



US00D629947S

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

(10) **Patent No.:** **US D629,947 S**

(45) **Date of Patent:** **** Dec. 28, 2010**

(54) **LED-BASED FIBER ILLUMINATOR**

(75) Inventors: **Scott Carpenter**, Elgin, IL (US); **Tom Papanek**, Lake Forest, IL (US)

(73) Assignee: **Perkinelmer LED Solutions, Inc.**,
Wheeling, IL (US)

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

(21) Appl. No.: **29/332,373**

(22) Filed: **Feb. 13, 2009**

(51) **LOC (9) Cl.** **26-05**

(52) **U.S. Cl.** **D26/63**

(58) **Field of Classification Search** D26/24,
D26/25, 27, 113, 118; 362/551, 552, 554,
362/556, 555, 559, 806, 812, 565, 84, 217.01,
362/236, 237, 249.06, 249.14, 249.15, 249.16,
362/269; 385/901

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D202,552 S *	10/1965	Rose	.....	D26/27
D243,115 S *	1/1977	Ziegler et al.	.....	D26/27
D244,049 S *	4/1977	Feinbloom et al.	.....	D26/27
D250,289 S *	11/1978	Dacal	.....	D26/24
D327,952 S *	7/1992	Van Der Bel	.....	D26/27
D328,151 S *	7/1992	Feinbloom	.....	D26/27
D328,155 S *	7/1992	Feinbloom	.....	D26/27
D346,228 S *	4/1994	Harley et al.	.....	D26/24
5,838,860 A *	11/1998	Kingstone et al.	.....	385/100
D417,920 S *	12/1999	Riser et al.	.....	D26/27
D523,806 S *	6/2006	Symanzik et al.	.....	D13/101
D537,550 S *	2/2007	Melnik	.....	D26/27
2002/0064043 A1 *	5/2002	Ariga et al.	.....	362/235

OTHER PUBLICATIONS

Carl Zeiss Microimaging GmbH (May 2007). "Colibri: Highlights for Fluorescence Microscopy," 12 pages.

CCS, Inc. (Oct. 2008). "PFB-20SW series," 8 pages.

Dicon Fiberoptics, Inc. (May 2008). "LED Microscope Illuminator," 3 pages.

Fiberoptics Technology Incorporated (2008). "Quality Fiber Optic Products," 3 pages.

General Electric Company (2007). "GE Healthcare BiliSoft LED Phototherapy System," 8 pages.

Newport Corporation (2008). "LED Light Sources," located at <<http://www.newprot.com/store/genproduct.aspx?id=732081>

&lang=1033&Section=Drawing> visited on Dec. 30, 2008, 2 pages. Photograph of Photonic Optics F1 LED light source (2008). 1 page.

Stryker Corporation (2008). Photograph of Stryker model X8000 endoscopy illuminator, 1 page.

Umech Technologies, LLC (2007). "Umech Technologies Home," located at <<http://www.umech.com/index.html>> visited on Feb. 2, 2009, 1 page.

Volpi USA (2008). "IntraLED 2020," located at <http://www.volpiusa.com/htm/833/en_US/IntraLED_2020.htm?ProductId=5>

visited on Sep. 24, 2008, 1 page.

Welch Allyn, Inc. (Aug. 2003). "Solarc Light Arc Lamp Products," 4 pages.

* cited by examiner

Primary Examiner—Angela J Lee

(74) *Attorney, Agent, or Firm*—Morrison & Foerster LLP

(57) **CLAIM**

The ornamental design for the LED-based fiber illuminator, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of an LED-based fiber illuminator showing my design;

FIG. 2 is a front view thereof;

FIG. 3 is a right side elevational view thereof;

FIG. 4 is a left side elevational view thereof;

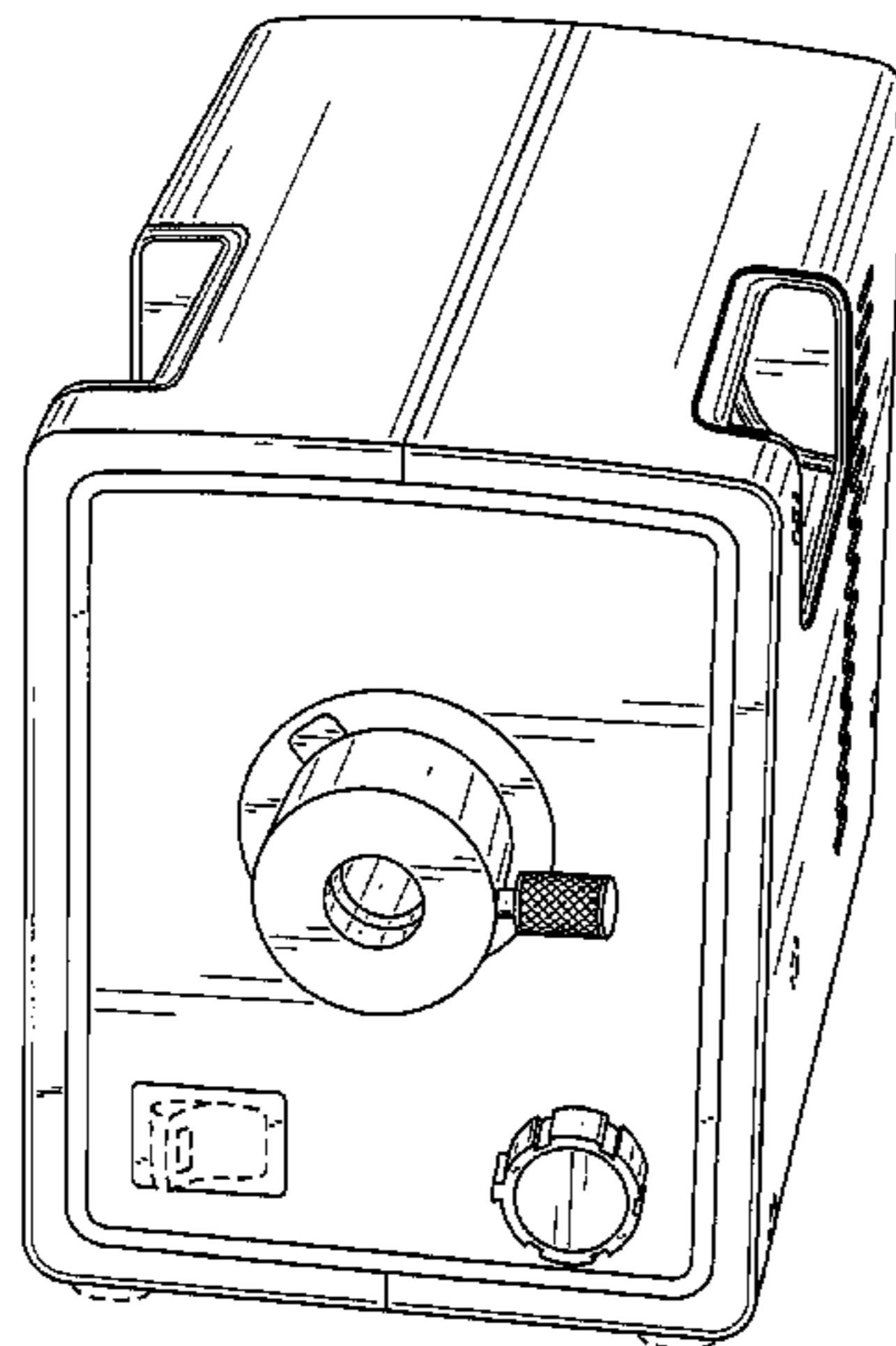
FIG. 5 is a back view thereof;

FIG. 6 is a top plan view thereof; and,

FIG. 7 is a bottom view thereof.

The portions of the LED-based fiber illuminator shown in broken lines form no part of the claimed design.

1 Claim, 7 Drawing Sheets



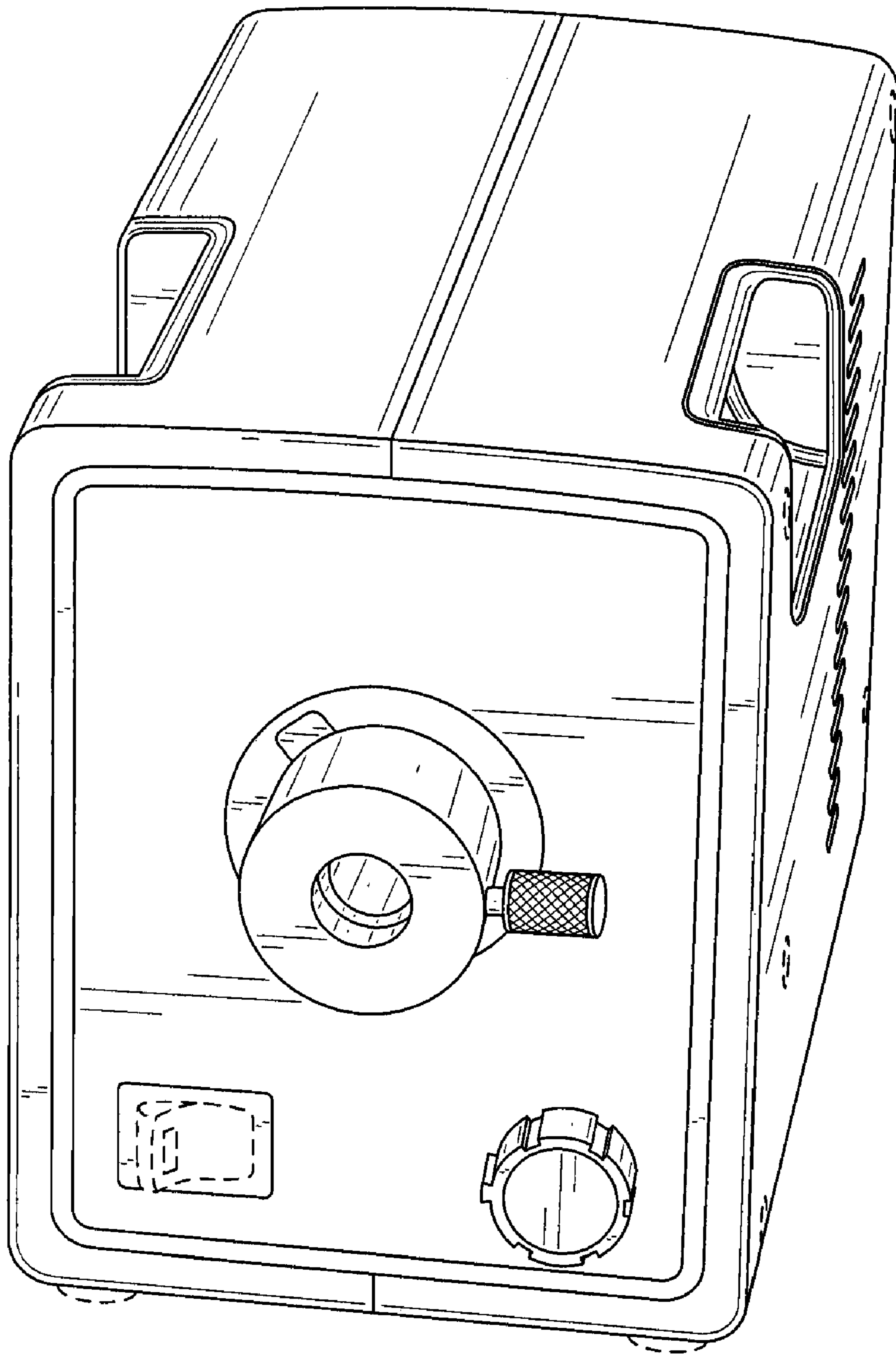


FIG. 1

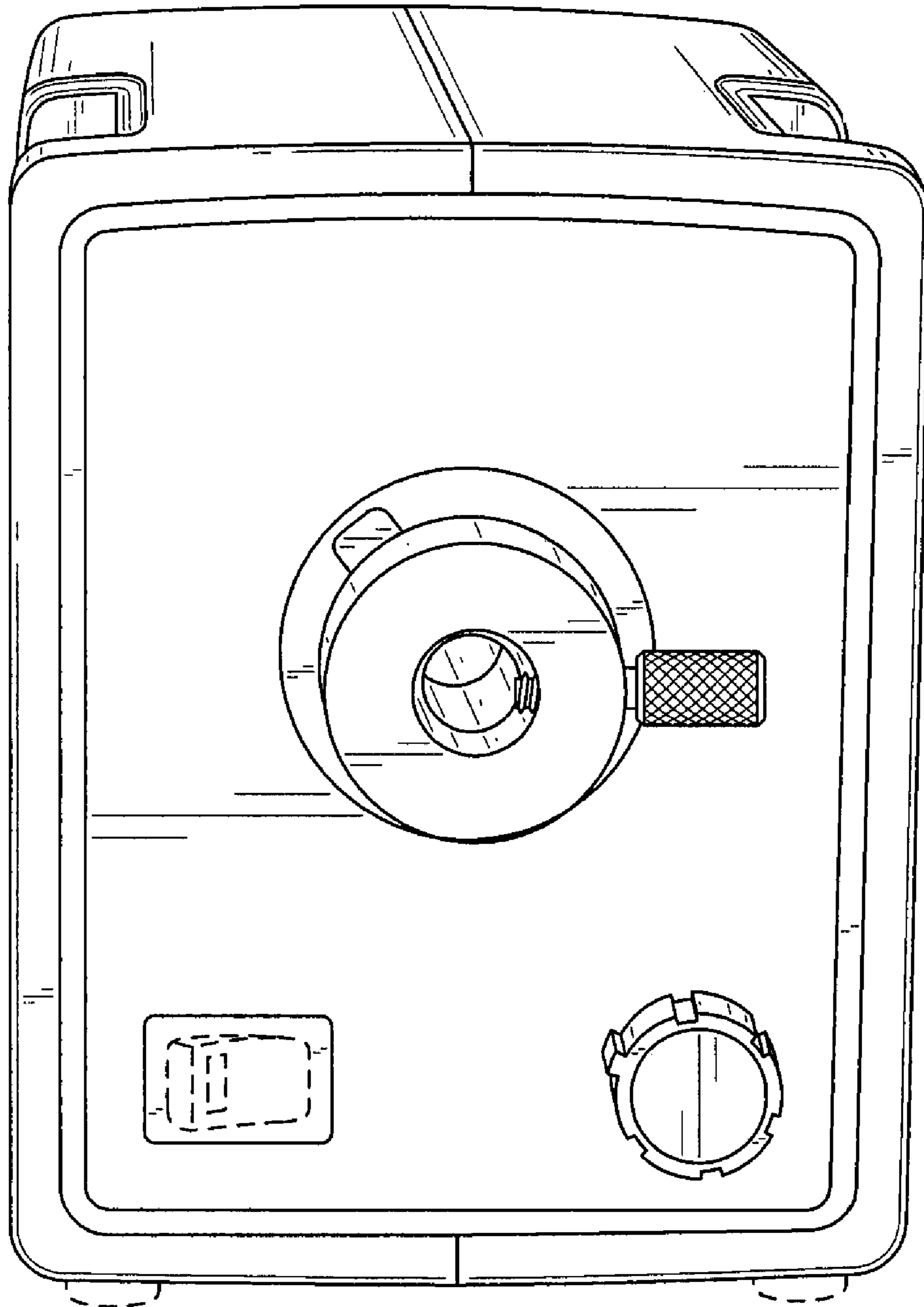


FIG. 2

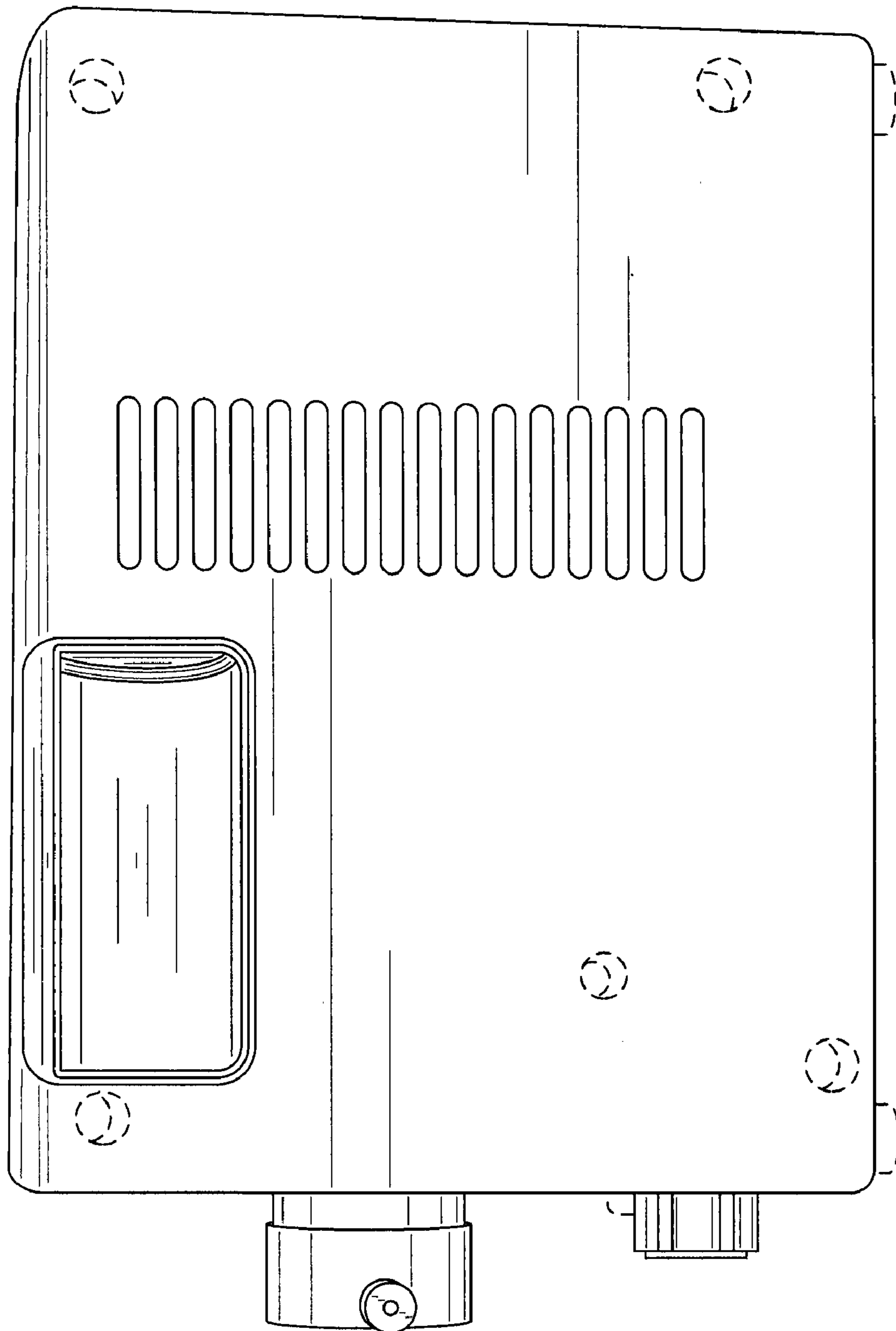


FIG. 3

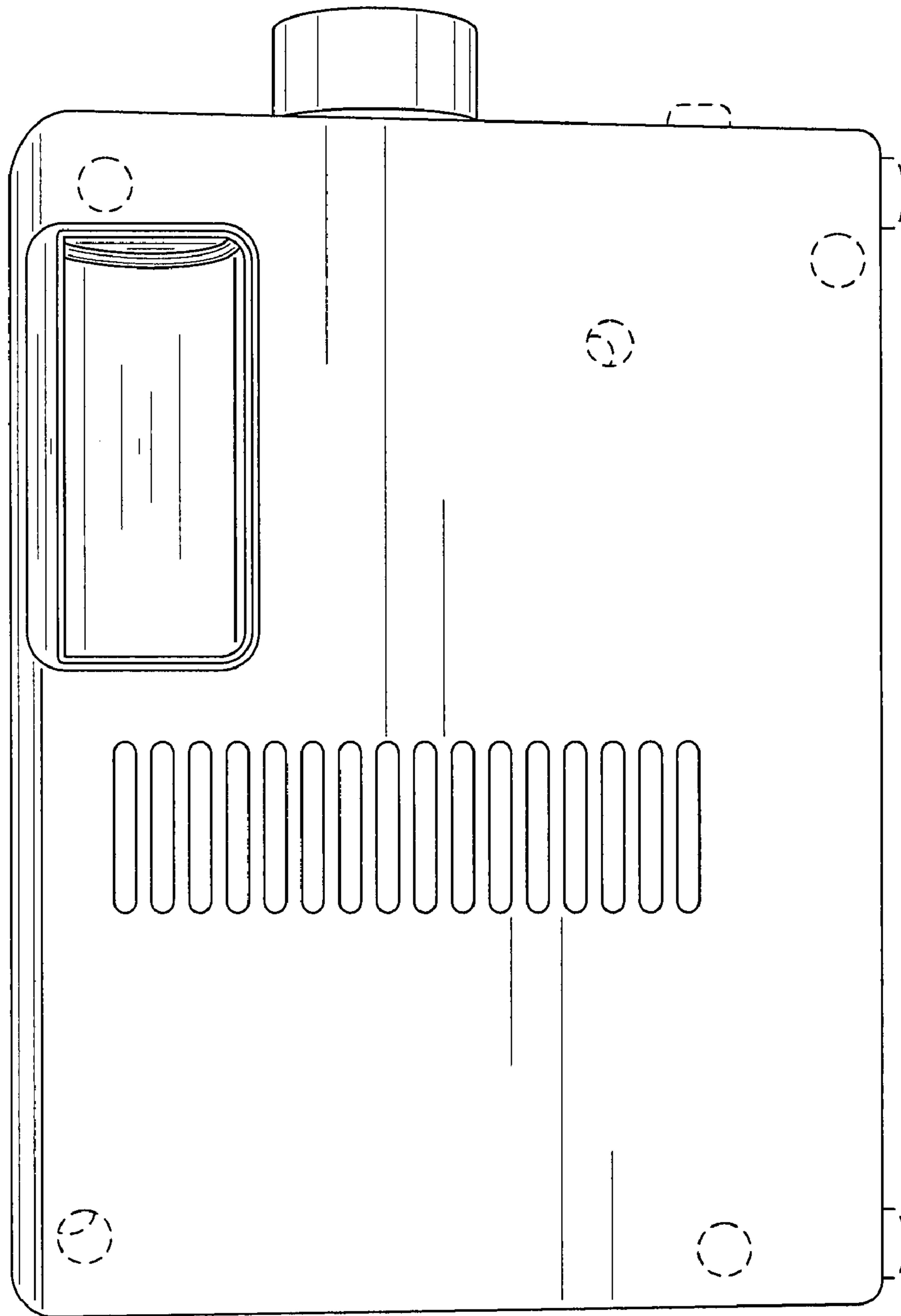


FIG. 4

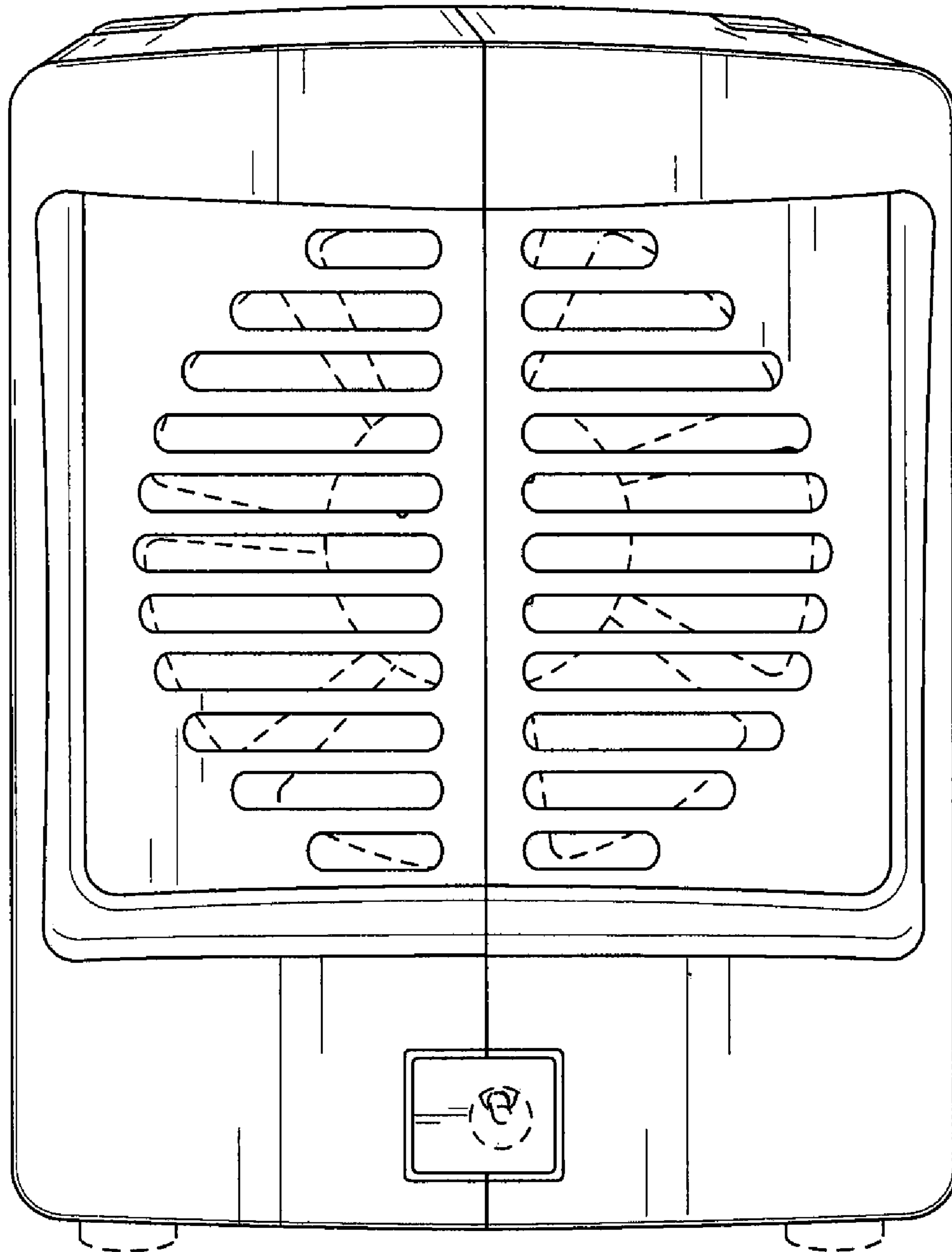


FIG. 5

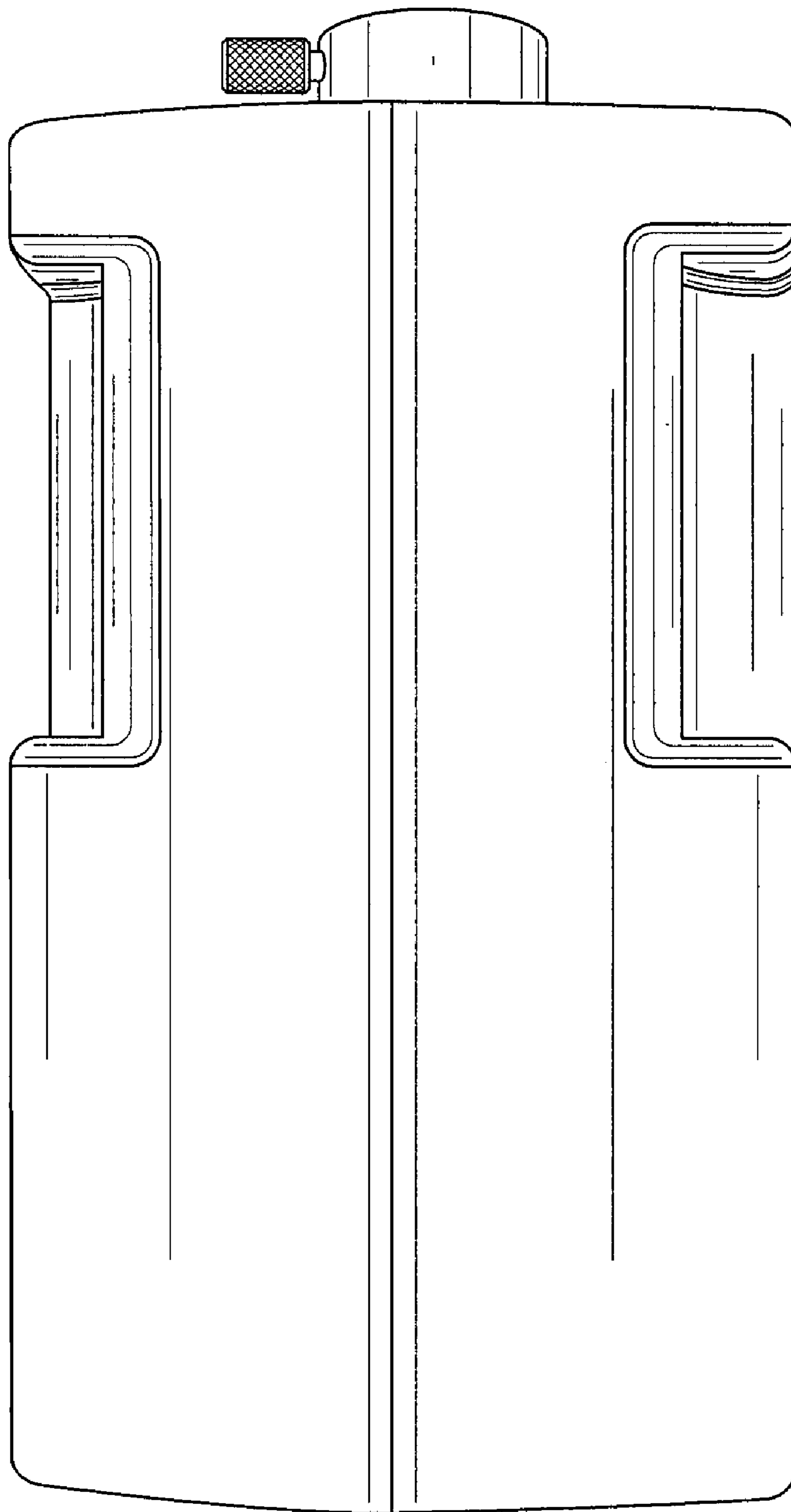


FIG. 6

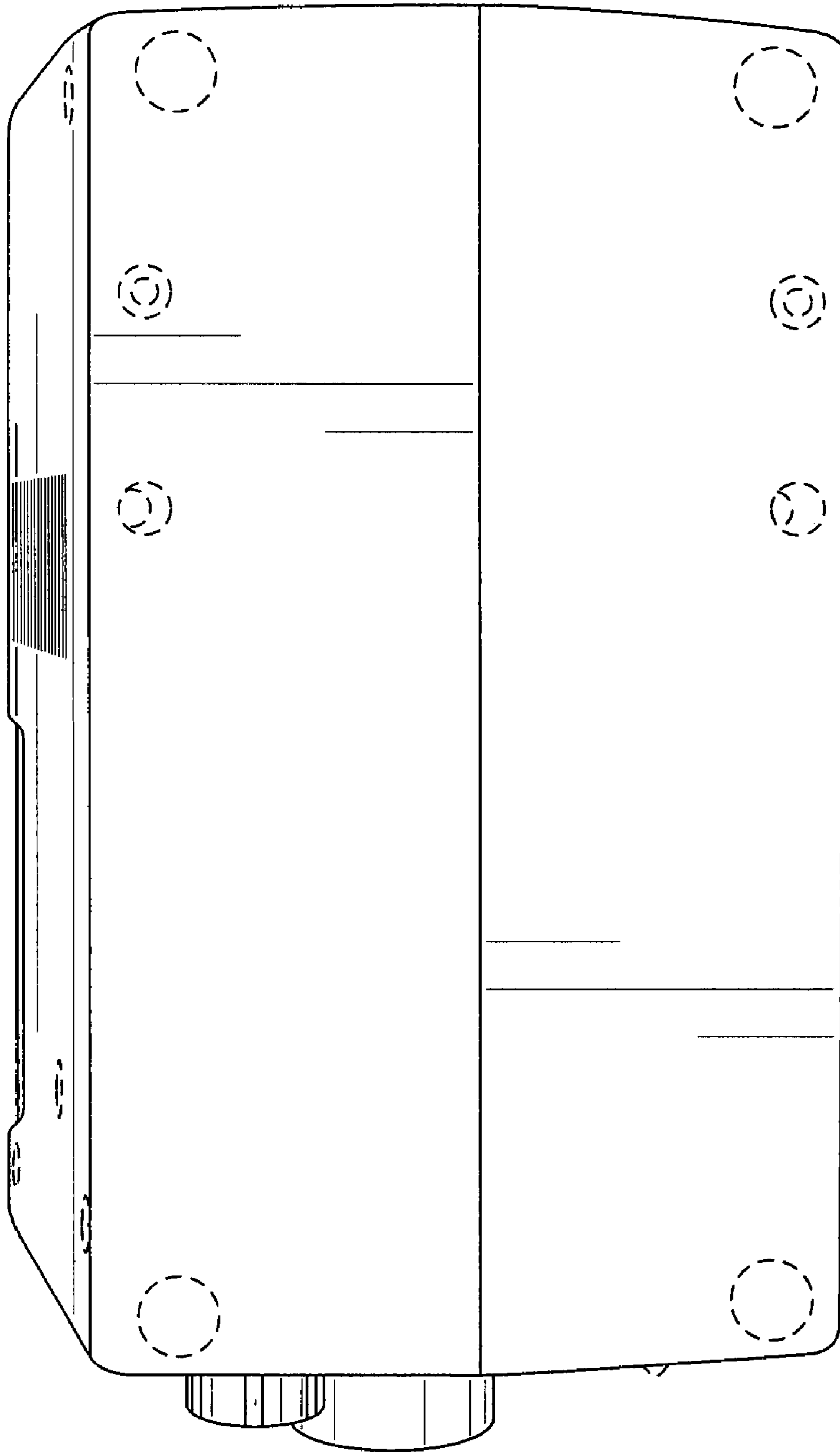


FIG. 7