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

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(54) **LOW FLOW IRRIGATION EMITTER**

3,863,845 A 2/1975 Bumpstead
3,882,892 A 5/1975 Menzel
3,998,244 A 12/1976 Bentley
4,037,791 A 7/1977 Mullett et al.
4,084,749 A 4/1978 Drori

(75) Inventors: **Kirk A. Allen**, Valencia, CA (US);
Raymond P. Feith, Chino Hills, CA
(US); **Gerald E. Peterson**, Riverside,
CA (US); **Samir Shah**, Chino Hills, CA
(US)

(73) Assignee: **Rain Bird Corporation**, Azusa, CA
(US)

(Continued)

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

OTHER PUBLICATIONS

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(Continued)

(51) **LOC (9) Cl.** **23-01**
(52) **U.S. Cl.** **D23/214**
(58) **Field of Classification Search** D23/213,
D23/214, 217, 218; 239/276, 200-206, 542,
239/DIG. 1

Primary Examiner—Robin V Webster

(74) *Attorney, Agent, or Firm*—Fitch, Even, Tabin & Flannery

See application file for complete search history.

(57) **CLAIM**

(56) **References Cited**

We claim the ornamental design for a low flow irrigation emitter, as shown and described.

U.S. PATENT DOCUMENTS

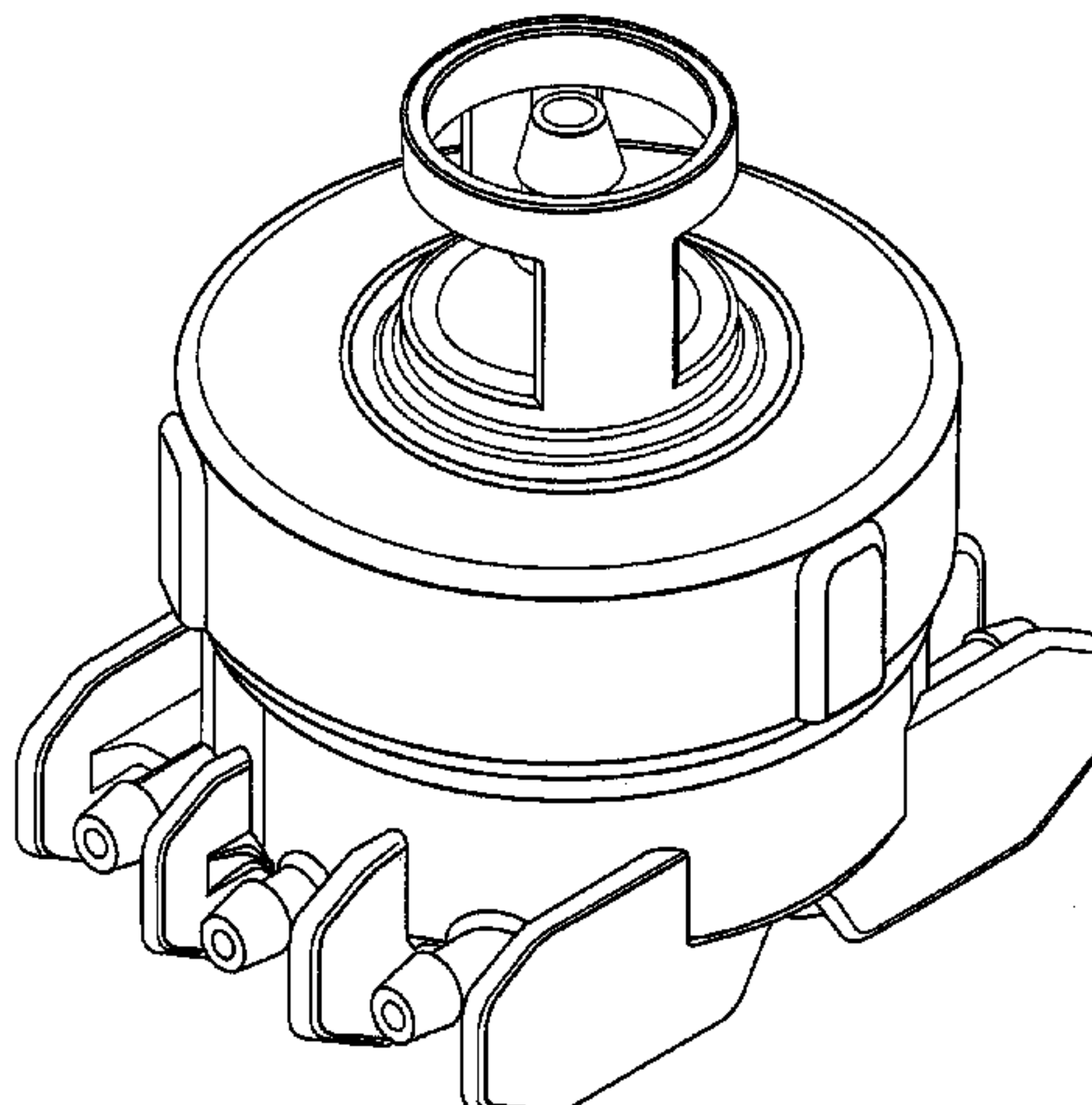
DESCRIPTION

2,174,515 A	10/1939	Hughes	
2,625,429 A	1/1953	Coles	
2,639,194 A	5/1953	Wahlin	
2,794,321 A	6/1957	Warner et al.	
3,155,612 A	11/1964	Weber	
3,182,916 A	5/1965	Schulz	
3,323,550 A	6/1967	Lee	
3,420,064 A	1/1969	Blass et al.	
3,434,500 A	3/1969	Burrows	
D220,763 S *	5/1971	Best D23/214
3,586,291 A	6/1971	Malec	
3,697,002 A	10/1972	Parkison	
3,729,142 A	4/1973	Rangel-Garza et al.	
3,753,527 A	8/1973	Galbraith et al.	
3,780,946 A	12/1973	Smith et al.	
3,791,587 A	2/1974	Drori	
3,804,334 A	4/1974	Curry	
3,815,636 A	6/1974	Menzel	
3,851,896 A	12/1974	Olson	

This application is related to co-pending U.S. Utility patent application Ser. No. 12/367,295, filed Feb. 6, 2009.

FIG. 1 is a perspective view of an emitter;
FIG. 2 is a front elevational view of the emitter of FIG. 1;
FIG. 3 is a right side elevational view of the emitter of FIG. 1;
FIG. 4 is a rear elevational view of the emitter of FIG. 1;
FIG. 5 is a left side elevational view of the emitter of FIG. 1;
FIG. 6 is a top view of the emitter of FIG. 1; and,
FIG. 7 is a bottom view of the emitter of FIG. 1.

1 Claim, 7 Drawing Sheets



US D615,151 S

U.S. PATENT DOCUMENTS

4,105,162	A	8/1978	Drori	
4,177,947	A	12/1979	Menzel	
4,209,133	A	6/1980	Mehoudar	
4,223,838	A	9/1980	Maria-Vittorio-Torrisi	
4,226,368	A	10/1980	Hunter	
4,250,915	A	2/1981	Rikuta	
4,274,597	A	6/1981	Dobos et al.	
4,331,293	A	5/1982	Rangel-Garza	
4,369,923	A	1/1983	Bron	
4,384,680	A	5/1983	Mehoudar	
4,508,140	A	4/1985	Harrison	
4,513,777	A	4/1985	Wright	
4,653,695	A	3/1987	Eckstein	
4,687,143	A	8/1987	Gorney et al.	
4,718,608	A	1/1988	Mehoudar	
4,796,660	A	1/1989	Bron	
4,824,019	A	4/1989	Lew	
4,856,552	A	8/1989	Hiemstra	
5,031,837	A	7/1991	Hanish	
5,040,770	A	8/1991	Rajster et al.	
5,054,690	A *	10/1991	Olson 239/542
5,111,996	A	5/1992	Eckstein	
5,137,216	A	8/1992	Hanish	
5,183,208	A	2/1993	Cohen	
5,232,160	A	8/1993	Hendrickson et al.	
5,246,170	A *	9/1993	Woidt 239/520
5,316,220	A *	5/1994	Dinur 239/542
5,327,941	A	7/1994	Bitsakis et al.	
5,330,107	A	7/1994	Karathanos	
5,441,203	A	8/1995	Swan et al.	
5,443,212	A	8/1995	Dinur	
5,820,028	A	10/1998	Dinur	
5,820,029	A *	10/1998	Marans 239/542
5,875,815	A	3/1999	Ungerecht et al.	

5,944,260	A	8/1999	Wang	
6,015,102	A	1/2000	Daigle et al.	
6,026,850	A	2/2000	Newton et al.	
6,062,245	A	5/2000	Berglind et al.	
6,109,296	A	8/2000	Austin	
6,213,408	B1	4/2001	Shekalim	
6,238,081	B1	5/2001	Sand	
6,464,152	B1	10/2002	Bolinis et al.	
6,499,872	B2	12/2002	Sand	
6,557,819	B2	5/2003	Austin	
6,581,902	B2	6/2003	Michau et al.	
6,622,946	B2	9/2003	Held et al.	
6,827,298	B2	12/2004	Sacks	
6,945,476	B2	9/2005	Giuffre	
D520,108	S *	5/2006	Patel et al. D23/214
7,300,004	B2	11/2007	Sinden et al.	
7,363,938	B1	4/2008	Newton	
2002/0070297	A1	6/2002	Bolinis et al.	
2003/0089409	A1	5/2003	Morimoto	
2005/0224607	A1	10/2005	Dinur et al.	
2006/0144965	A1	7/2006	Keren	
2007/0095950	A1	5/2007	Kim	

OTHER PUBLICATIONS

Amendment dated September 22, 1999 for U.S. Appl. No. 08/607,850 (6 pages).
 Interview Summary dated September 21, 1999 for U.S. Appl. No. 08/607,850 (1 page).
 Request for Ex Parte Reexamination Transmittal Form dated March 7, 2006 and Request for Reexamination of U.S. Patent No. 6,026,850 (13 pages).
 Order Granting/Denying Request for Ex Parte Reexamination mailed April 17, 2006 for U.S. Appl. No. 90/007,963 (13 pages).

* cited by examiner

FIG. 1

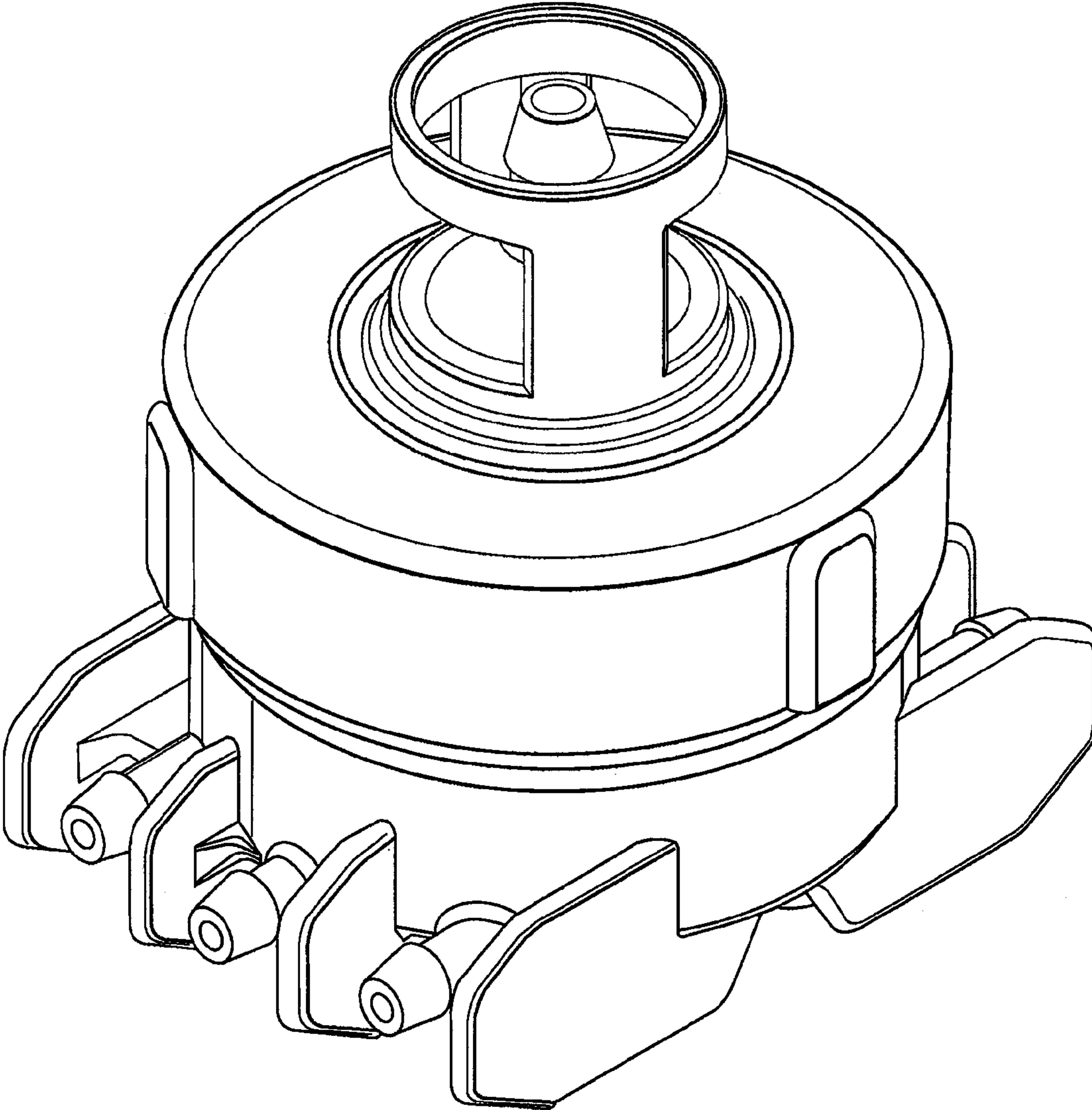


FIG. 2

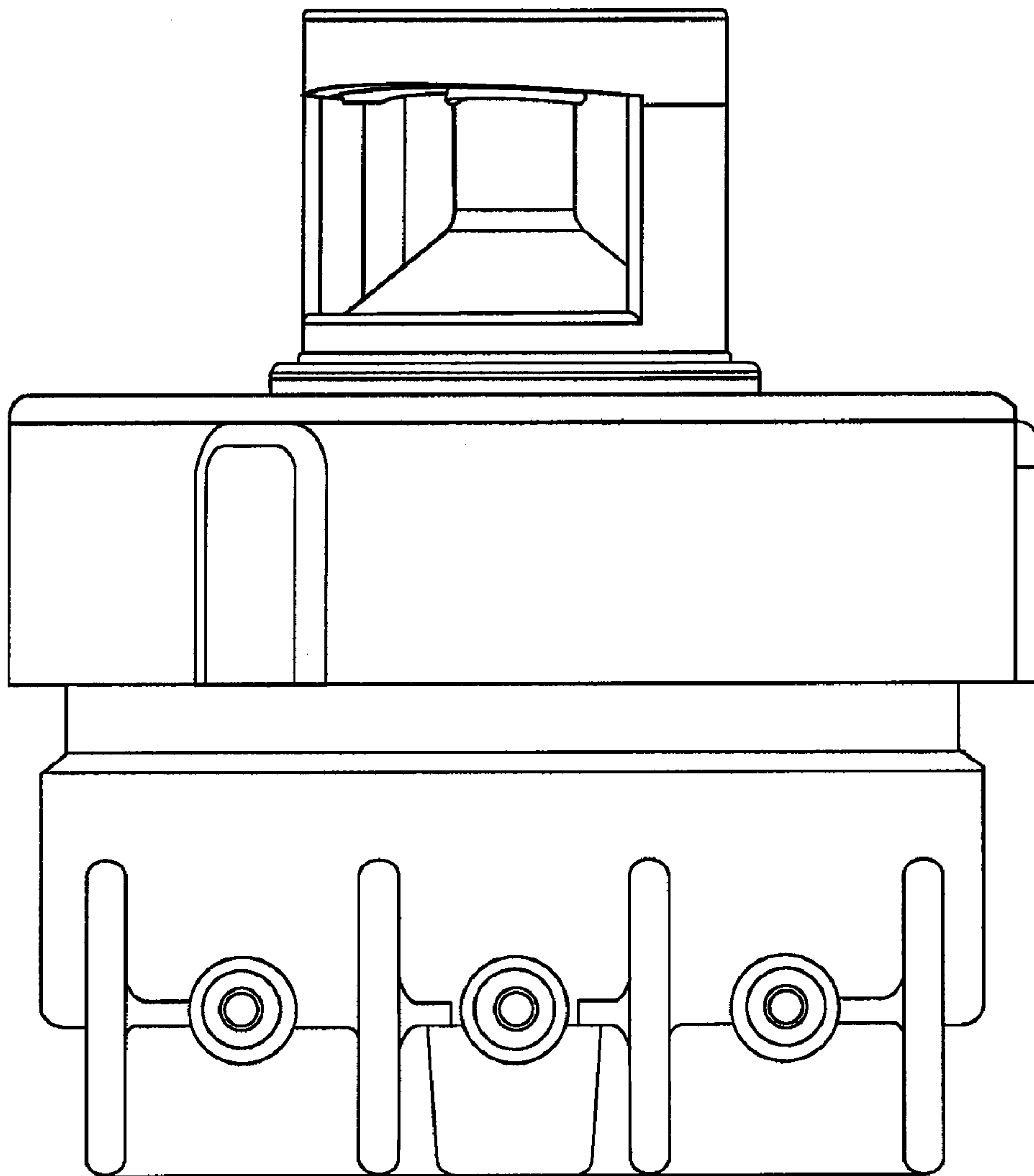


FIG. 3

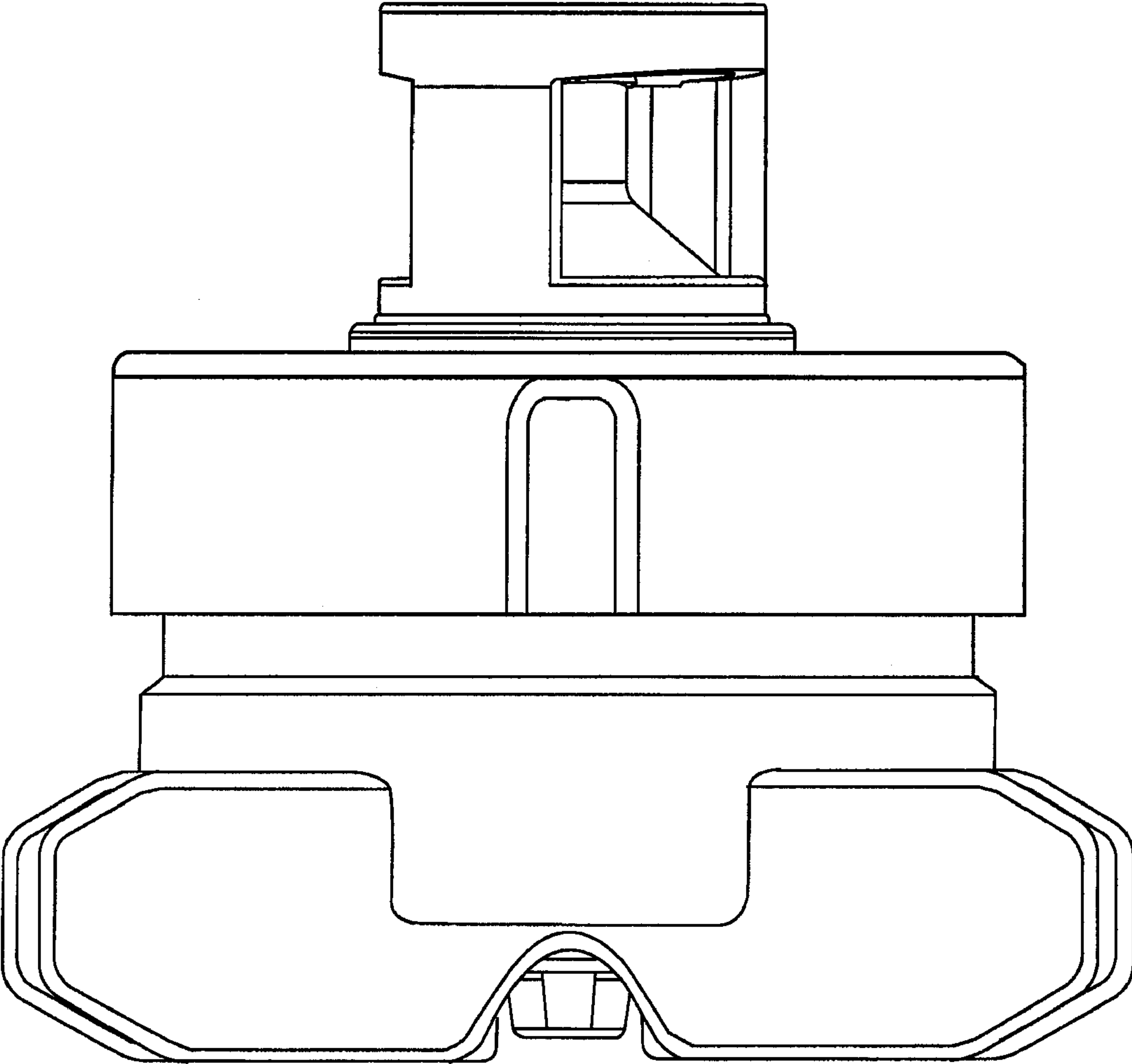


FIG. 4

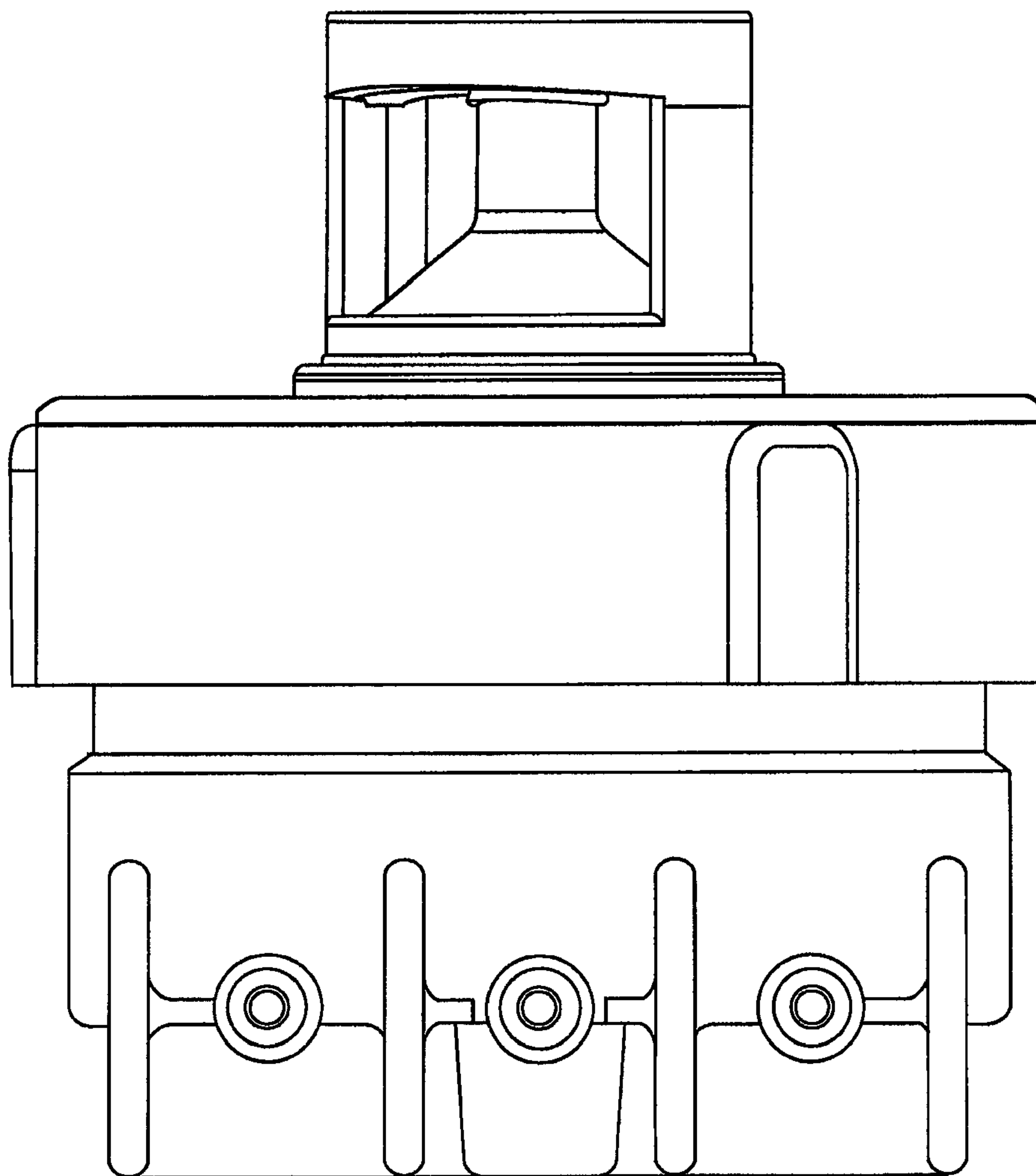


FIG. 5

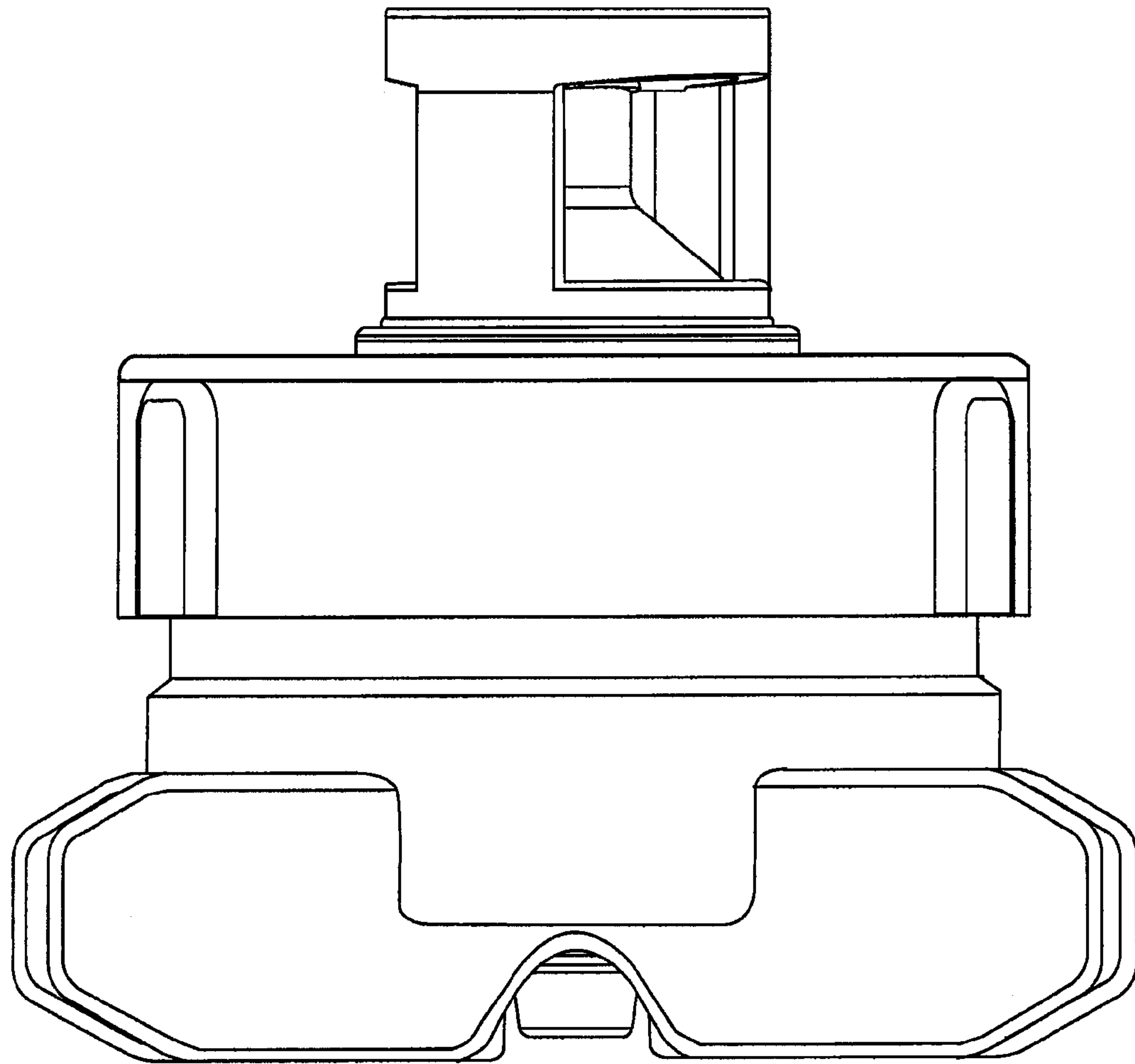


FIG. 6

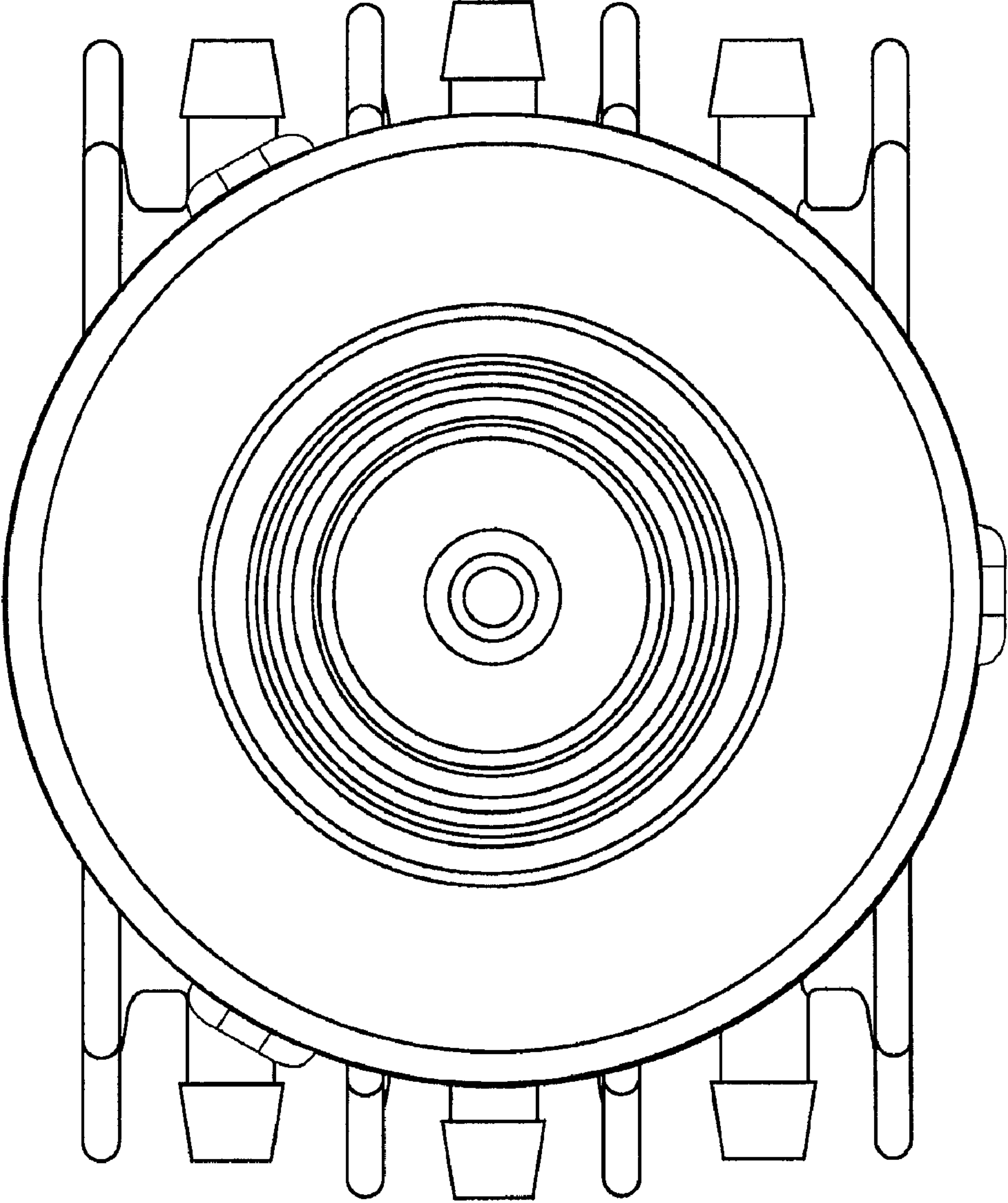


FIG. 7

