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(12) **United States Design Patent** (10) **Patent No.:** **US D835,767 S**
Williams et al. (45) **Date of Patent:** **** Dec. 11, 2018**

(54) **SPACE OPTIMIZING AIR FILTER**

(71) Applicant: **K&N ENGINEERING, INC.**,
Riverside, CA (US)

(72) Inventors: **Steve Williams**, Beaumont, CA (US);
Jere James Wall, Helendale, CA (US);
Jonathan Richard Fiello, Yucaipa, CA (US)

(73) Assignee: **K&N Engineering, Inc.**, Riverside, CA (US)

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

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(51) **LOC (11) Cl.** **23-04**

(52) **U.S. Cl.**
USPC **D23/365**

(58) **Field of Classification Search**
USPC D23/209, 341, 354, 355, 364-365,
D23/386-391; D25/114-116, 118-125;
D3/10

CPC . F01N 2330/06; F01N 3/0222; B01D 46/521;
B01D 46/2429; B01D 46/2451; B01D
46/247; B01D 46/2492; B01D 46/2481;
F28F 1/40; E04B 2/42; E04B 2/44; E04B
2/50; E04B 2/52; E04B 2/54

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 4,233,043 A * 11/1980 Catterson F02B 63/02
123/198 E
- D326,706 S * 6/1992 Karlsson D23/209
- D374,480 S * 10/1996 Micoley D23/356
- D401,597 S * 11/1998 Shelton D15/5
- D401,684 S * 11/1998 Shelton D23/365
- D530,806 S * 10/2006 Holquin-Remolina D23/364
- D533,265 S * 12/2006 Fiello D23/365

- D647,188 S * 10/2011 Bergami D23/365
- D777,211 S * 1/2017 Wall D15/5
- 2010/0263338 A1* 10/2010 Bannister B01D 46/2411
55/308
- 2017/0122270 A1* 5/2017 Williams B01D 46/0004

OTHER PUBLICATIONS

Harley-Davidson.com, Screamin' Eagle High-Flow Air Cleaner Kit—Wedge, Nov. 2016, online product page, retrieved Mar. 8, 2018 from <URL:https://web.archive.org/web/20161114155607/https://www.harley-davidson.com/store/screamin-eagle-high-flow-air-cleaner> (Year: 2016).*

Arlen Ness, Big Sucker Stage | Air Cleaner Kits for Milwaukee-Eight Engines, Jun. 2017, online product page, retrieved Mar. 8, 2018 from <URL:https://web.archive.org/web/20161114155607/https://www.harley-davidson.com/store/screamin-eagle-high-flow-air-cleaner> (Year: 2017).*

* cited by examiner

Primary Examiner — Sheryl Lane

Assistant Examiner — Calvin E Vansant

(74) *Attorney, Agent, or Firm* — Rutan & Tucker LLP;
Hani Z. Sayed

(57) **CLAIM**

The ornamental design for a space optimizing air filter, as shown and described.

DESCRIPTION

FIG. 1 - Front, top, right side perspective view of the present invention;

FIG. 2 - Front elevation view;

FIG. 3 - Rear elevation view;

FIG. 4 - Left side elevation view;

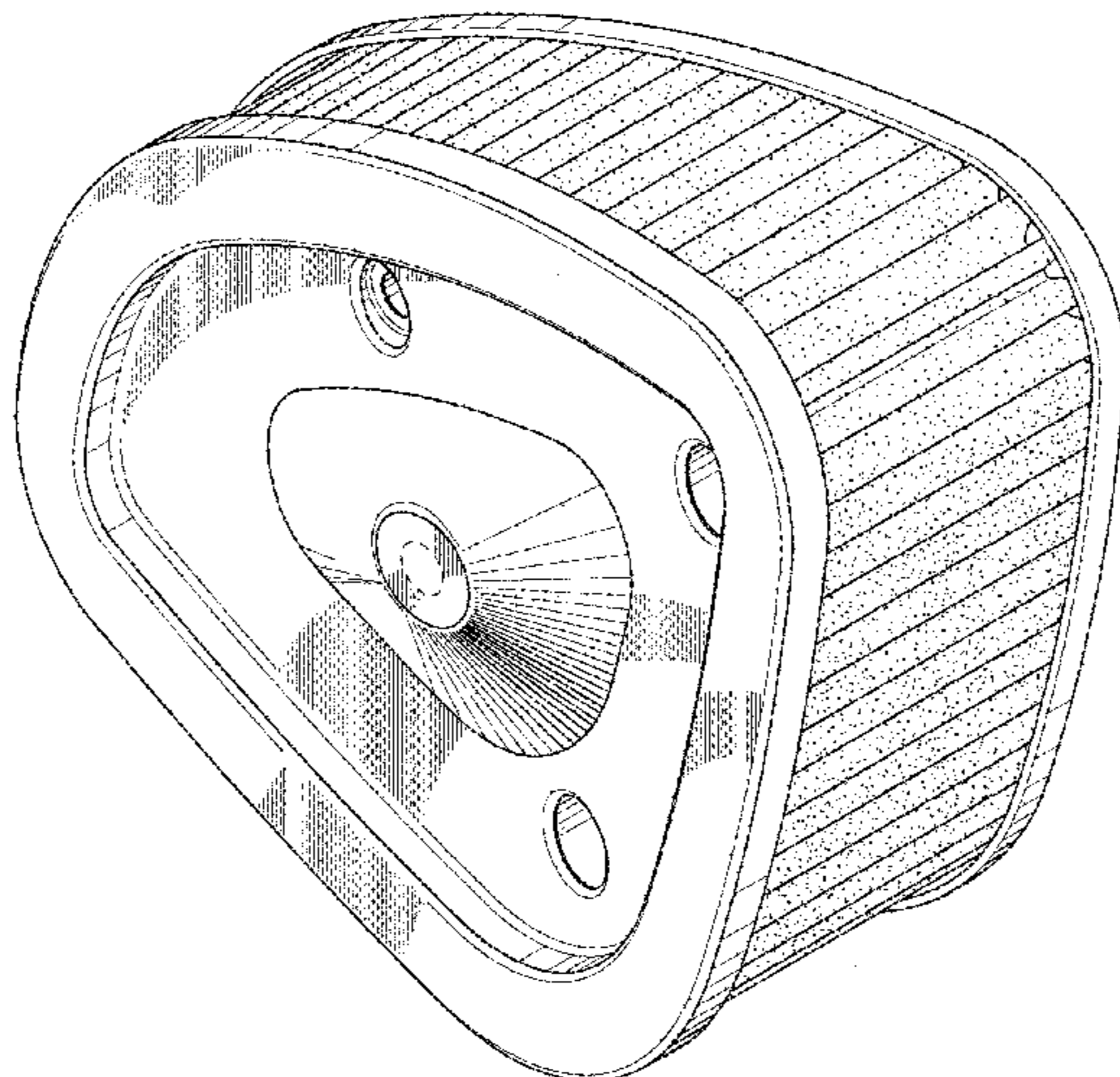
FIG. 5 - Right side elevation view;

FIG. 6 - Top plan view; and,

FIG. 7 - Bottom plan view.

The broken lines depict portions of the space optimizing air filter that form no part of the claimed design.

1 Claim, 4 Drawing Sheets



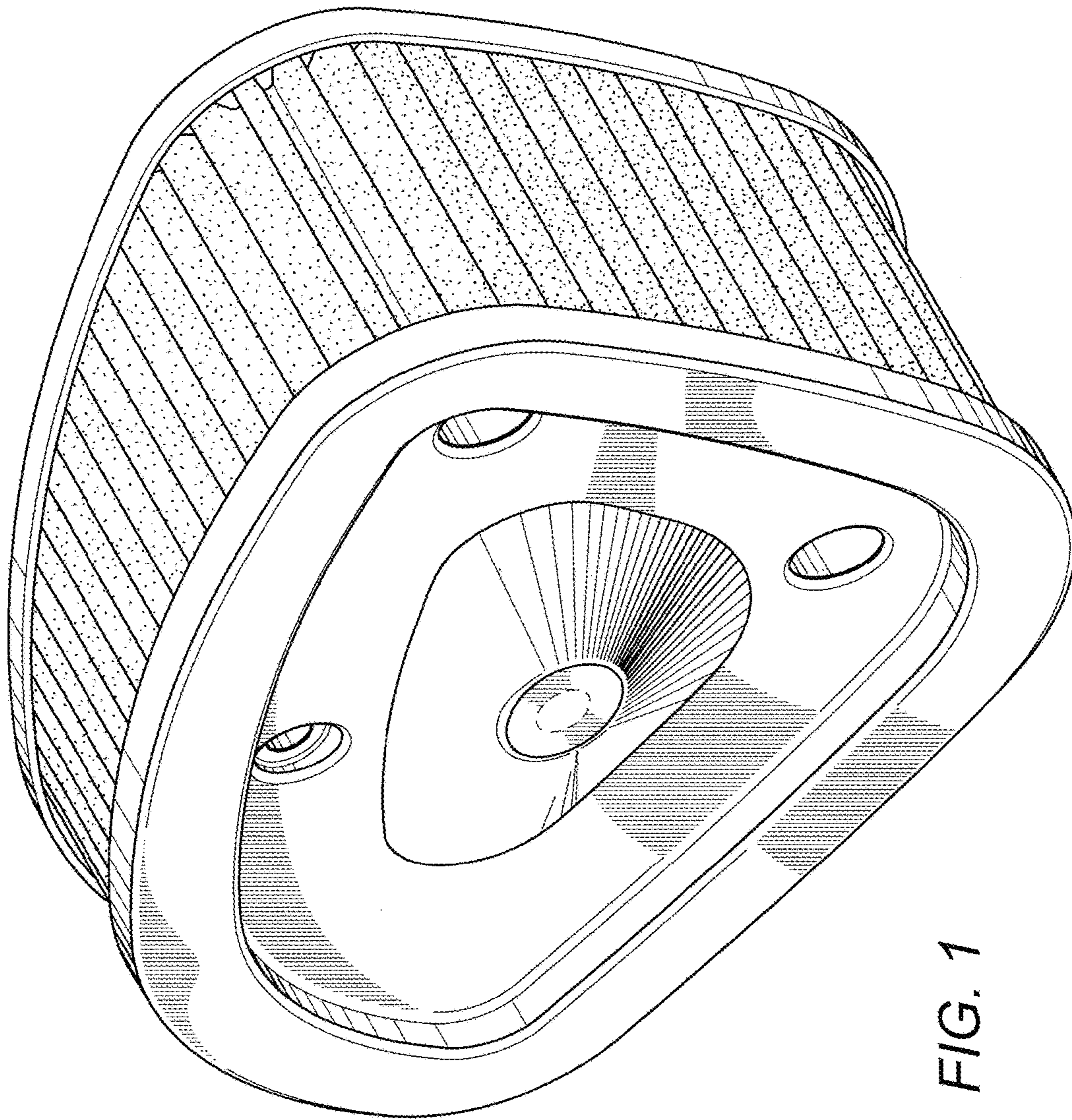


FIG. 1

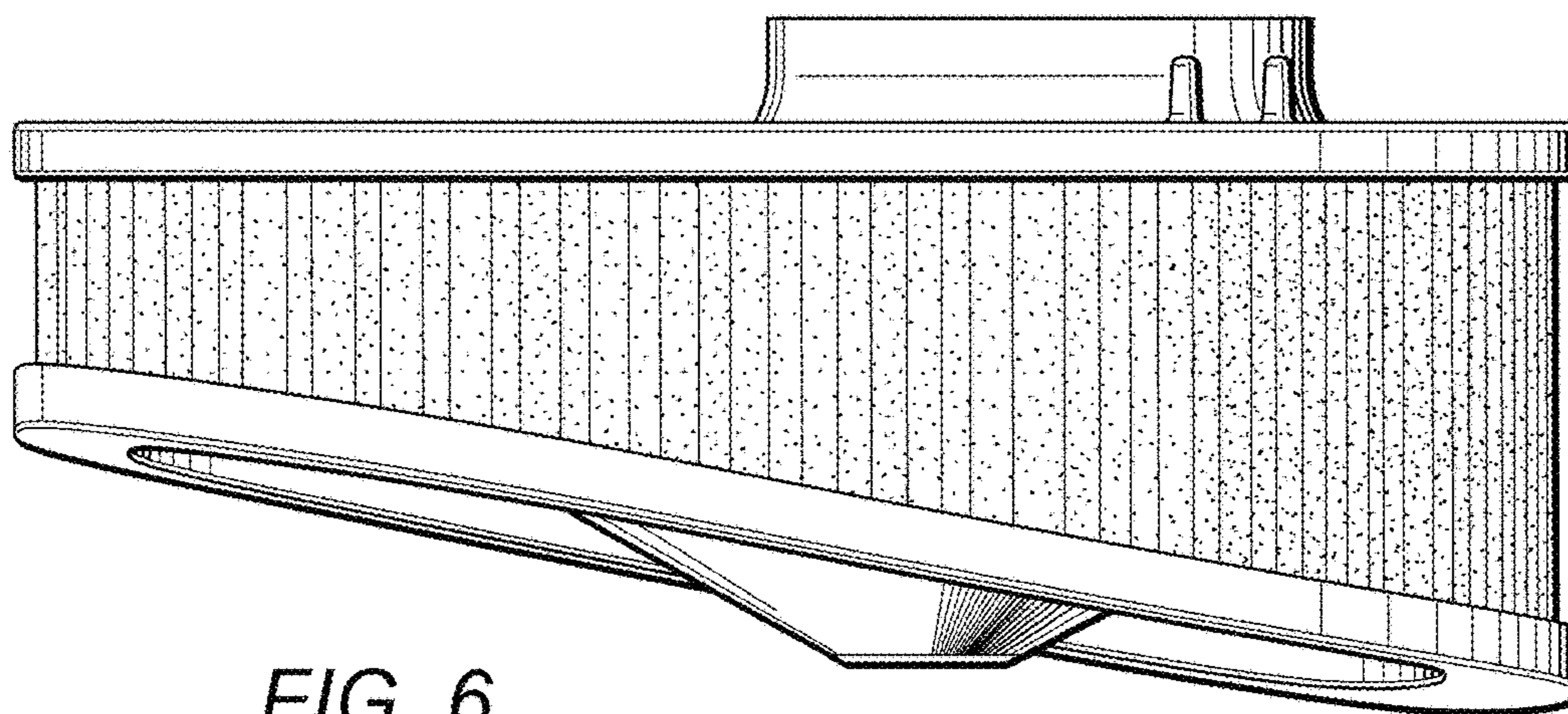


FIG. 6

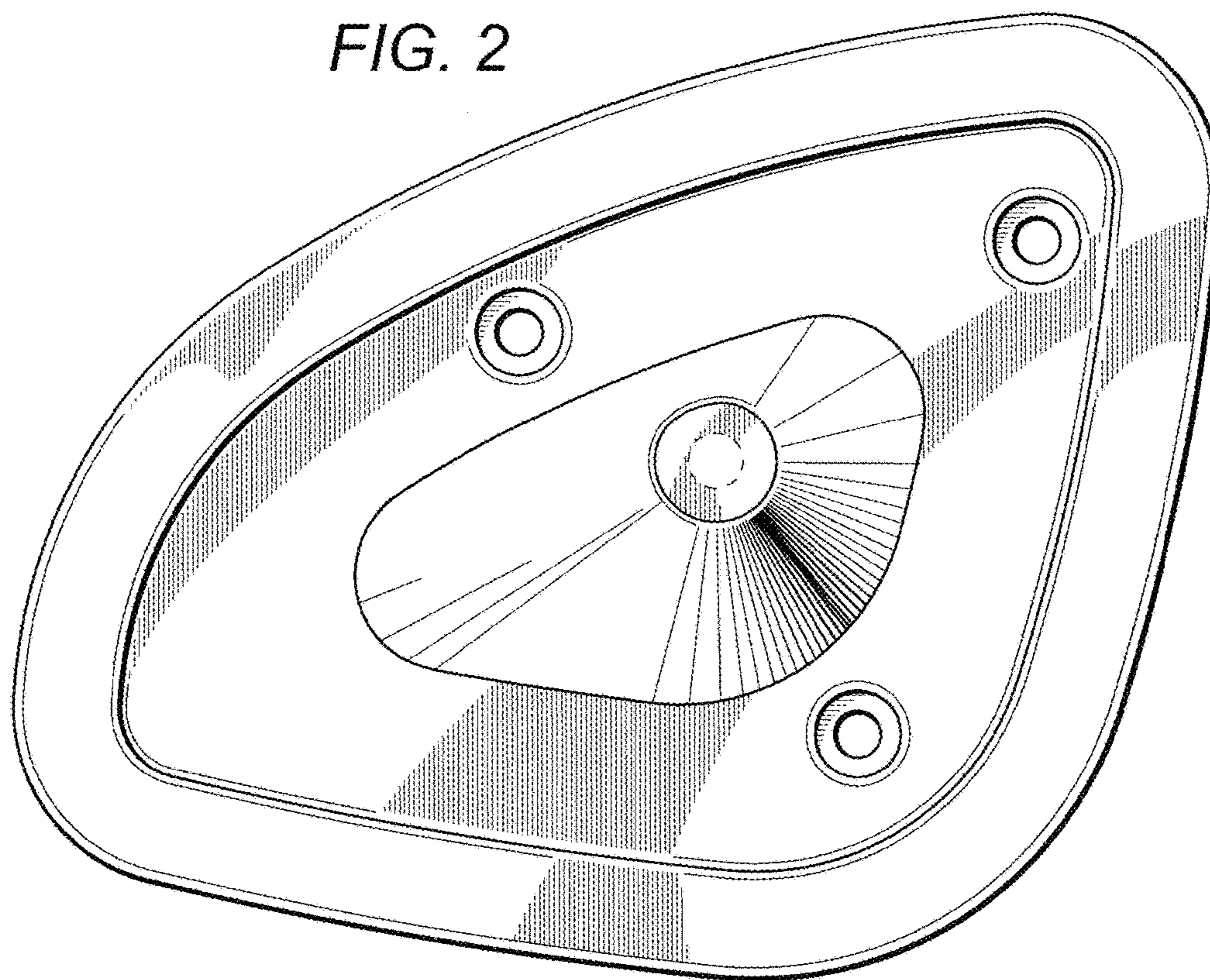


FIG. 2

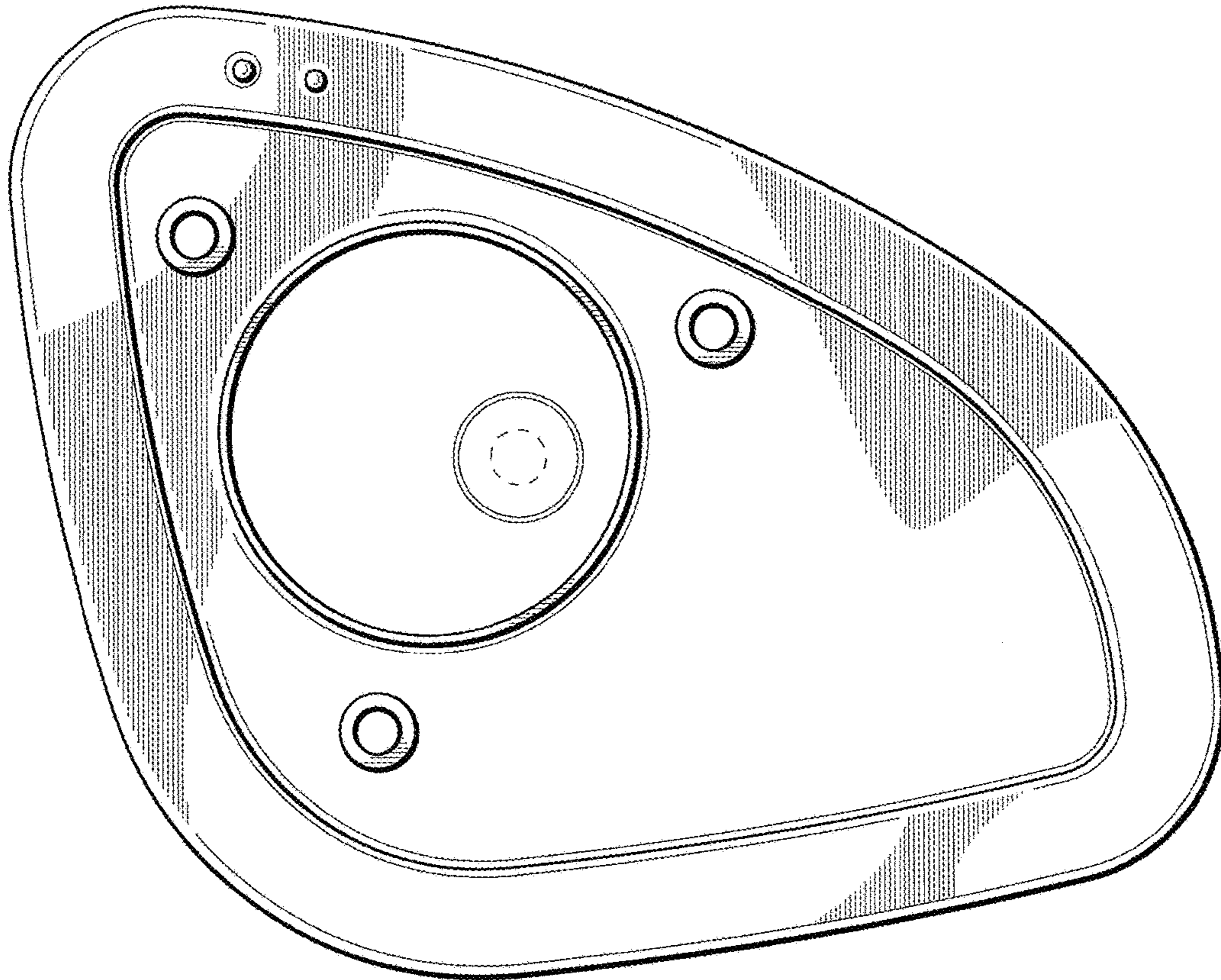


FIG. 3

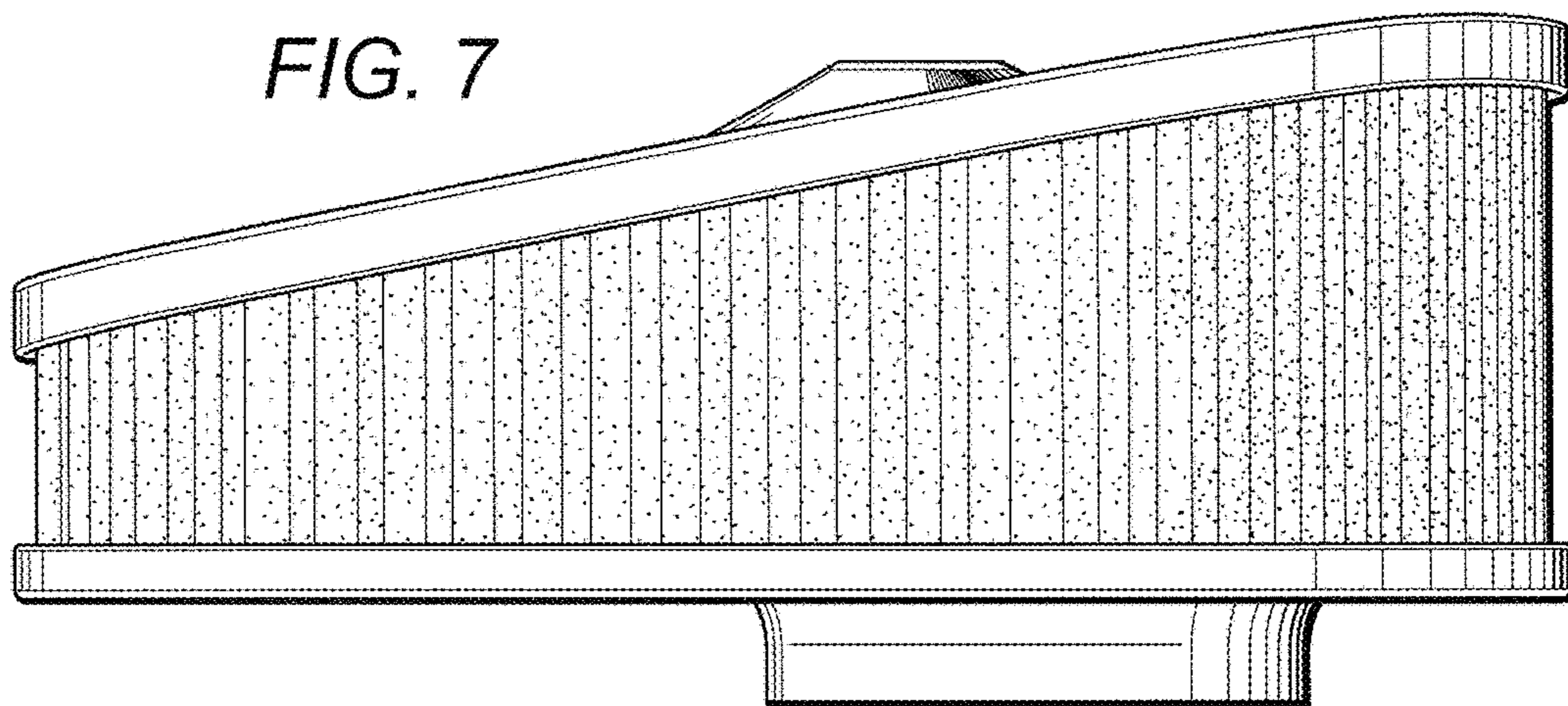


FIG. 7

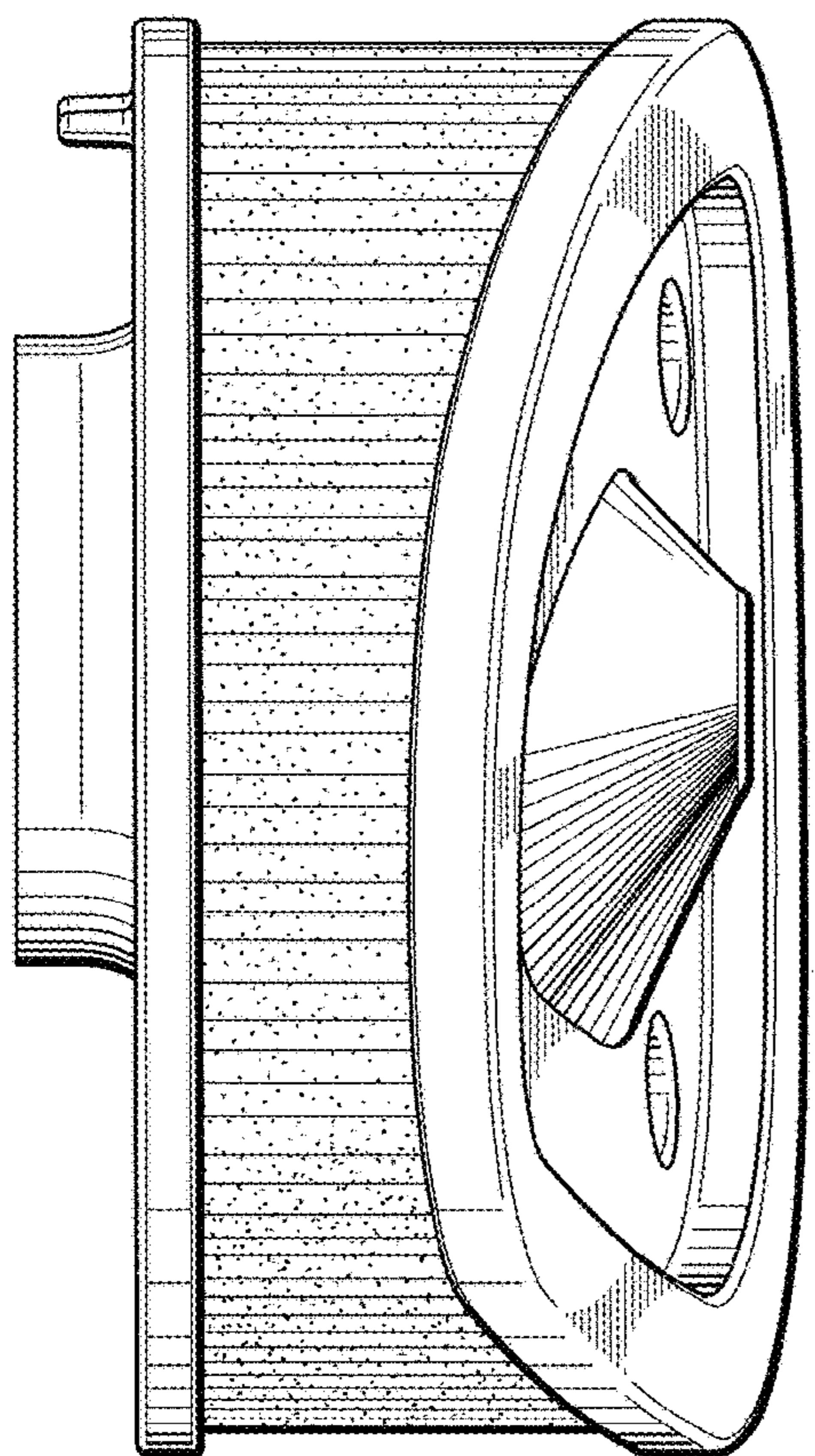


FIG. 4

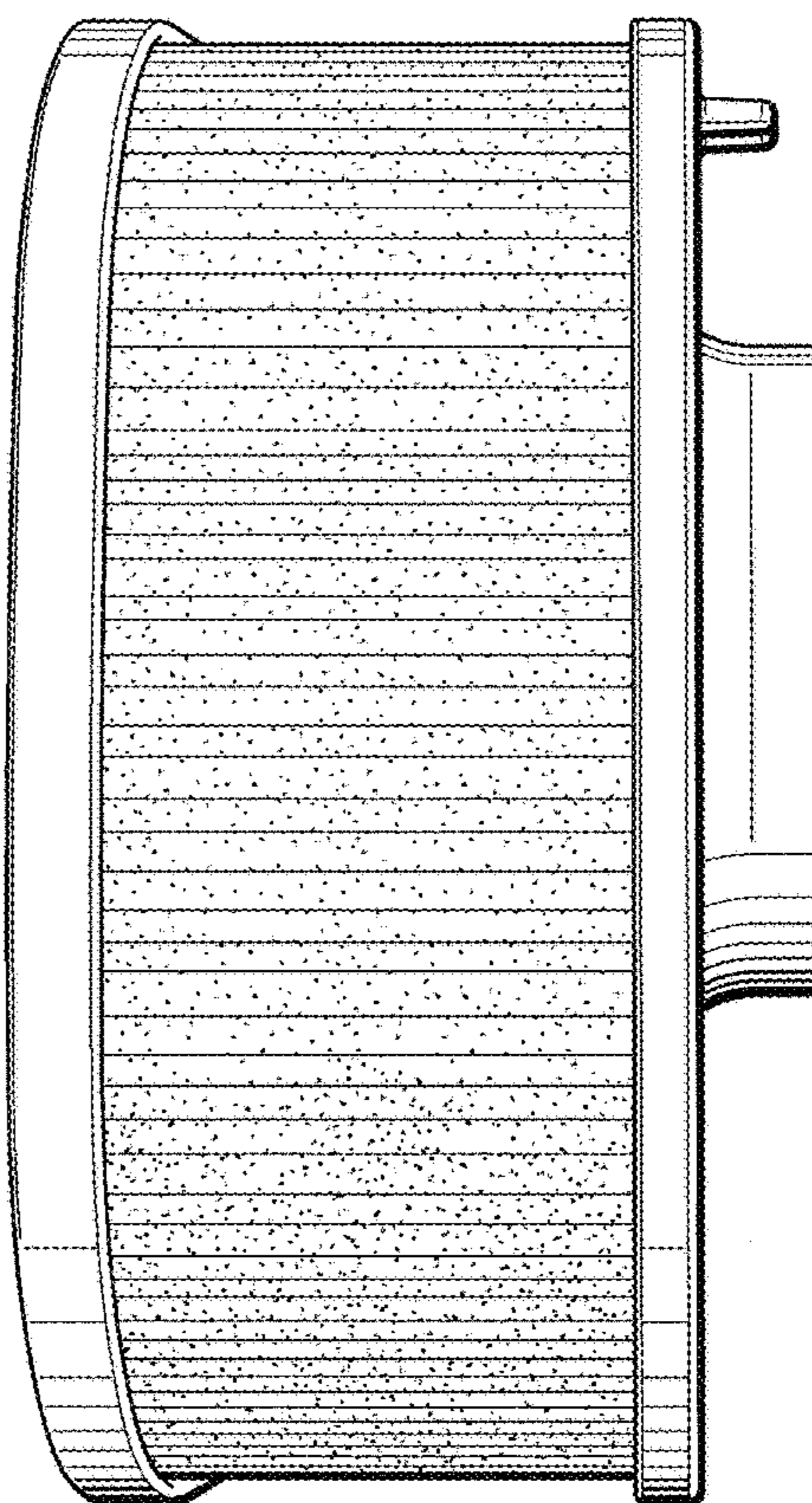


FIG. 5