US0D1109090S

(12) United States Design Patent

Lin

(10) Patent No.: US D1,109,090 S
(45) Date of Patent: ** Jan. 13, 2026

(54) **COIL FRAME**

(71) Applicant: **Hong Liu Limited Company**, Taichung (TW)

(72) Inventor: **Mu-Chun Lin**, Taichung (TW)

(73) Assignee: **HONG LIU LIMITED COMPANY**, Taichung (TW)

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

(21) Appl. No.: **29/991,550**

(22) Filed: **Feb. 28, 2025**

(51) **LOC (15) Cl.** **13-01**

(52) **U.S. Cl.**
USPC **D13/117**

(58) **Field of Classification Search**
USPC D13/117, 101, 110, 118, 133, 179, 183, D13/199; D15/5, 199
CPC . H01F 5/02; H01F 5/04; H01F 27/022; H01F 27/29; H01F 27/292; H01F 27/325; H01F 27/2804; H01F 27/2847; H01F 41/061; H01F 41/10; Y10T 29/4902; Y10T 29/49069; Y10T 29/49071; Y10T 29/49073; H01G 4/005; H01G 4/232; H01G 4/2325
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,745,388	A *	5/1988	Billings	H01F 17/043 336/83
4,890,085	A *	12/1989	Saito	H01F 27/29 336/83
D313,605	S *	1/1991	Saito	D15/78
D385,848	S *	11/1997	Sato	D13/118
6,559,749	B1 *	5/2003	Weiner	H01F 41/10 336/208
D560,164	S *	1/2008	Iwakura	D13/118
D644,608	S *	9/2011	Kobayashi	D13/118
D734,257	S *	7/2015	Maeda	D13/110
2013/0186995	A1 *	7/2013	Yamaguchi	H01F 17/045 242/432.6

OTHER PUBLICATIONS

Design Vision; Taiwan Design #TW096306686, Coil Frame, TDK, Dec. 10, 2007 (Year: 2007).*

* cited by examiner

Primary Examiner — Derrick E Holland
(74) *Attorney, Agent, or Firm* — Sinorica International Patent & Trademark

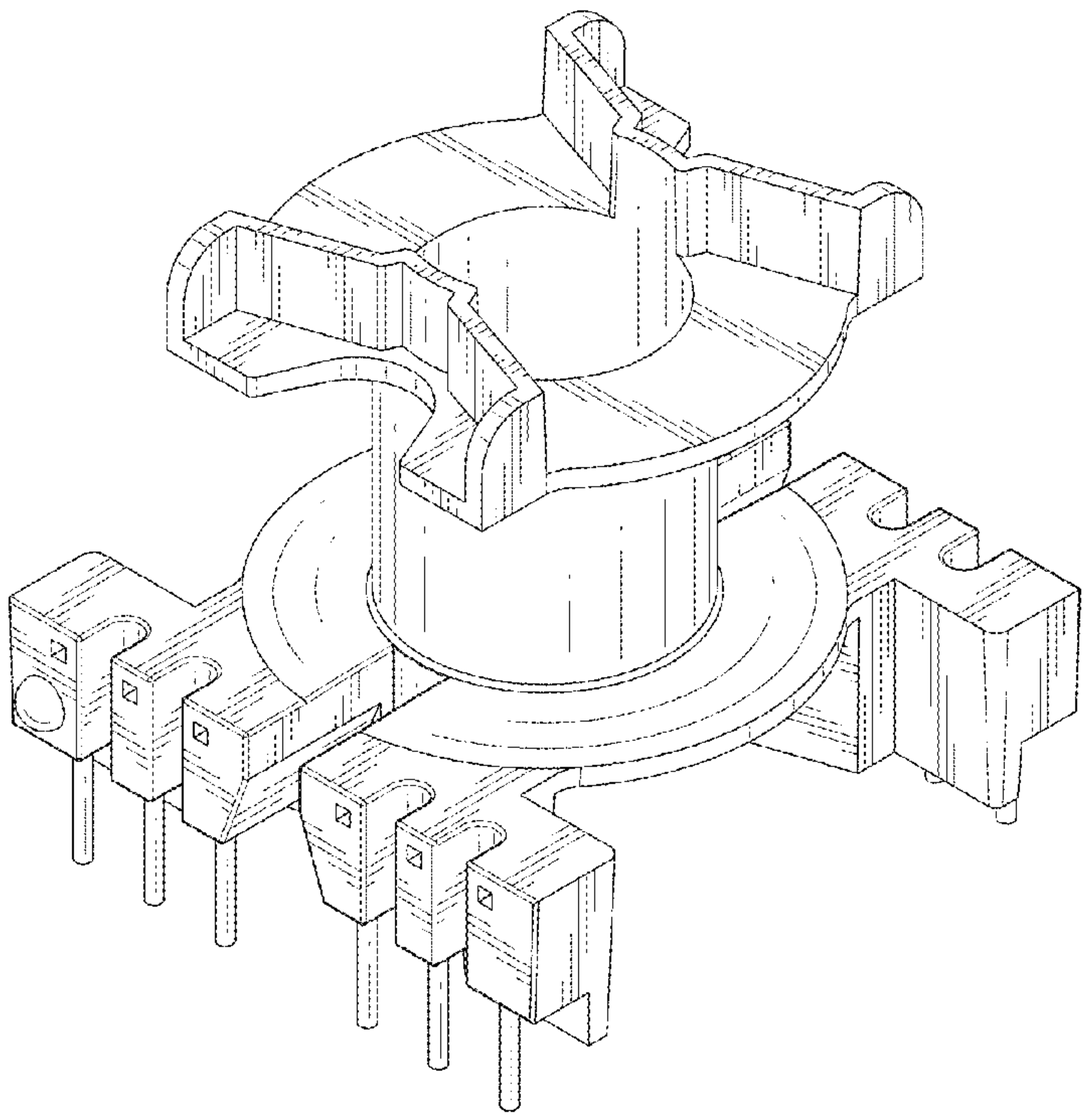
(57) **CLAIM**

The ornamental design for a coil frame, as shown and described.

DESCRIPTION

FIG. **1** is a front perspective view of a coil frame showing my new design;
FIG. **2** is a front elevational view thereof;
FIG. **3** is a rear elevational view thereof.
FIG. **4** is a left side elevational view thereof;
FIG. **5** is a right side elevational view thereof;
FIG. **6** is a top plan view thereof; and,
FIG. **7** is a bottom plan view thereof.

1 Claim, 7 Drawing Sheets



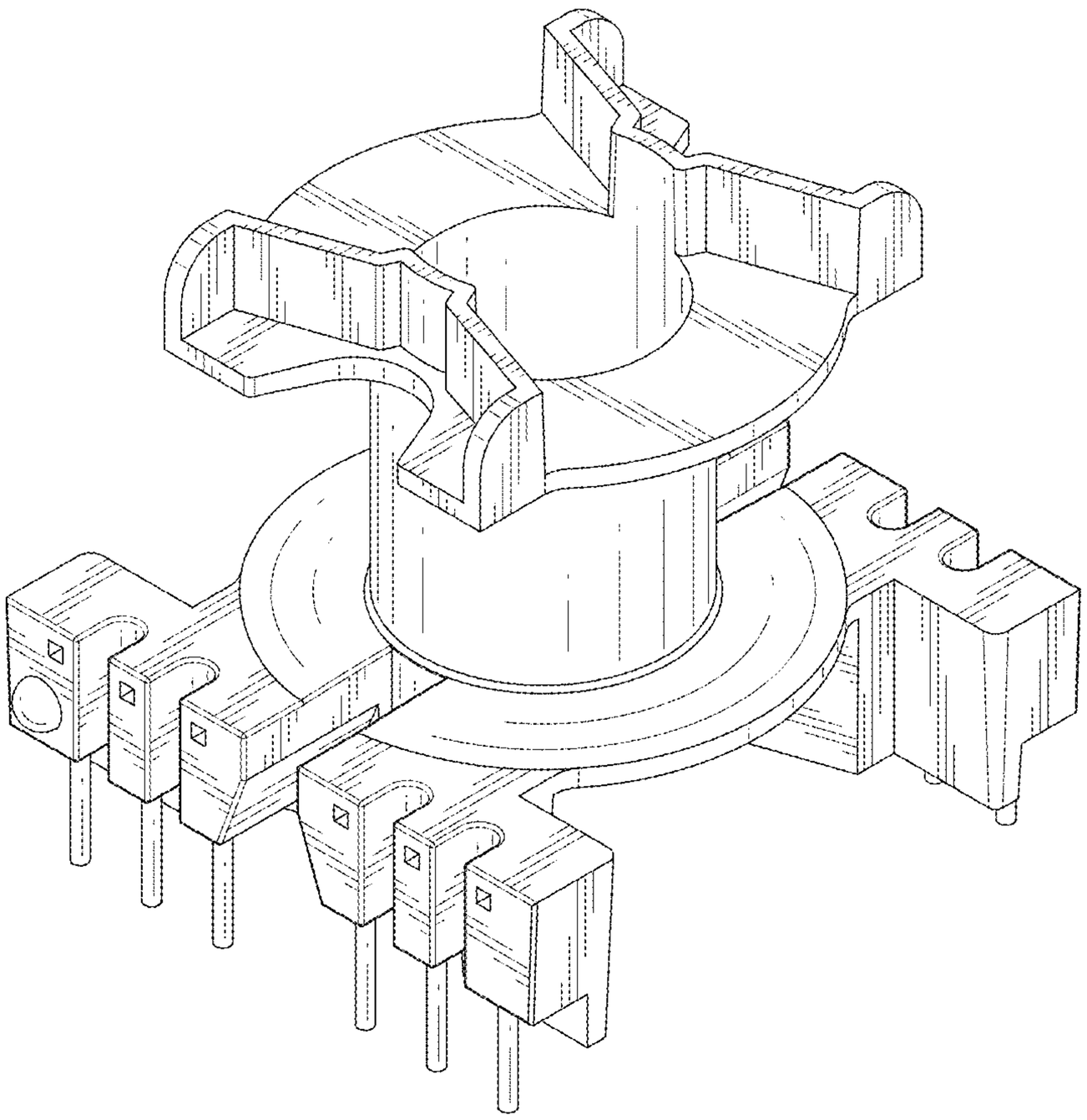


FIG. 1

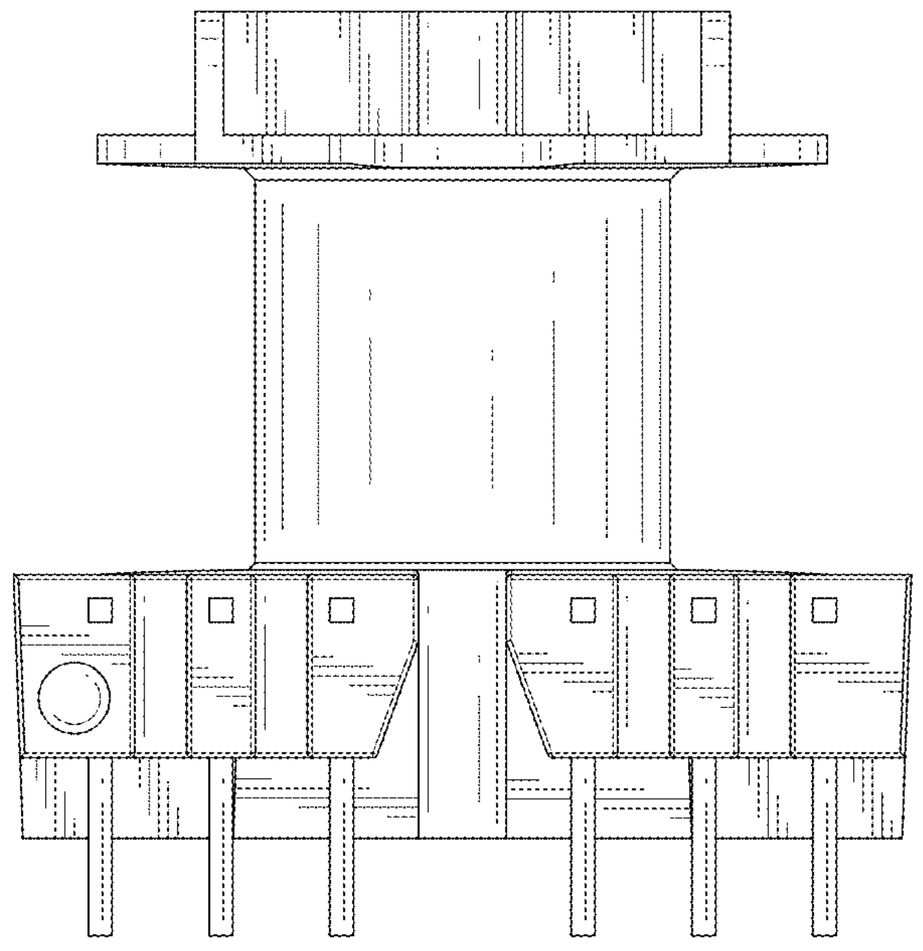


FIG. 2

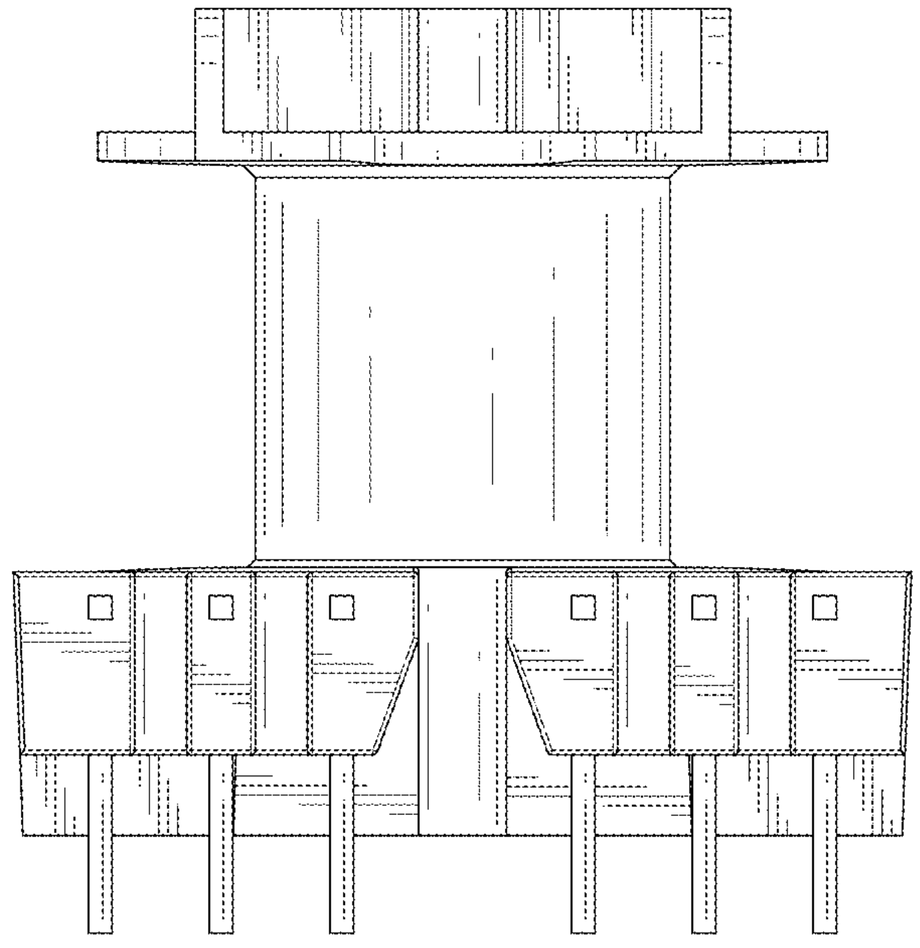


FIG. 3

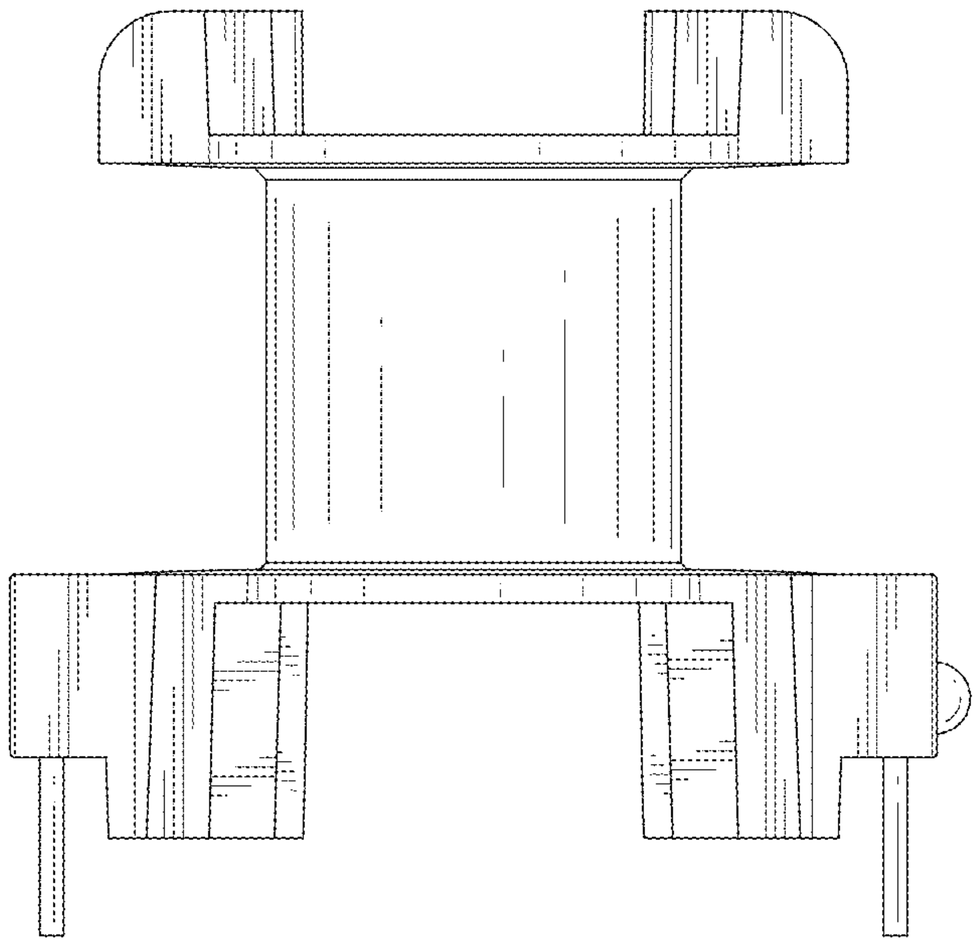


FIG. 4

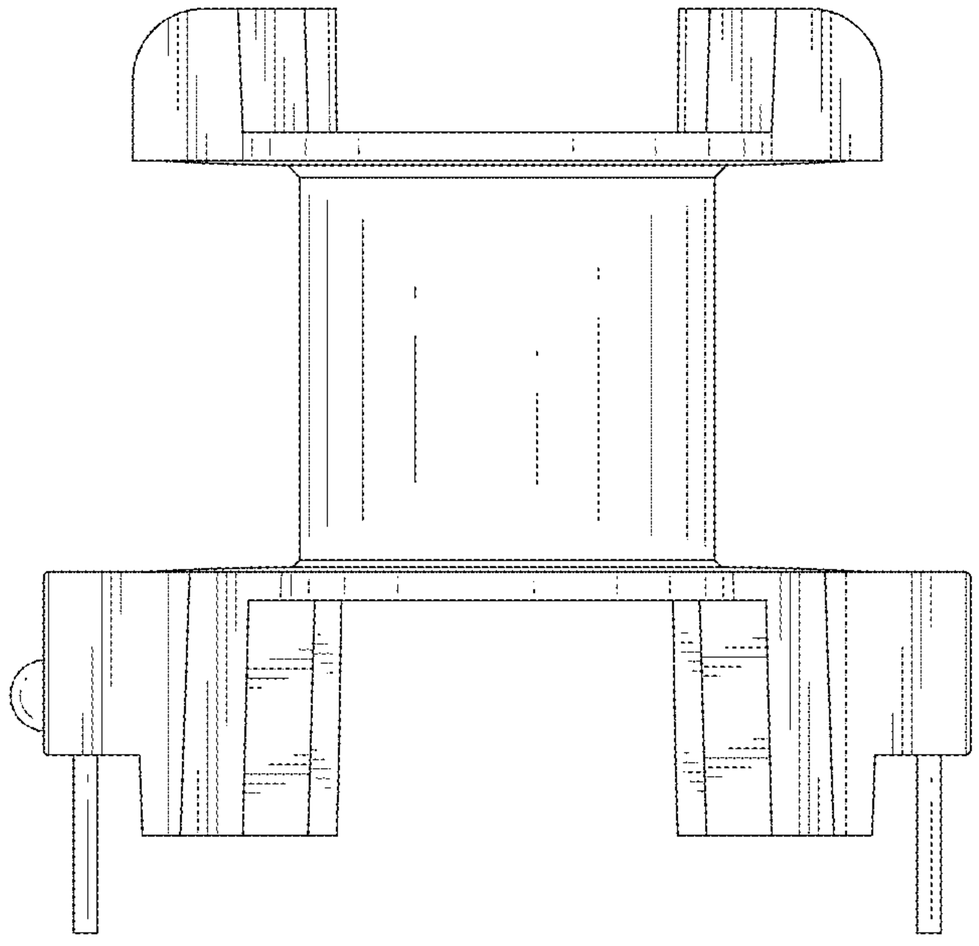


FIG. 5

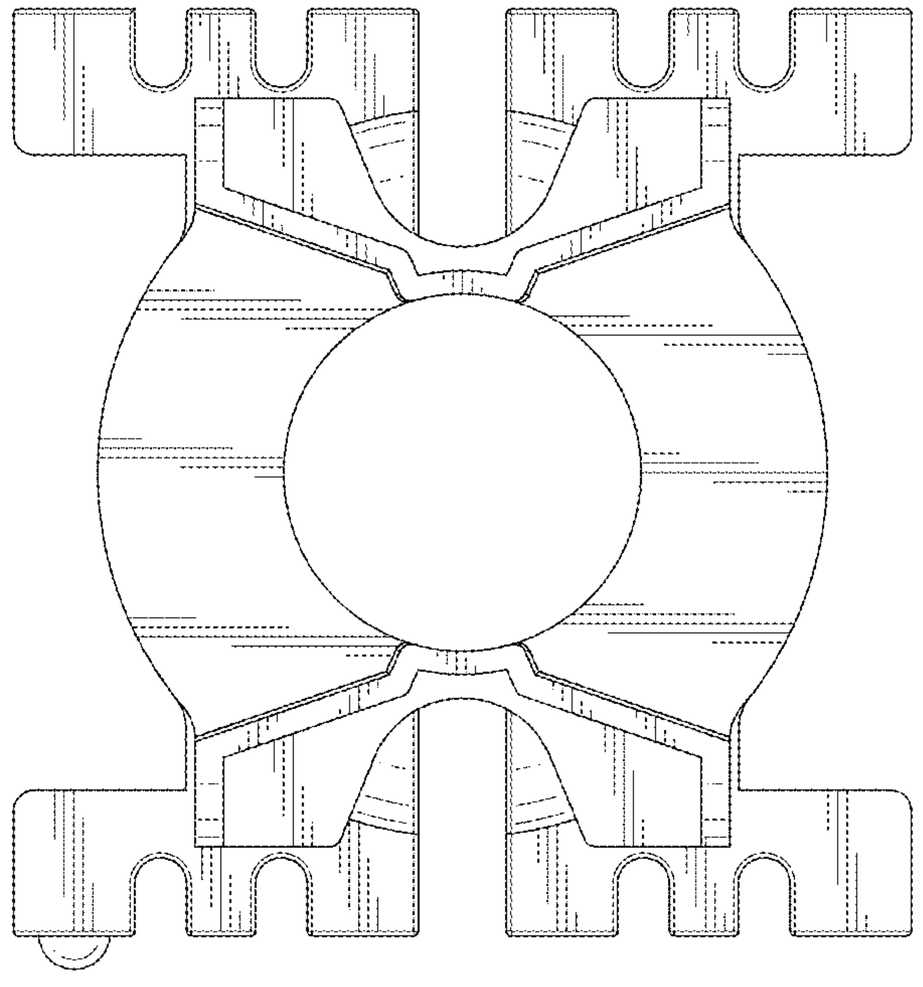


FIG. 6

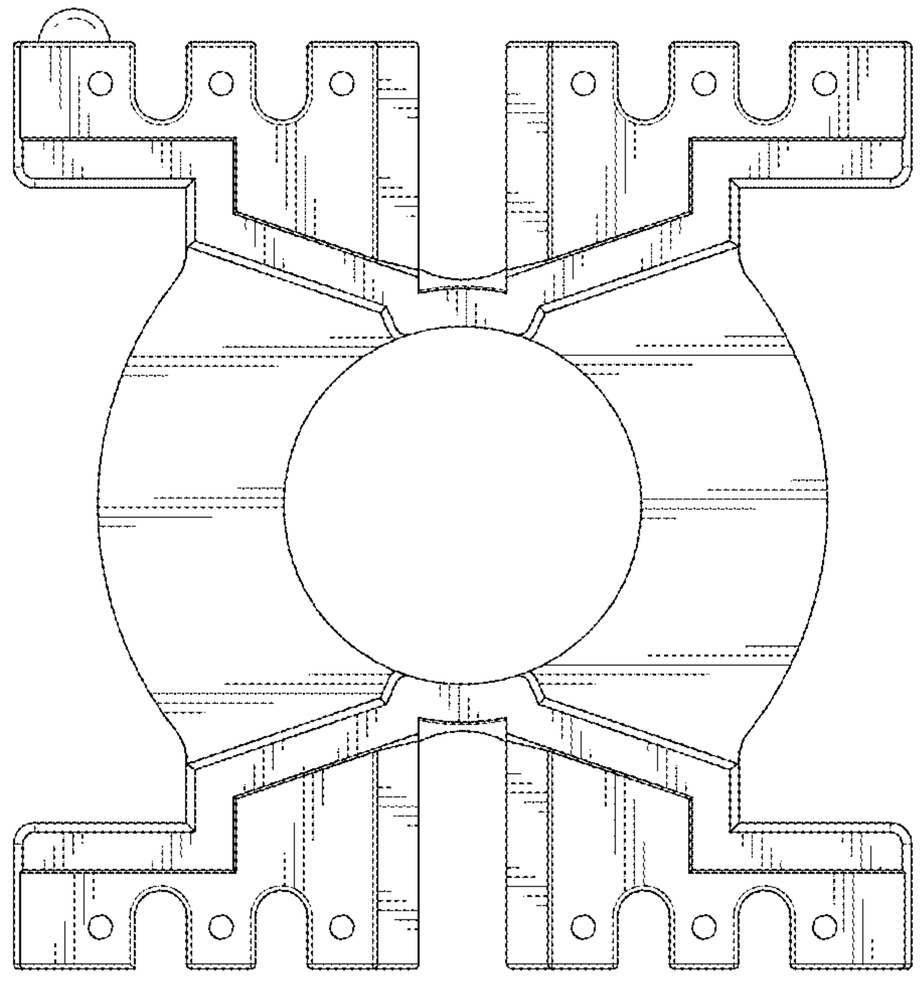


FIG. 7