

US00D506539S

(12) **United States Design Patent** (10) **Patent No.:** **US D506,539 S**  
**Bishop et al.** (45) **Date of Patent:** **\*\* Jun. 21, 2005**

(54) **FILTER CARTRIDGE**

(75) Inventors: **Wayne R. W. Bishop**, St. Louis Park, MN (US); **Benny Kevin Nelson**, Waconia, MN (US); **David Wayne Nelson**, Coon Rapids, MN (US)

(73) Assignee: **Donaldson Company, Inc.**, Minneapolis, MN (US)

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

(21) Appl. No.: **29/202,063**

(22) Filed: **Mar. 24, 2004**

(51) **LOC (8) Cl.** ..... **23-04**

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

(58) **Field of Search** ..... D23/209, 365; 55/501, 502, 385.3, 495

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D151,464 S	10/1948	Olsen
3,025,963 A	3/1962	Bauer
4,065,341 A	12/1977	Cub
4,449,993 A	5/1984	Bergeron
5,435,870 A	7/1995	Takagaki et al.
5,487,767 A	1/1996	Brown
5,543,007 A	8/1996	Takagaki et al.
5,547,480 A	8/1996	Coulonvaux
5,613,991 A	3/1997	Esaki et al.
5,613,992 A	3/1997	Engel
5,714,126 A	2/1998	Frund
5,730,766 A	3/1998	Clements
D396,098 S	7/1998	Gillingham et al.
D398,046 S	9/1998	Gillingham et al.
D399,944 S	10/1998	Gillingham et al.
5,820,646 A	10/1998	Gillingham et al.
D417,268 S	11/1999	Gillingham
D425,189 S	5/2000	Gillingham et al.
D428,128 S	7/2000	Gillingham et al.
D437,402 S	2/2001	Gieseke et al.
6,190,432 B1	2/2001	Gieseke et al.
6,235,195 B1	5/2001	Tokar
D450,827 S	11/2001	Gieseke et al.

D450,828 S	11/2001	Tokar
6,348,084 B1	2/2002	Gieseke et al.
6,350,291 B1	2/2002	Gieseke et al.
D455,483 S *	4/2002	Gieseke et al. .... D23/365
D460,169 S	7/2002	Anderson et al.
D461,003 S	7/2002	Gieseke et al.
D461,884 S	8/2002	Gieseke et al.
D464,129 S	10/2002	Xu et al.
D466,602 S	12/2002	Gieseke et al.
D473,637 S	4/2003	Golden
6,610,117 B2	8/2003	Gieseke et al.
6,610,126 B2	8/2003	Xu et al.
D483,459 S	12/2003	DeWit et al.
D484,584 S	12/2003	Anderson et al.
D497,202 S *	10/2004	Carter et al. .... D23/365

\* cited by examiner

*Primary Examiner*—Robin V. Taylor

(74) *Attorney, Agent, or Firm*—Merchant & Gould P.C.

(57) **CLAIM**

The ornamental design for filter cartridge, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a first embodiment of a filter cartridge made according to our new design; the fluted filter media shown in only a portion of the upper face being representative of the appearance of the fluted filter media in the entire upper face; the portions shown in broken lines forming no part of the design sought to be patented;

FIG. 2 is an alternate perspective view of a first embodiment of the filter cartridge depicted in FIG. 1; the fluted filter media shown in only a portion of the upper face and being representative of the appearance of the fluted filter media in the entire upper face;

FIG. 3 is a front elevational view of the filter cartridge depicted in FIG. 2, the portions shown in broken lines forming no part of the design sought to be patented; the rear elevational view being a mirror image thereof;

FIG. 4 is a left end elevational view of the filter cartridge of FIG. 2, the portions shown in broken lines forming no part of the design sought to be patented; the right end elevational view being a mirror image thereof;

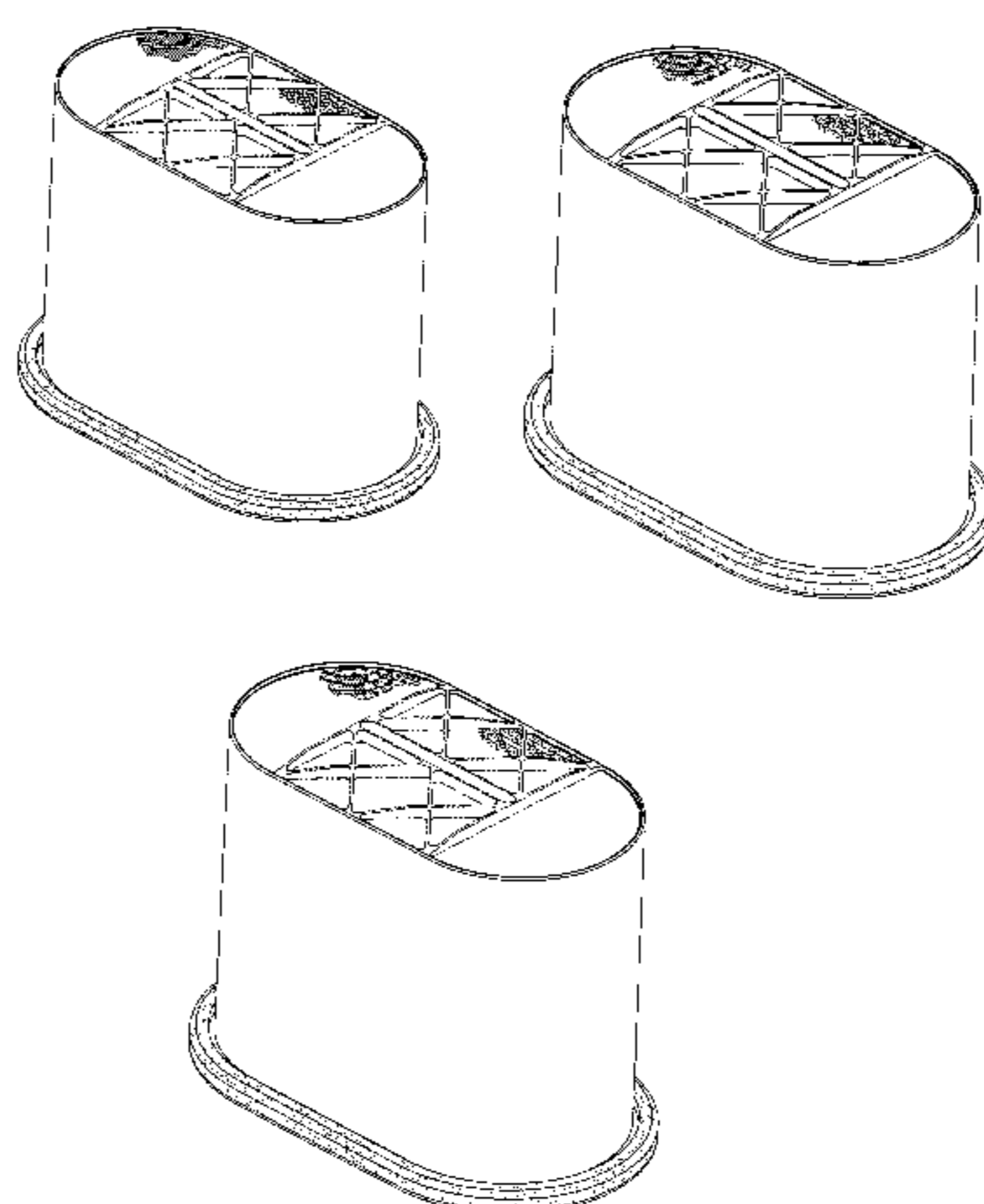


FIG. 5 is a top plan view of the filter cartridge depicted in FIG. 2; the fluted filter media shown in only a portion of the filter face and being representative of the appearance of the fluted filter media in the entire filter face;

FIG. 6 is a bottom plan view of the filter cartridge depicted in FIG. 2; the fluted filter media shown in only a portion of the filter face and being representative of the appearance of the fluted filter media in the entire filter face; the portions shown in broken lines forming no part of the design sought to be patented;

FIG. 7 is a perspective view of a second embodiment of a filter cartridge made according to our new design; the fluted filter media being shown in broken lines and forming no part of the design sought to be patented; the fluted filter media shown in broken lines being depicted in only a portion of the filter face, but being representative of the appearance of the entire filter face;

FIG. 8 is an alternate perspective view of the filter cartridge depicted in FIG. 7; the fluted filter media being shown in broken lines and forming no part of the design sought to be patented; the fluted filter media shown in broken lines being shown in only a portion of the filter face and being representative of the appearance of the fluted filter media in the entire filter face;

FIG. 9 is a front elevational view of the filter cartridge depicted in FIG. 8; the rear elevational view being a mirror image thereof;

FIG. 10 is a left end elevational view of the filter element depicted in FIG. 8, the right end elevational view being a mirror image thereof;

FIG. 11 is a top plan view of the filter cartridge depicted in FIG. 8; the fluted filter media being shown in broken lines and forming no part of the design sought to be patented; the fluted filter media shown in broken lines being shown in only a portion of the filter face and being representative of the appearance of the fluted filter media in the entire filter face;

FIG. 12 is a bottom plan view of the filter cartridge depicted in FIG. 8; the fluted filter media being shown in broken lines and forming no part of the design sought to be patented; the fluted filter media shown in broken lines being shown in only a portion of the filter face and being representative of the appearance of the fluted filter media in the entire filter face;

FIG. 13 is a perspective view of a third embodiment of a filter cartridge according to our new design; the portions shown in broken lines forming no part of the design sought to be patented; the fluted filter media being shown in broken lines and being shown in only a portion of the upper face and being representative of the appearance of the fluted filter media in the entire upper face;

FIG. 14 is an alternate perspective view of the filter cartridge in FIG. 13; the fluted filter media being shown in broken lines and forming no part of the design sought to be patented; the fluted filter media shown in broken lines being shown in only a portion of the filter face and being representative of the appearance of the fluted filter media in the entire filter face;

FIG. 15 is a front elevational view of the filter cartridge depicted in FIG. 14; the portions shown in broken lines forming no part of the design sought to be patented; the rear elevational view being a mirror image thereof;

FIG. 16 is a left end elevational view of the filter cartridge depicted in FIG. 14; the portions shown in broken lines forming no part of the design sought to be patented; the right end elevational view being a mirror image thereof;

FIG. 17 is a top plan view of the filter cartridge depicted in FIG. 14; the fluted filter media being shown in broken lines and forming no part of the design sought to be patented; the fluted filter media shown in broken lines being shown in only a portion of the filter face and being representative of the appearance of the fluted filter media in the entire filter face; and,

FIG. 18 is a bottom plan view of the filter cartridge depicted in FIG. 14; the portions shown in broken lines forming no part of the design sought to be patented; the fluted filter media being shown in broken lines and being shown in only a portion of the filter face and being representative of the appearance of the fluted filter media in the entire filter face.

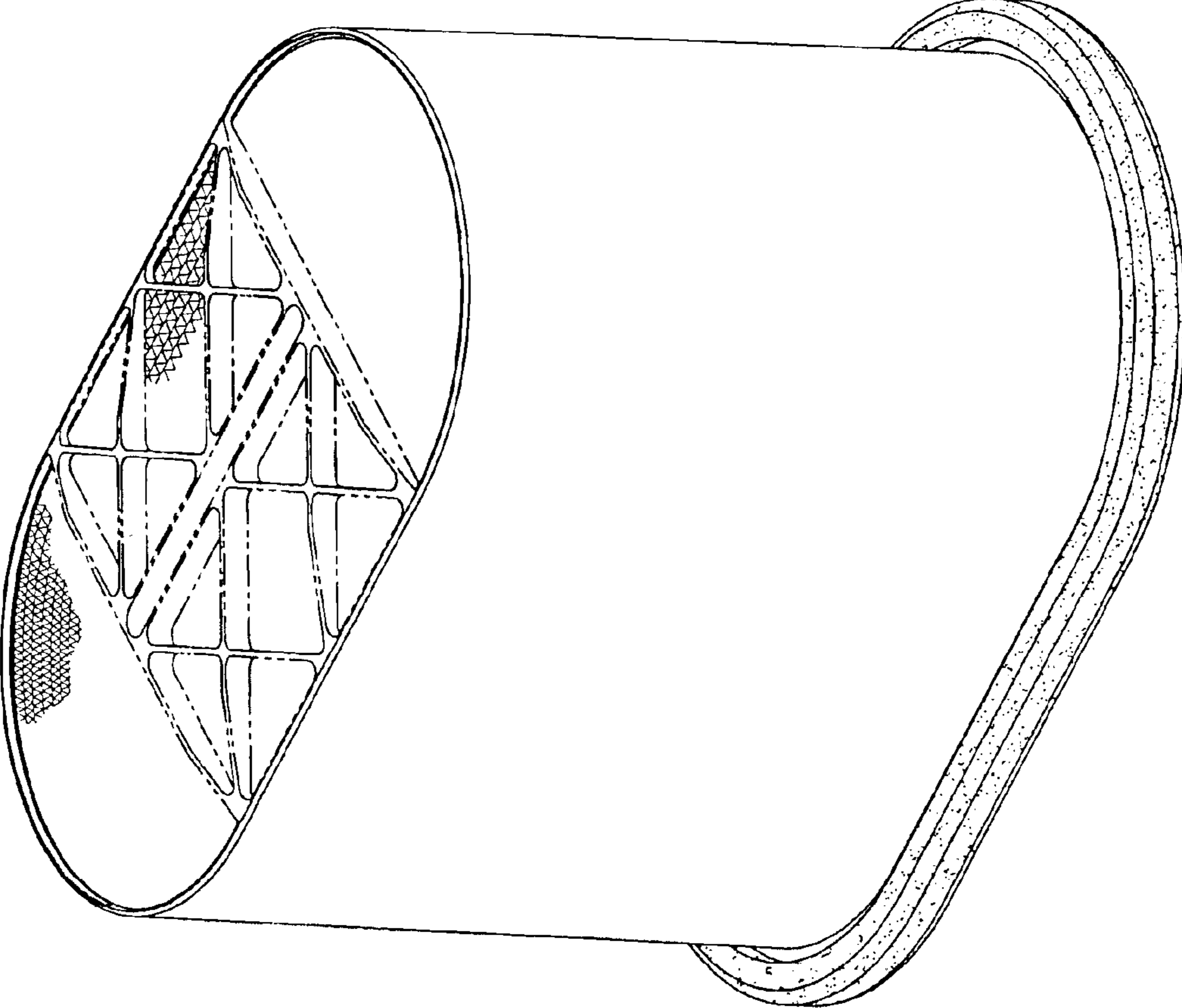


FIG. 1

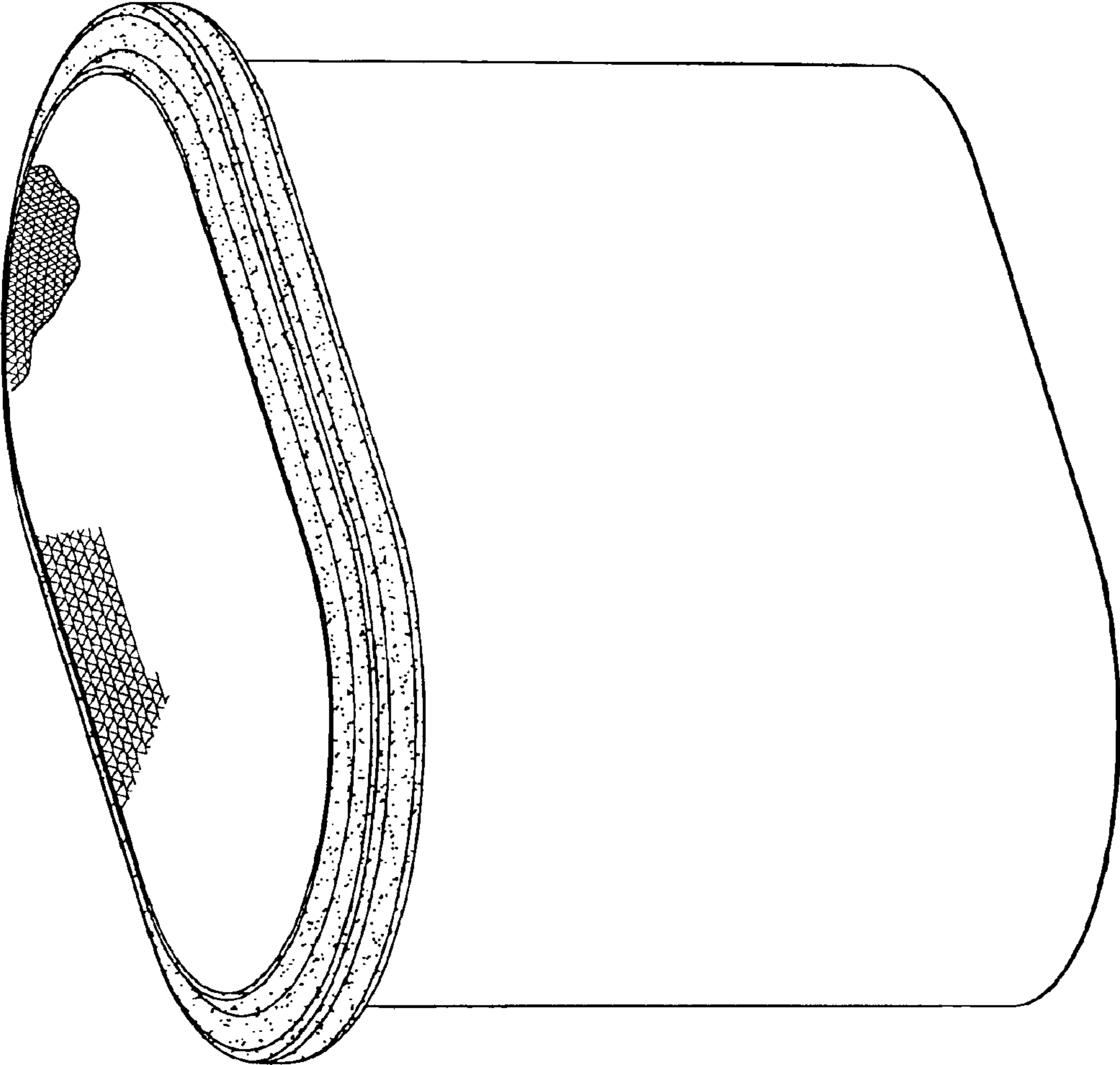


FIG. 2

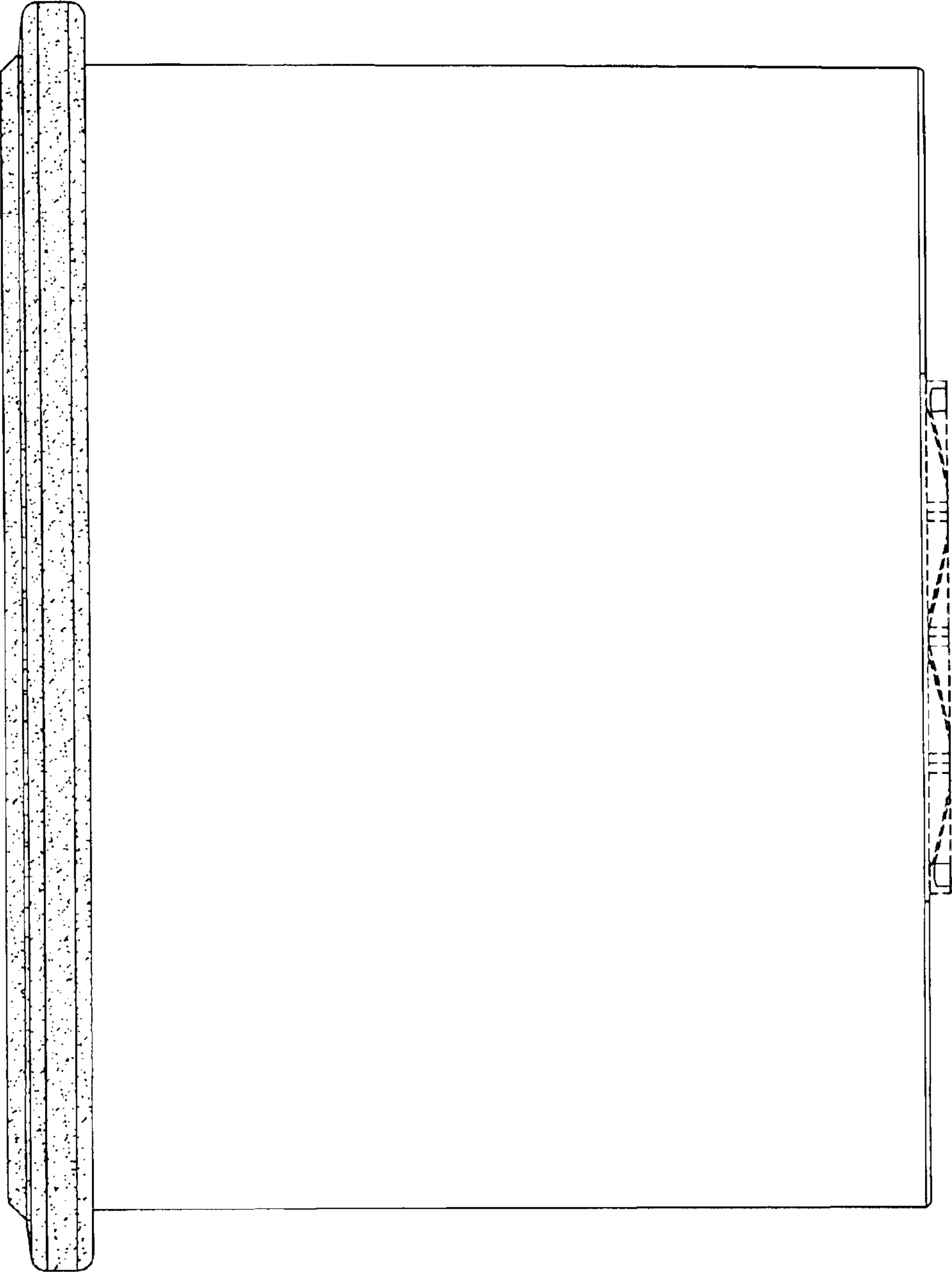
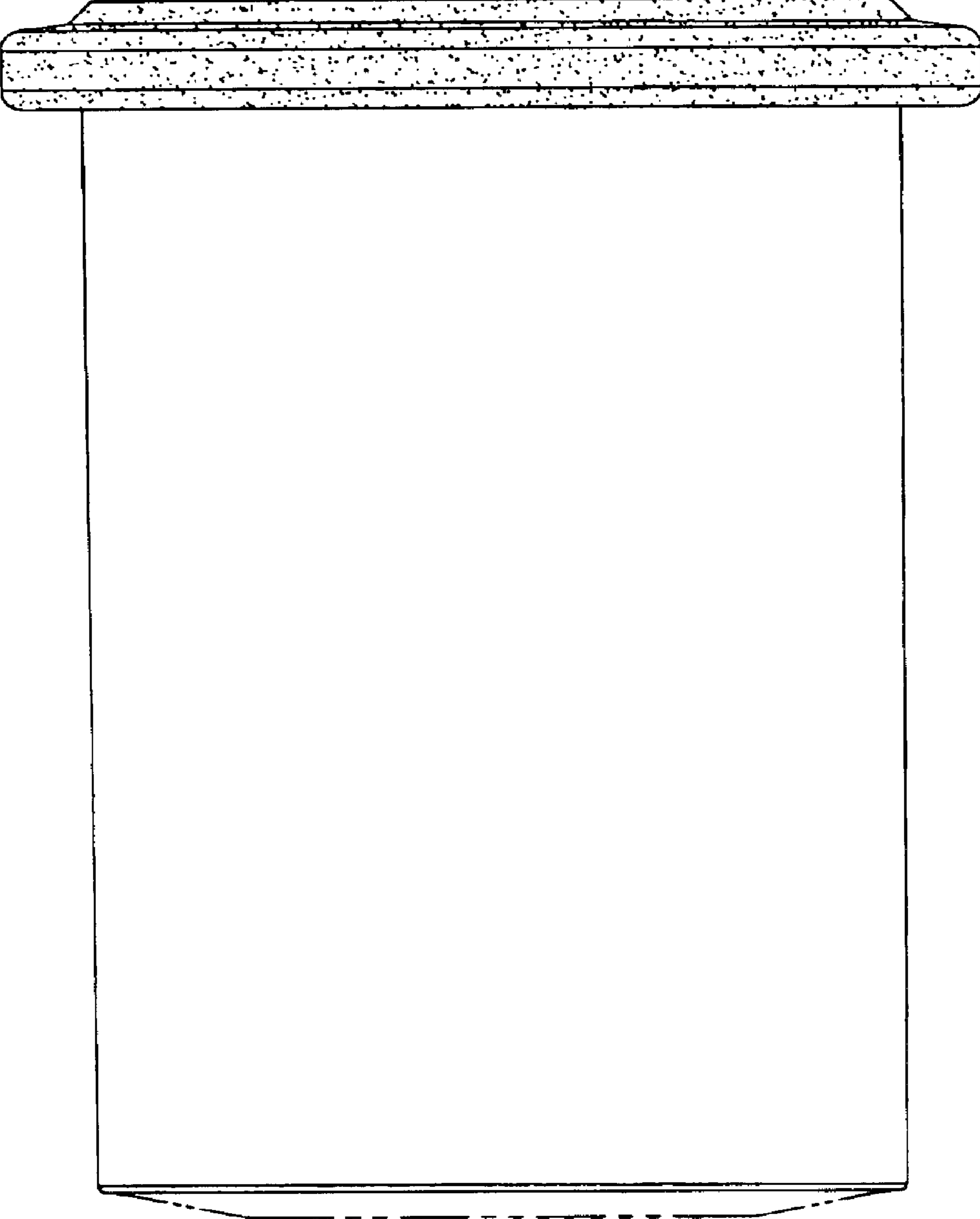


FIG. 3

FIG. 4



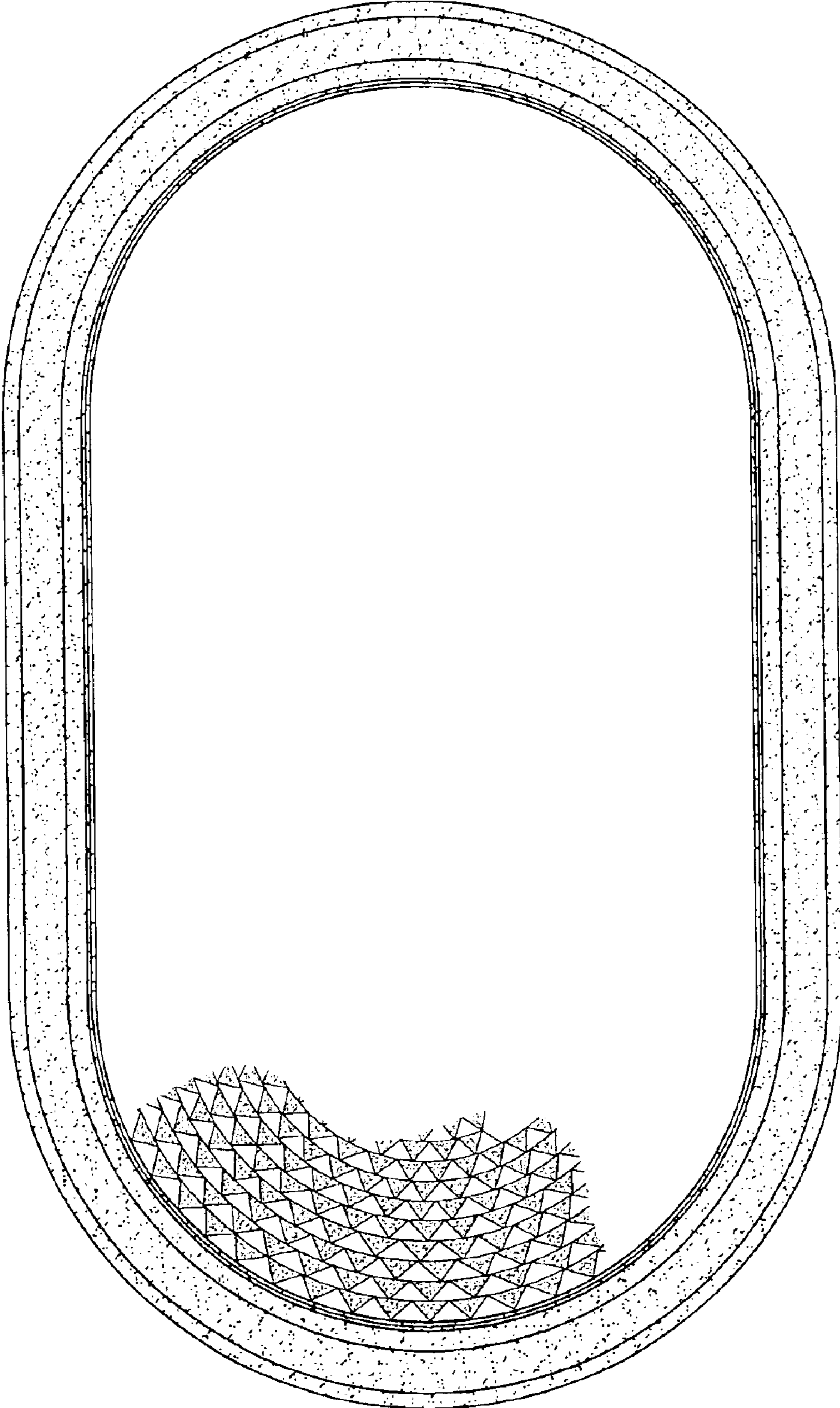


FIG. 5

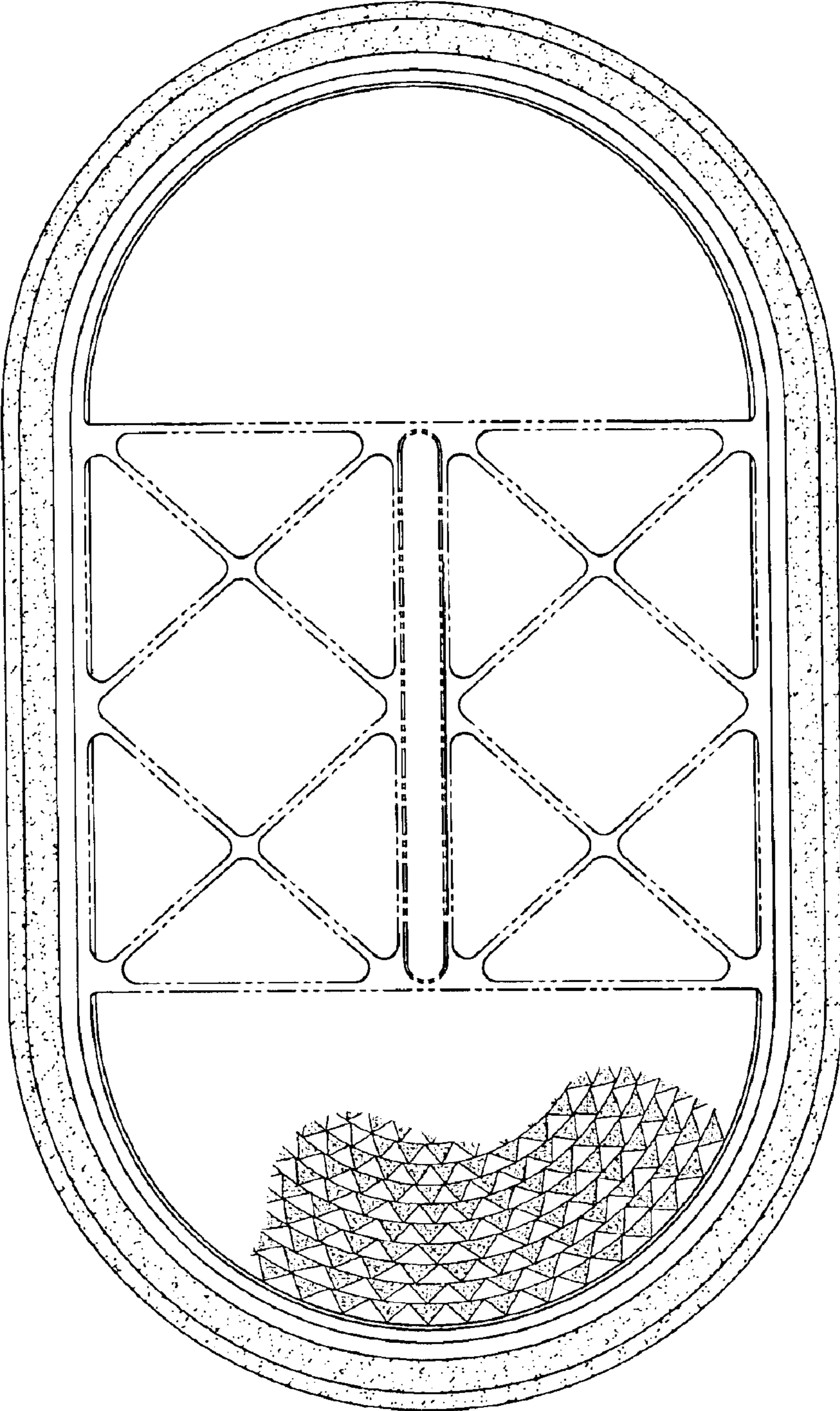


FIG. 6



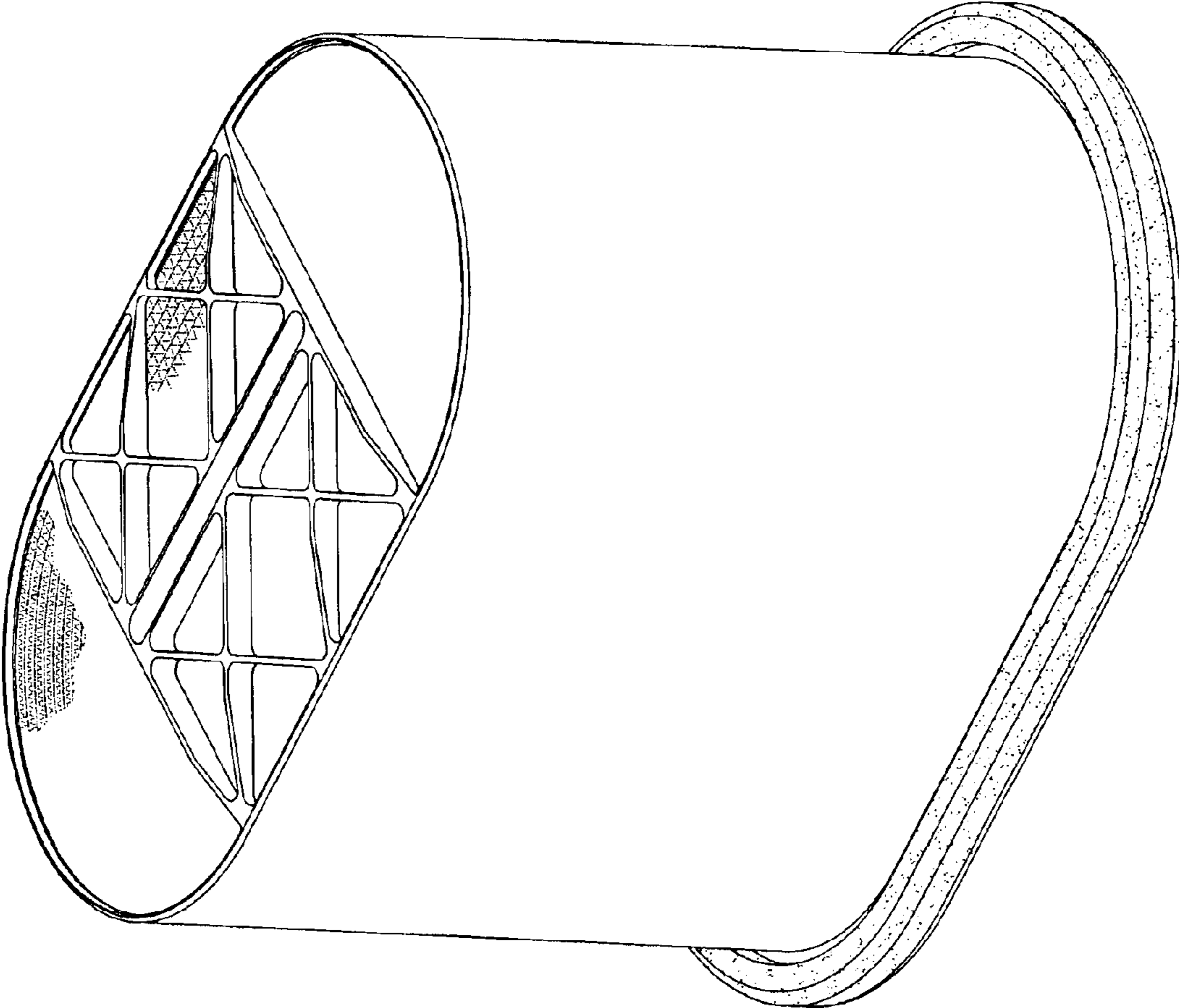


FIG. 7

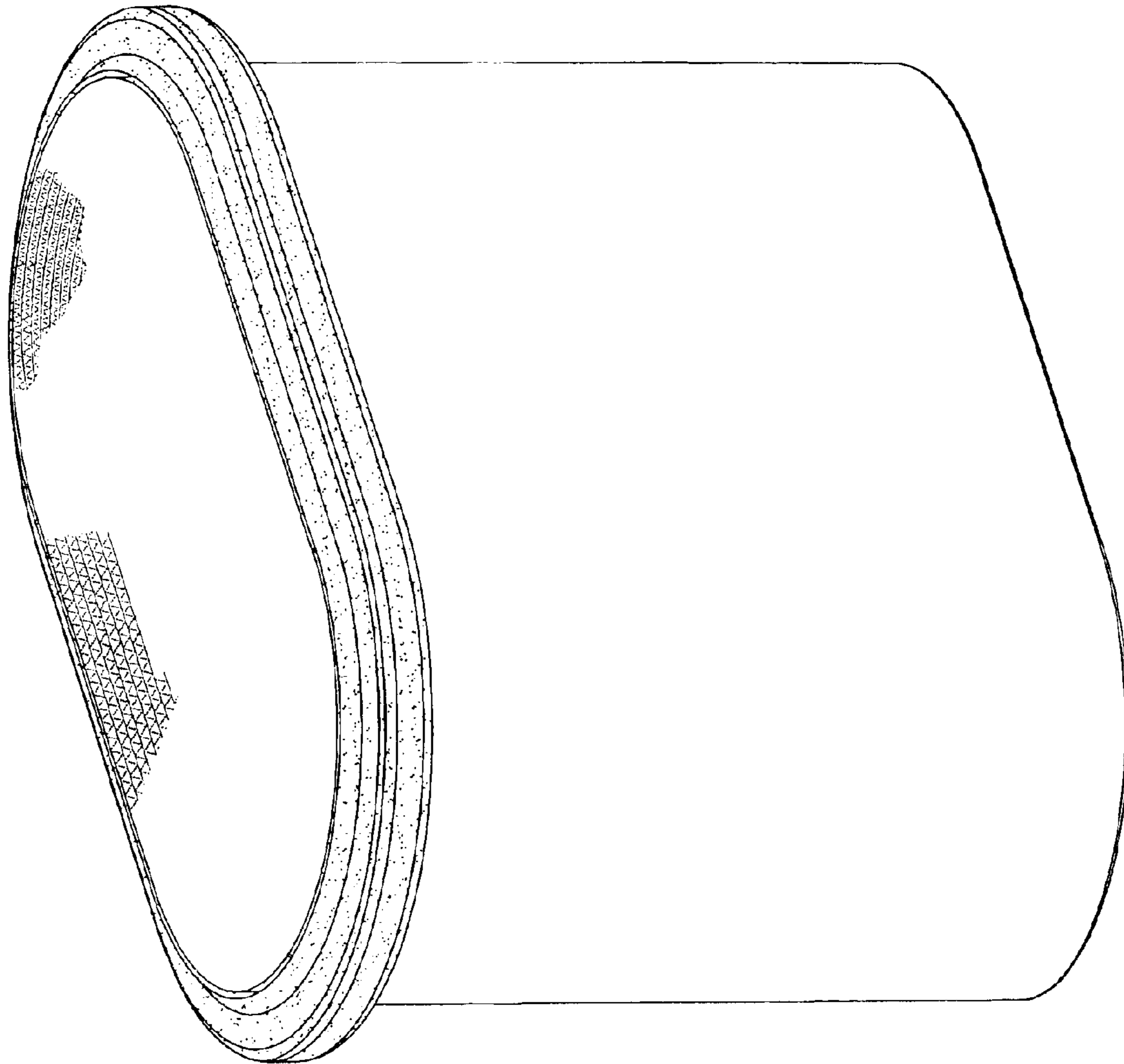


FIG. 8

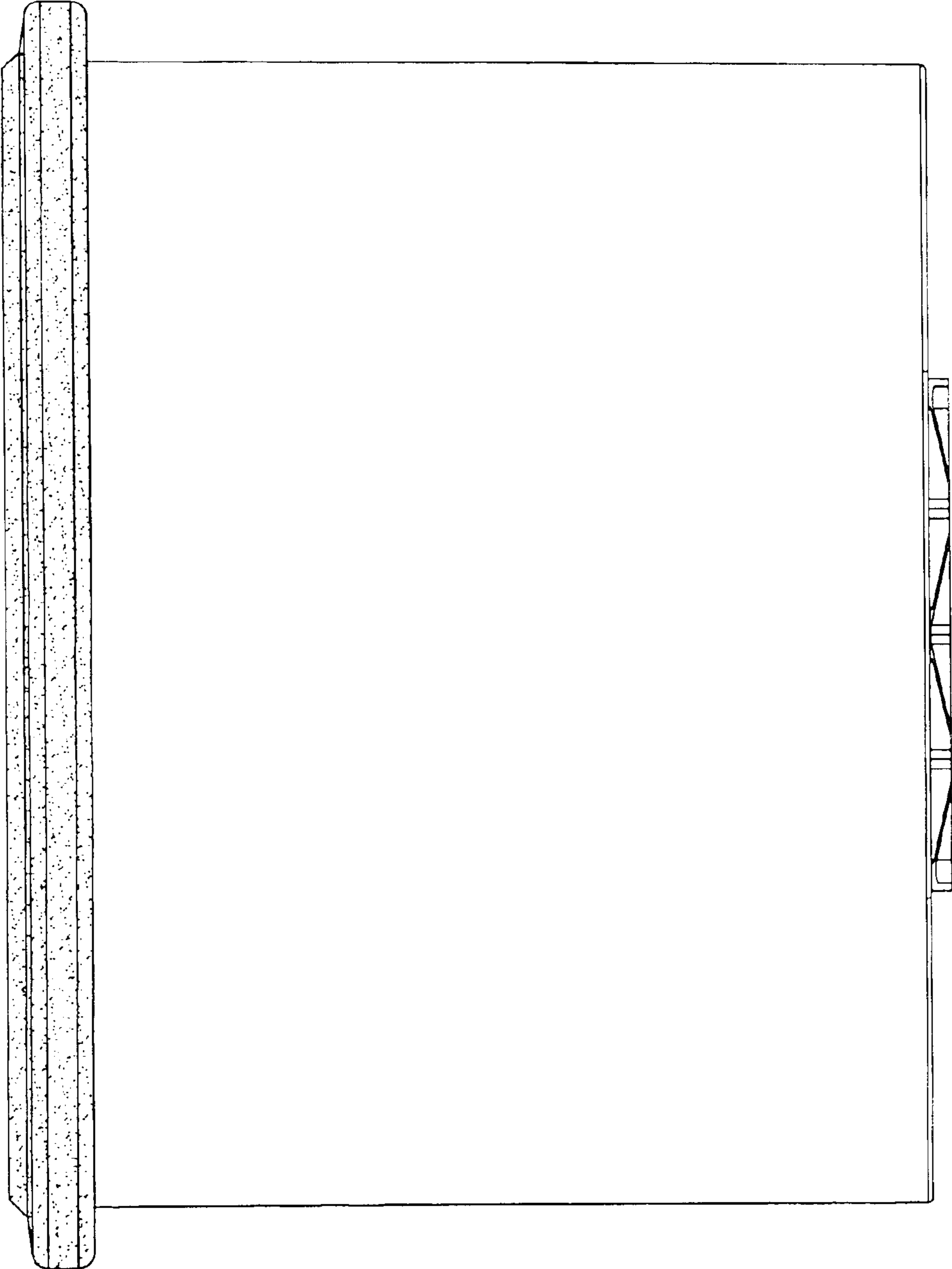
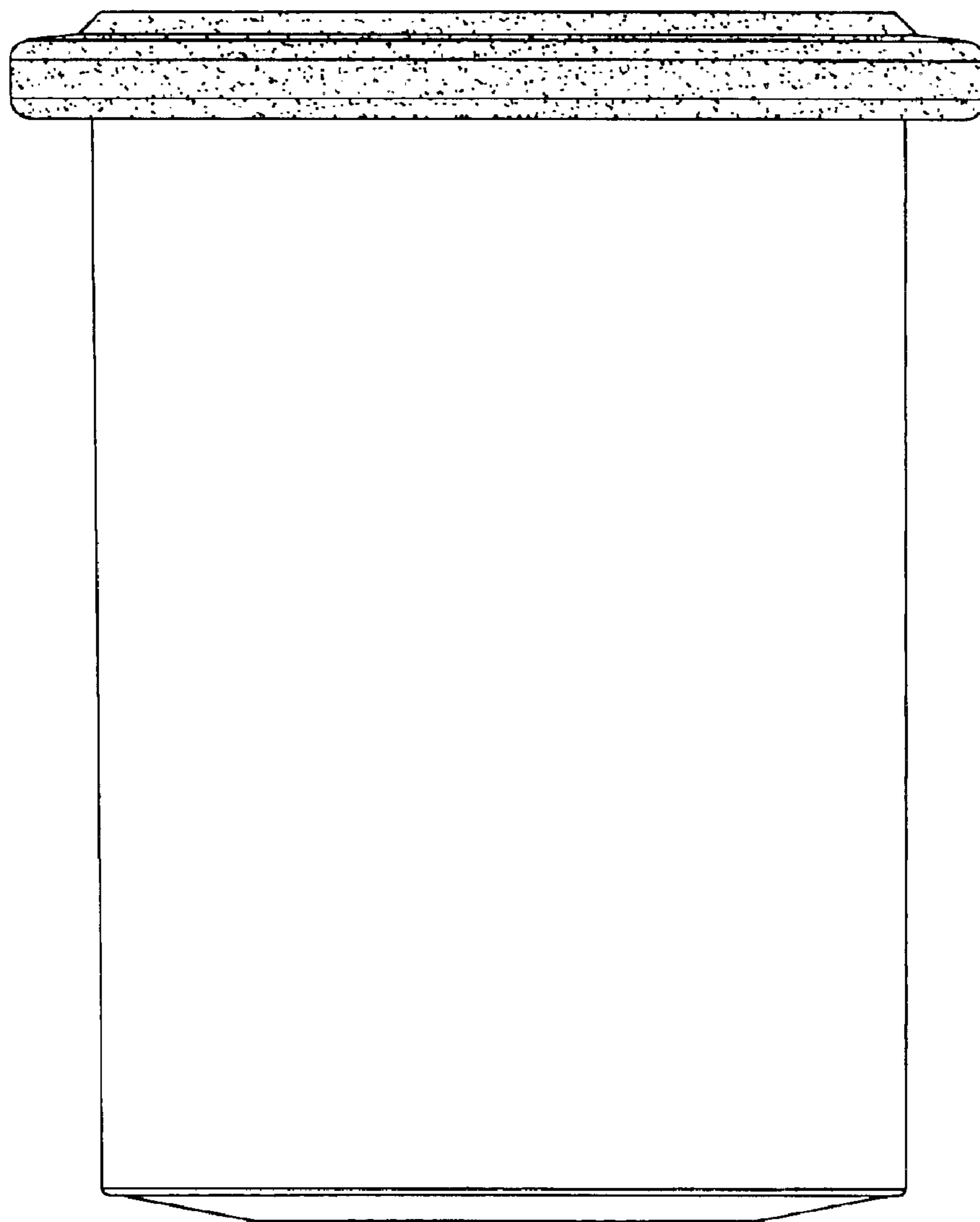


FIG. 9

FIG. 10



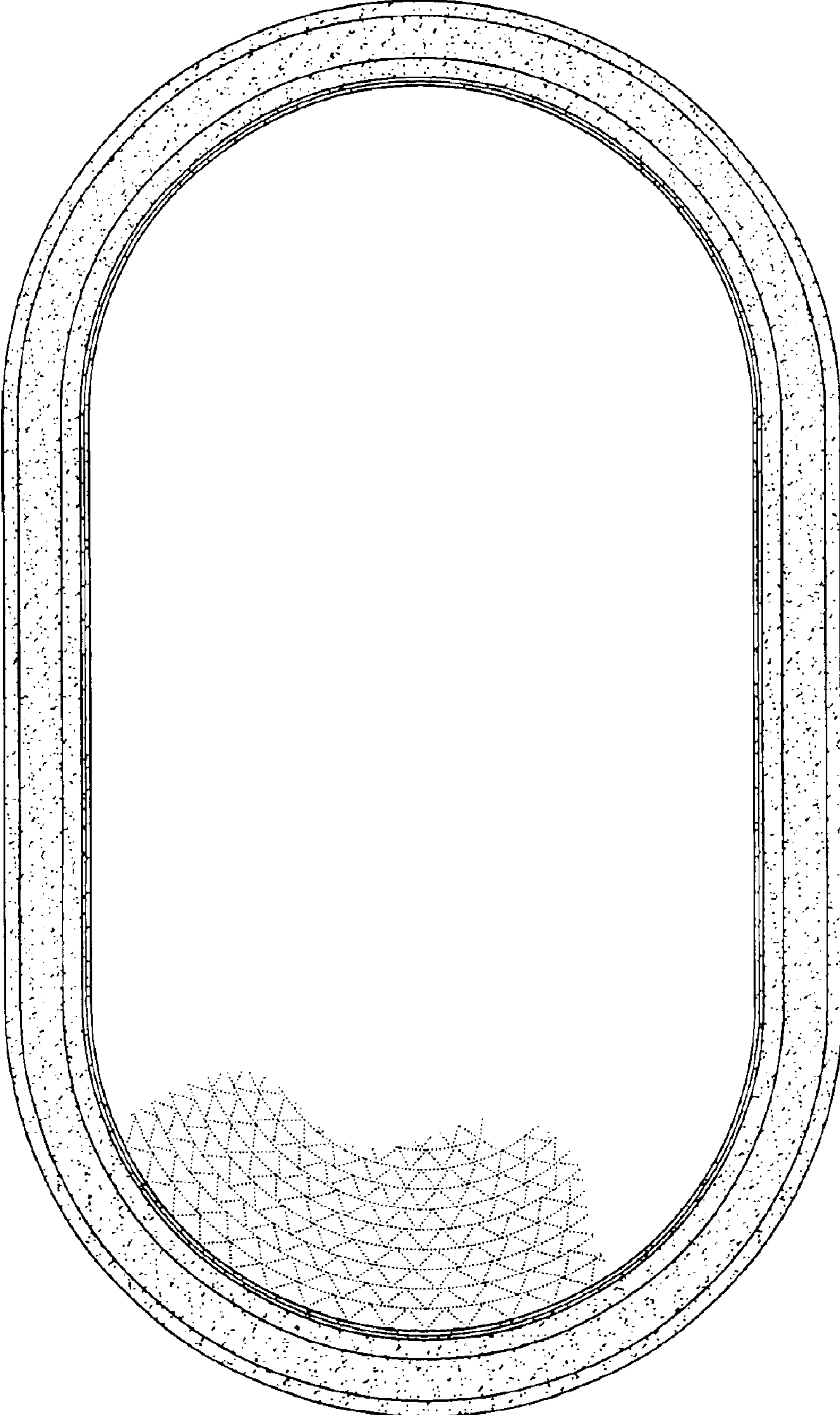


FIG. 11

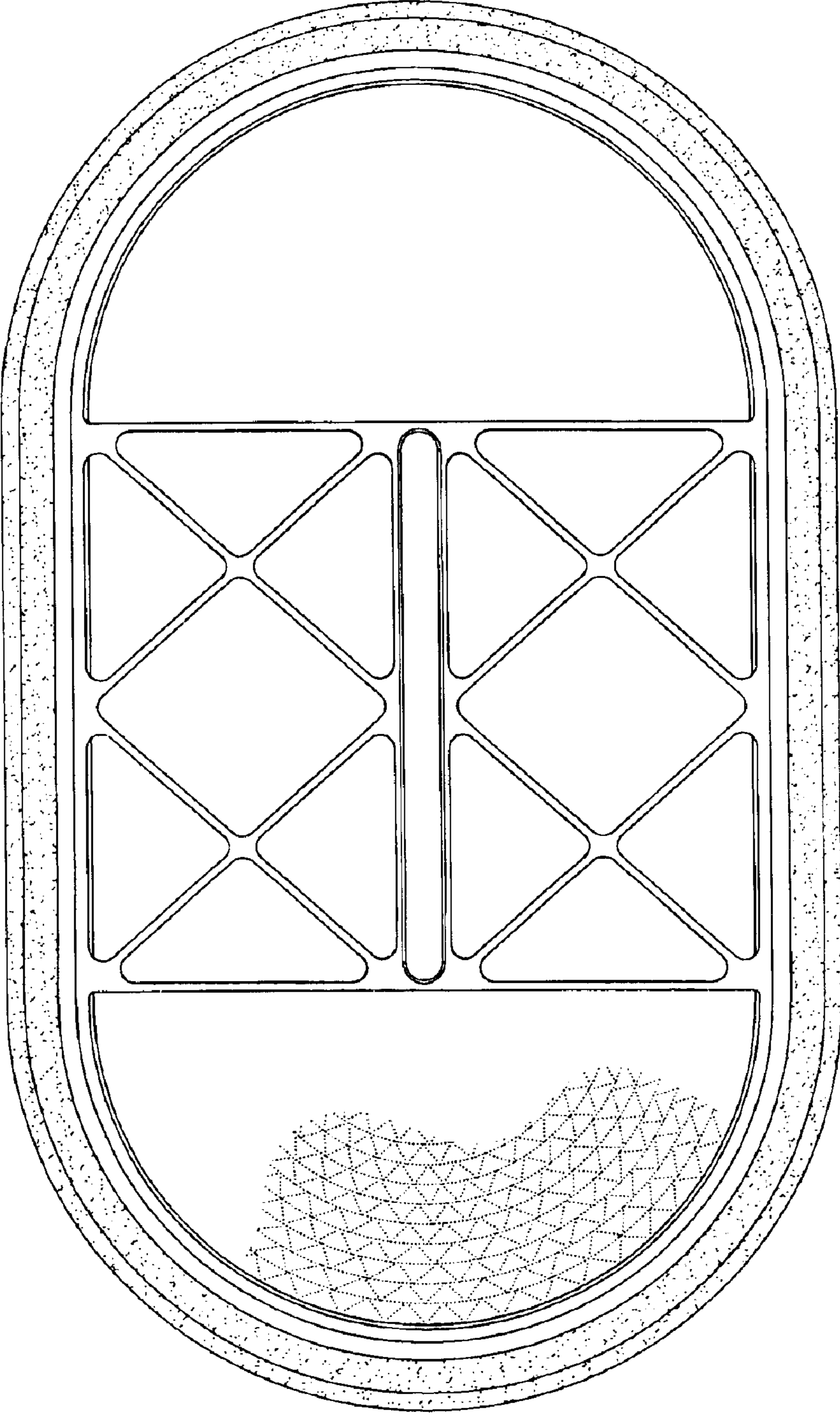


FIG. 12

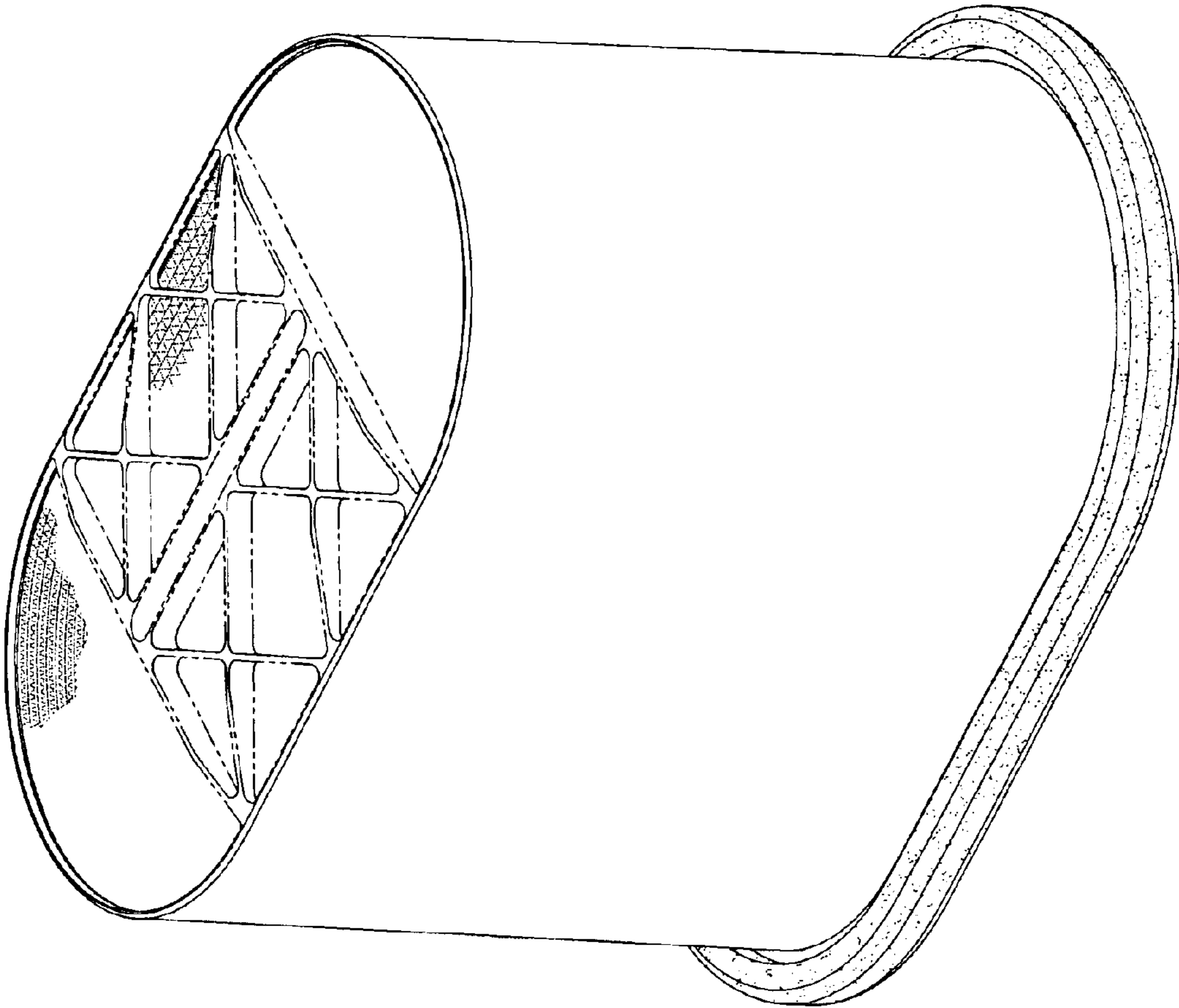


FIG. 13

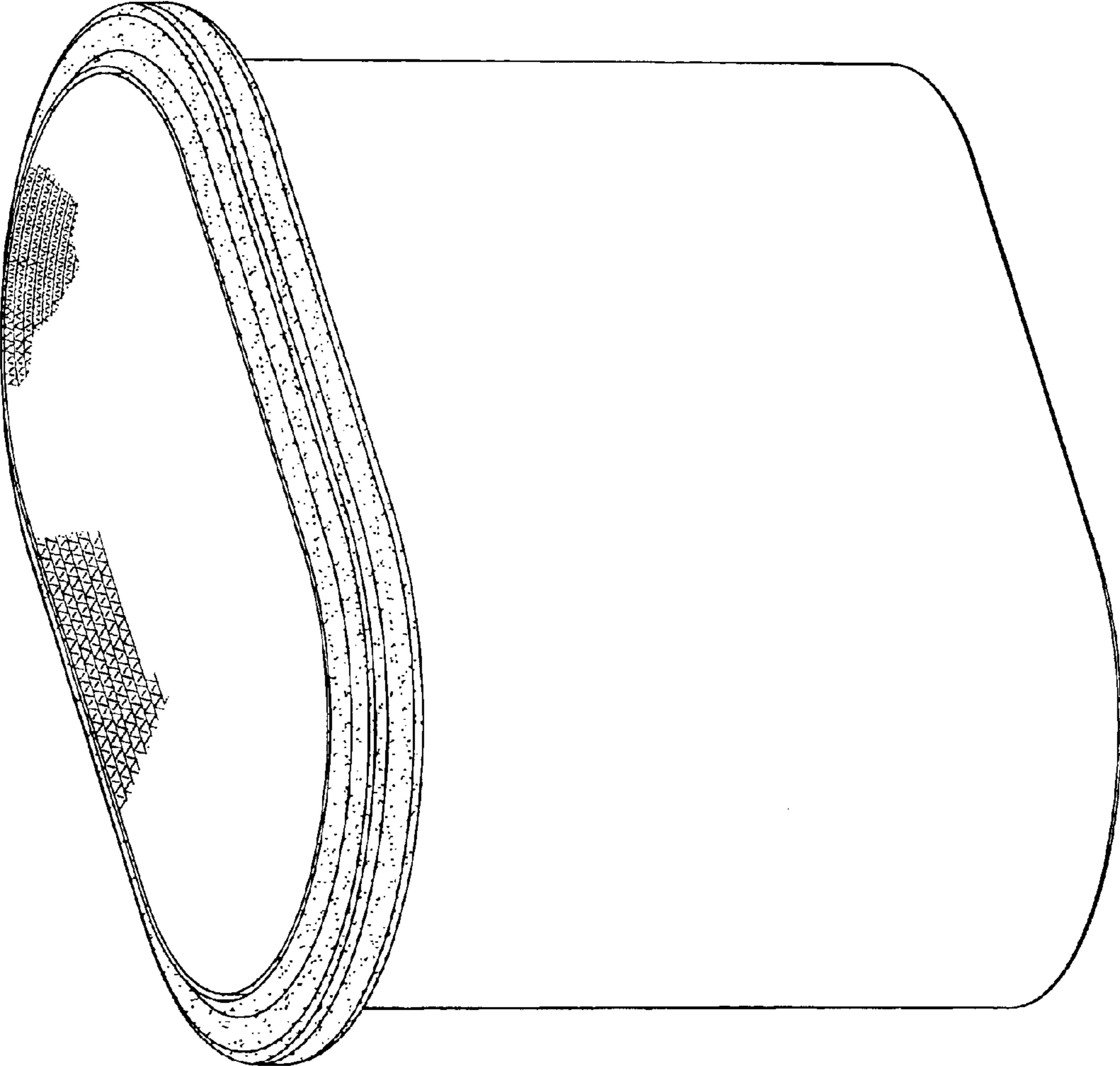


FIG. 14



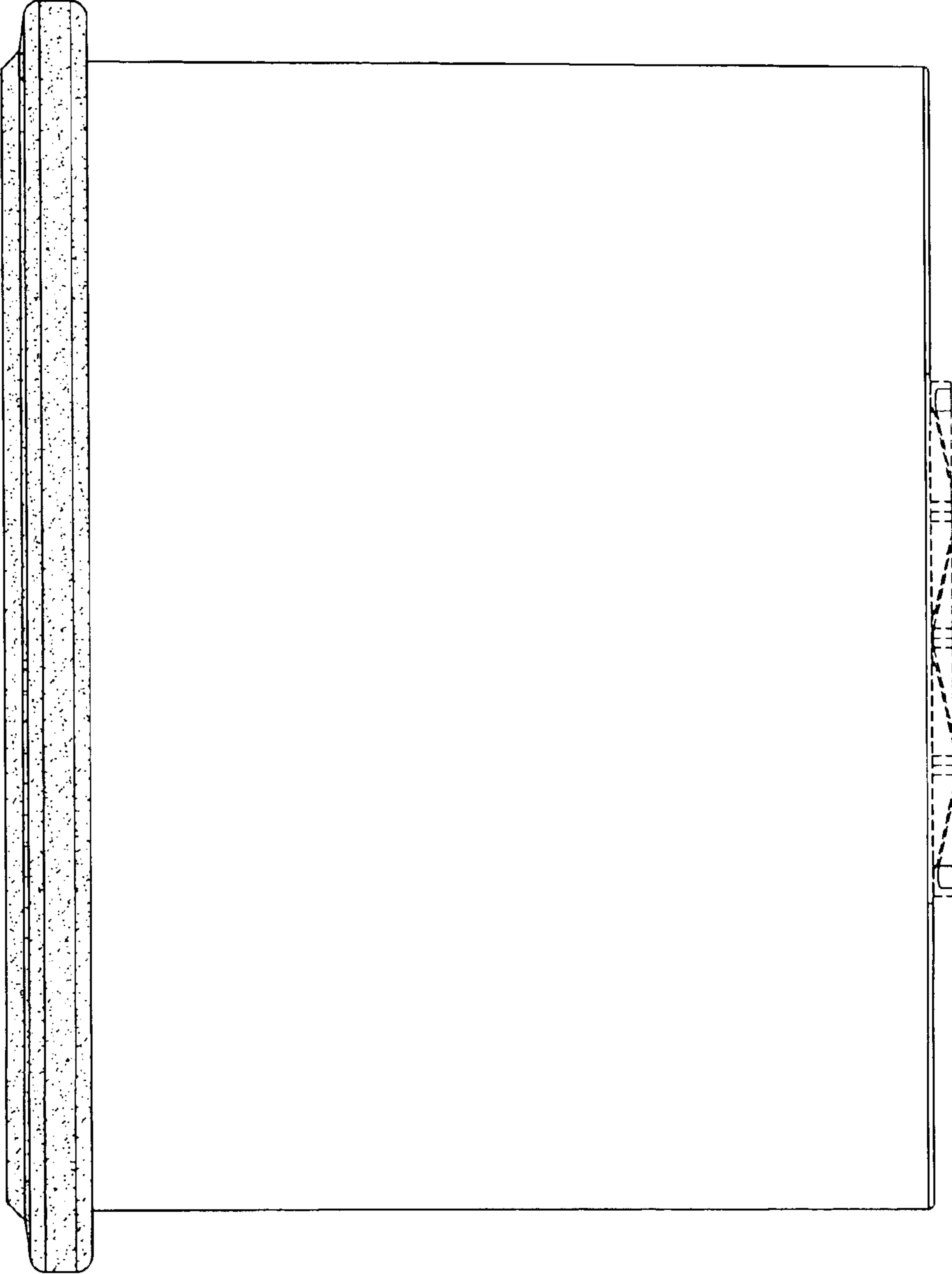
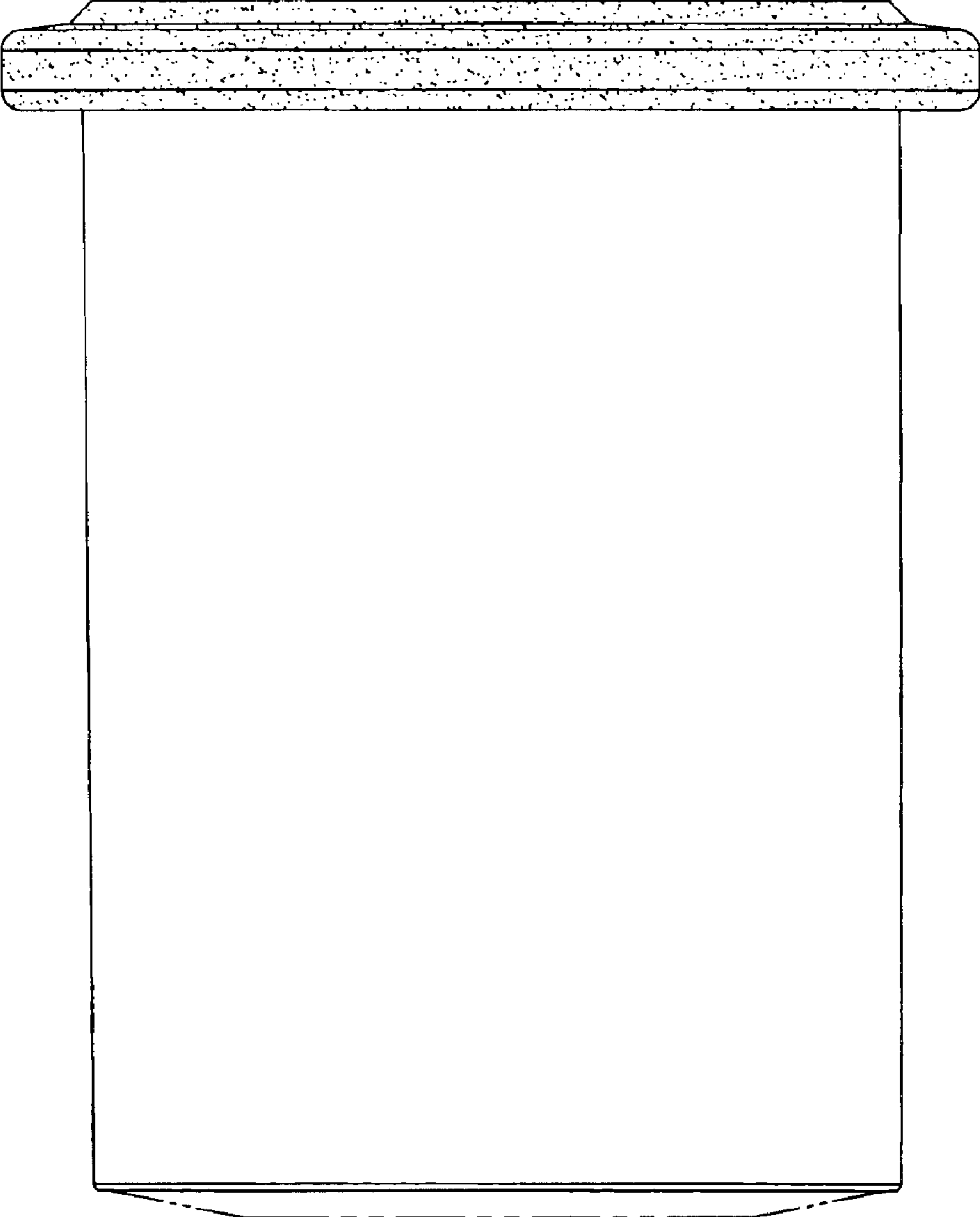


FIG. 15

FIG. 16



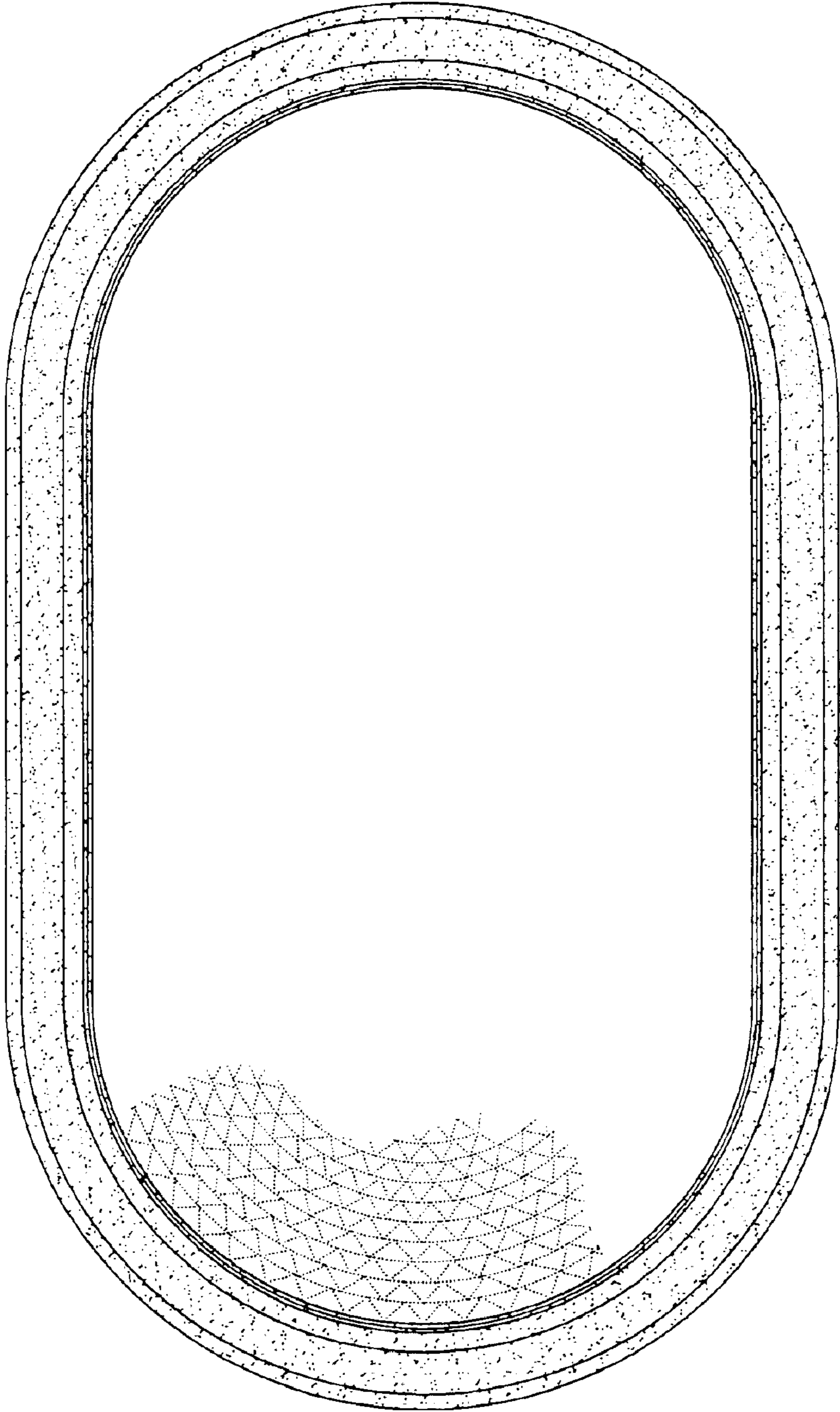


FIG. 17

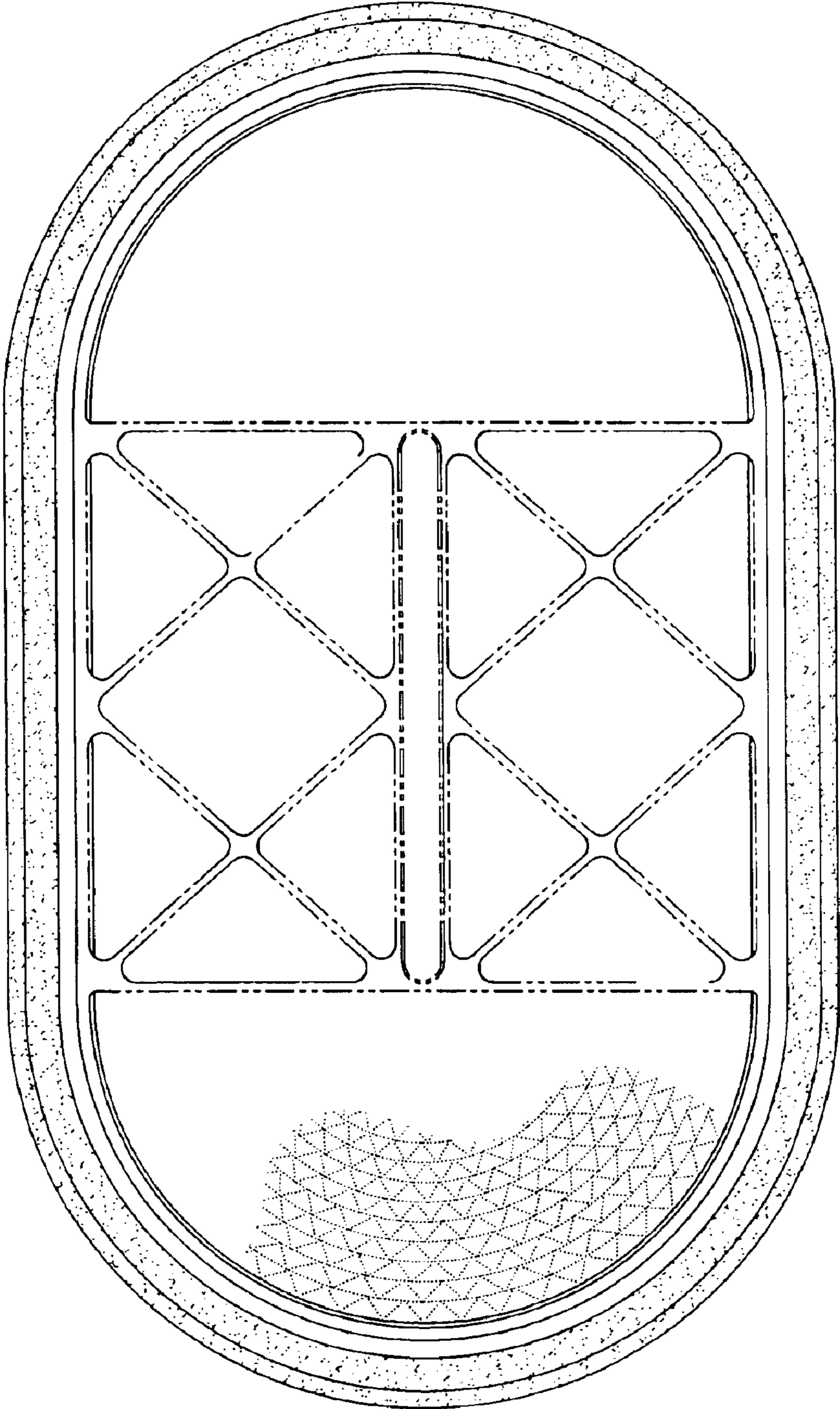


FIG. 18