



US00D990525S

(12) **United States Design Patent** (10) **Patent No.:** **US D990,525 S**
Robertson (45) **Date of Patent:** **** Jun. 27, 2023**

(54) **COMBINE HARVESTER CONCAVE THRESHING BAR**

(74) *Attorney, Agent, or Firm* — Law Office of Sam Sokhansanj PLLC

(71) Applicant: **Brian G. Robertson**, Frisco, TX (US)

(57) **CLAIM**

(72) Inventor: **Brian G. Robertson**, Frisco, TX (US)

The ornamental design for a combine harvester concave threshing bar, as shown and described.

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

DESCRIPTION

(21) Appl. No.: **29/842,357**

(22) Filed: **Jun. 13, 2022**

Related U.S. Application Data

(62) Division of application No. 29/680,208, filed on Feb. 14, 2019, now Pat. No. Des. 954,759.

(51) **LOC (14) Cl.** **15-03**

(52) **U.S. Cl.**
USPC **D15/28**

(58) **Field of Classification Search**
USPC D15/10-33; 460/110, 107
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

34,617 A 3/1862 Welsh
952,795 A 3/1910 Flynn
(Continued)

FOREIGN PATENT DOCUMENTS

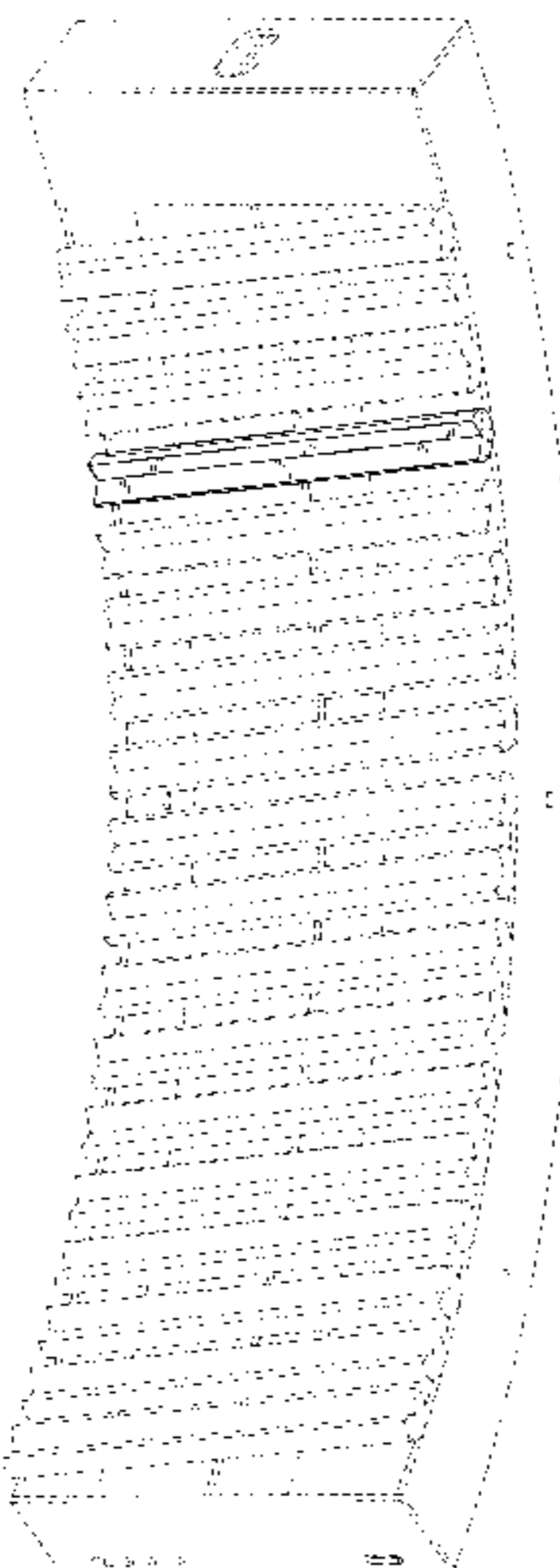
CA 2297624 A1 1/2001
DE 1111446 B 7/1961
(Continued)

OTHER PUBLICATIONS

PCT/US2018/067237 International Search Report and Written Opinion, dated Mar. 22, 2019, 12 pp. total.
(Continued)

Primary Examiner — Mark A Goodwin

1 Claim, 8 Drawing Sheets



(58) **Field of Classification Search**

CPC A01F 12/20; A01F 12/26; A01F 12/22;
A01F 12/24; A01F 12/18; A01F 7/067;
A01D 41/00; A01D 41/12

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,778,664	A	10/1930	Dragon	
2,159,664	A	5/1939	Lindgren	
2,305,964	A	12/1942	Harrison et al.	
2,457,680	A	12/1948	Johnson	
2,833,288	A	12/1953	Scranton	
2,686,523	A	8/1954	Young	
2,937,647	A	5/1960	Allen et al.	
3,092,115	A	6/1963	Morgan	
3,191,607	A	6/1965	Baumeister et al.	
3,439,684	A	4/1969	Davidow et al.	
3,568,682	A	3/1971	Knapp et al.	
3,696,815	A	10/1972	Rowland-Hill et al.	
3,716,060	A	2/1973	Suzue	
3,983,883	A	10/1976	Ashton et al.	
4,353,376	A	10/1982	Schuler	
4,383,652	A *	5/1983	Osborne B02C 18/144 241/222	
4,495,954	A	1/1985	Yarbrough	
4,499,908	A	2/1985	Niehaus	
4,875,891	A	10/1989	Turner et al.	
5,489,239	A	2/1996	Matousek et al.	
5,569,080	A	10/1996	Estes	
5,613,907	A	3/1997	Harden	
6,074,297	A	6/2000	Kuchar	
6,193,604	B1	2/2001	Ramp et al.	
6,485,364	B1 *	11/2002	Gryspeerd A01F 12/26 460/109	
6,537,148	B2	3/2003	Schwersmann	
6,958,012	B2	10/2005	Duquesne et al.	
7,166,026	B2	1/2007	Ricketts et al.	
7,207,882	B2	4/2007	Schmidt et al.	
7,285,043	B2	10/2007	Foster et al.	
D624,939	S *	10/2010	Flickinger D15/28	
8,313,361	B2	11/2012	Flickinger et al.	
8,454,416	B1	6/2013	Estes	
8,636,568	B1	1/2014	Farley	
8,690,652	B1	4/2014	Estes	
8,721,411	B2	5/2014	Reiger et al.	
D735,772	S *	8/2015	Ricketts A01F 12/26 D15/28	
9,215,845	B2	12/2015	Regier	
9,504,204	B2	11/2016	Kile	
RE46,401	E	5/2017	Estes	
9,723,791	B1	8/2017	Kile	

10,045,487	B1	8/2018	Robertson	
10,368,492	B2	8/2019	Ricketts et al.	
10,412,895	B2 *	9/2019	Theisen A01F 12/26	
10,440,893	B2 *	10/2019	Kile A01D 41/12	
10,609,867	B1 *	4/2020	Kile A01F 12/28	
10,785,916	B2 *	9/2020	Robertson A01F 12/26	
10,849,275	B2 *	12/2020	Estes A01F 11/06	
11,064,655	B2	7/2021	Robertson	
D949,208	S *	4/2022	Robertson D15/28	
D949,930	S	4/2022	Robertson	
11,317,566	B2	5/2022	Koudela	
D954,759	S *	6/2022	Robertson D15/28	
2005/0197176	A1	9/2005	Foster et al.	
2006/0128451	A1	6/2006	Ricketts et al.	
2006/0128452	A1	6/2006	Esken et al.	
2010/0267433	A1	10/2010	Flickinger et al.	
2011/0143827	A1	6/2011	Flickinger et al.	
2011/0151951	A1	6/2011	Regier et al.	
2014/0087793	A1	3/2014	Regier	
2015/0250101	A1	9/2015	Kile	
2016/0345499	A1	12/2016	Van Hullebusch	
2016/0353662	A1	12/2016	Haus et al.	
2017/0347529	A1	12/2017	Bussman et al.	
2018/0103588	A1	4/2018	Ritter	
2018/0359926	A1 *	12/2018	Estes A01F 11/06	
2018/0368325	A1	12/2018	Koudela	
2019/0159403	A1 *	5/2019	Haar A01F 7/06	
2019/0166767	A1	6/2019	Robertson	
2019/0166768	A1	6/2019	Robertson	
2019/0200529	A1 *	7/2019	Robertson A01F 12/26	
2019/0200530	A1 *	7/2019	Robertson A01F 12/24	
2019/0200531	A1 *	7/2019	Robertson A01F 12/26	
2019/0200532	A1 *	7/2019	Robertson A01F 12/26	
2021/0189008	A1 *	6/2021	Robertson A61P 35/00	

FOREIGN PATENT DOCUMENTS

KR	20040012630	A	2/2004
WO	WO0124609	A1	4/2001
WO	WO2018237234	A1	12/2018

OTHER PUBLICATIONS

PCT/US2018/067245 International Search Report and Written Opinion, dated Mar. 25, 2019, 44 pp. total.
PCT/US2018/067256 International Search Report and Written Opinion, dated Mar. 22, 2019, 39 pp. total.
PCT/US2018/067262 International Search Report and Written Opinion, dated Apr. 2, 2019, 39 pp. total.
Peter Miu, "Combine Harvesters Theory, Modeling, and Design," 2016, CRC Press, 485 pp. total.

* cited by examiner

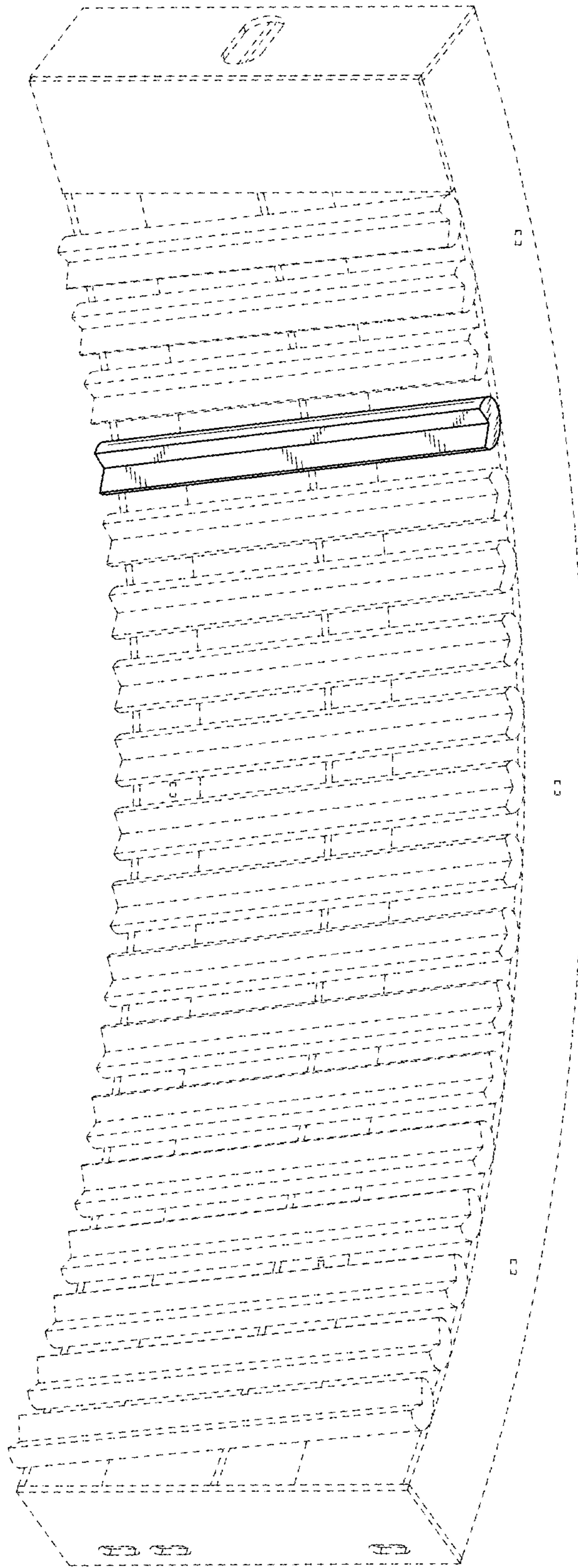


FIG. 1

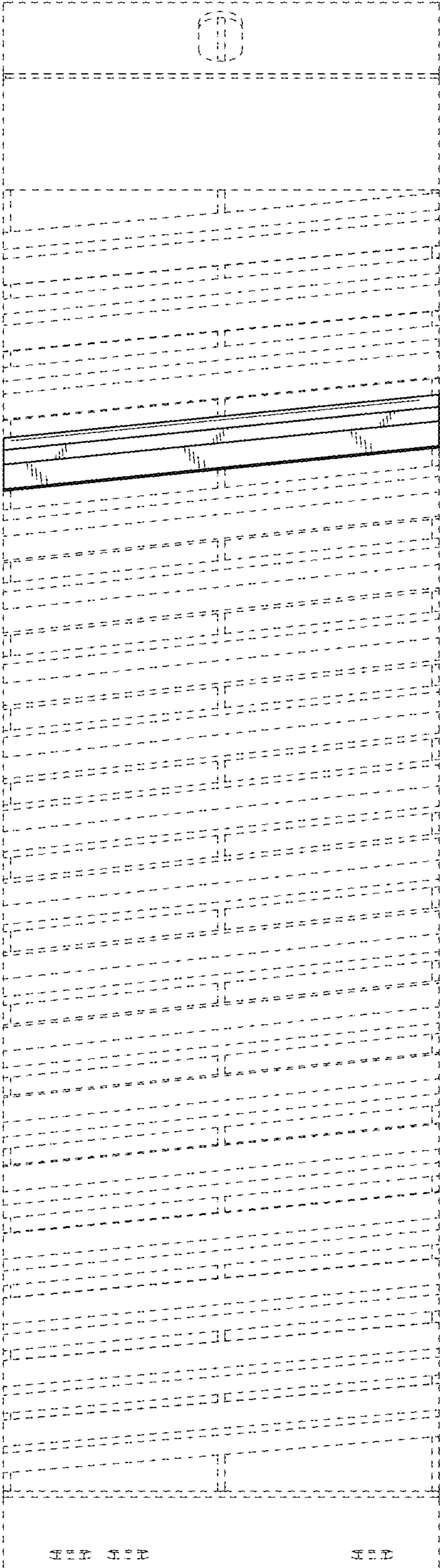


FIG. 2

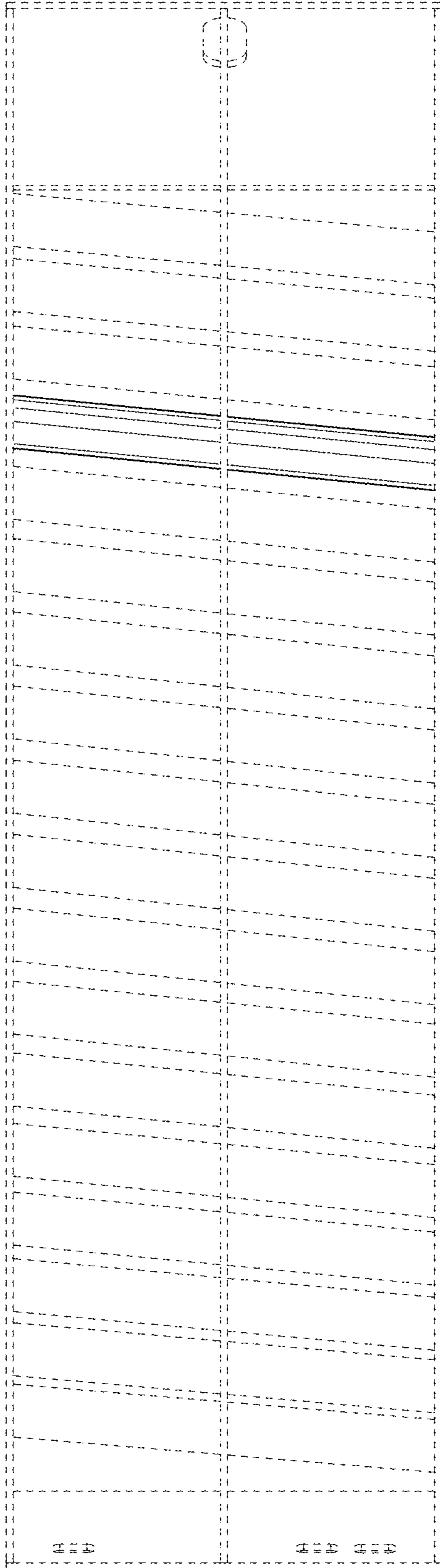


FIG. 3

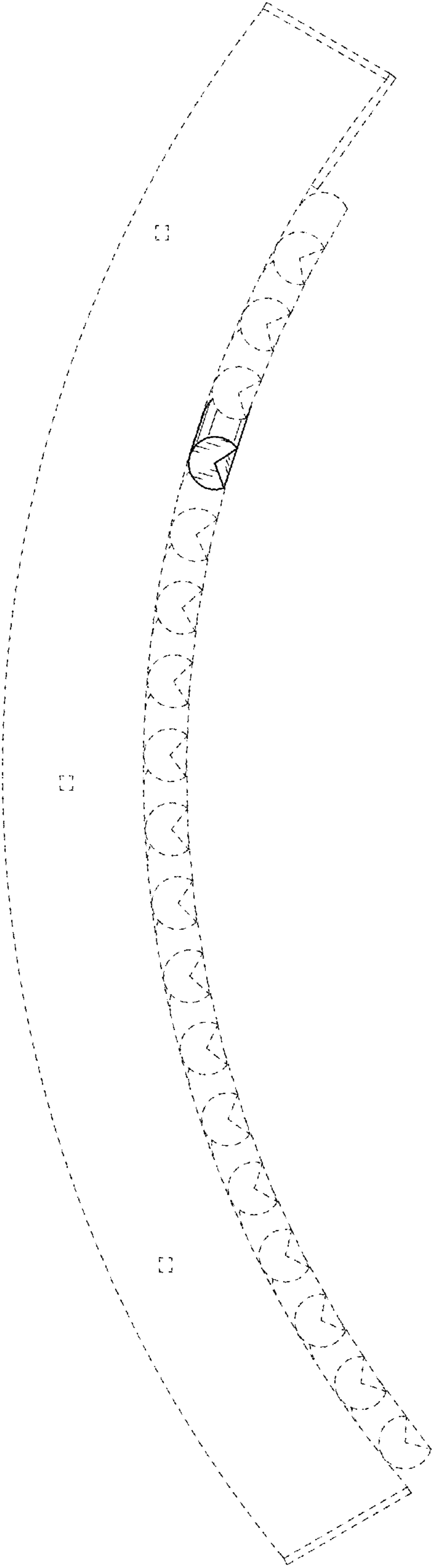


FIG. 4

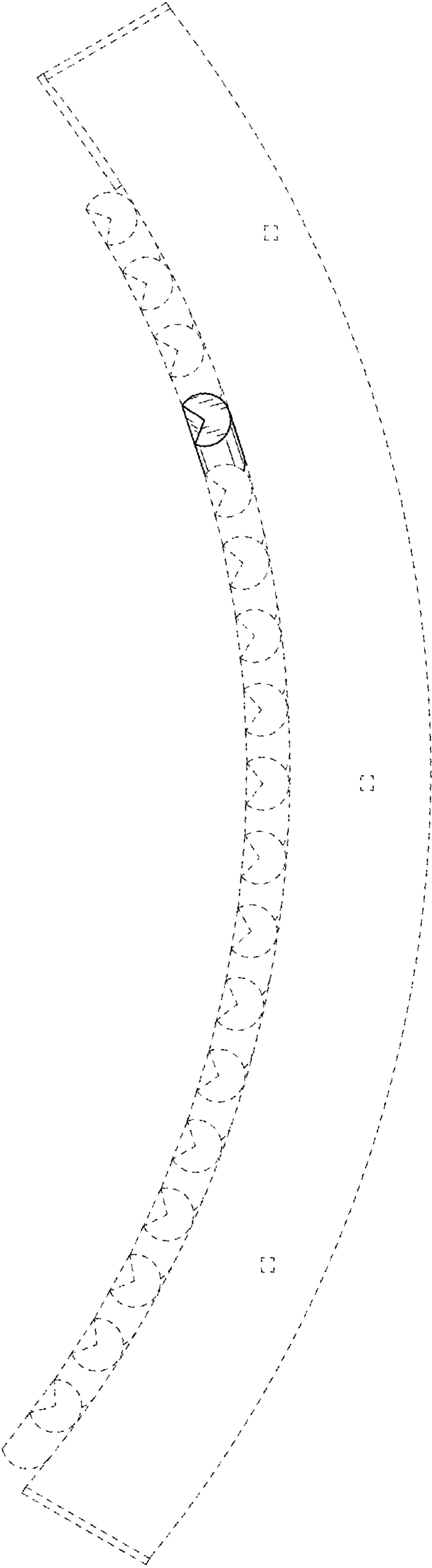


FIG. 5

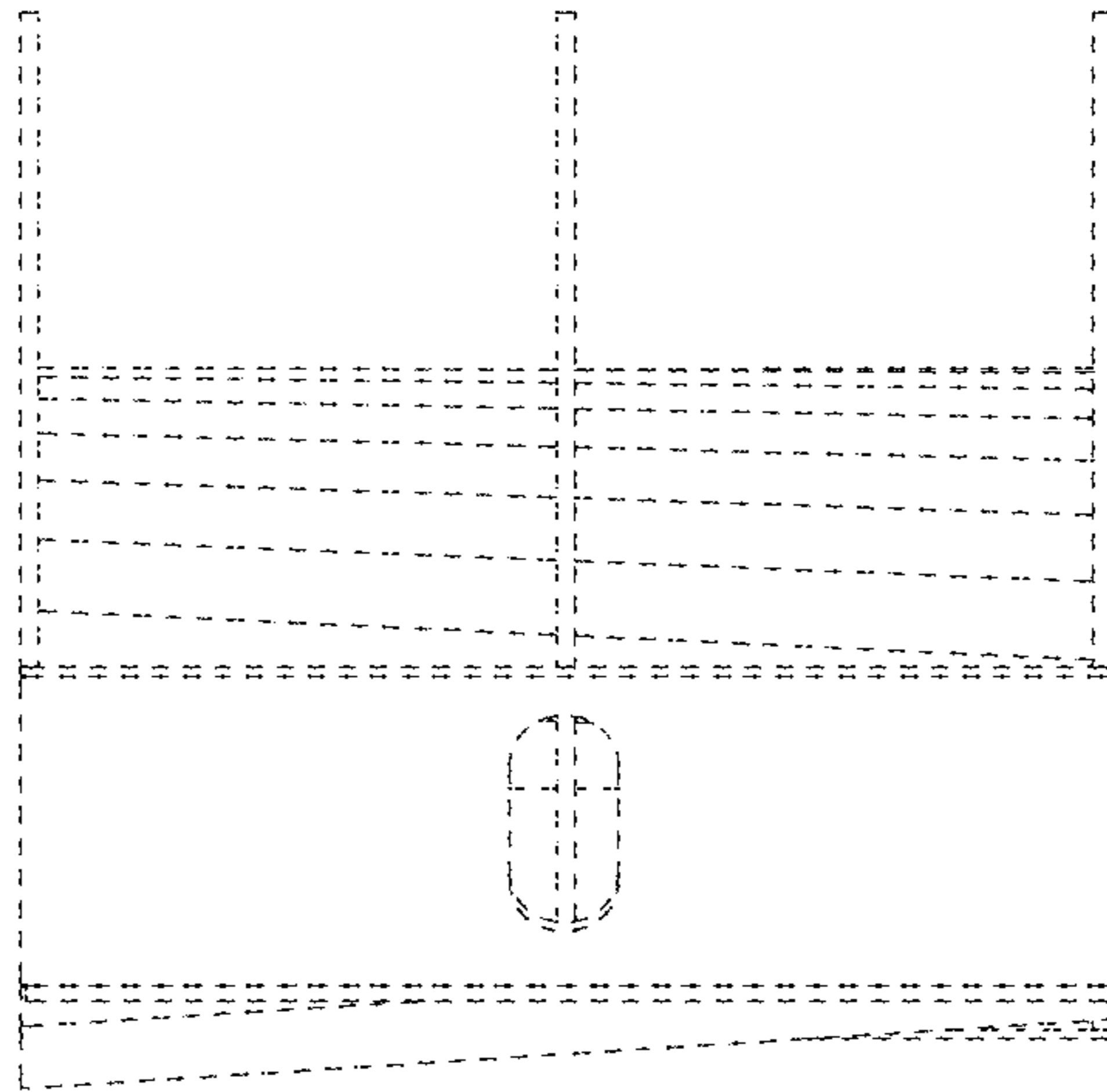


FIG. 6

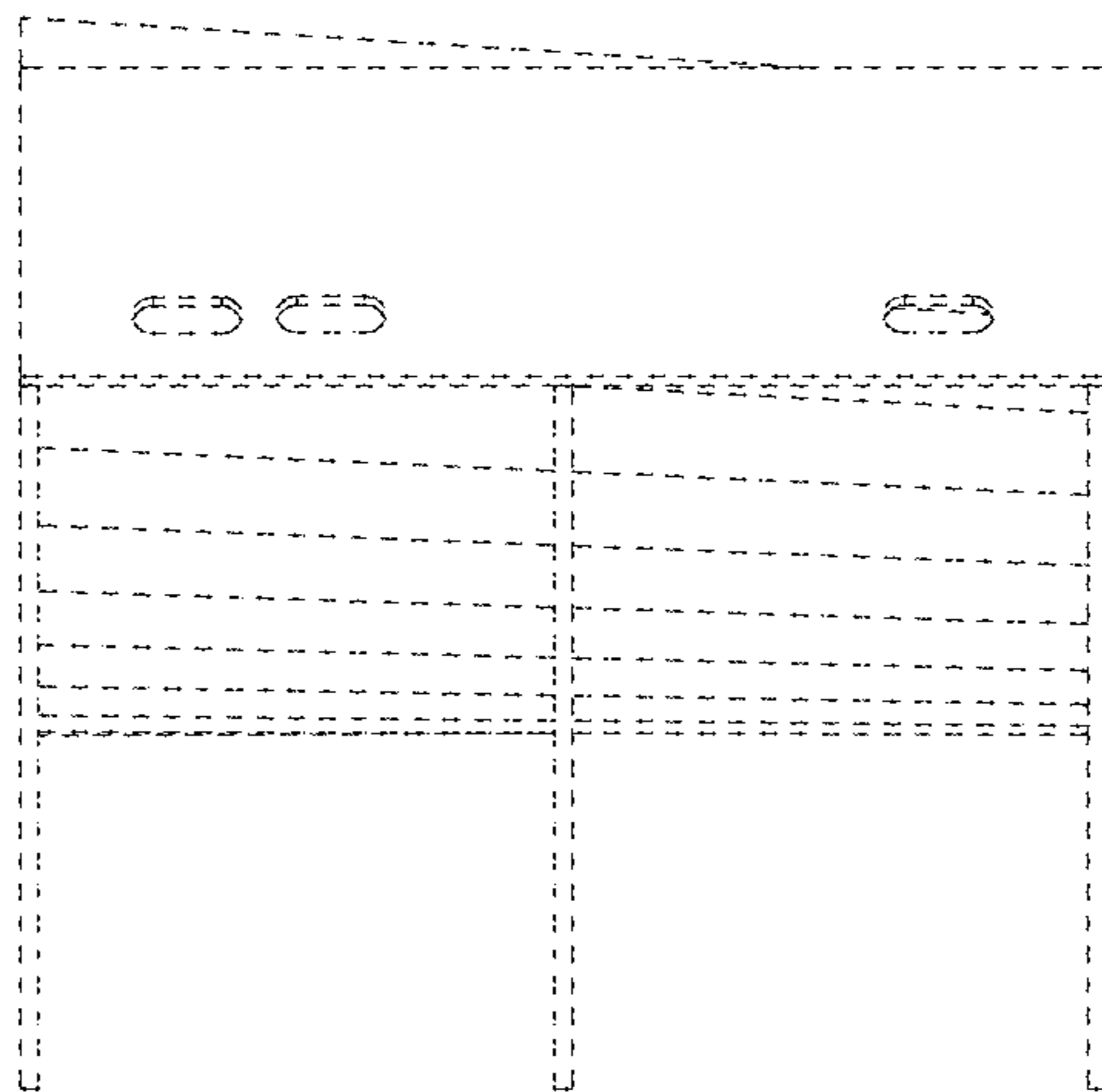


FIG. 7

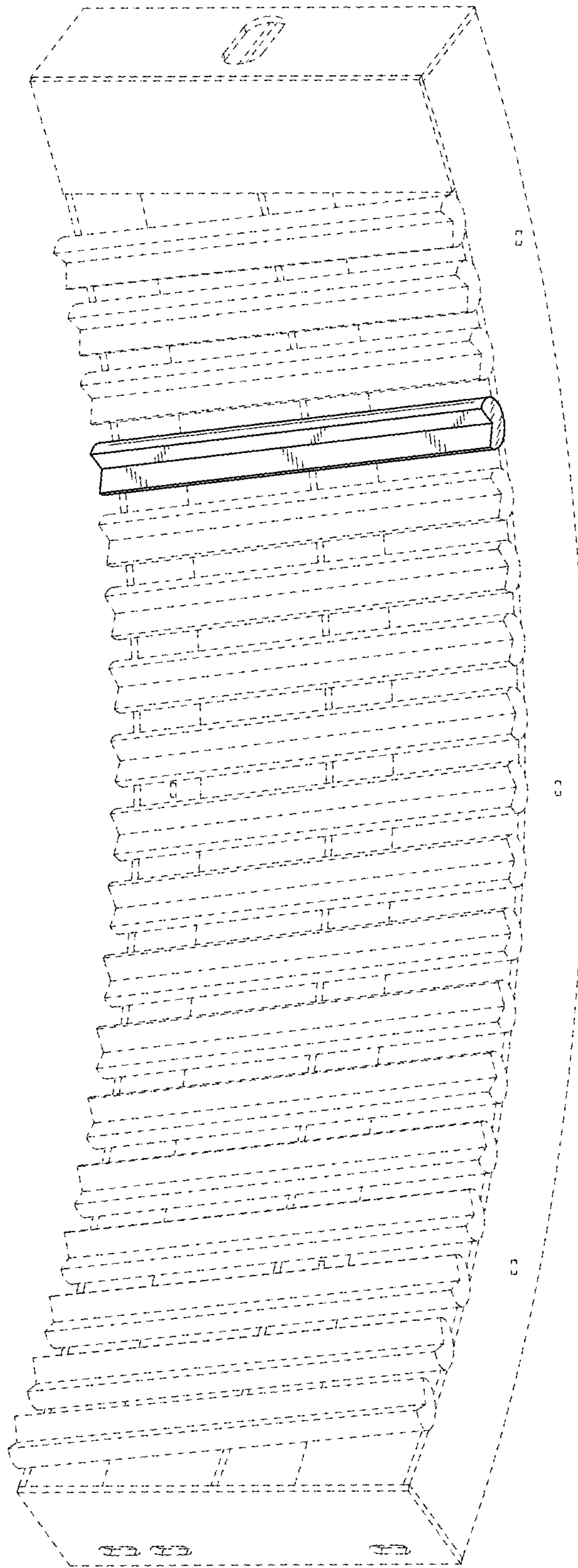


FIG. 8

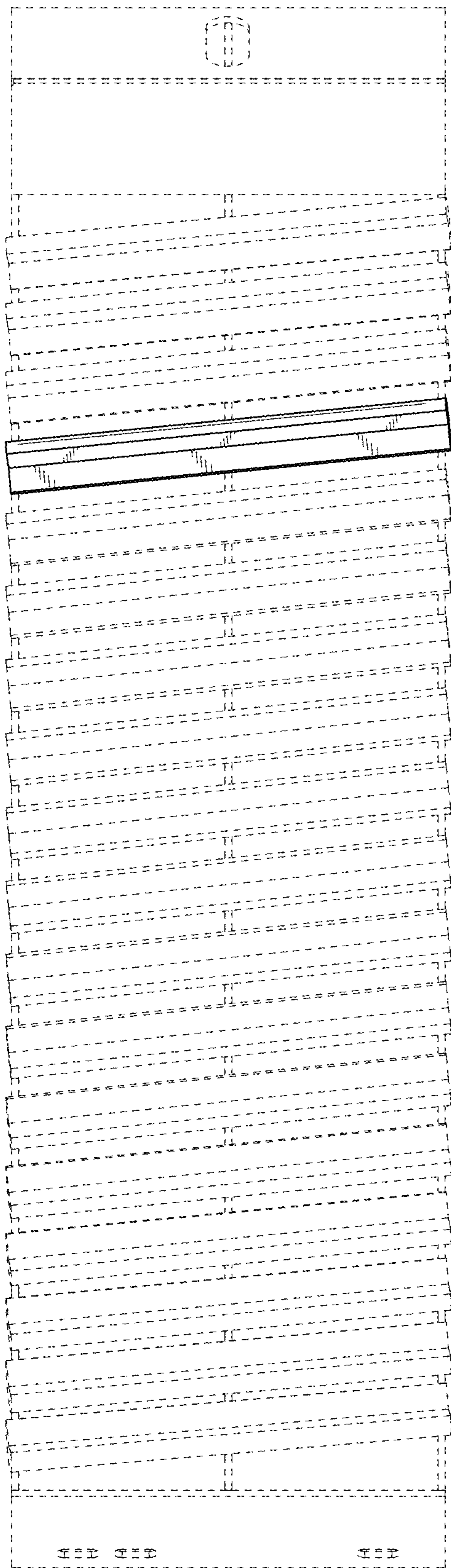


FIG. 9

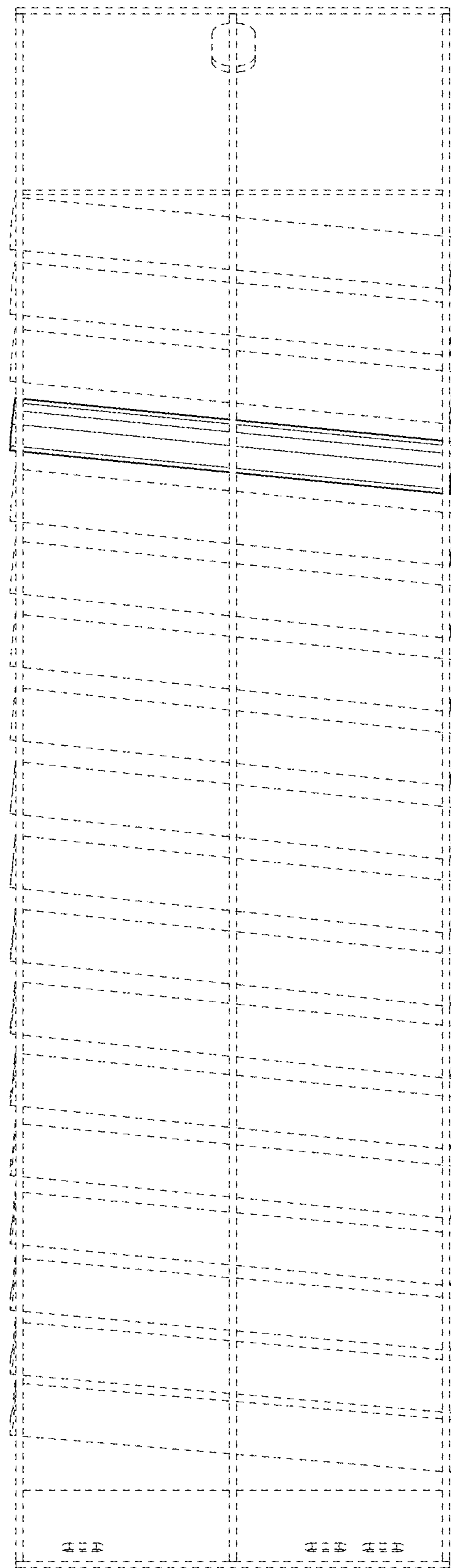


FIG. 10

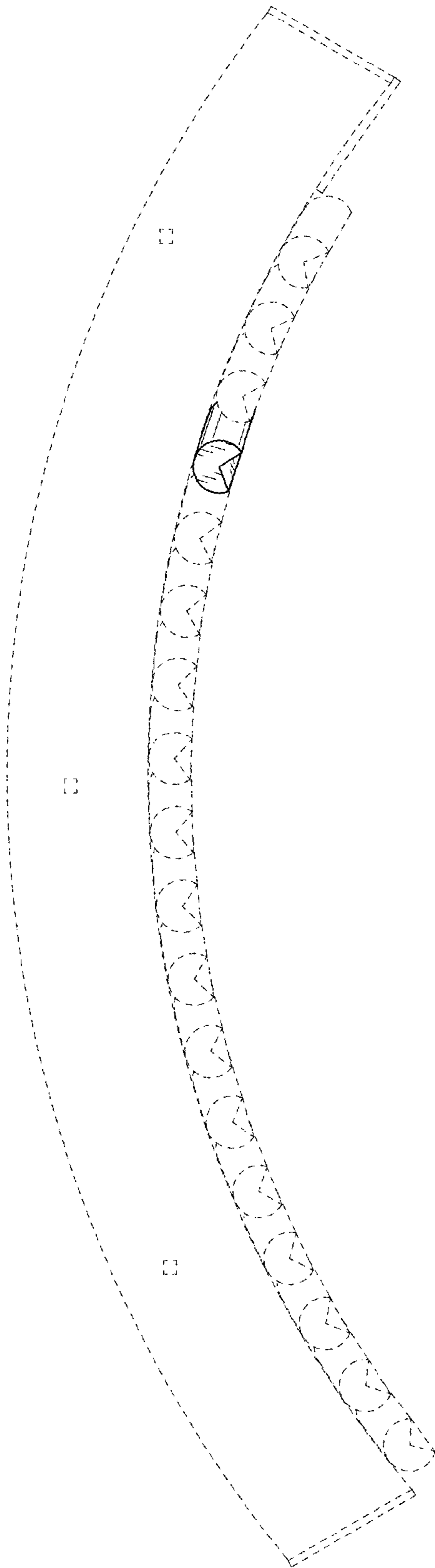


FIG. 11

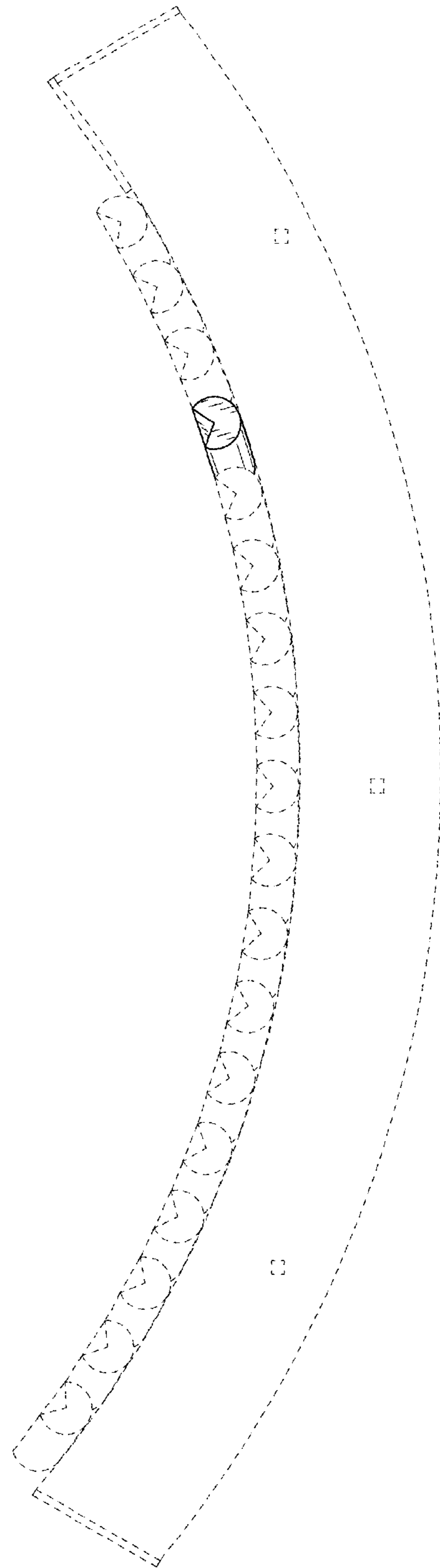


FIG. 12

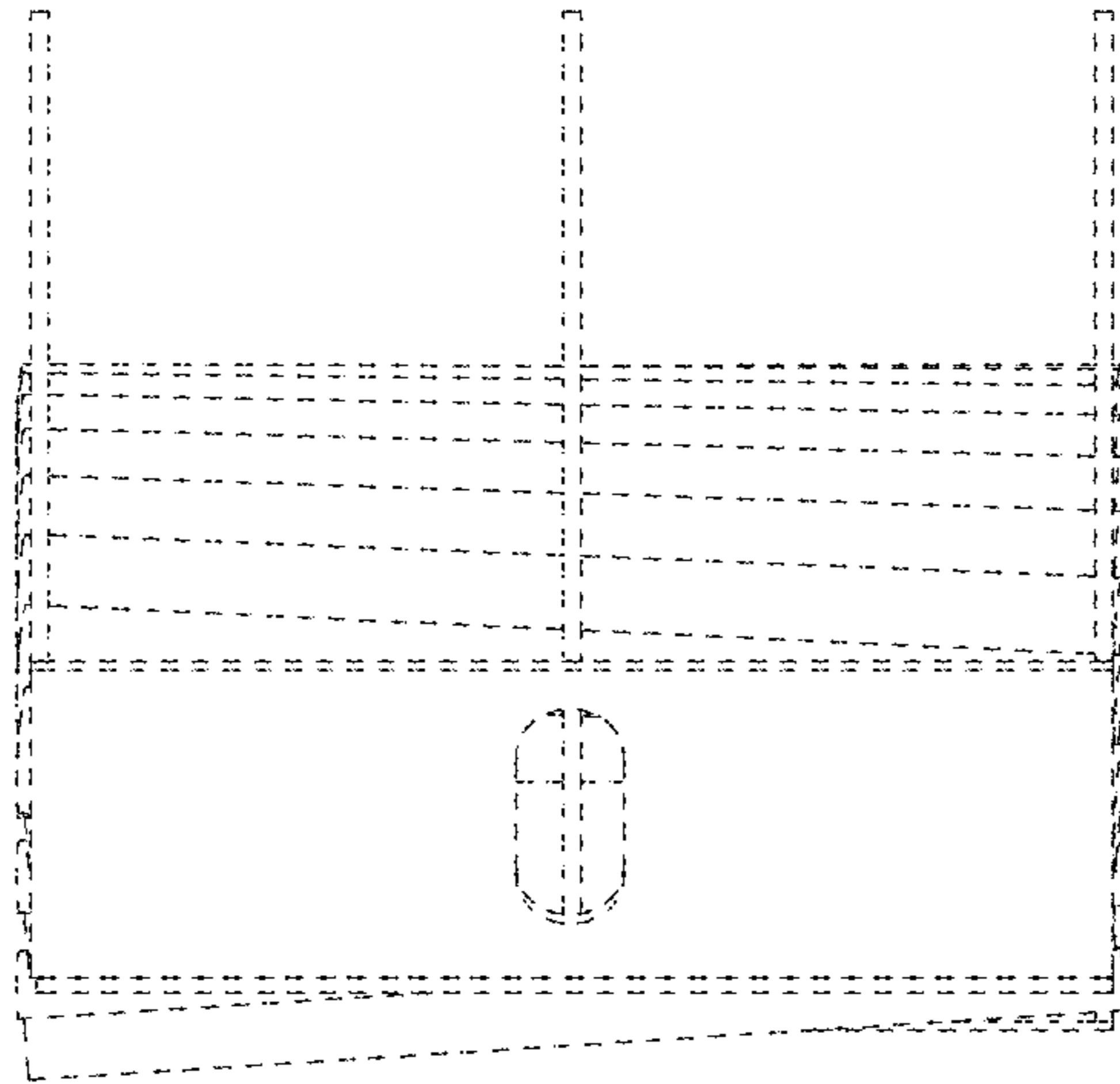


FIG. 13

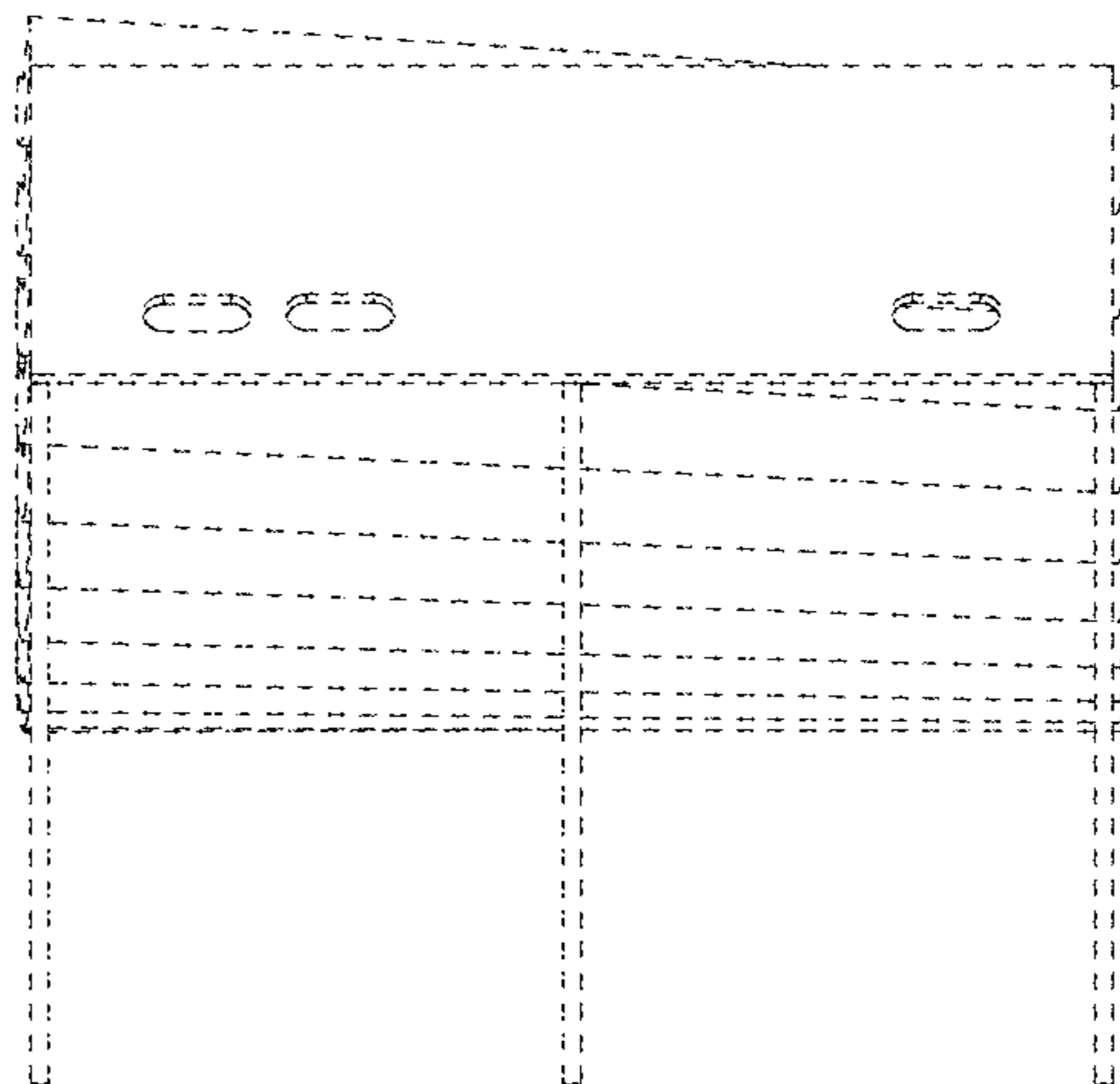


FIG. 14