



US00D846222S

(12) **United States Design Patent** (10) **Patent No.:** **US D846,222 S**
Rodriguez et al. (45) **Date of Patent:** **** Apr. 16, 2019**

- (54) **STEPPED SPIRAL CHUTE ASSEMBLY HAVING FRICTION REDUCTION PANELS** 1,712,714 A * 5/1929 Pardee B65G 11/066 193/12
- (71) Applicant: **Alternative Engineering, Inc., Belmont, MI (US)** 2,437,259 A 3/1943 Kautz
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- (**) Term: **15 Years** 6,371,275 B1 * 4/2002 Terrell B65G 11/063 193/12
- (21) Appl. No.: **29/561,349** 7,641,034 B2 1/2010 Boustani
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- Related U.S. Application Data**
- (63) Continuation of application No. 14/622,721, filed on Feb. 13, 2015, now Pat. No. 9,415,936.
- (51) **LOC (11) Cl.** **12-05**
- (52) **U.S. Cl.**
 USPC **D34/28**
- (58) **Field of Classification Search**
 USPC D34/28, 35; 193/12; 198/367, 778, 756, 198/346; 209/651, 697
 CPC ... B65G 11/063; B65G 11/066; B65G 11/163; B65G 11/203; B65G 65/365
 See application file for complete search history.

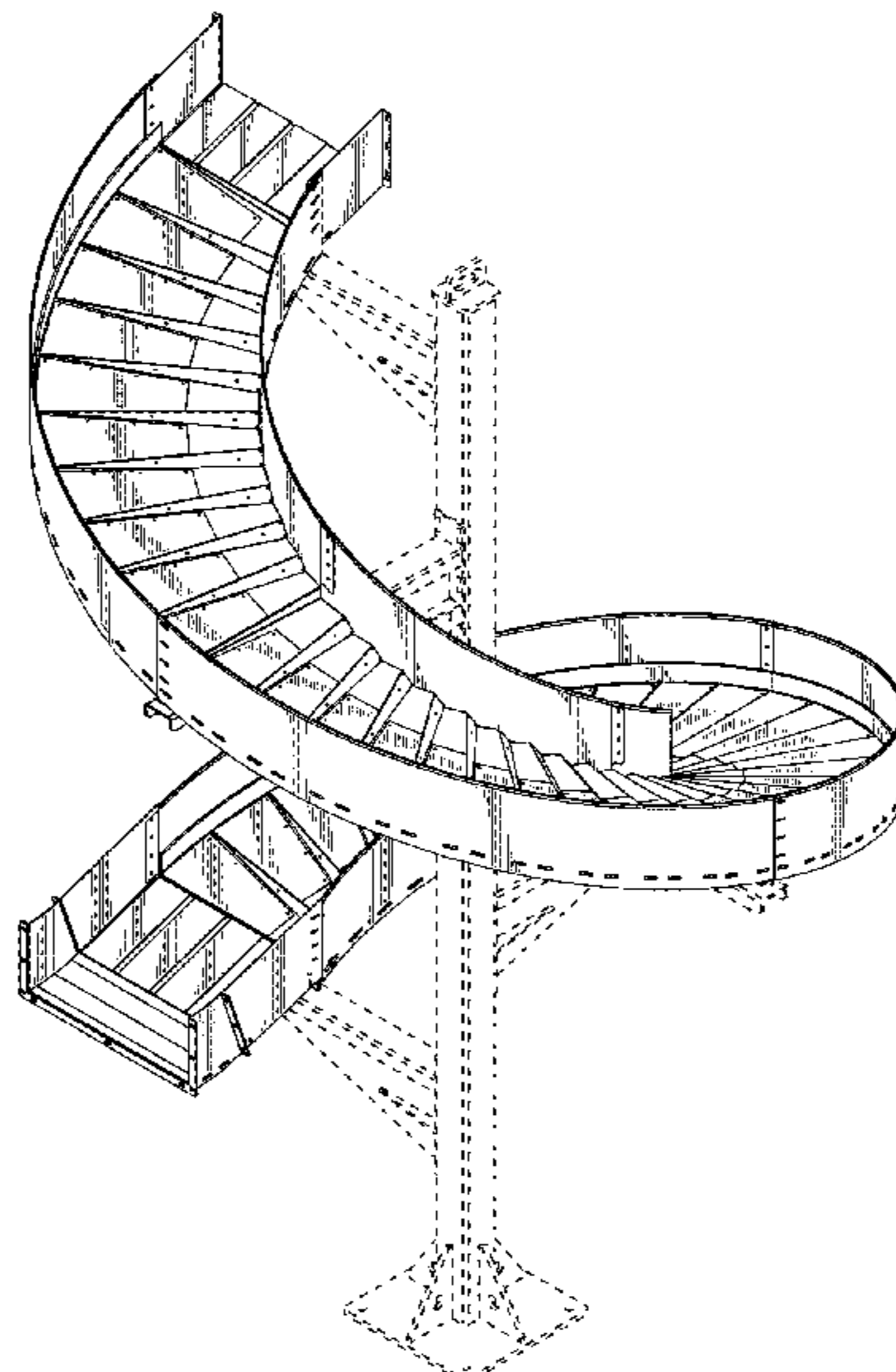
(57) **CLAIM**
 We claim the ornamental design for the stepped spiral chute assembly having friction reduction panels, as shown.

- (56) **References Cited**
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DESCRIPTION

FIG. 1 is a top perspective view of a stepped spiral chute assembly having friction reduction panels showing our new design;
 FIG. 2 is a front side view thereof;
 FIG. 3 is a right side view thereof;
 FIG. 4 is a back view thereof;
 FIG. 5 is a left side view thereof;
 FIG. 6 is top view thereof; and,
 FIG. 7 is a bottom view thereof.
 The broken lines shown in the figures are for the purpose of illustrating portions of the stepped spiral chute assembly having friction reduction panels and form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

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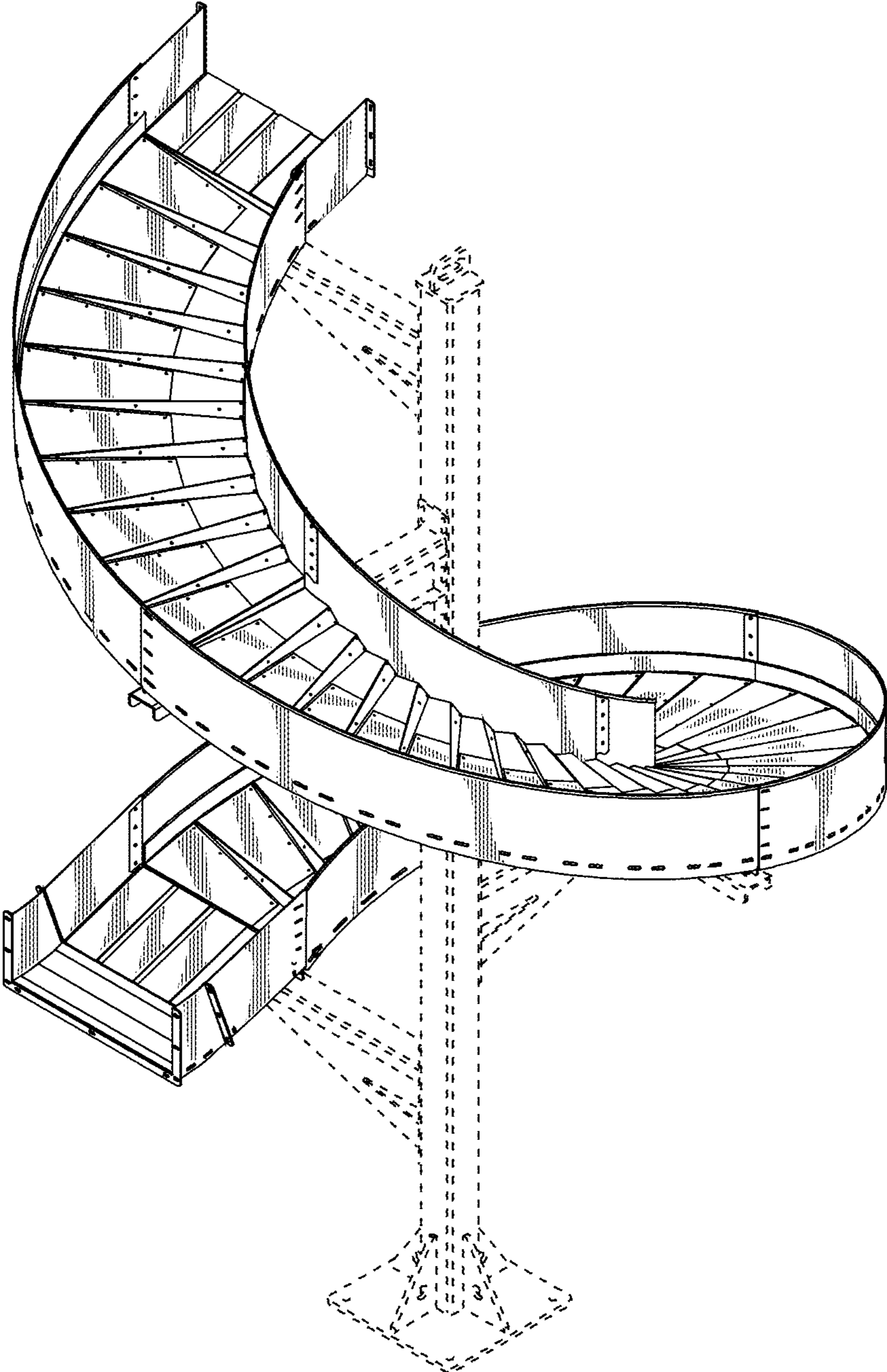


FIG. 1

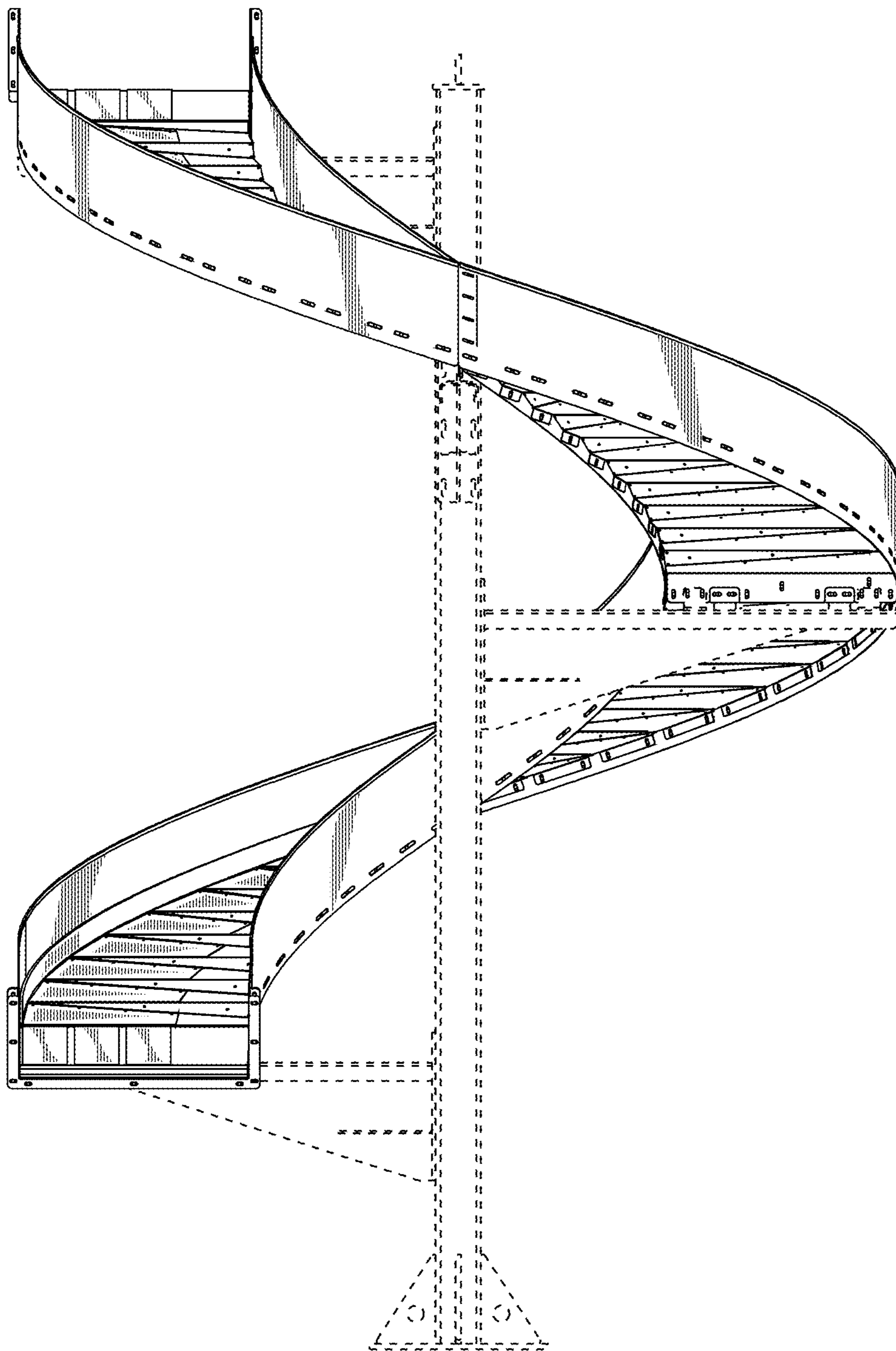


FIG. 2

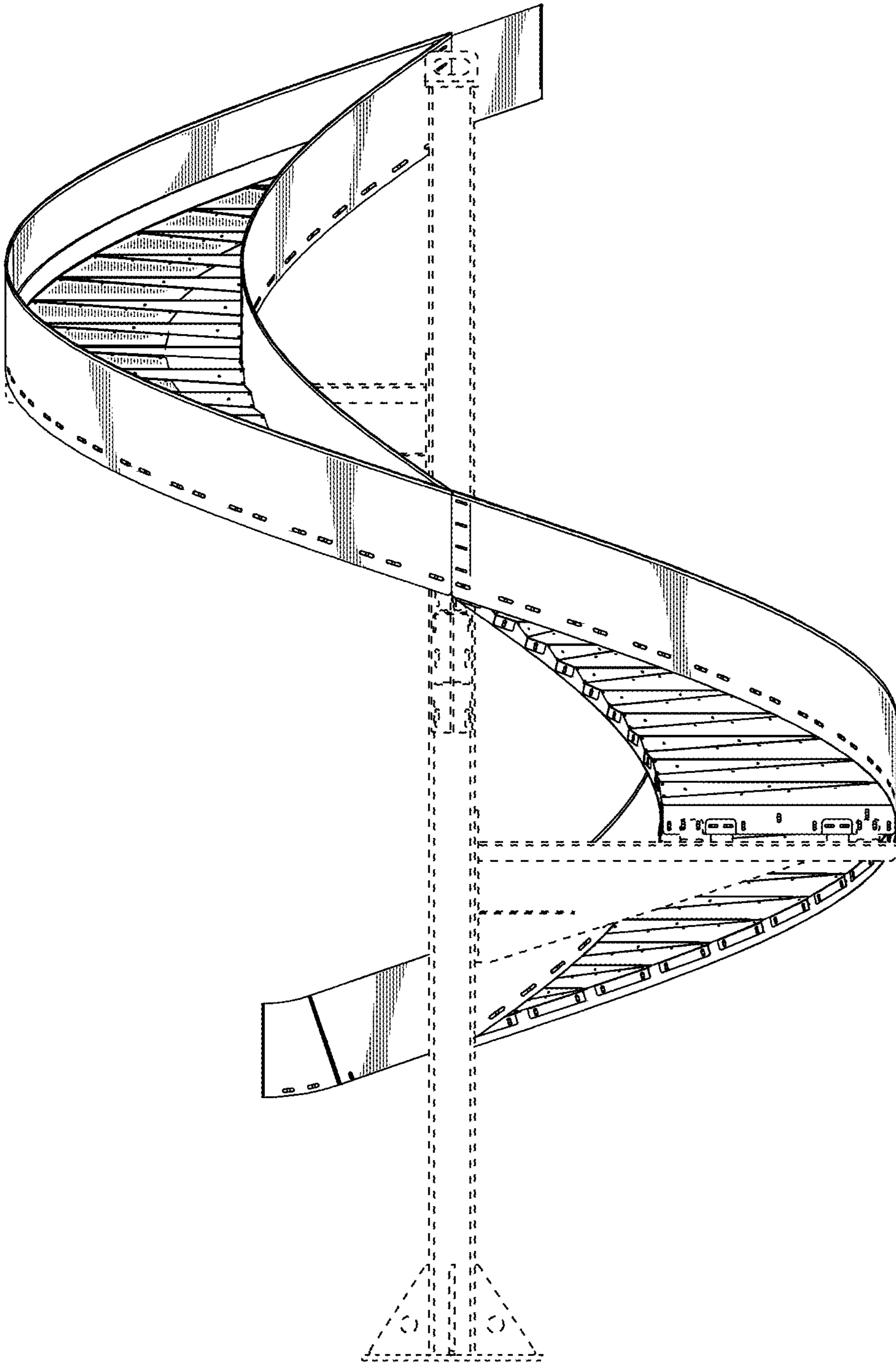


FIG. 3

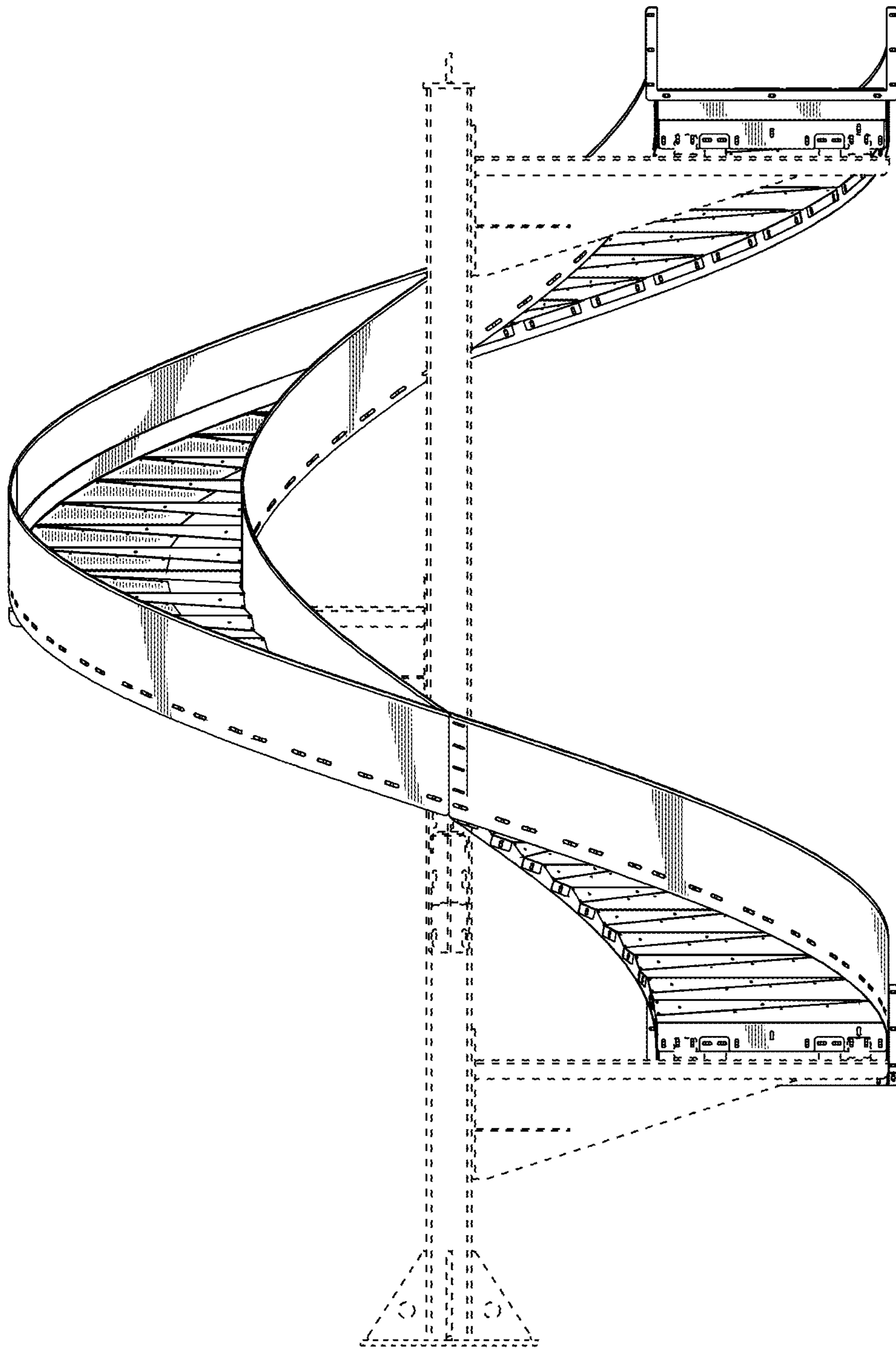


FIG. 4

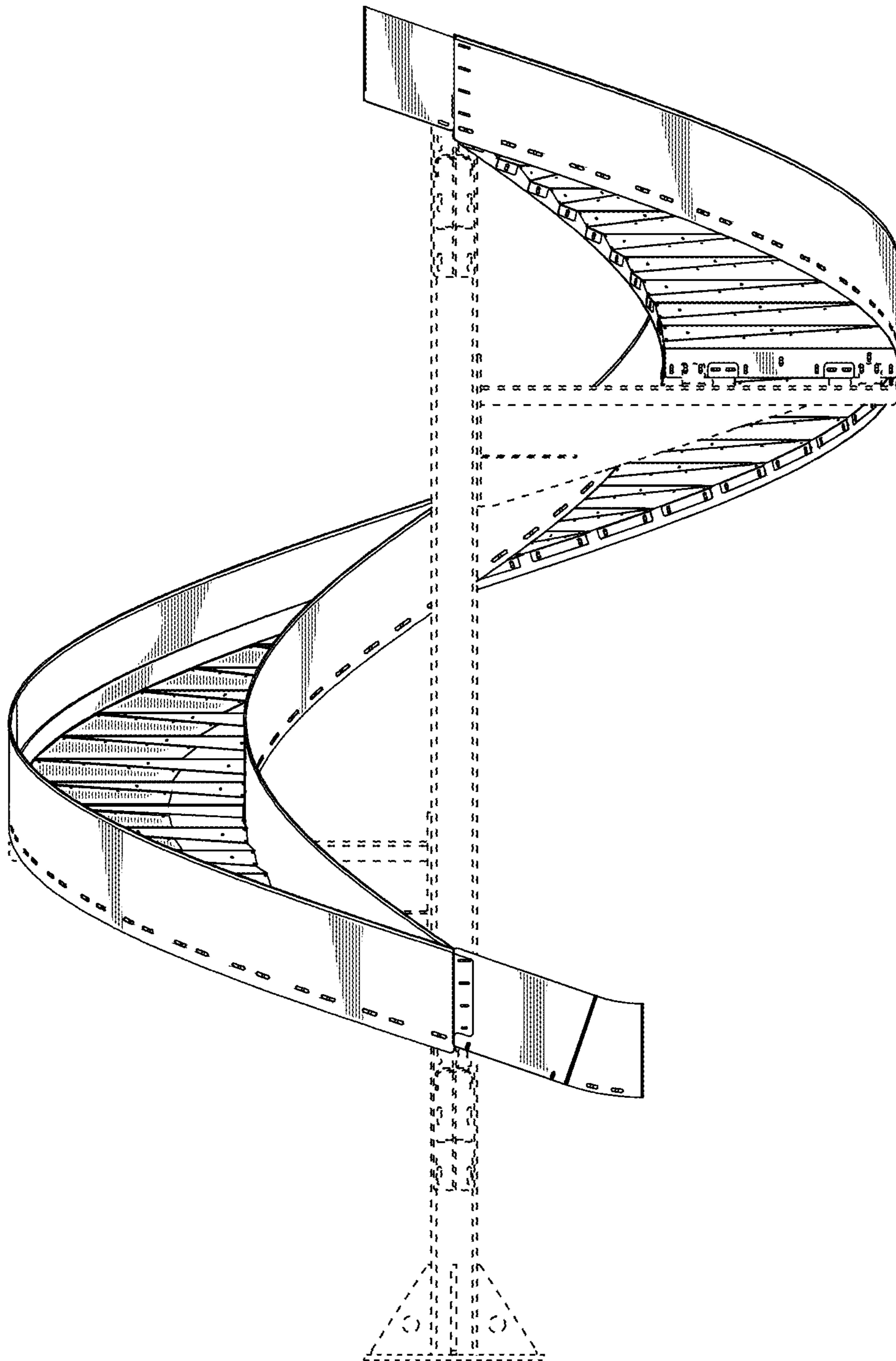


FIG. 5

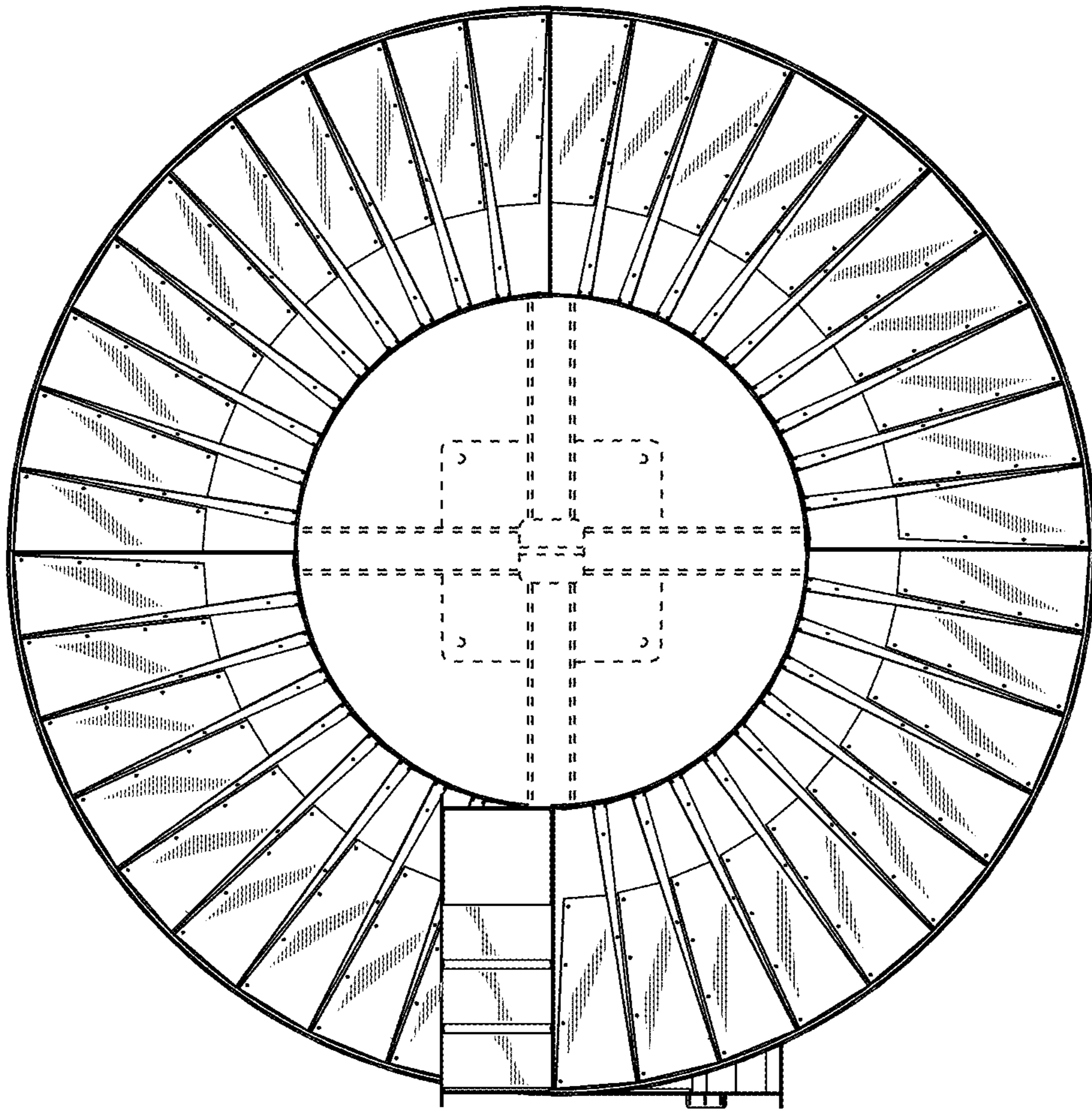


FIG. 6

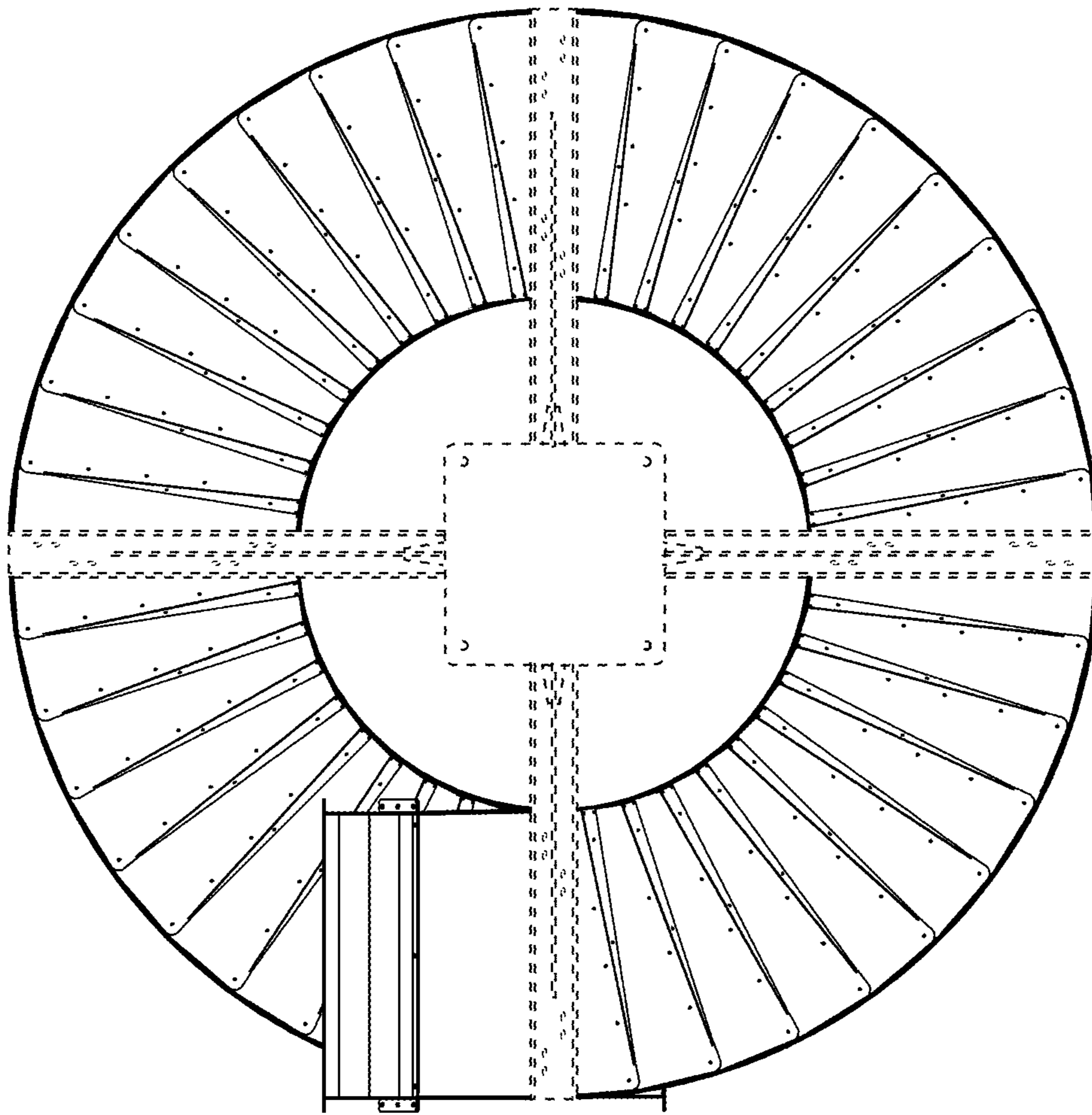


FIG. 7