



US00D643379S

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

(10) **Patent No.:** **US D643,379 S**

(45) **Date of Patent:** **\*\* Aug. 16, 2011**

(54) **HEAT RECOVERY APPARATUS**

(76) Inventor: **Loyd Bolin**, Tulsa, OK (US)

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

(21) Appl. No.: **29/348,980**

(22) Filed: **Mar. 1, 2010**

(51) **LOC (9) Cl.** ..... **13-03**

(52) **U.S. Cl.** ..... **D13/179**

(58) **Field of Classification Search** ..... D13/179;  
165/80.3, 104.33, 122, 151, 185; 257/706,  
257/707, 718-722; 361/695, 697, 700, 702,  
361/704, 709, 710, 711, 719

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D298,458	S	*	11/1988	Margolin et al.	.....	D24/206
5,579,827	A	*	12/1996	Chung	.....	165/80.3
5,708,564	A	*	1/1998	Lin	.....	361/704
5,825,622	A	*	10/1998	Rife et al.	.....	361/704
6,459,580	B1	*	10/2002	Della Fiora et al.	.....	361/697
D592,614	S	*	5/2009	Plonski et al.	.....	D13/179
7,684,187	B1	*	3/2010	Meyer et al.	.....	361/679.47

D616,381	S	*	5/2010	Chang et al.	.....	D13/179
2005/0225938	A1	*	10/2005	Montgomery et al.	.....	361/695
2009/0321058	A1	*	12/2009	Uchimura et al.	.....	165/121

\* cited by examiner

*Primary Examiner* — Selina Sikder

(57) **CLAIM**

The ornamental design for a heat recovery apparatus, as shown and described.

**DESCRIPTION**

FIG. 1 is a top plan view showing heater exhaust ports wherein air passes horizontally thru the heat recovery apparatus, wherein the top and bottom view are identical;

FIG. 2 is a front side elevational view thereof showing the vertical heat recovery ports, wherein both front and back side are identical;

FIG. 3 is a side elevational view taken from FIG. 1, wherein each side view is identical; and,

FIG. 4 is a perspective view thereof.

The heat recovery apparatus is installed in any heating unit exhaust duct and is designed to safely recover and utilize wasted heat.

**1 Claim, 1 Drawing Sheet**

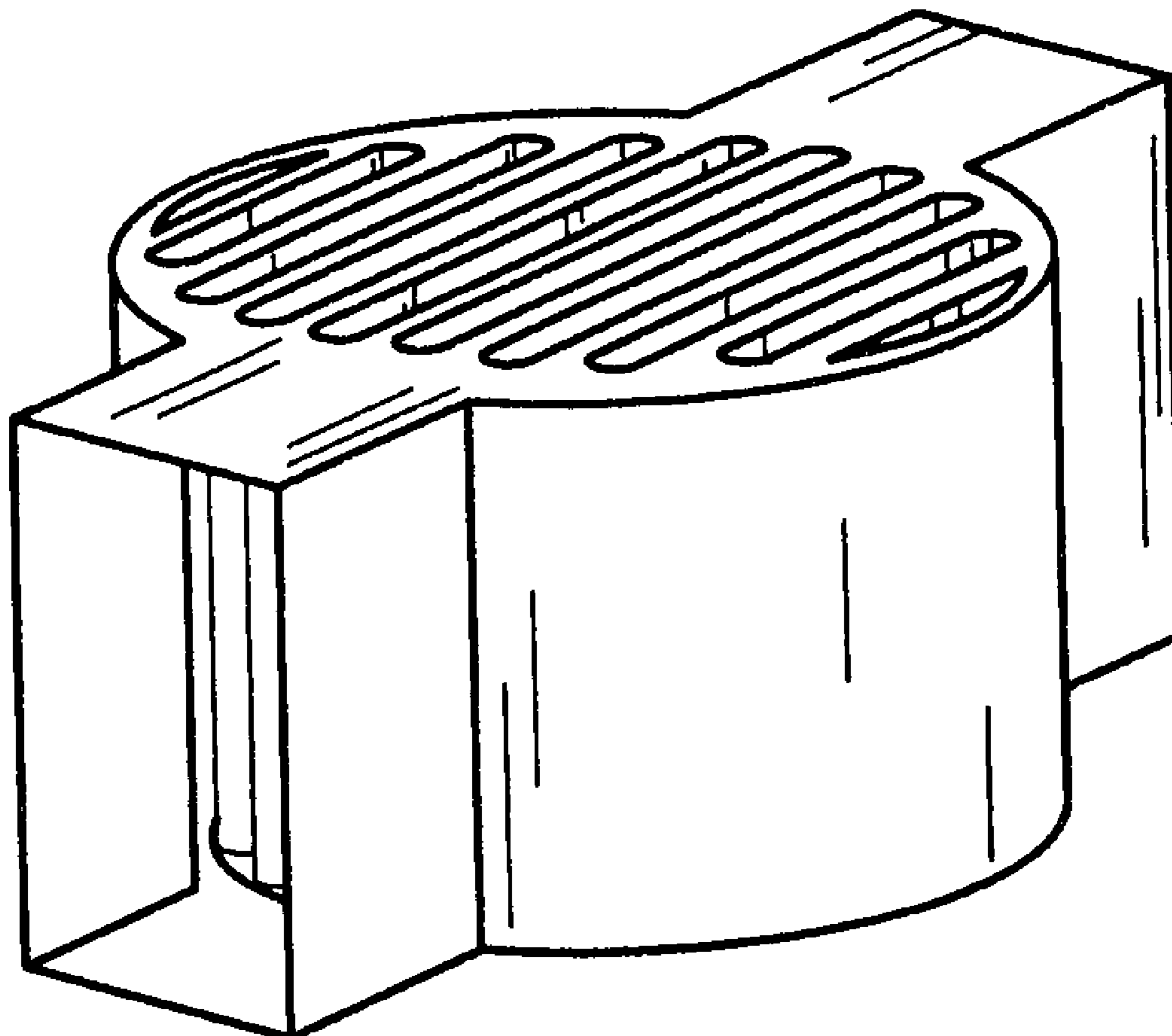


Fig. 3

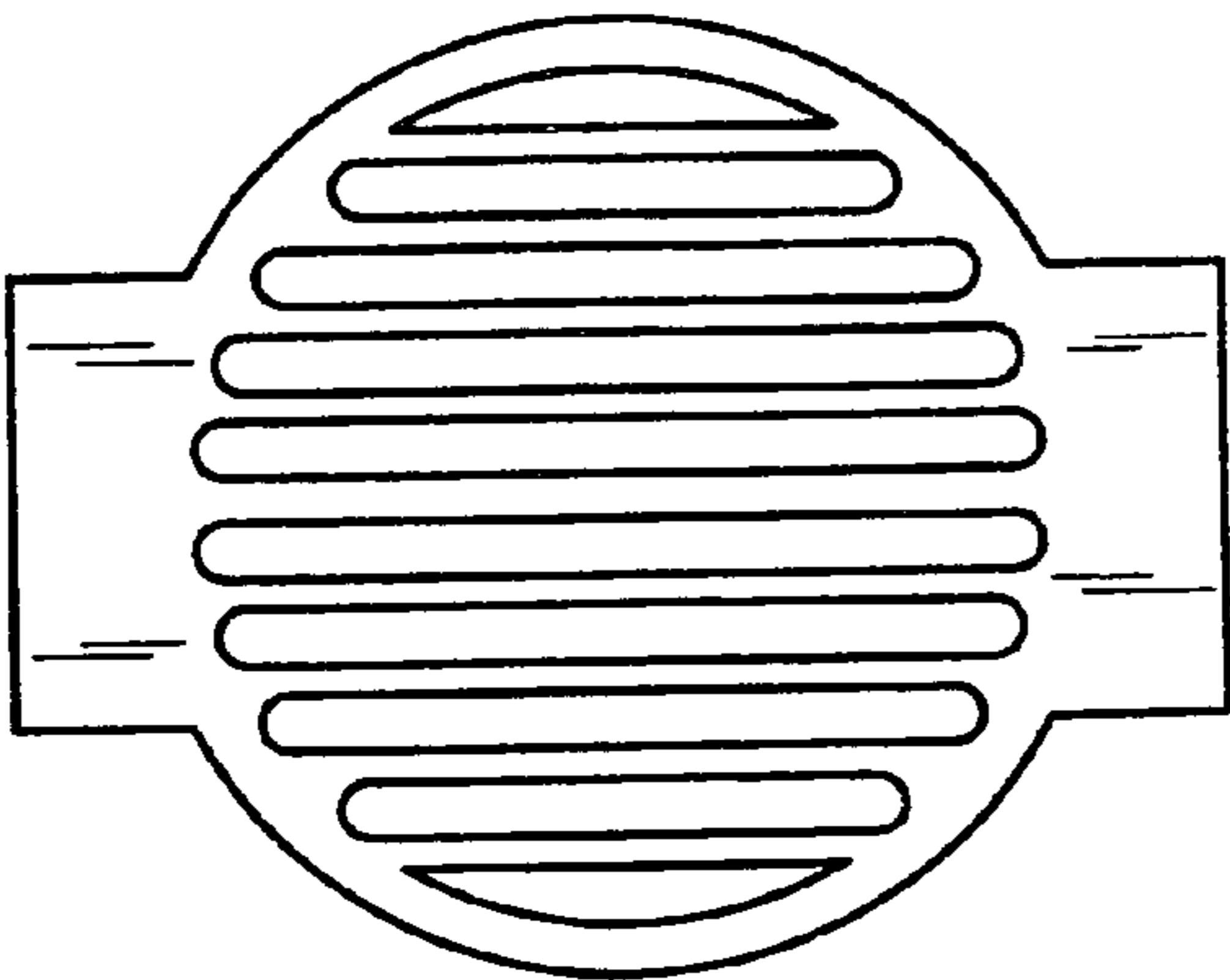


Fig. 3

Figure 1

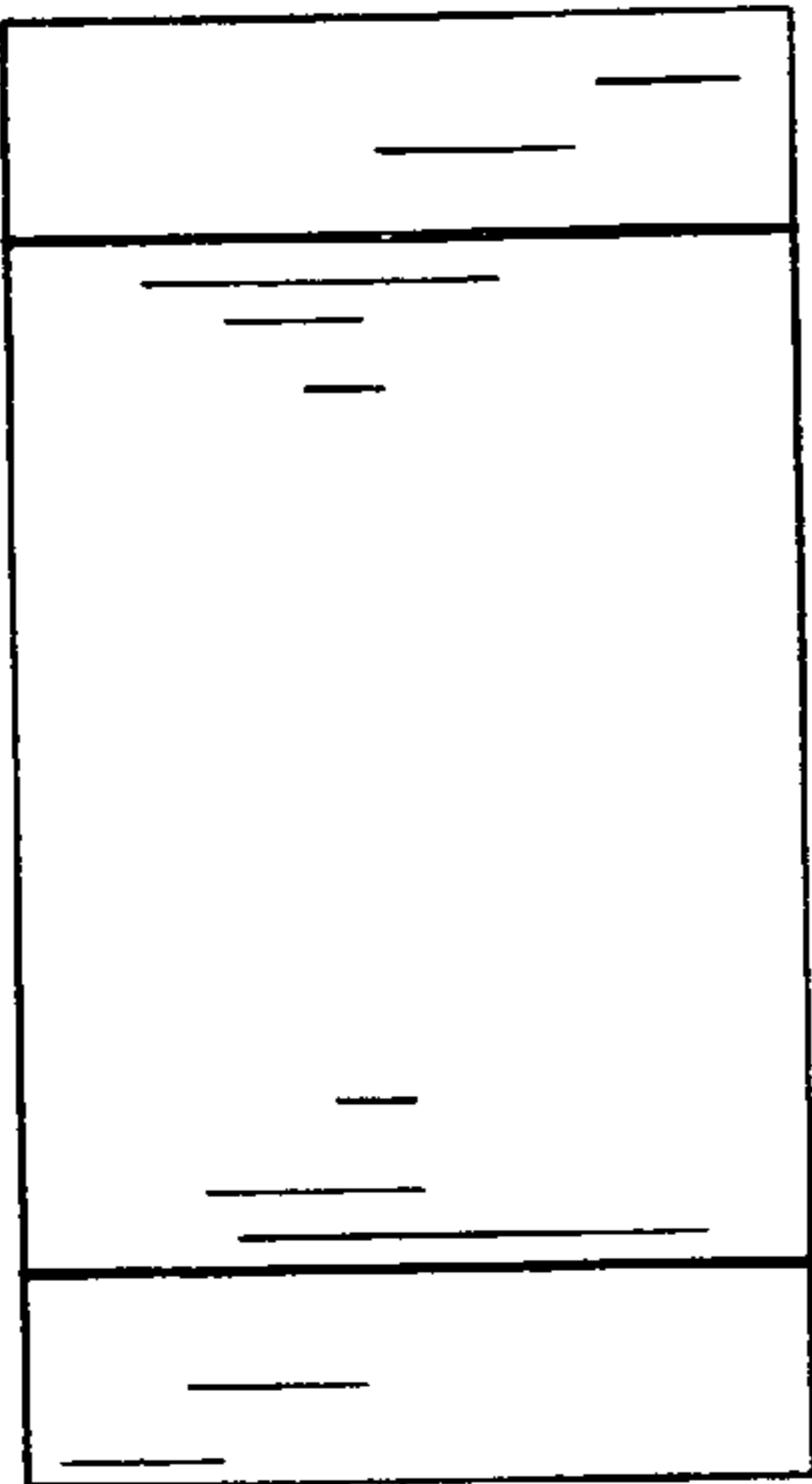


Figure 3

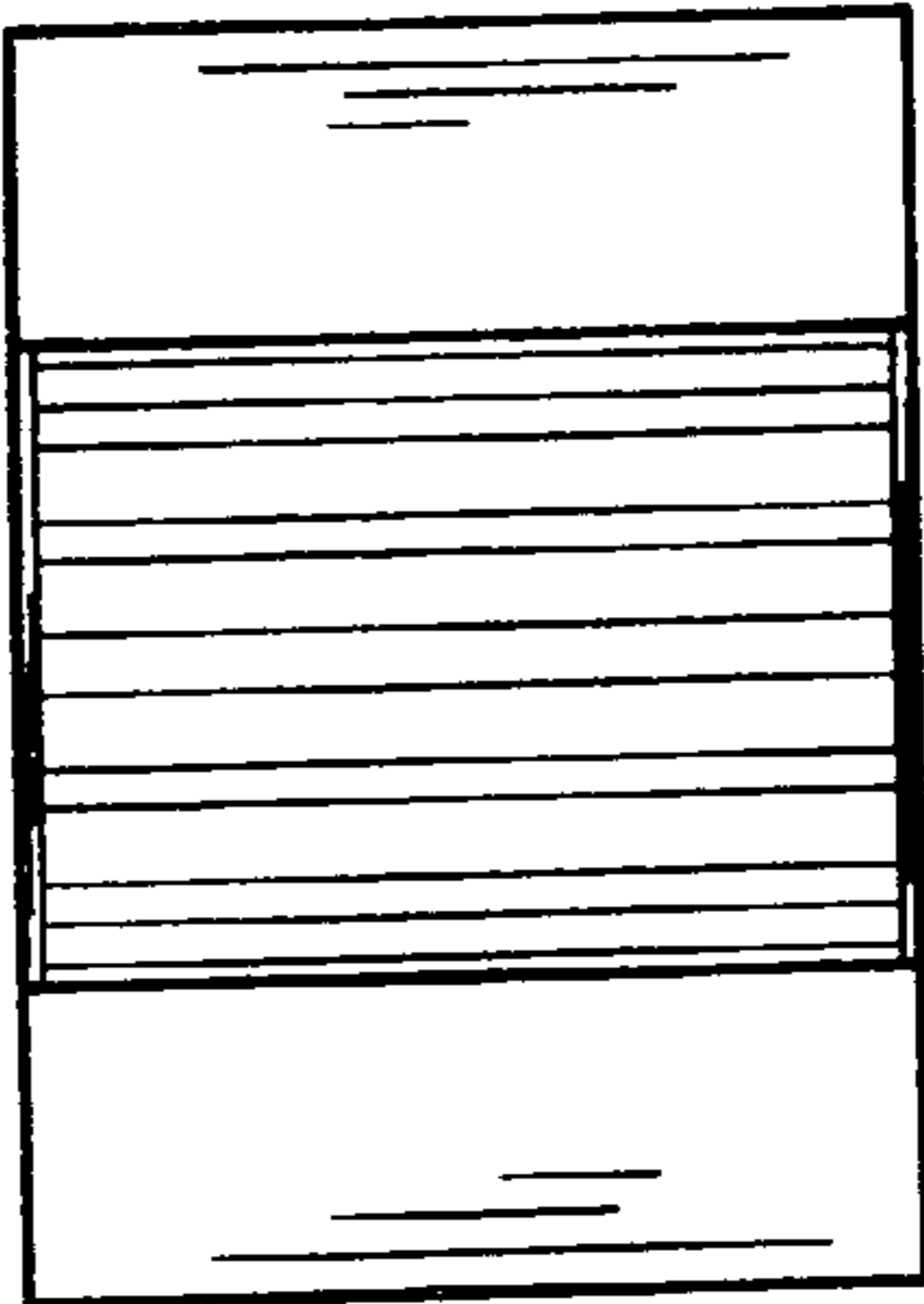


Figure 2

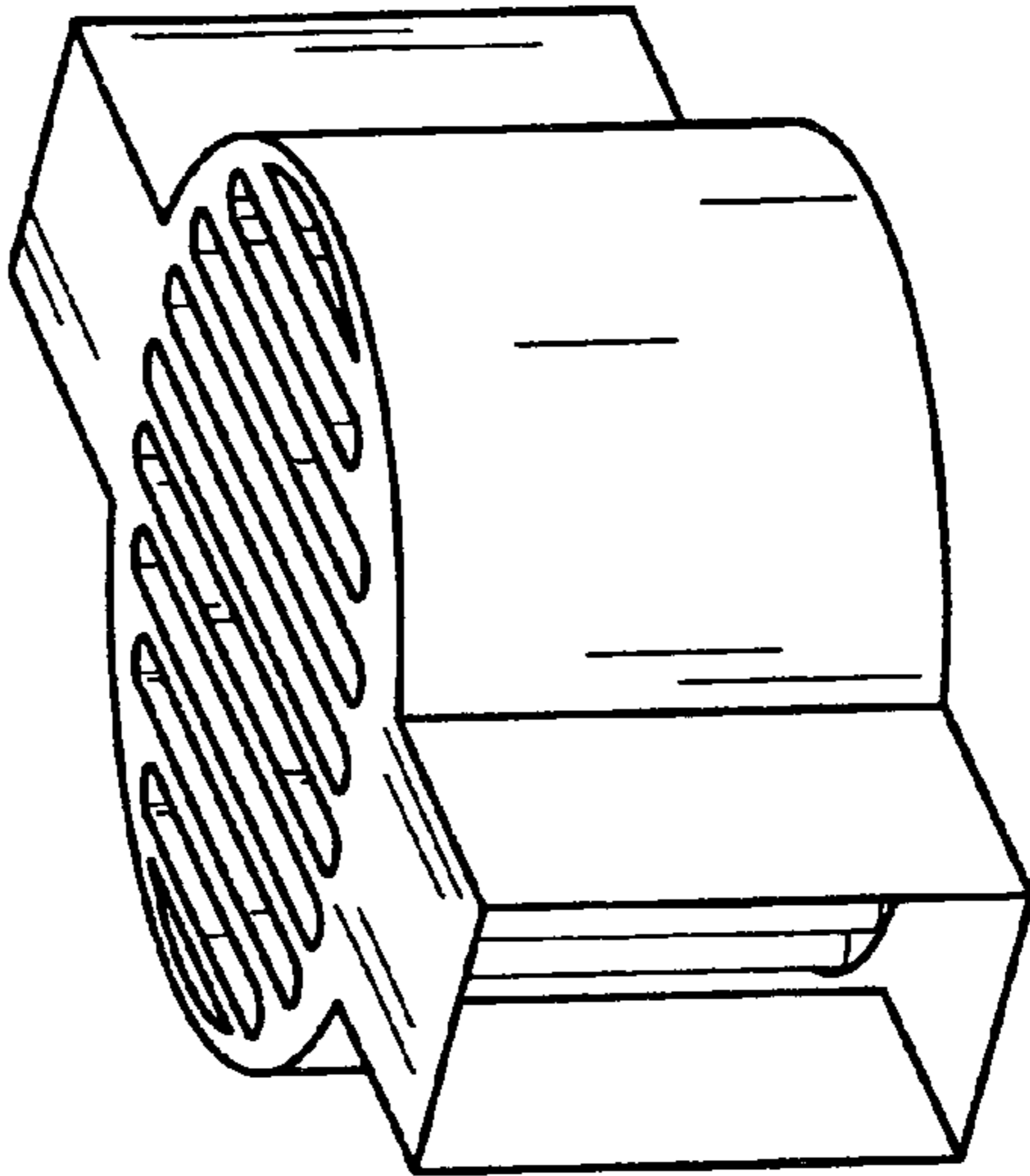


Figure 4