

US00D517757S

(12) **United States Design Patent**
Santiago

(10) **Patent No.:** **US D517,757 S**
(45) **Date of Patent:** **** Mar. 21, 2006**

(54) **CYCLONE SEPARATOR AND DIRT CUP ASSEMBLY**

(75) **Inventor:** **Jose Carlito Santiago**, Grand Rapids, MI (US)

(73) **Assignee:** **Bissell Homecare, Inc.**, Grand Rapids, MI (US)

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

(21) **Appl. No.:** **29/201,723**

(22) **Filed:** **Mar. 19, 2004**

(51) **LOC (8) Cl.** **15-05**

(52) **U.S. Cl.** **D32/30**

(58) **Field of Classification Search** D32/22, D32/30-34; 15/320-321, 347, 350-351, 15/353, 361, 410, 412, 414, 246.2, DIG. 8; 55/318, 337, 400, DIG. 3, 429, 459.1, 345, 55/447; 95/271, 268; 210/512.1, 512.2

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D149,528 S	5/1948	Turner et al.	
D325,657 S	4/1992	Brewin	
D325,658 S	4/1992	Brewin	
D368,559 S	4/1996	Abe et al.	
D368,560 S	4/1996	Abe et al.	
D368,994 S	4/1996	Abe et al.	
5,524,321 A	6/1996	Weaver et al.	
D371,652 S	7/1996	Umbach	
D391,702 S	3/1998	Wareham et al.	
D407,873 S	* 4/1999	Burchard et al.	D32/31
D407,874 S	* 4/1999	Burchard et al.	D32/31
D407,875 S	* 4/1999	Burchard et al.	D32/31
D421,164 S	2/2000	Luebbering	
D435,708 S	12/2000	Medema et al.	
6,231,645 B1	* 5/2001	Conrad et al.	95/271
D452,758 S	1/2002	Yokoyama et al.	
D453,596 S	2/2002	Farone et al.	
D453,597 S	2/2002	Zahuranec et al.	
D460,228 S	7/2002	Zahuranec et al.	
D462,489 S	9/2002	Roberts et al.	
D462,814 S	9/2002	Sugimoto	

D462,815 S	9/2002	Roberts et al.	
D463,078 S	9/2002	Harada	
D468,069 S	* 12/2002	Roberts et al.	D32/31
6,513,188 B1	2/2003	Zahuranec et al.	
D471,683 S	* 3/2003	Dyson et al.	D32/30
6,532,621 B1	3/2003	Stephens et al.	
6,582,489 B1	* 6/2003	Conrad	55/337
D477,698 S	7/2003	Roberts et al.	
D483,535 S	* 12/2003	Leyden et al.	D32/30
D494,330 S	* 8/2004	Downey et al.	D32/31
D494,718 S	* 8/2004	Rosenzweig et al.	D32/31
D494,719 S	* 8/2004	Rosenzweig et al.	D32/31
2004/0060146 A1	* 4/2004	Coates et al.	15/347
2004/0200028 A1	* 10/2004	Oh et al.	15/347

OTHER PUBLICATIONS

Drawings of BISSELL Upright Vacuum Cleaner Base, 5 pgs., introduced Oct. 2003.

* cited by examiner

Primary Examiner—Ruth McInroy

(74) *Attorney, Agent, or Firm*—McGarry Bair PC

(57) **CLAIM**

The ornamental design for a cyclone separator and dirt cup assembly, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a cyclone separator and dirt cup assembly which embodies a first embodiment of our design;

FIG. 2 is a front view thereof;

FIG. 3 is a rear view thereof;

FIG. 4 is a left side view thereof;

FIG. 5 is a right side view thereof;

FIG. 6 is a top view thereof;

FIG. 7 is a bottom view thereof;

FIG. 8 is a perspective view of a cyclone separator and dirt cup assembly which embodies a second embodiment of our design;

FIG. 9 is a front view thereof;

FIG. 10 is a rear view thereof;

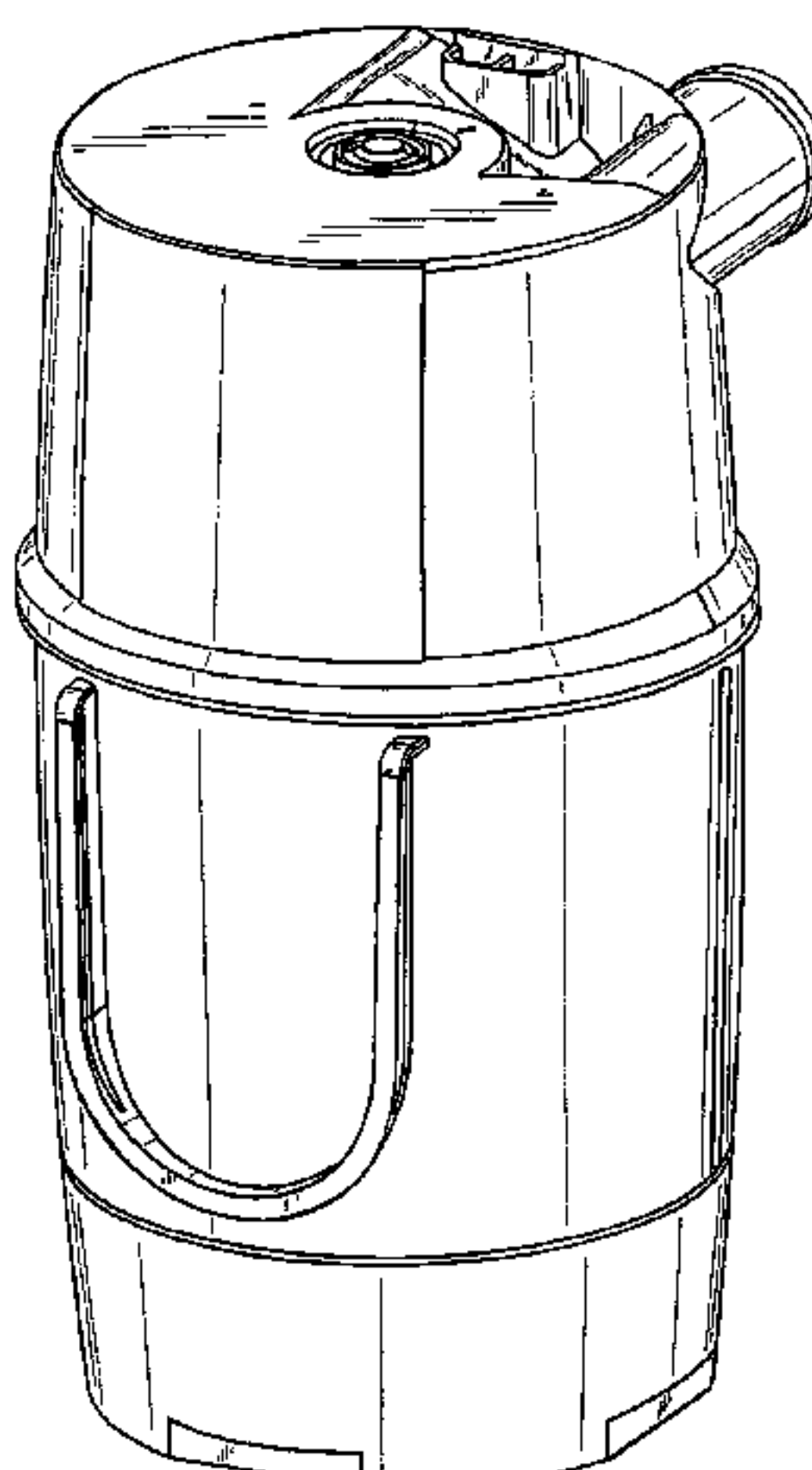
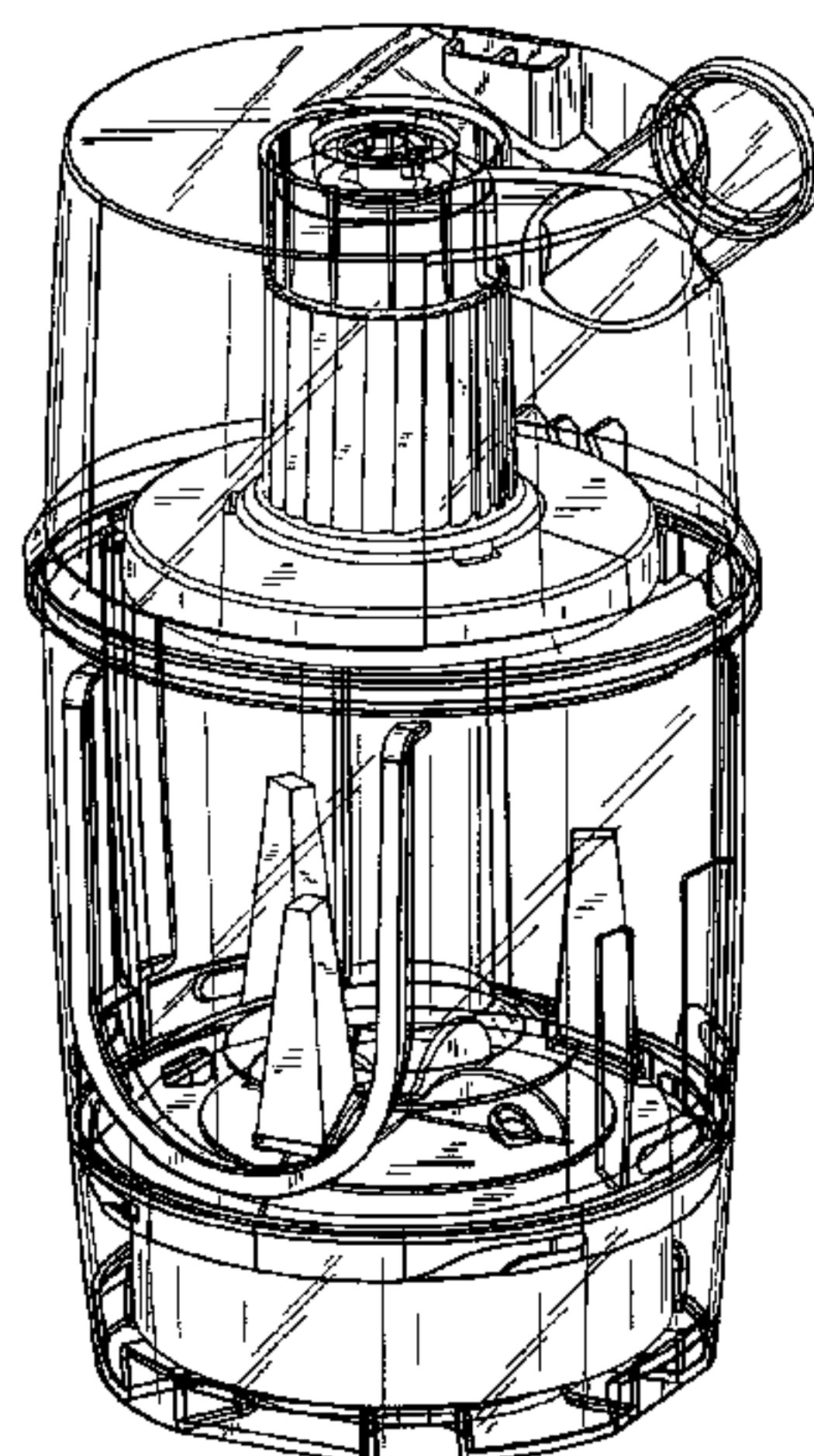
FIG. 11 is a left side view thereof;

FIG. 12 is a right side view thereof;

FIG. 13 is a top view thereof; and,

FIG. 14 is a bottom view thereof.

1 Claim, 12 Drawing Sheets



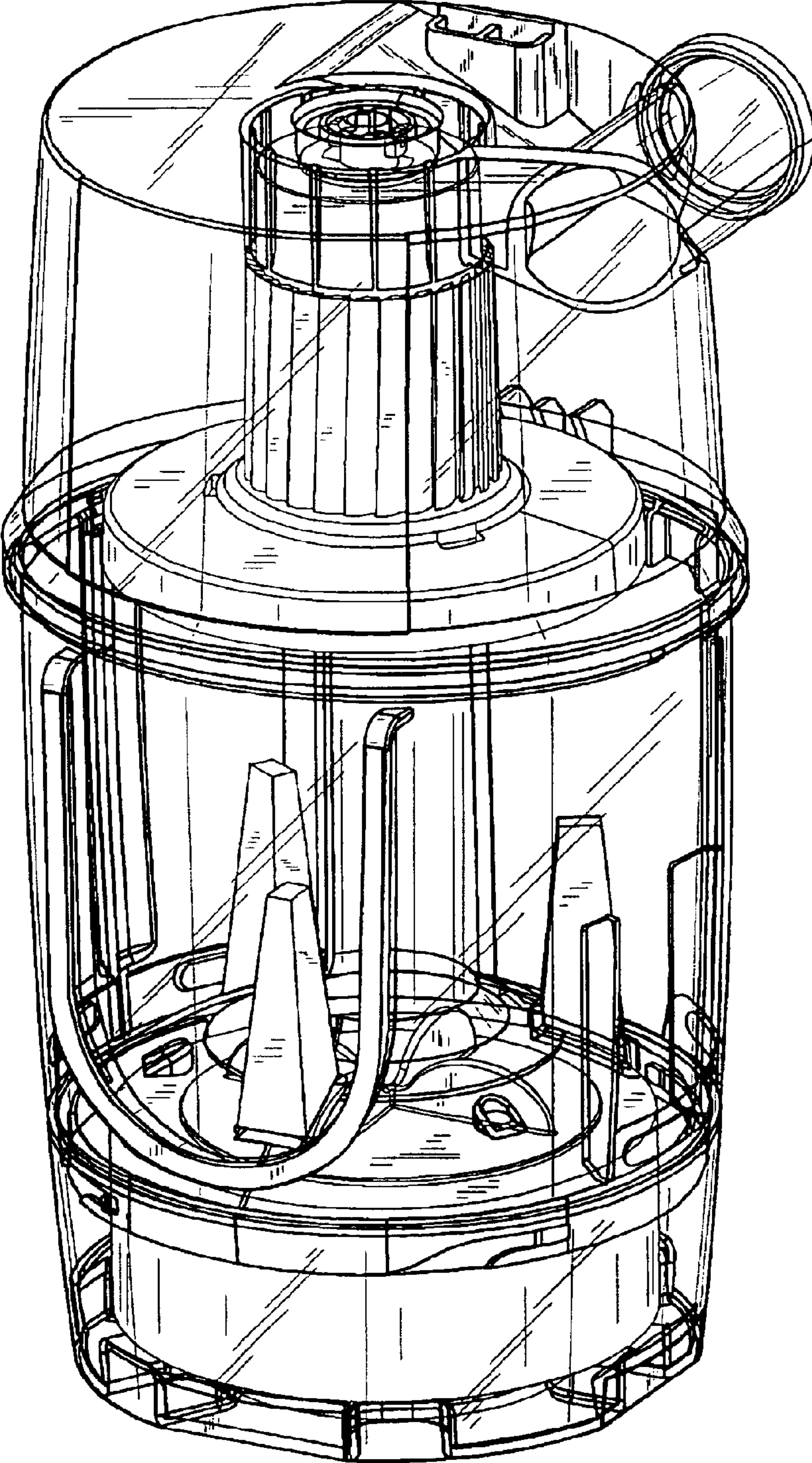


Fig. 1

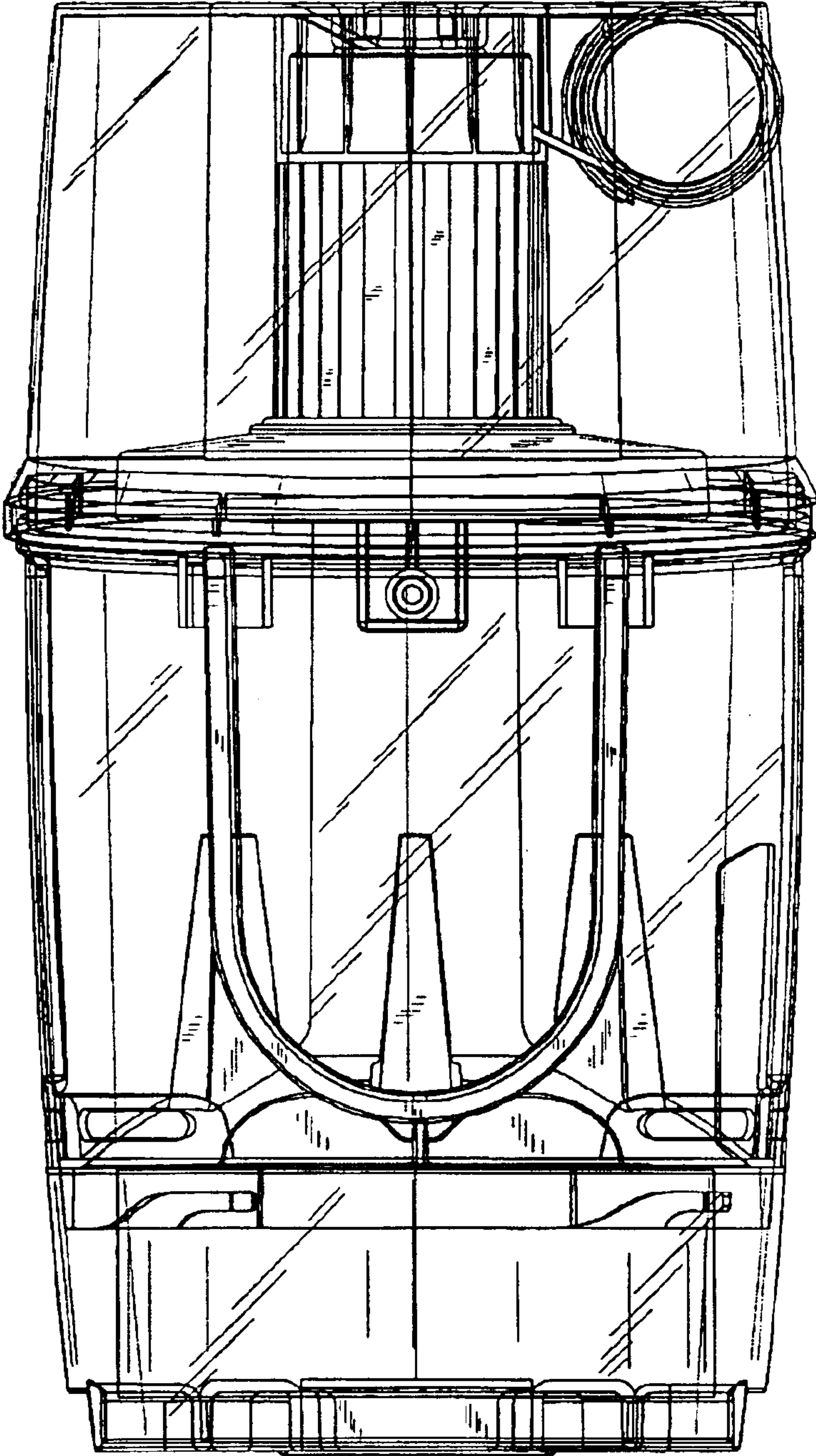


Fig. 2

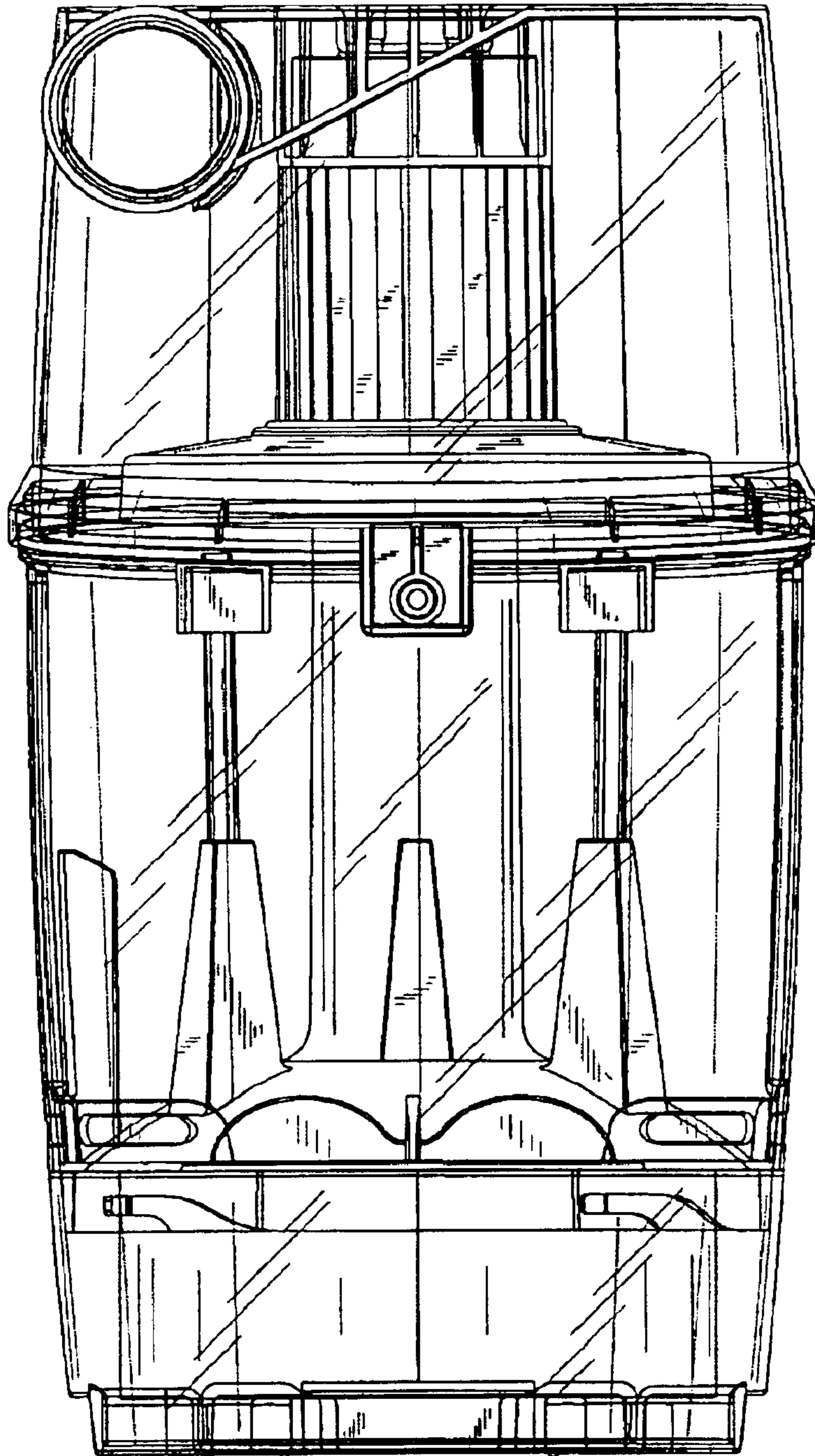


Fig. 3

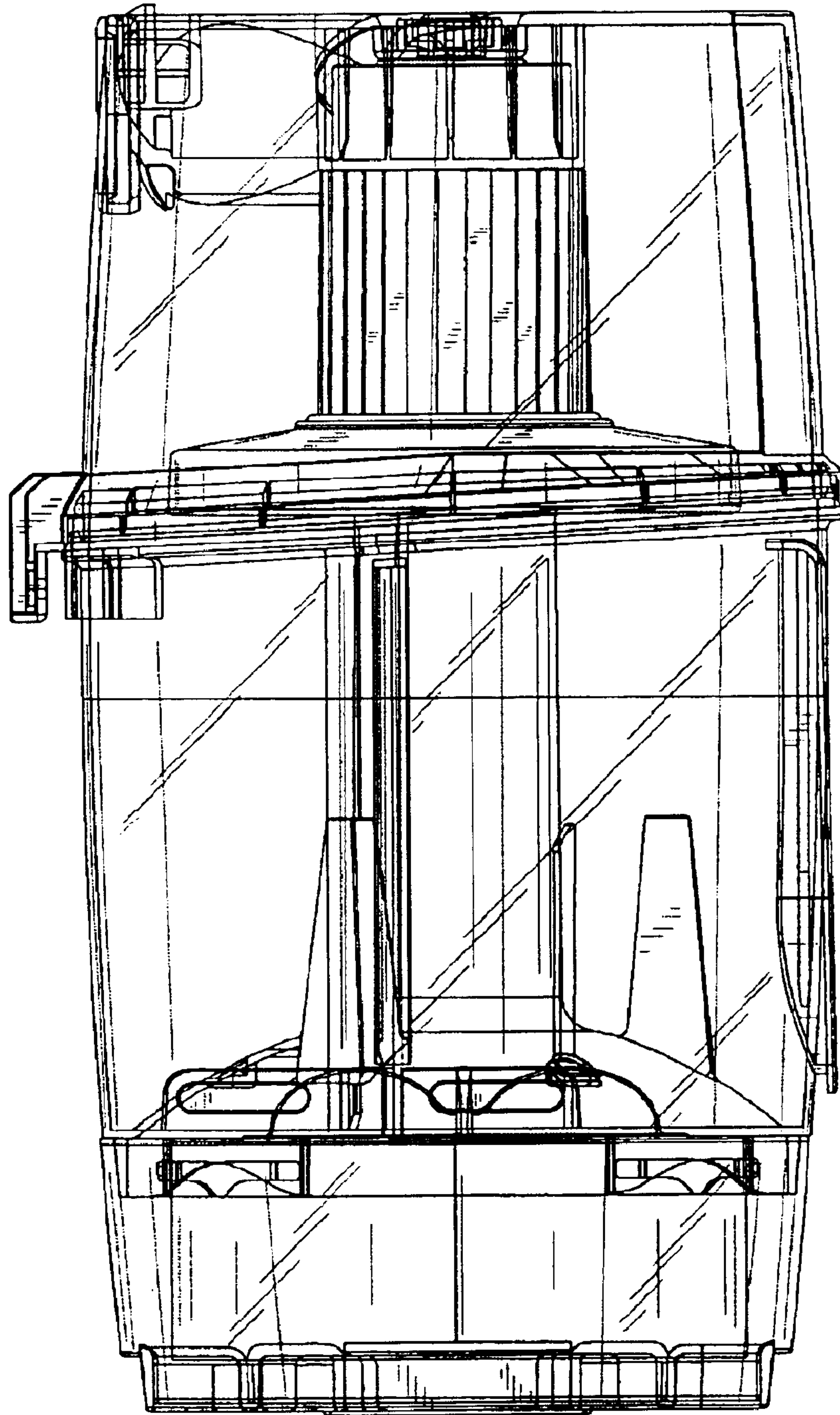


Fig. 4

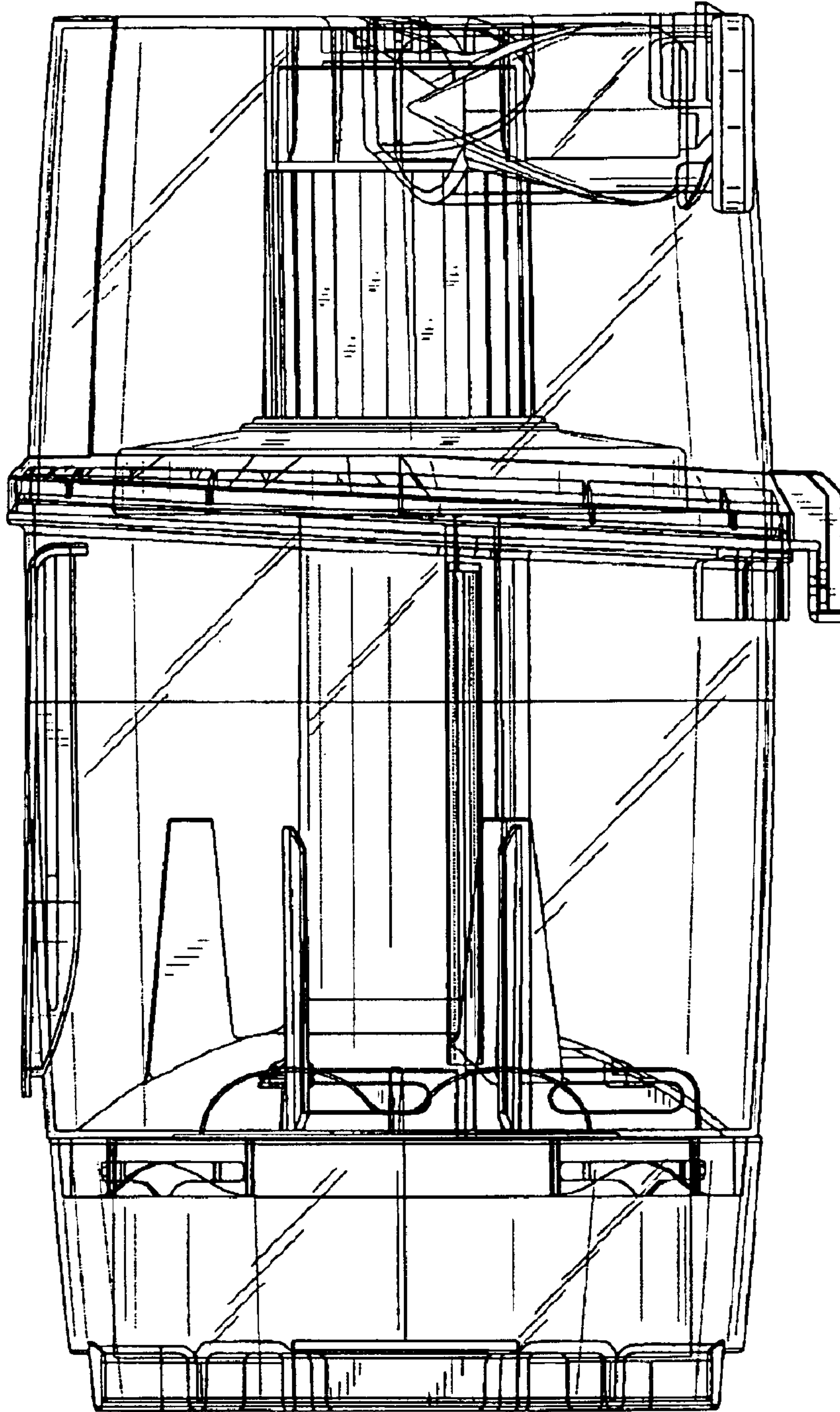


Fig. 5

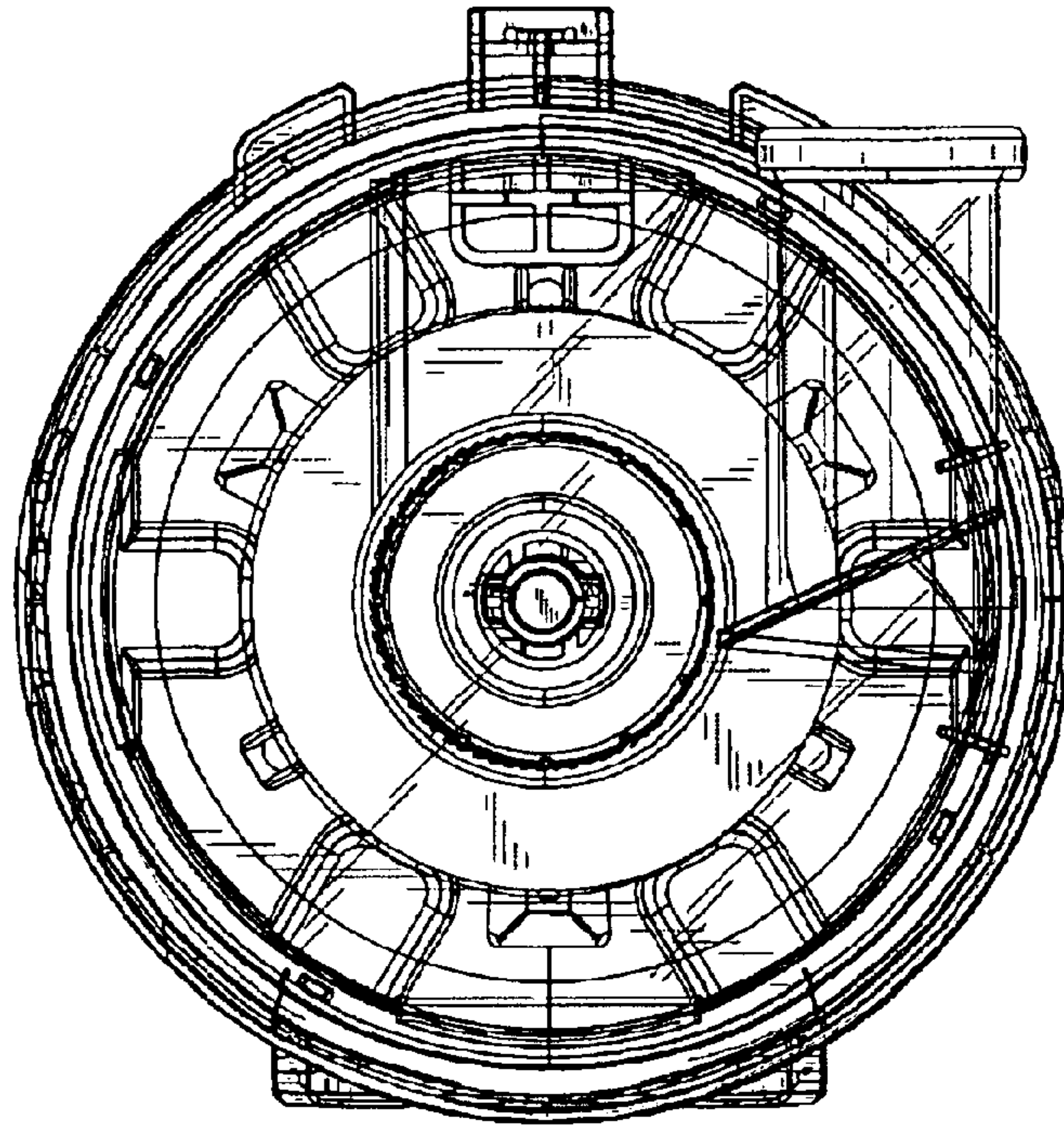


Fig. 6

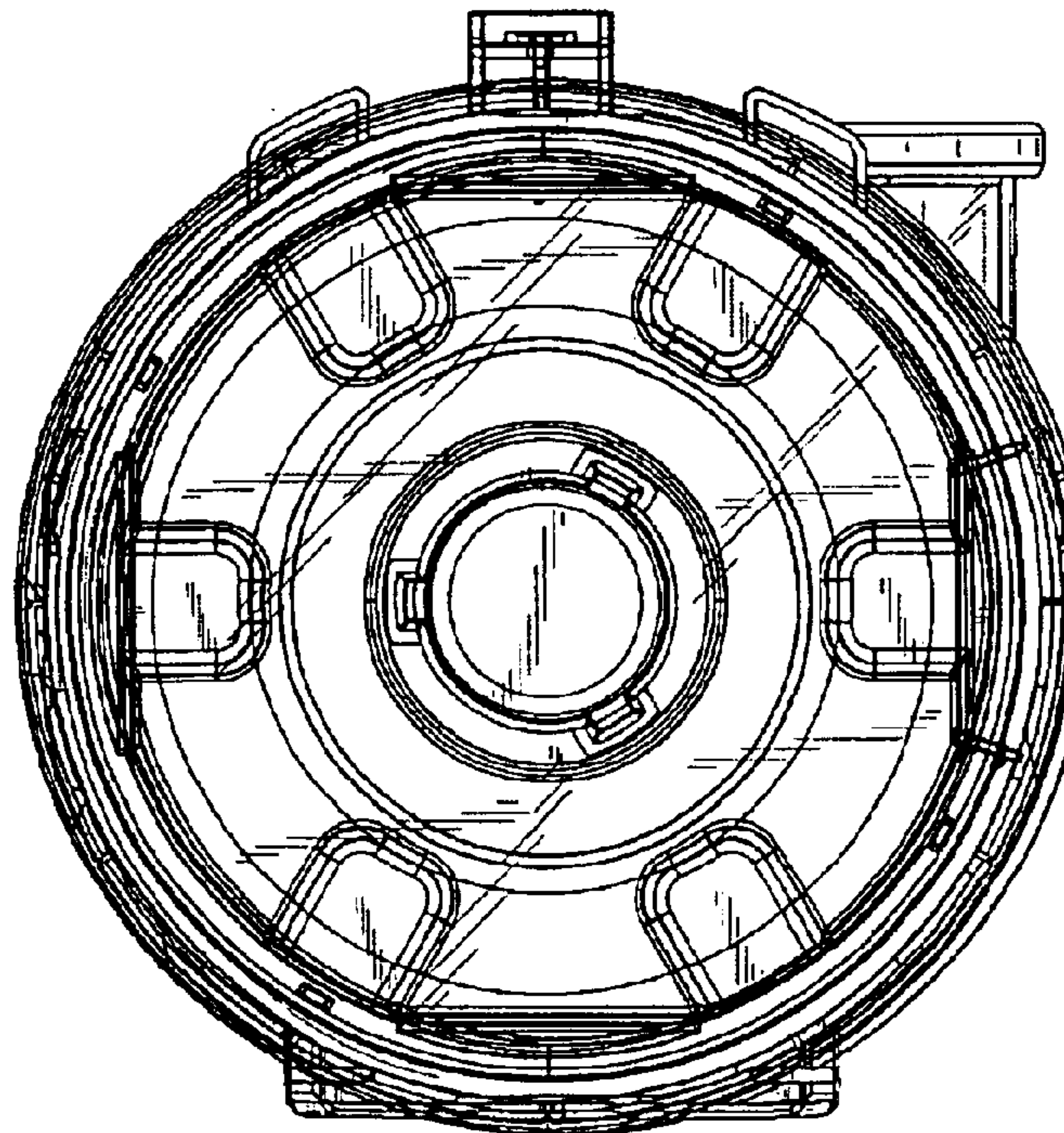


Fig. 7

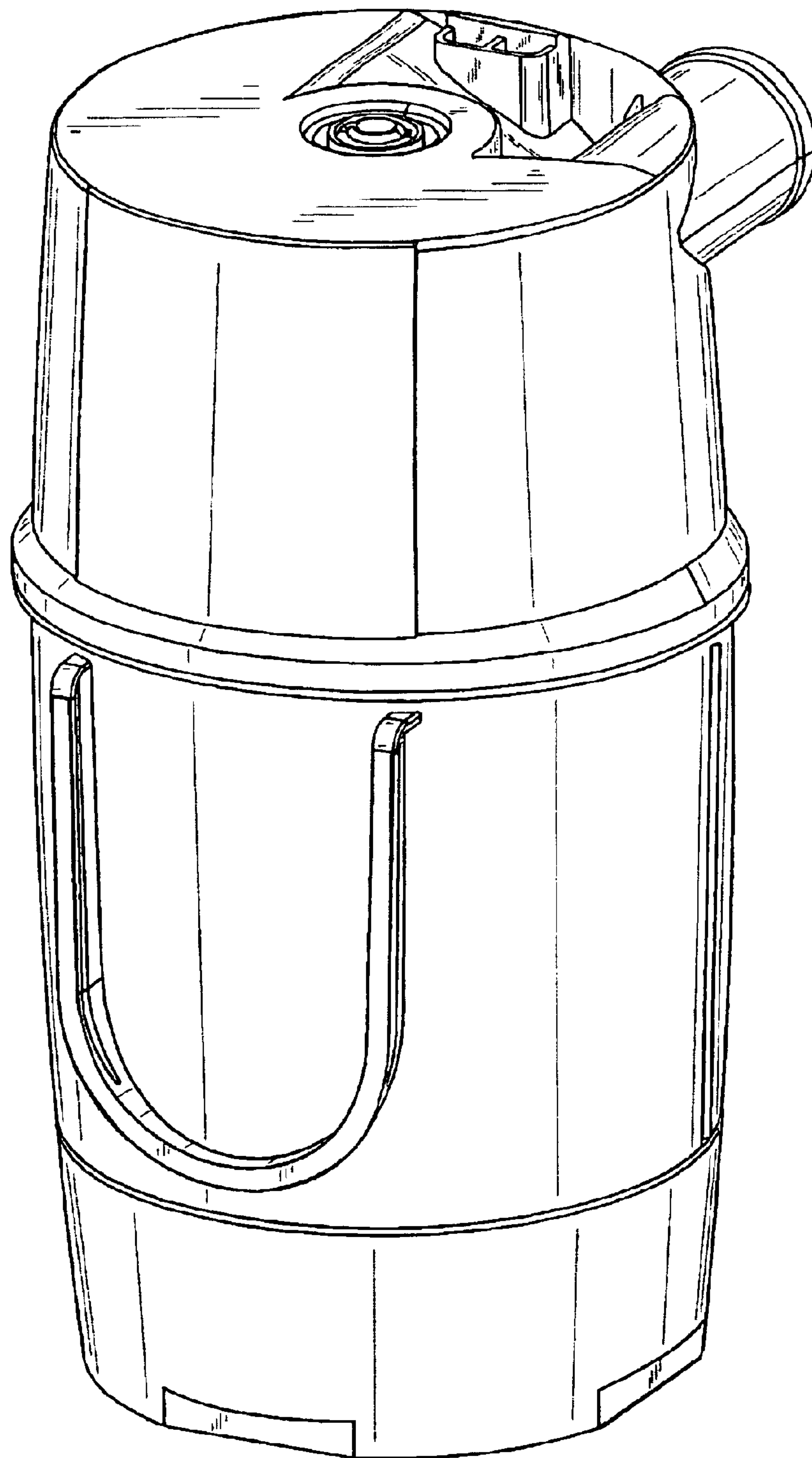


Fig. 8

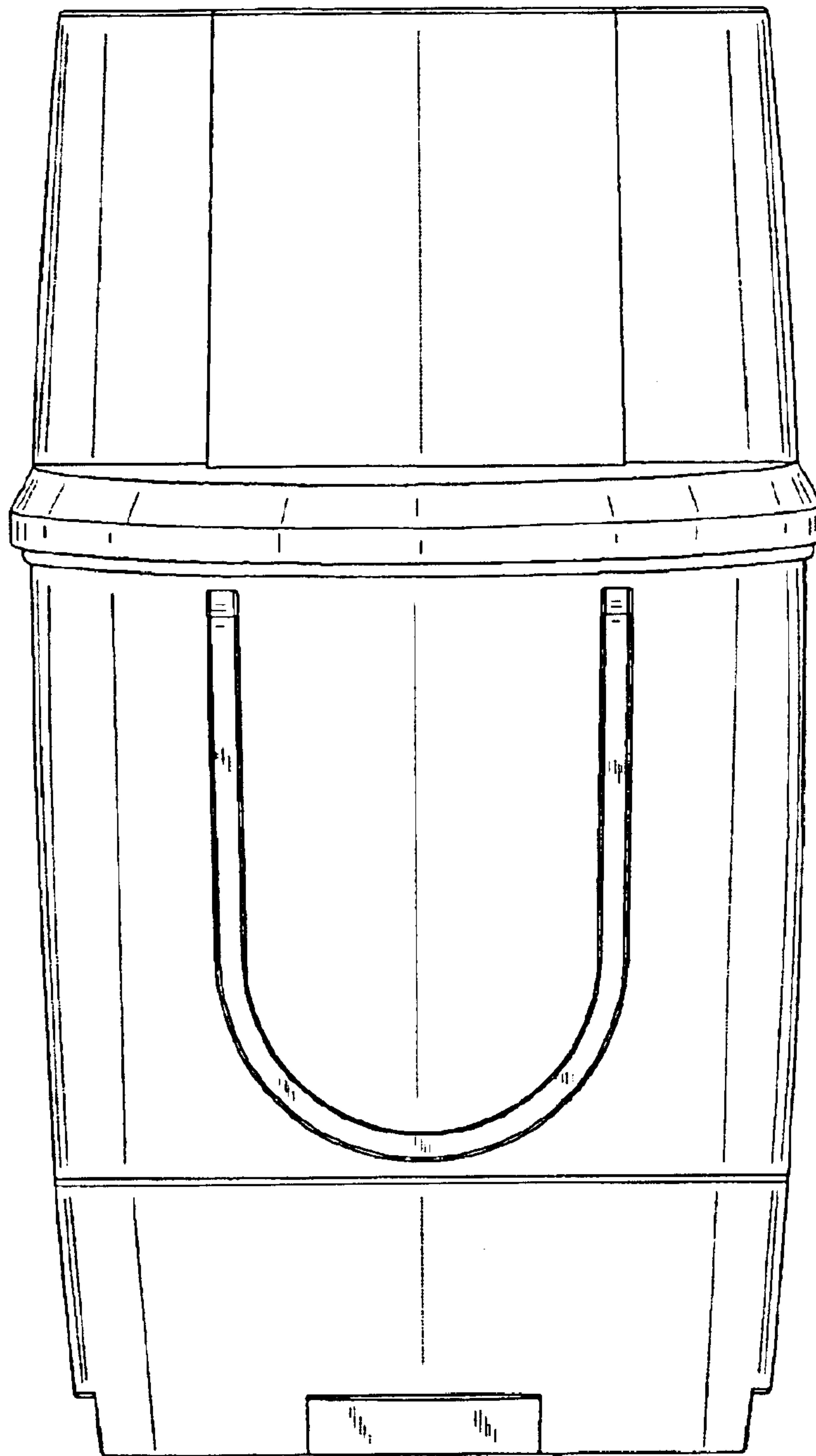


Fig. 9

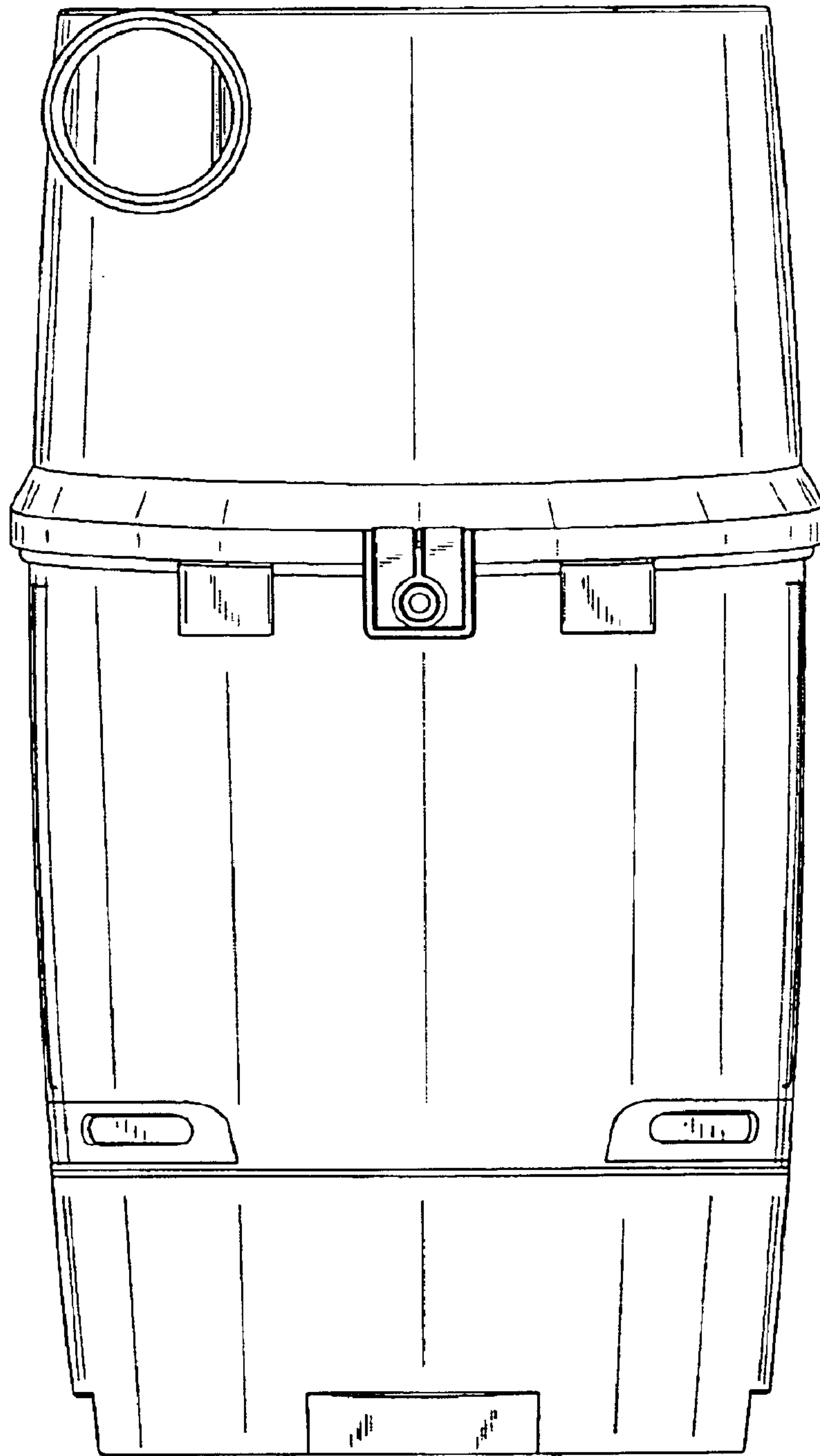


Fig. 10

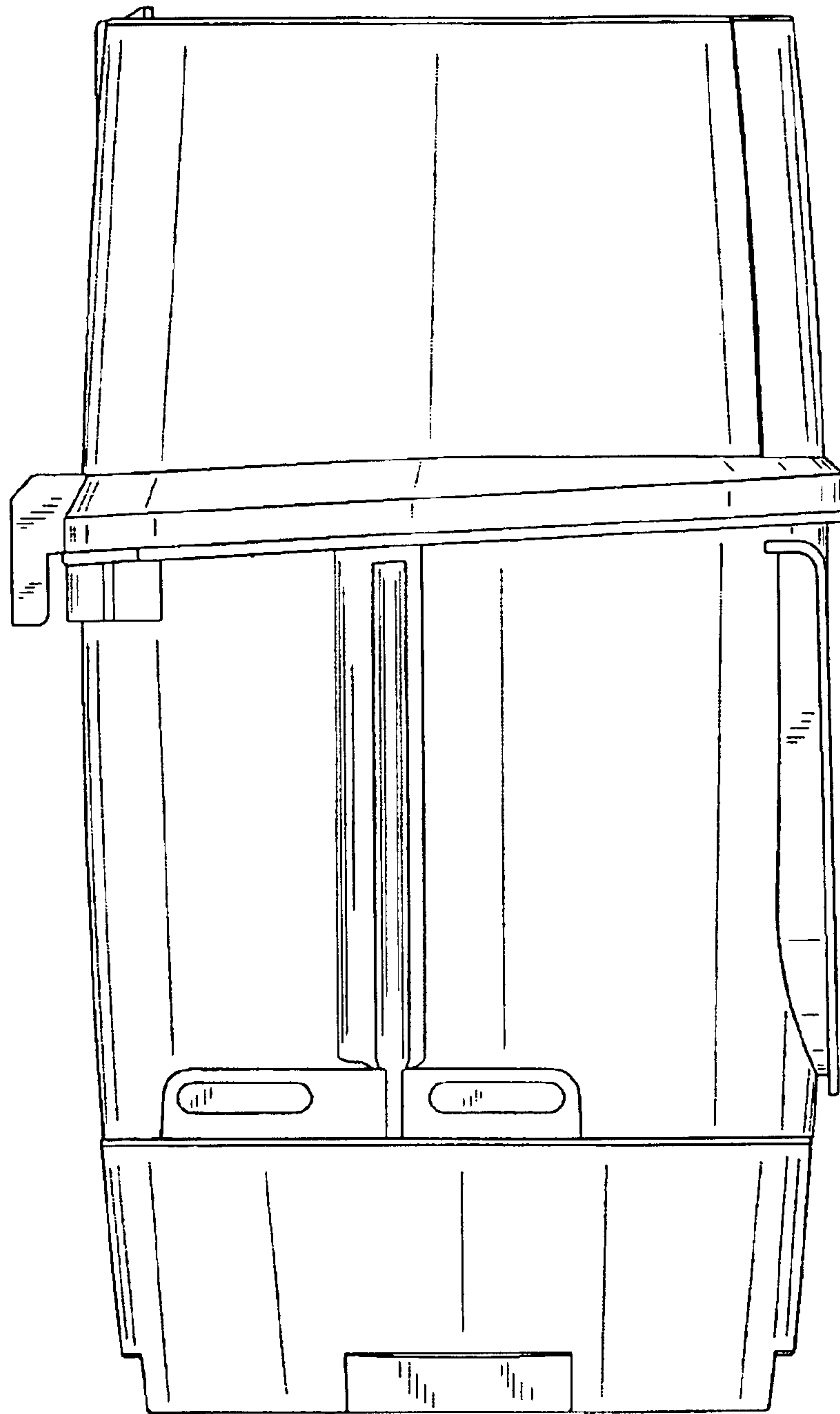


Fig. 11

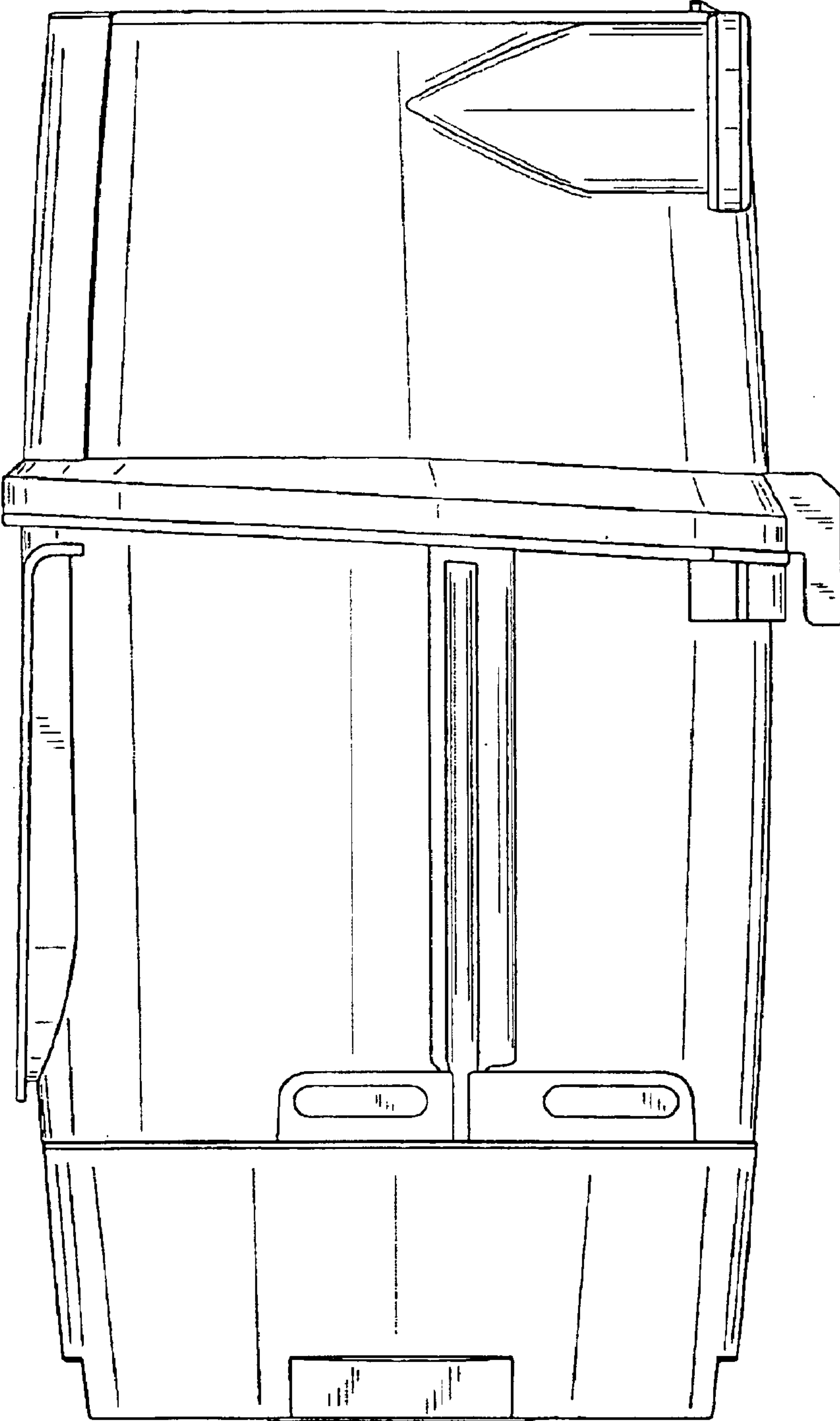


Fig. 12

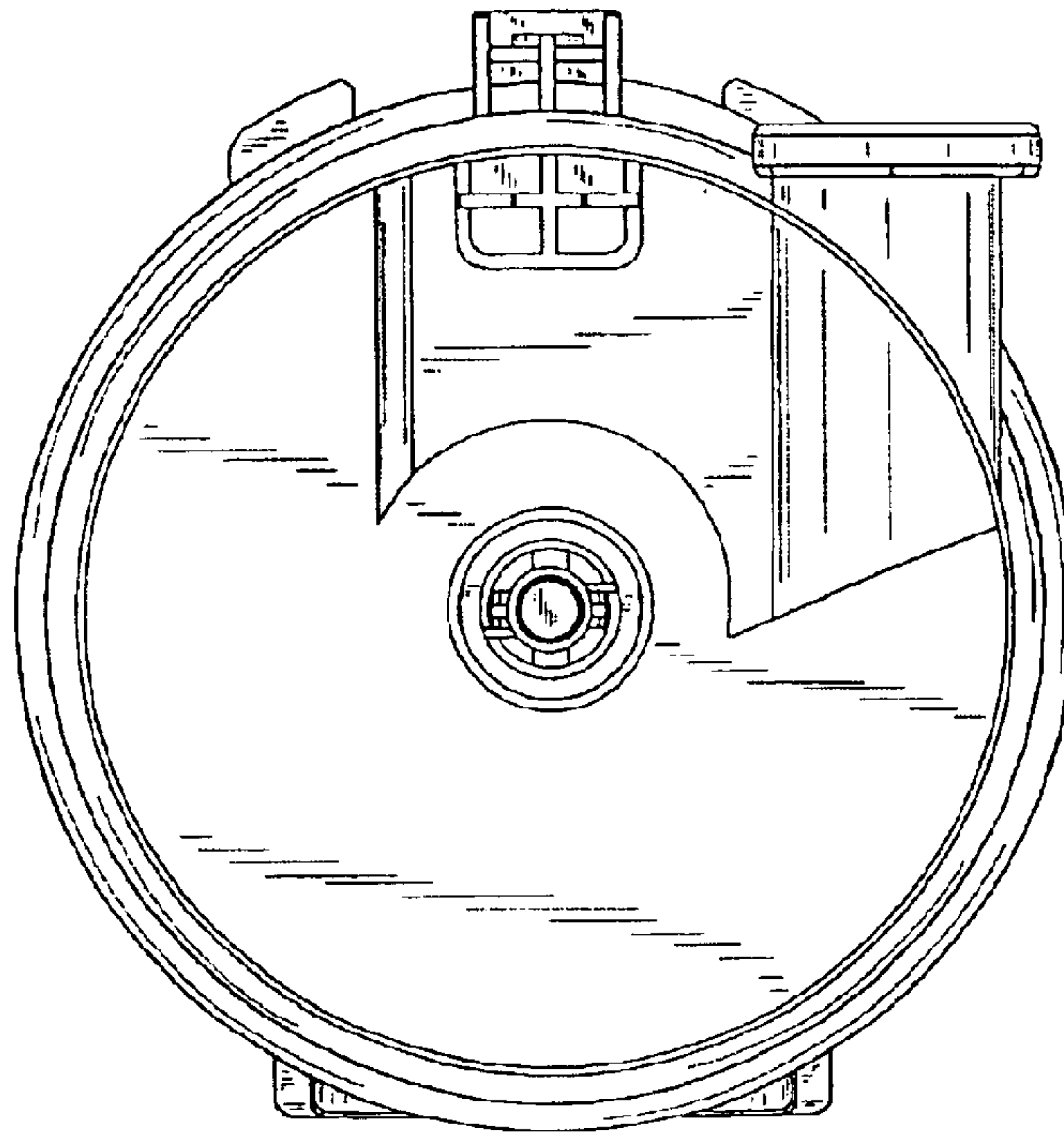


Fig. 13

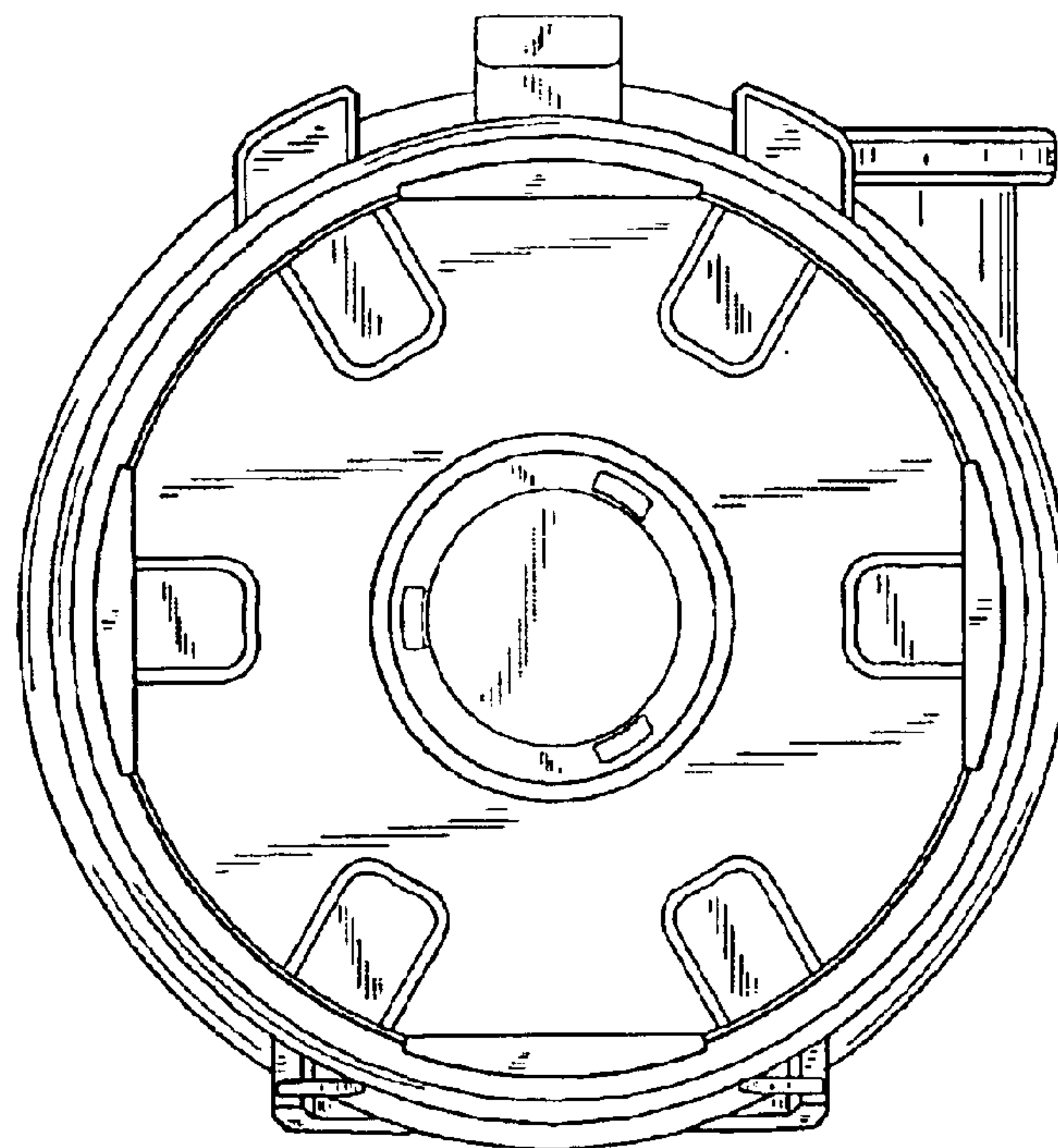


Fig. 14