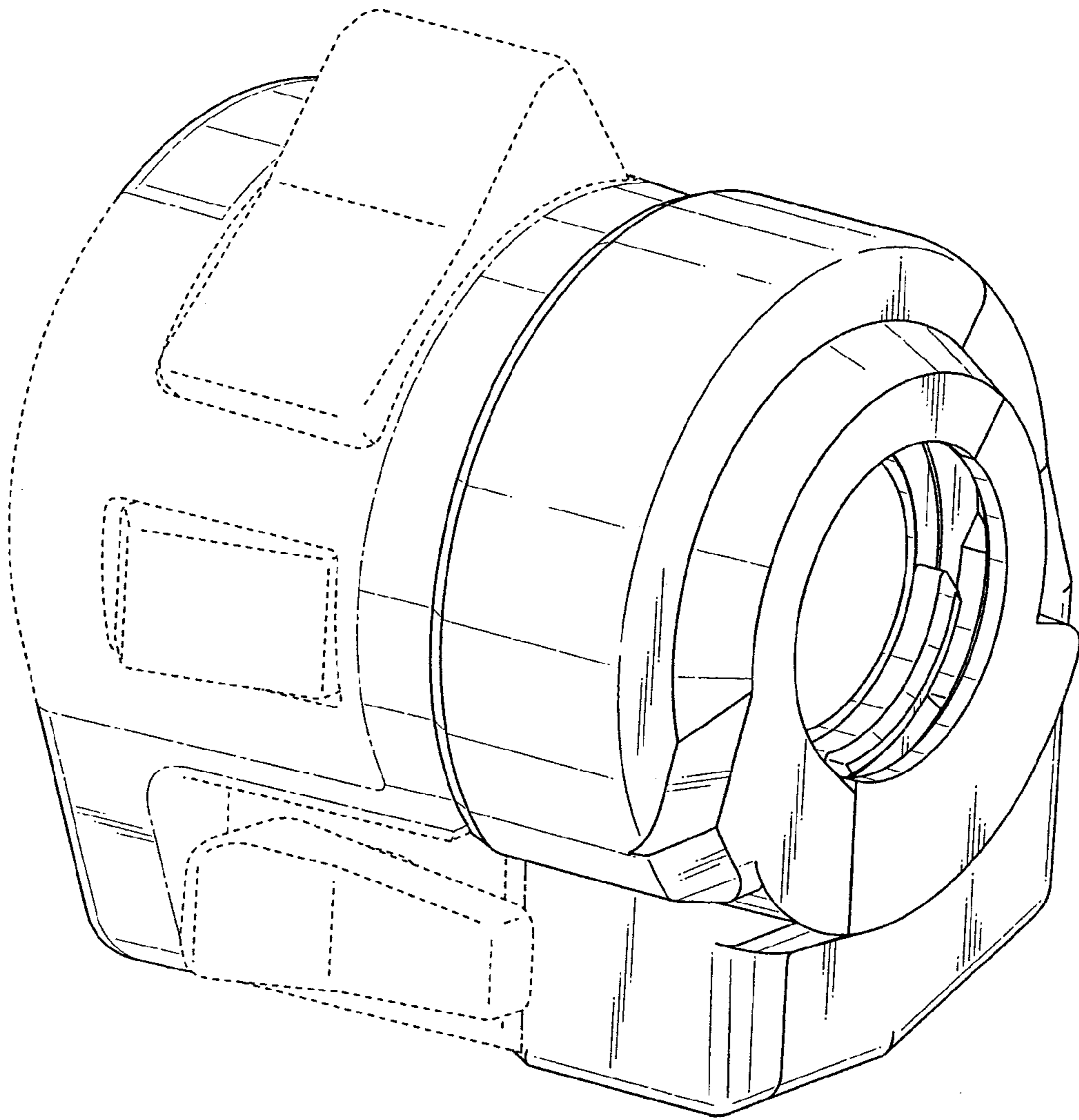


Fig. 2

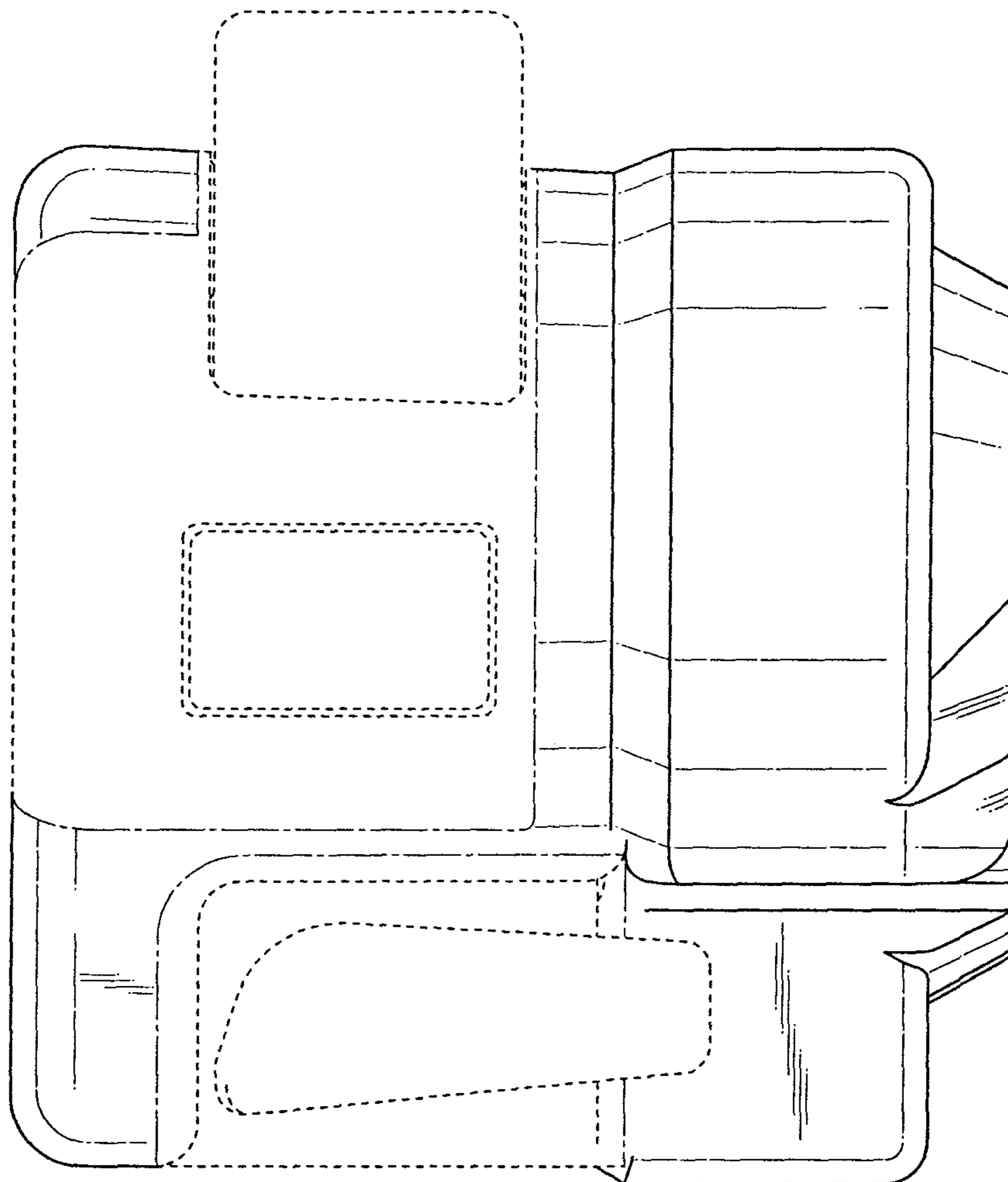


Fig. 3

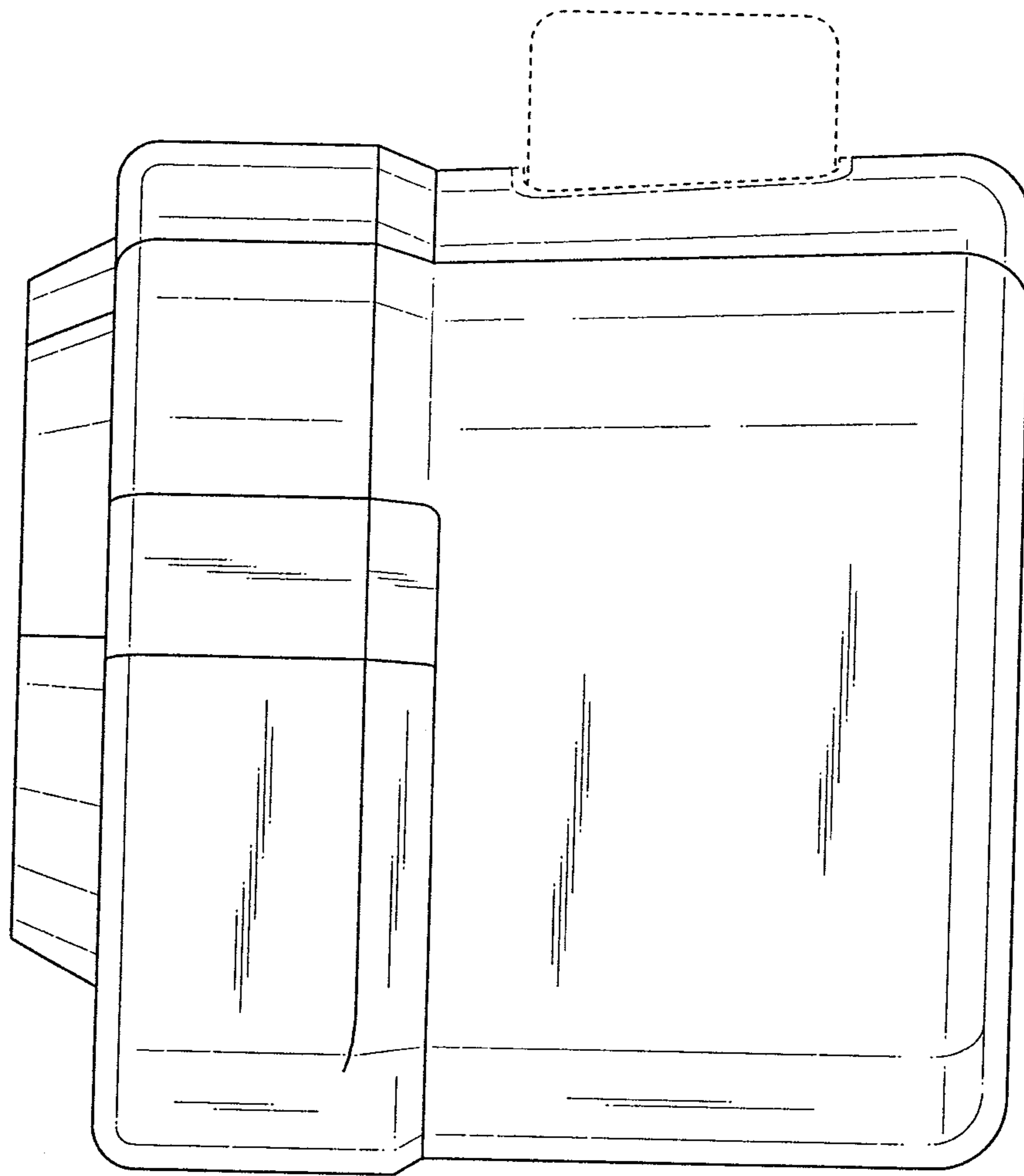


Fig. 4

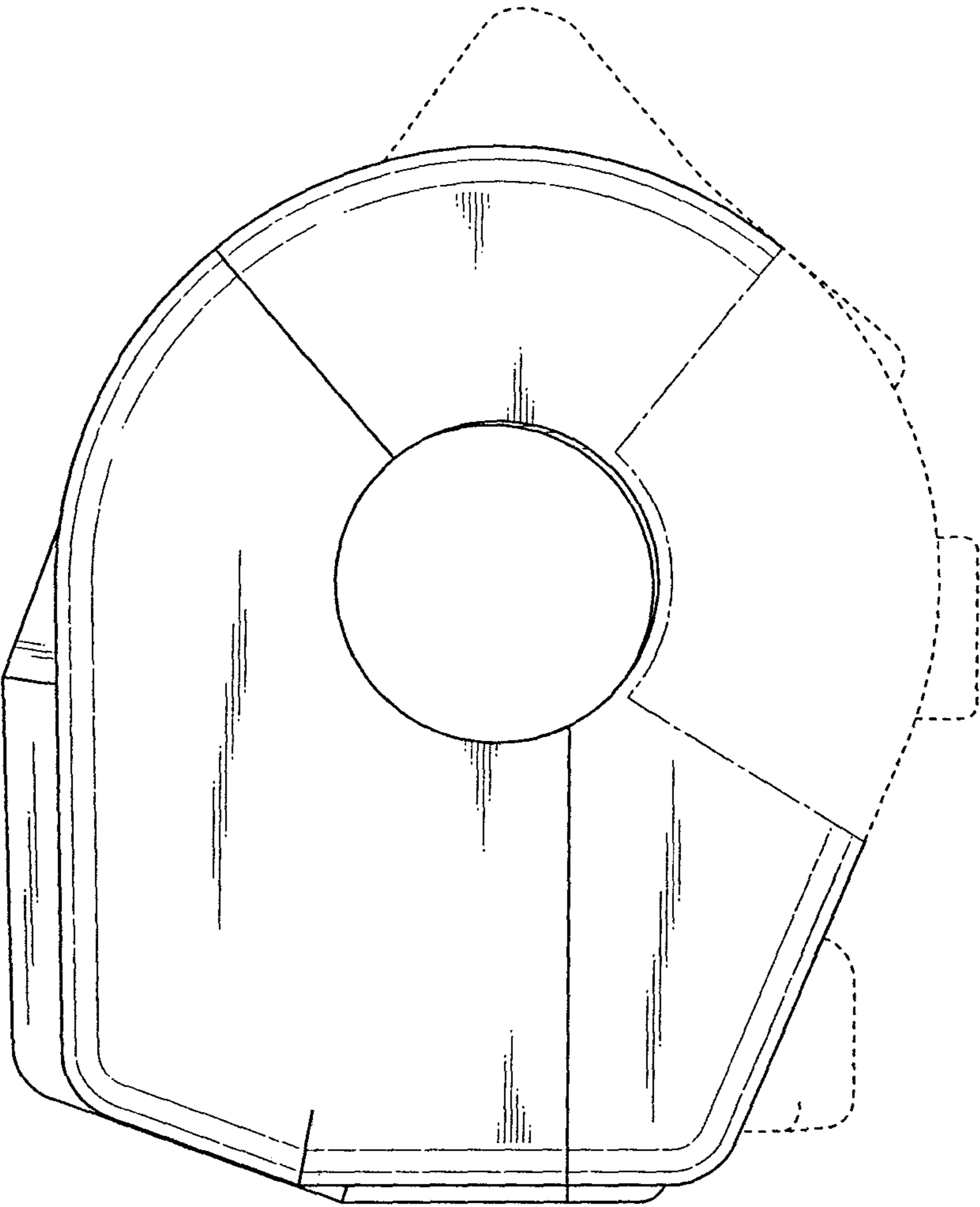


Fig. 5

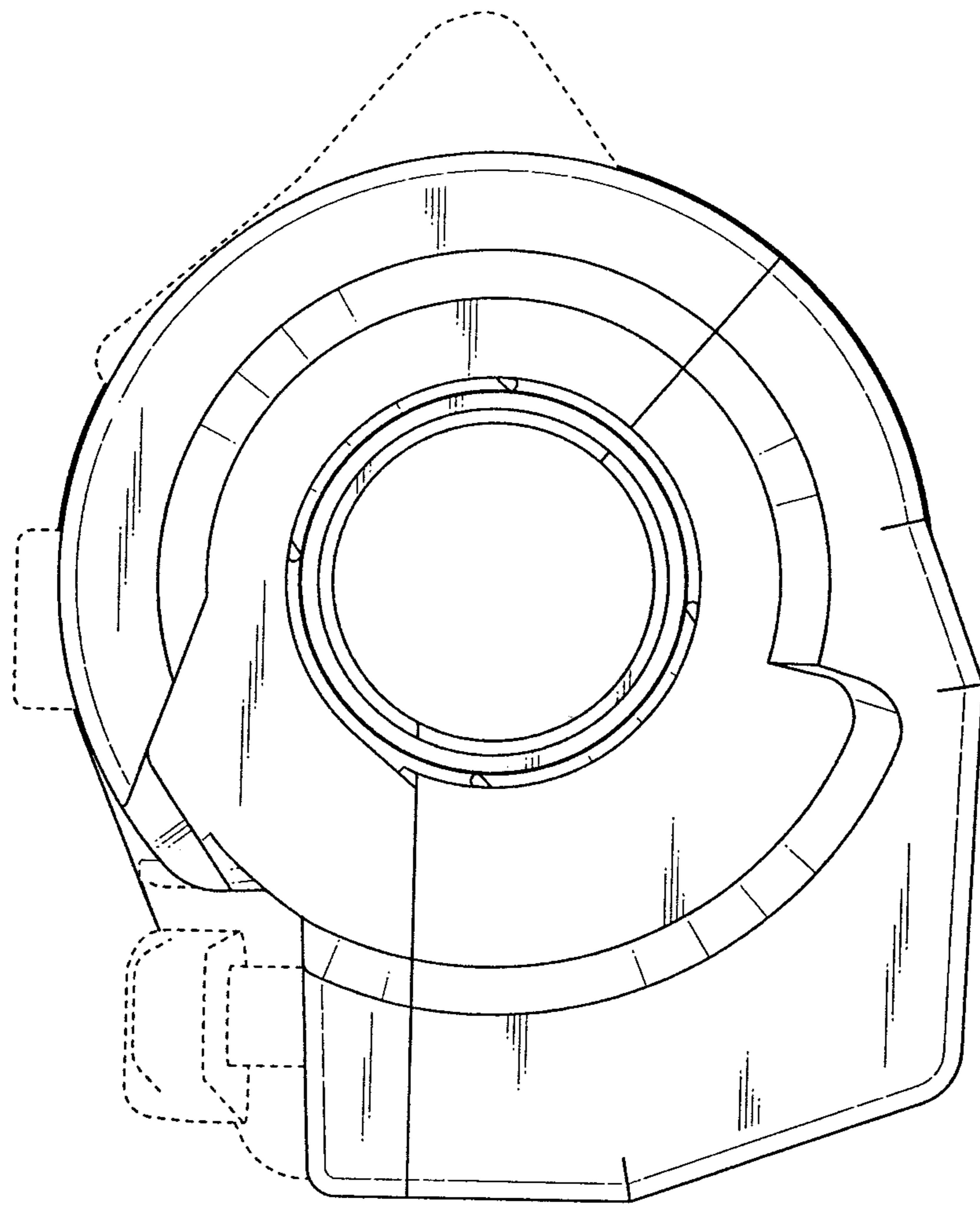


Fig. 6

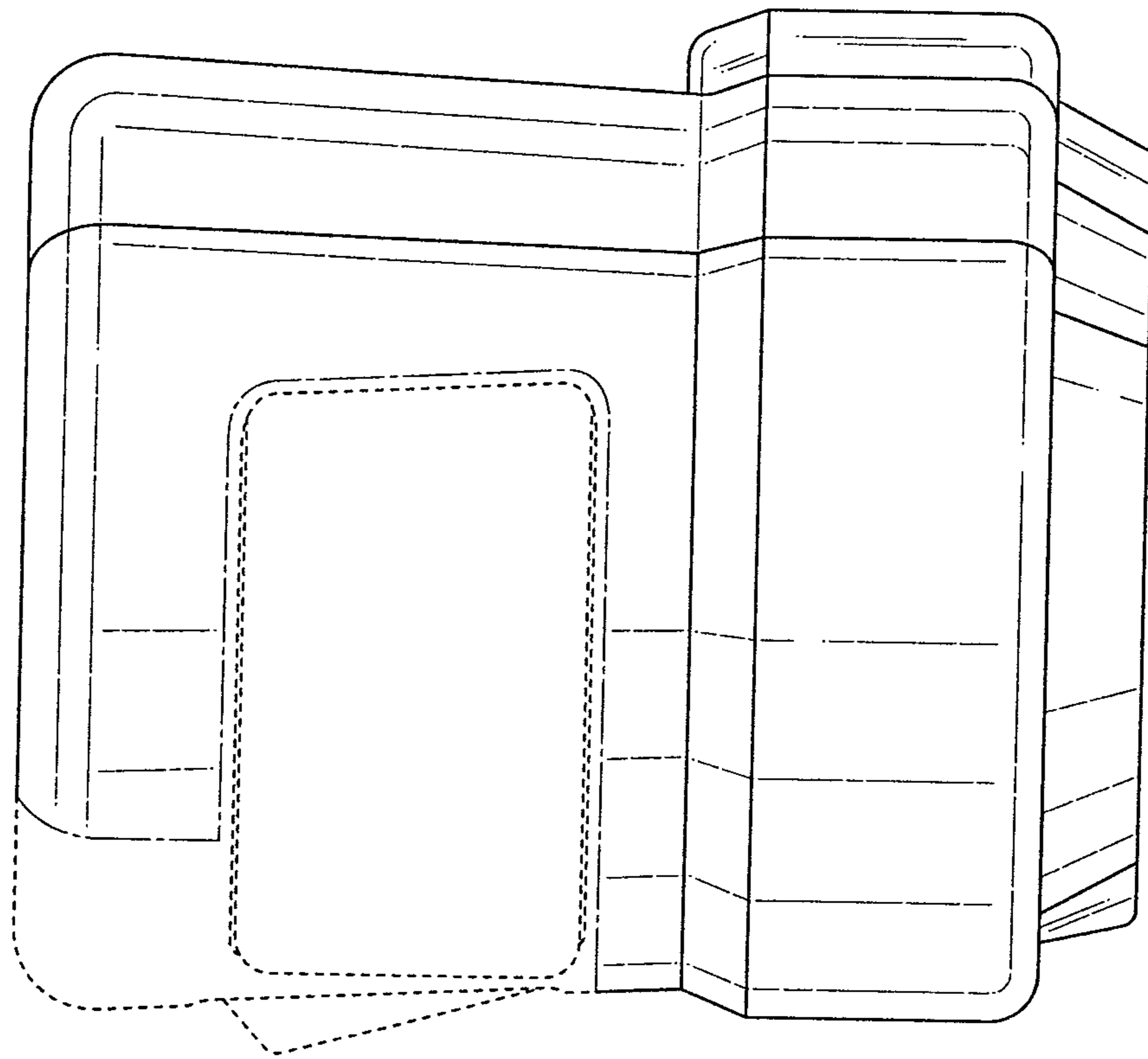


Fig. 7

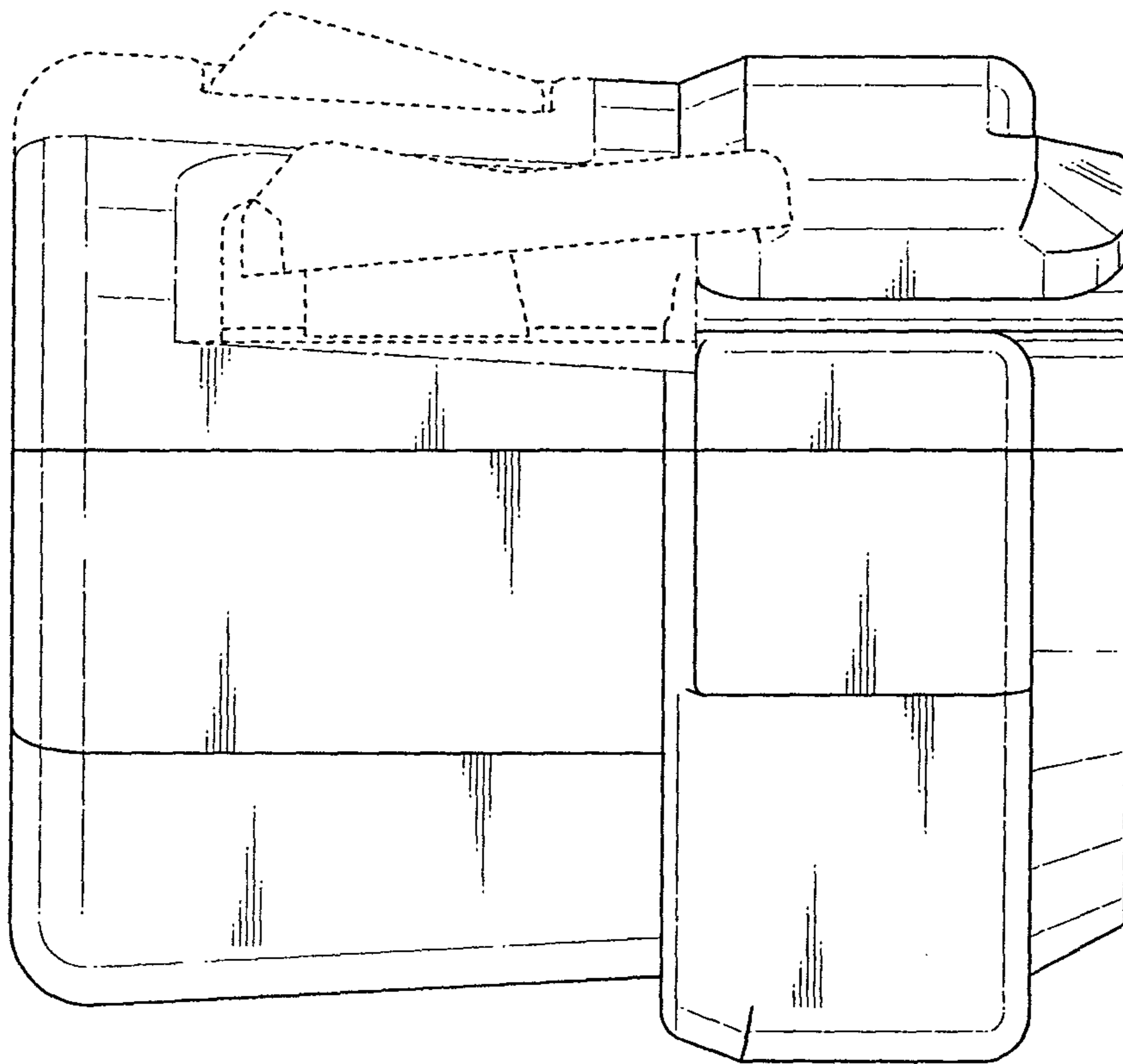


Fig. 8

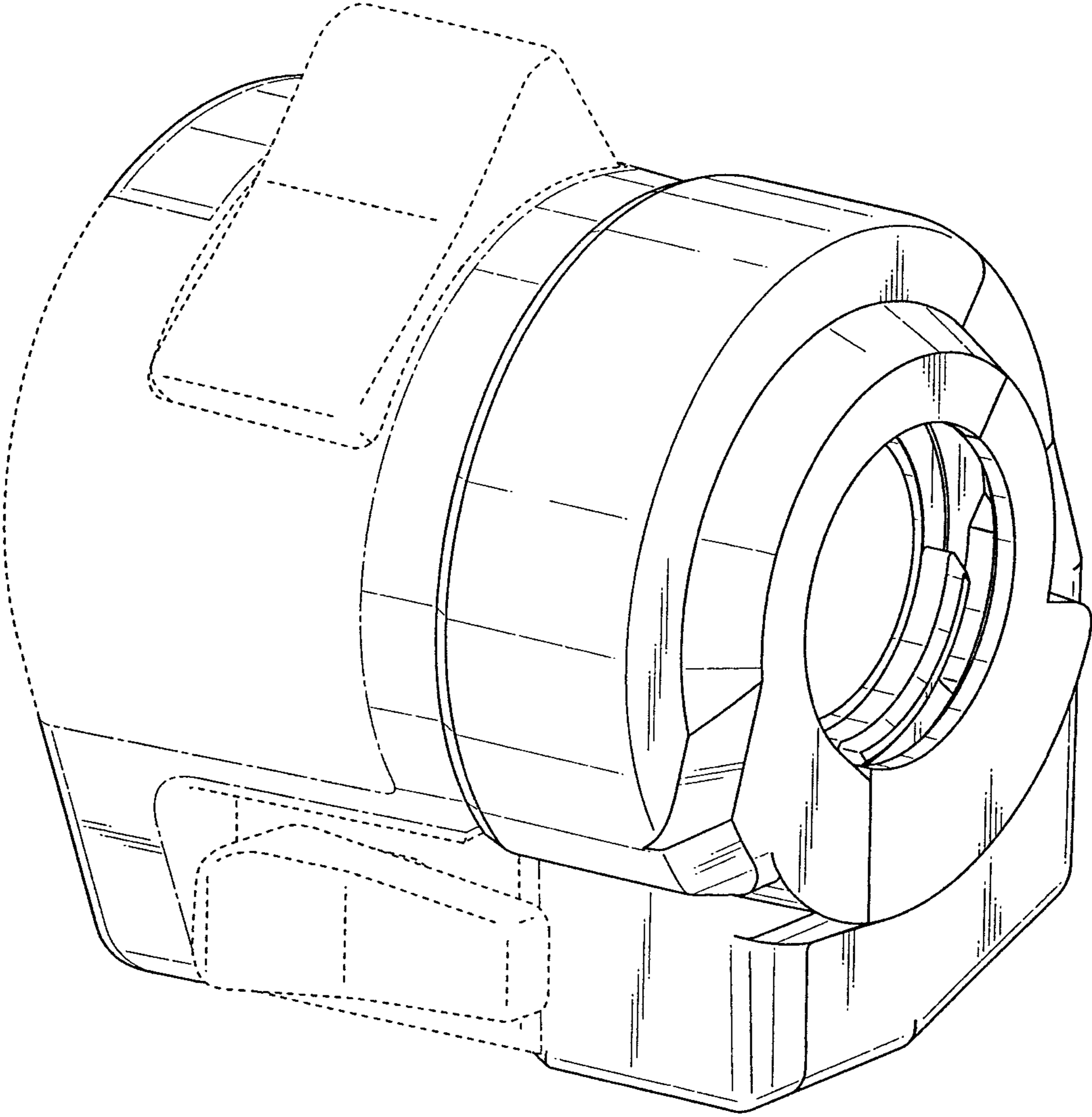


Fig. 9

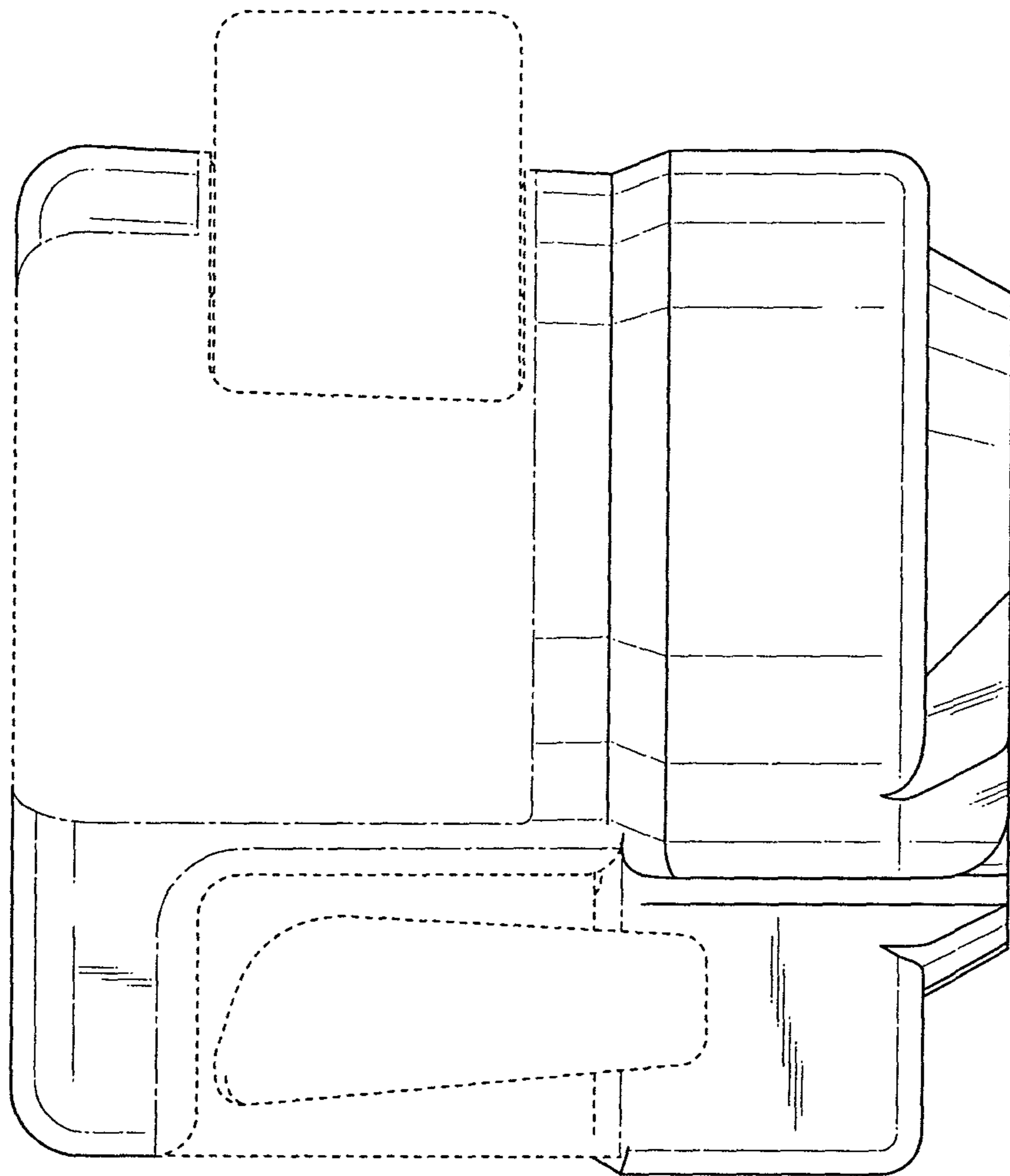


Fig. 10

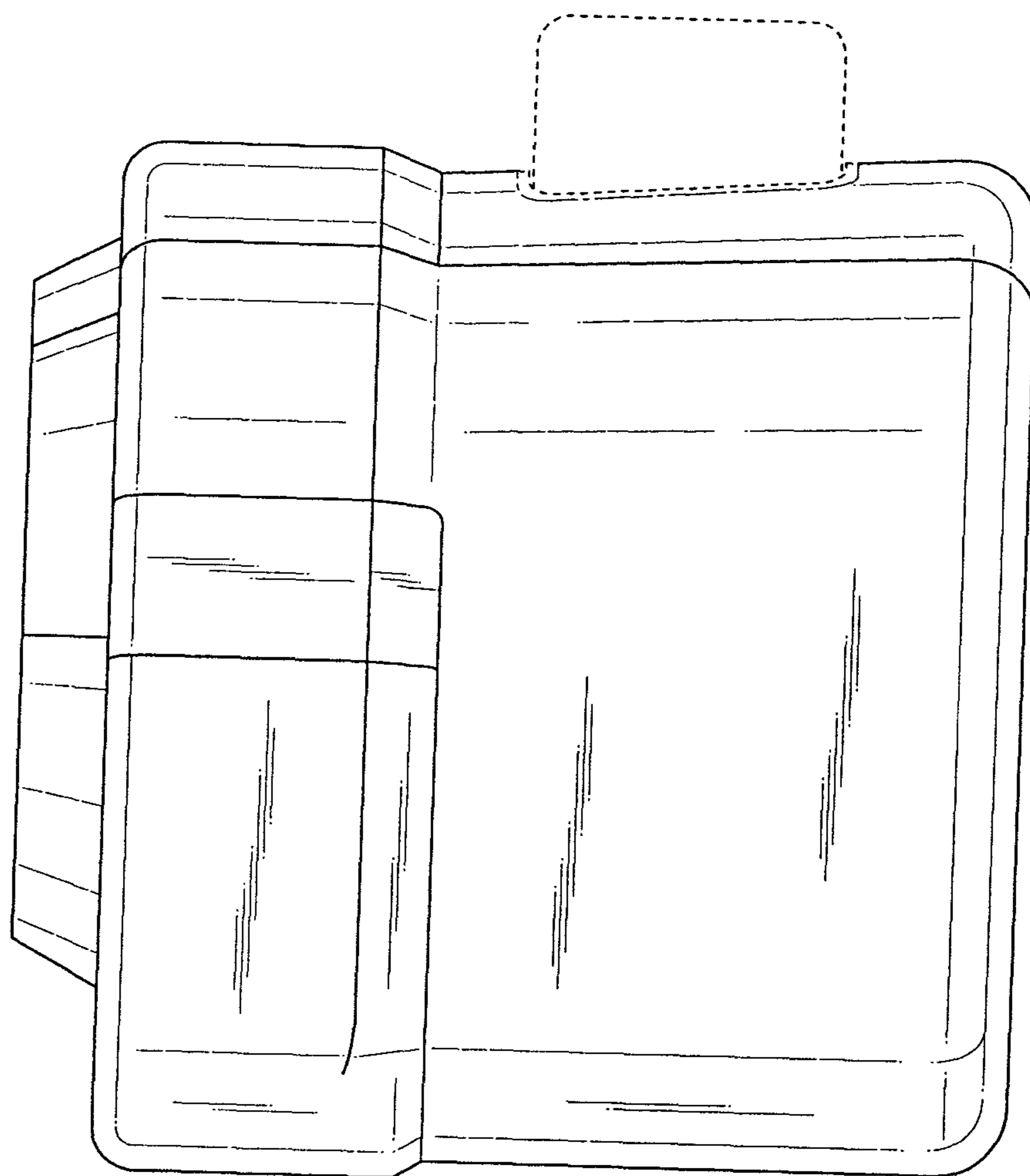


Fig. 11

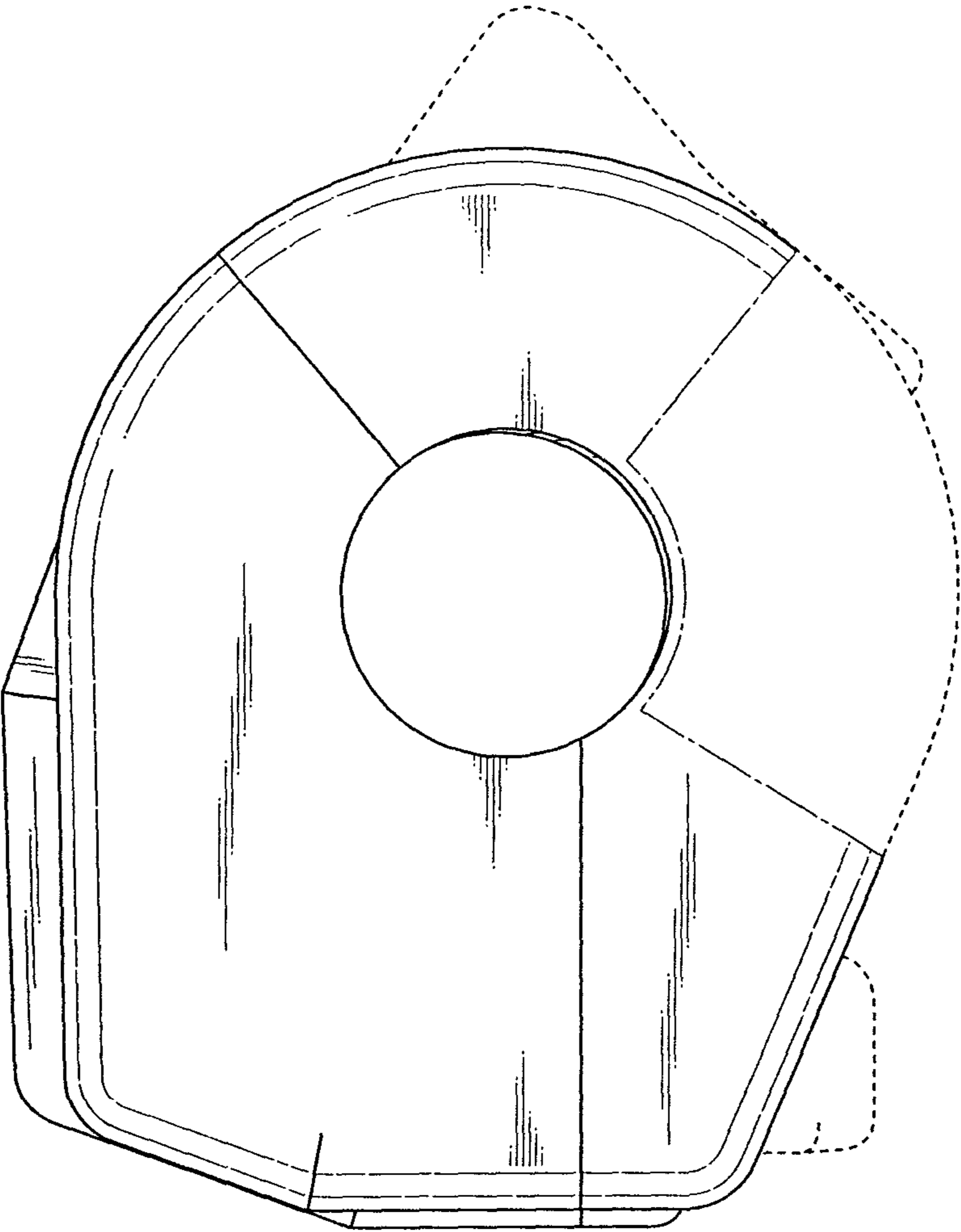


Fig. 12

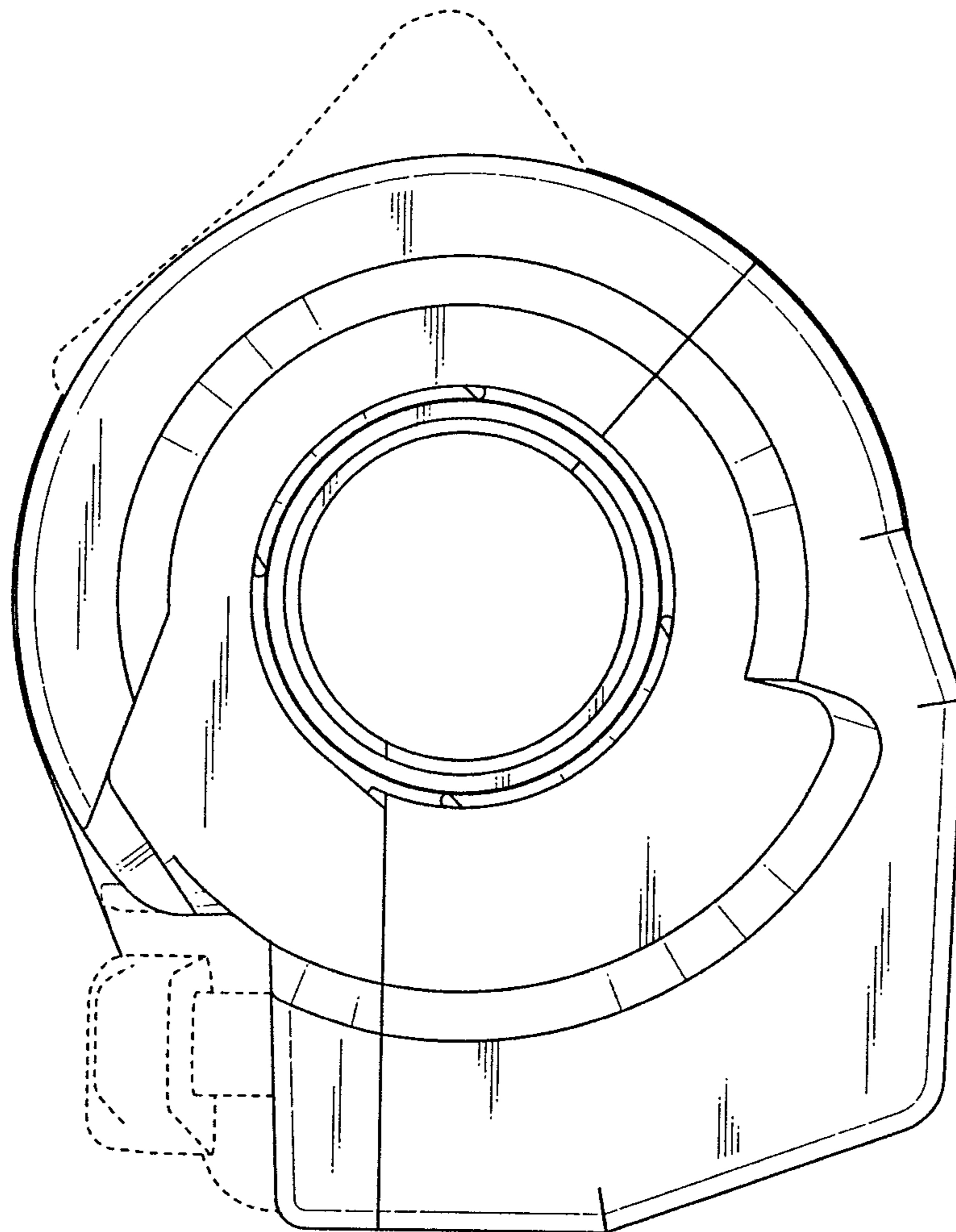


Fig. 13

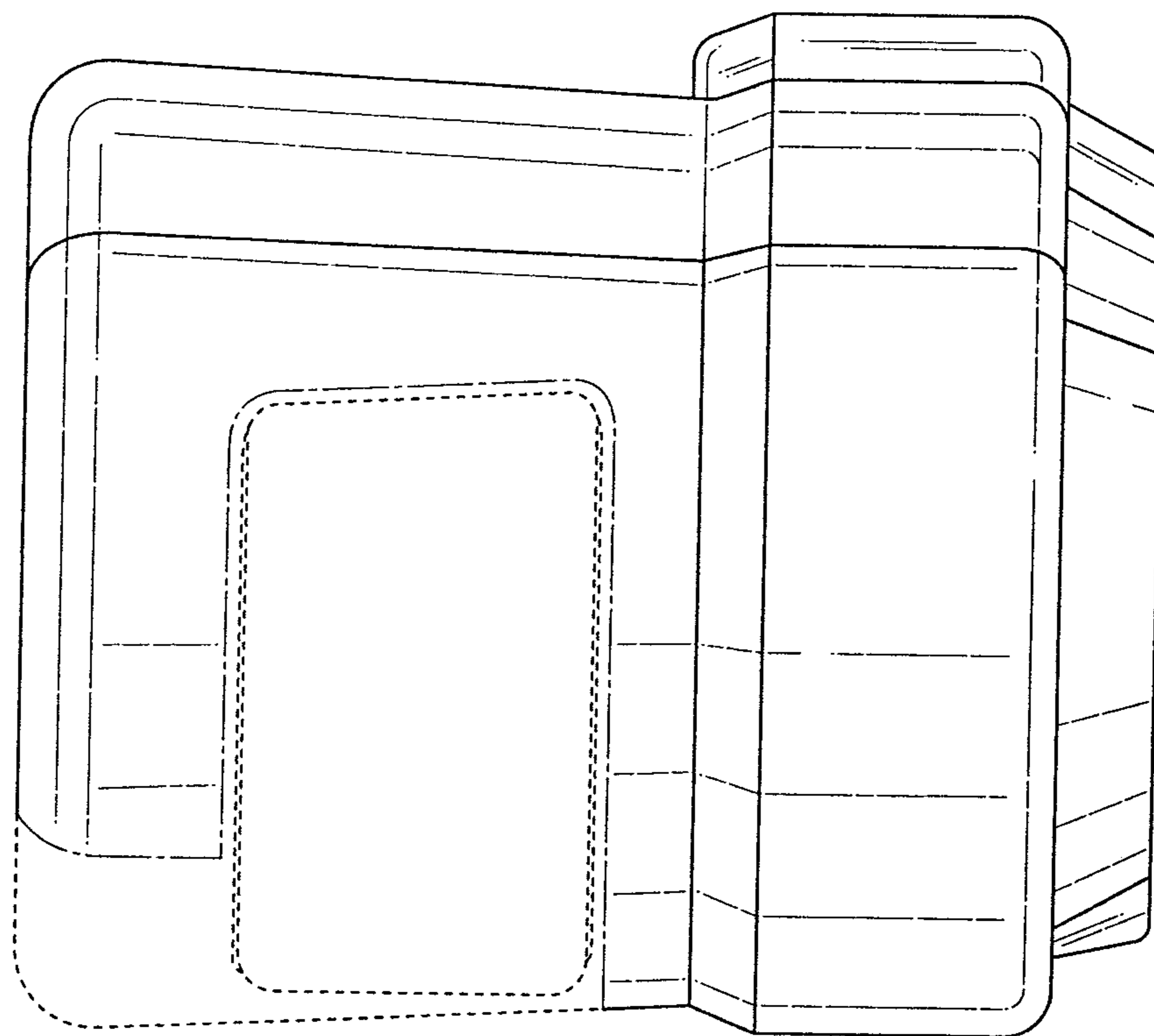


Fig. 14

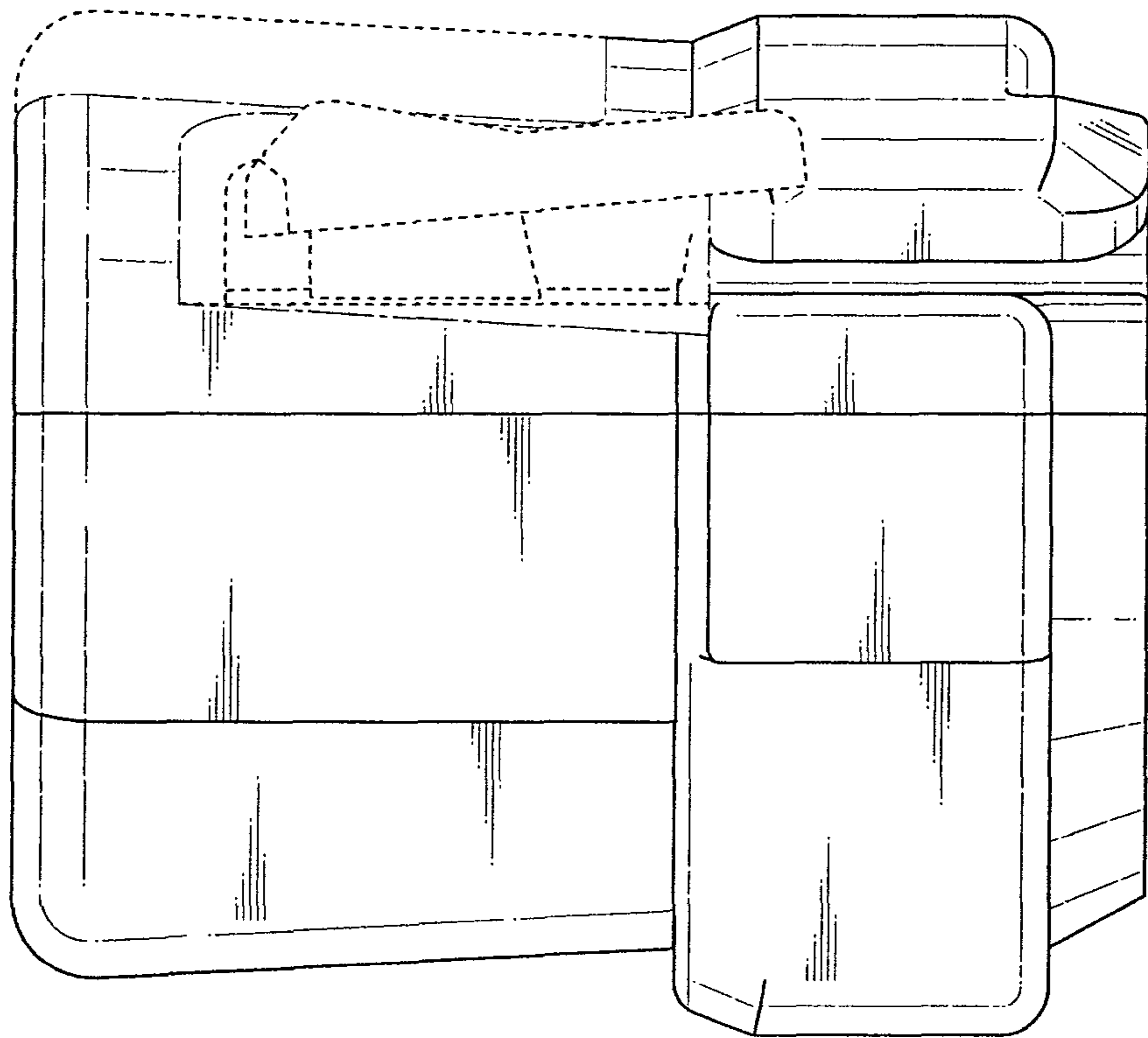


Fig. 15

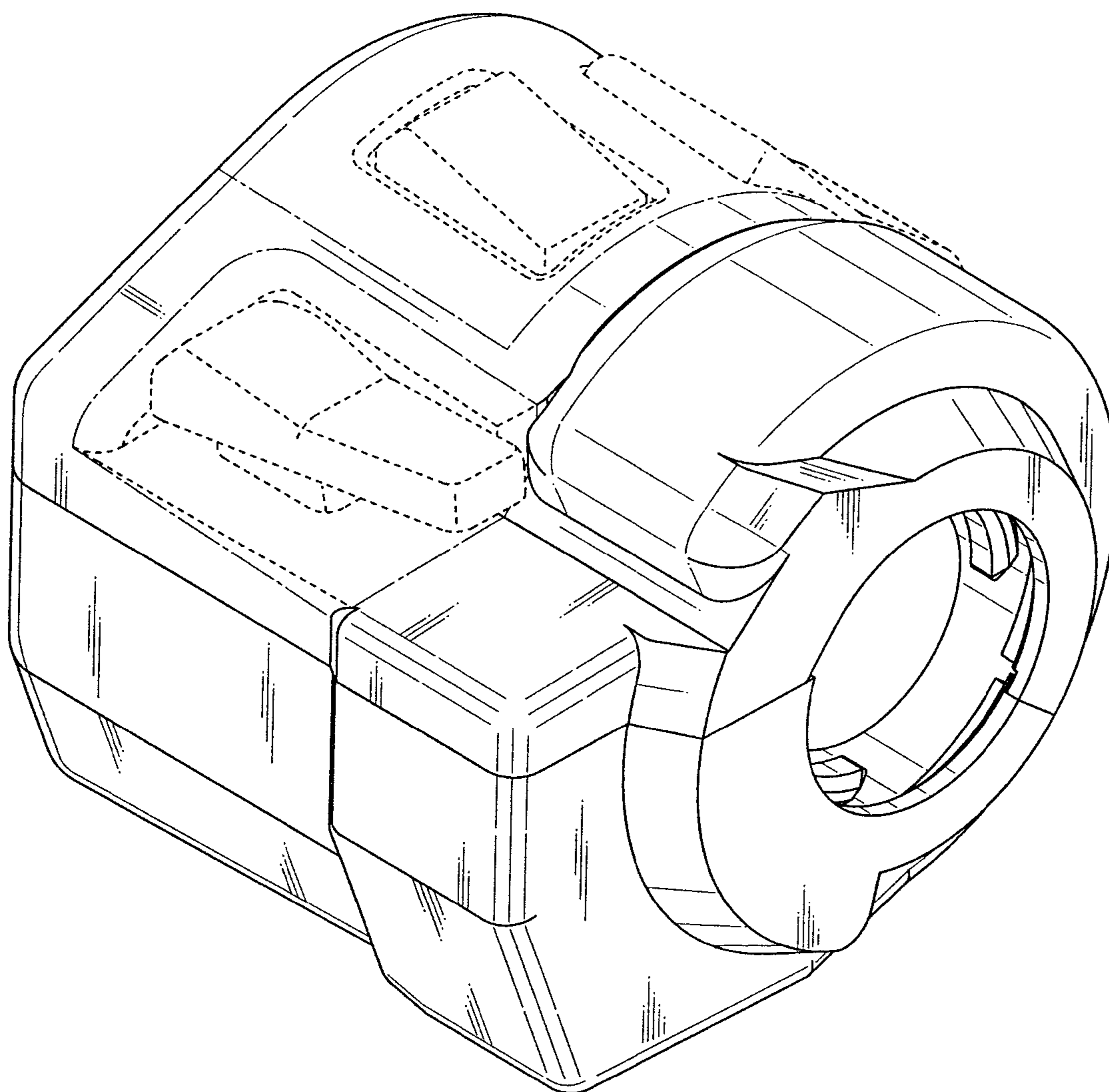


Fig. 16

