



US00D911195S

(12) **United States Design Patent** (10) **Patent No.:** **US D911,195 S**  
**Hong et al.** (45) **Date of Patent:** **\*\* Feb. 23, 2021**

(54) **FORCE SENSOR**

(71) Applicant: **SAMSUNG DISPLAY CO., LTD.**,  
Yongin-si (KR)

(72) Inventors: **Won Ki Hong**, Suwon-si (KR); **Sung Kook Park**, Suwon-si (KR); **So Hee Park**, Cheonan-si (KR); **Hee Seomoon**, Hwaseong-si (KR); **Tae Hee Lee**, Asan-si (KR)

(73) Assignee: **Samsung Display Co., Ltd.**, Yongin-si (KR)

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

(21) Appl. No.: **29/688,343**

(22) Filed: **Apr. 19, 2019**

(30) **Foreign Application Priority Data**

Oct. 22, 2018 (KR) ..... 30-2018-0048524

(51) **LOC (13) Cl.** ..... **10-04**

(52) **U.S. Cl.**  
USPC ..... **D10/85**

(58) **Field of Classification Search**  
USPC ..... D10/83, 84, 85  
CPC ..... G06F 3/0414; G06F 3/0412; G06F 2203/04105; G06F 1/169; G06F 3/04142; G06F 3/0416; G06F 2203/04106; G06F 3/04144; G06F 3/041; G06F 3/044; G06F 3/045; G01L 1/20; G01L 1/18; G01L 1/205; H01L 27/323; H04M 2250/22; H04M 1/236; H04M 2250/12; G09G 5/006; Y10S 977/773

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D671,433	S	*	11/2012	Yaron	.....	D10/83
D673,063	S	*	12/2012	Yaron	.....	D10/83
D673,964	S	*	1/2013	Cojuangco	.....	D14/486
D860,838	S	*	9/2019	Misaizu	.....	D10/83
D860,839	S	*	9/2019	Misaizu	.....	D10/83

\* cited by examiner

*Primary Examiner* — Antoine Duval Davis

(74) *Attorney, Agent, or Firm* — Lewis Roca Rothgerber Christie LLP

(57) **CLAIM**

The ornamental design for a force sensor, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of the force sensor according to an embodiment that may be used for sensing a pressure exerted by a user on electronic devices, such as smart-phones, mobile phones, multimedia devices, etc.;

FIG. 2 is a front view thereof;

FIG. 3 is a rear view thereof;

FIG. 4 is a left side view thereof;

FIG. 5 is a right side view thereof;

FIG. 6 is a top view thereof; and

FIG. 7 is a bottom view thereof; and,

FIG. 8 illustrates a placement of the force sensor in an electronic device according to an embodiment. As illustrated in FIG. 8, the force sensor may be positioned at approximately both edges on the rear side of a display module.

The broken lines shown in the drawings are included for the purpose of illustration and form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**

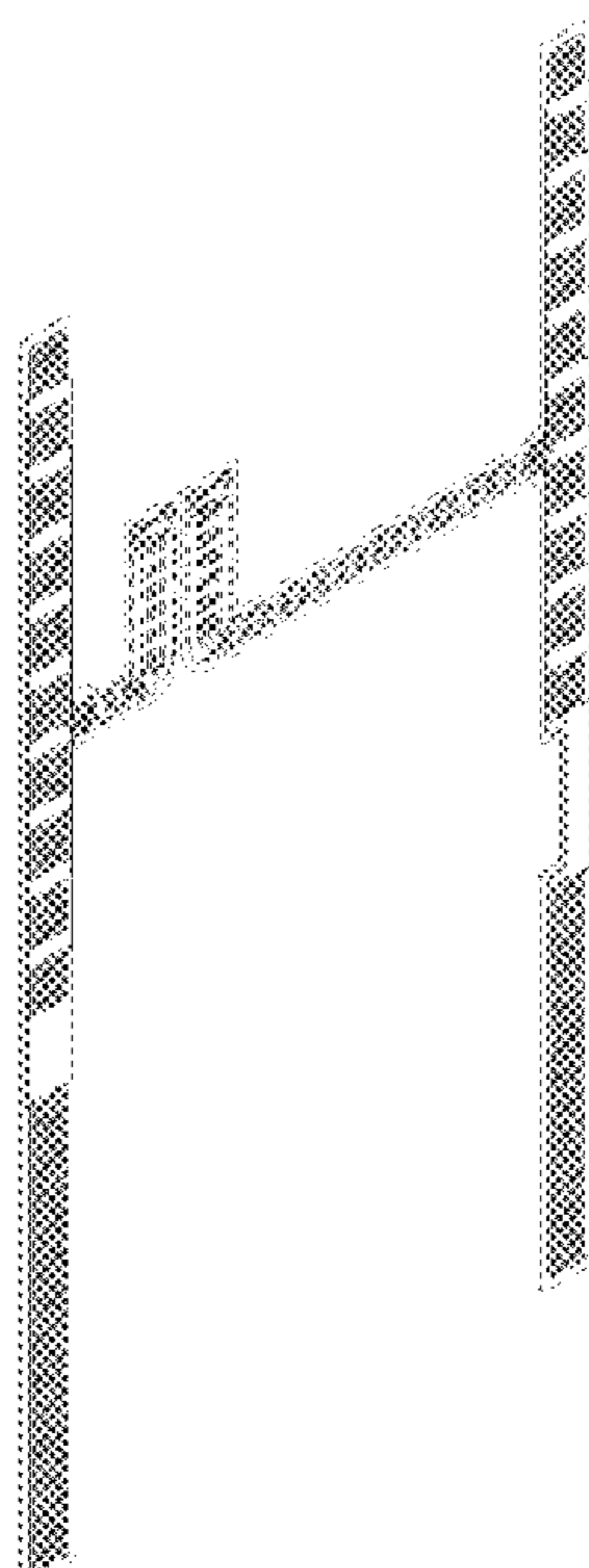


FIG. 1

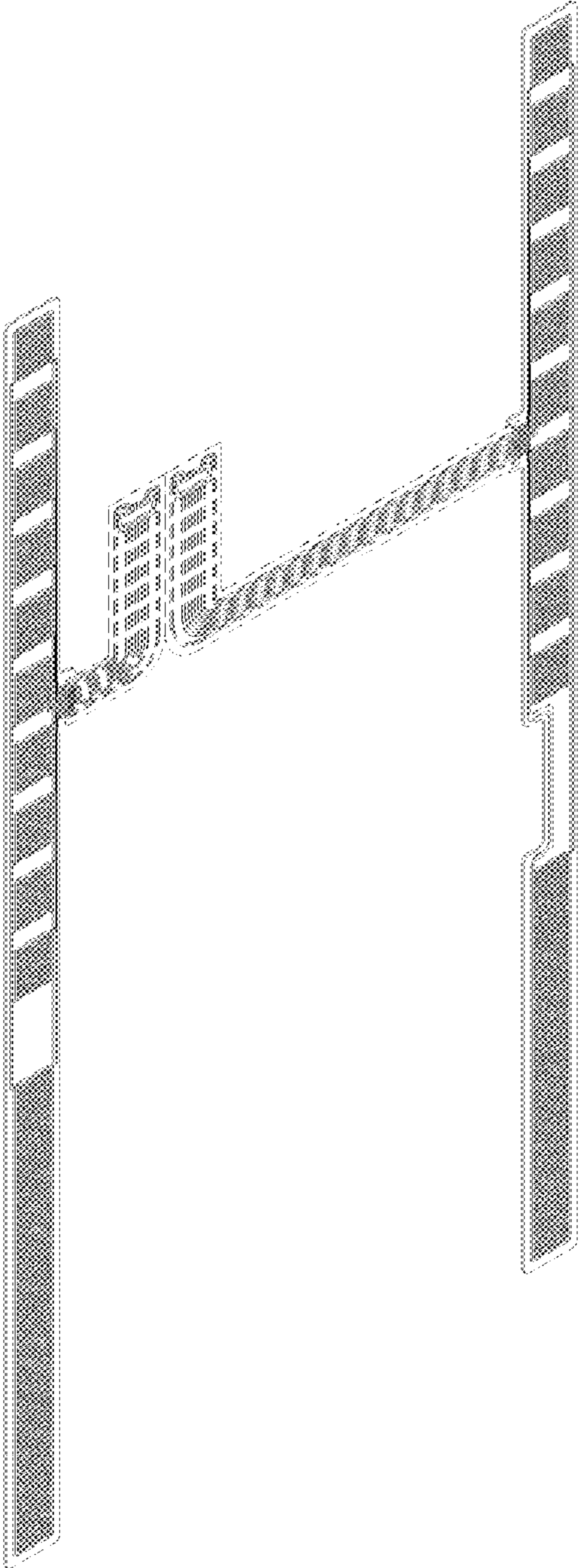


FIG. 2

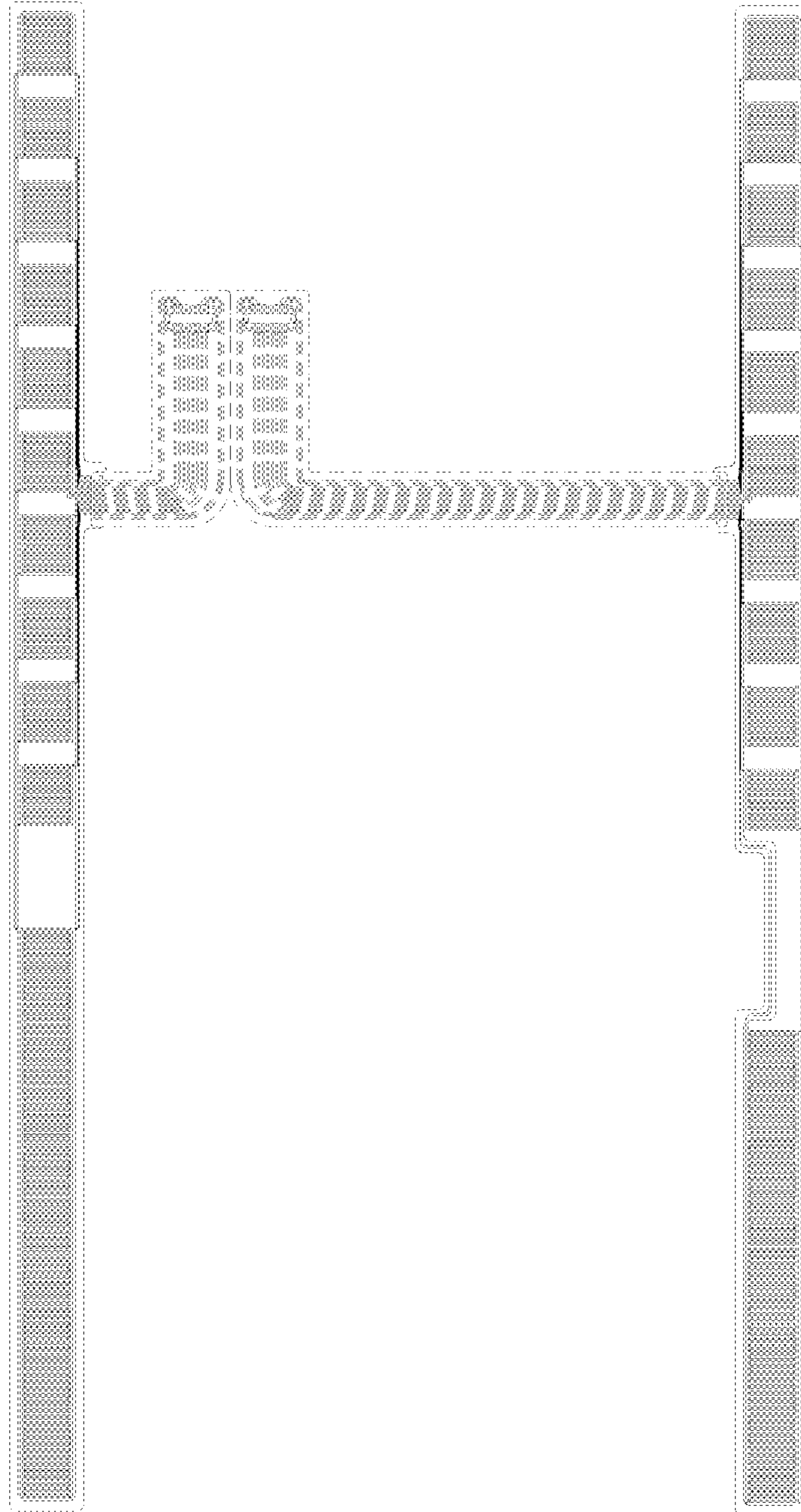


FIG. 3

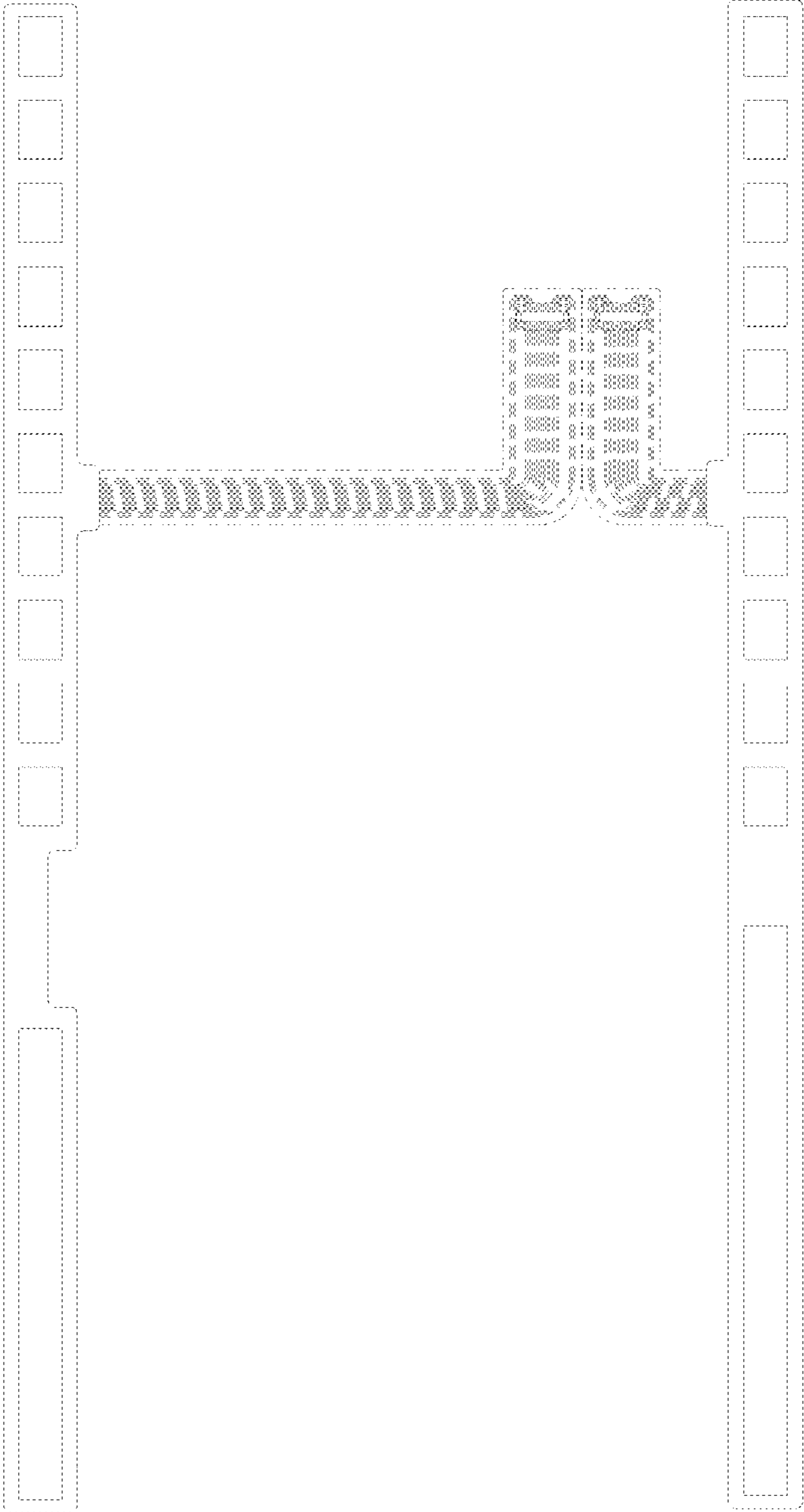


FIG. 4



FIG. 5



FIG. 6

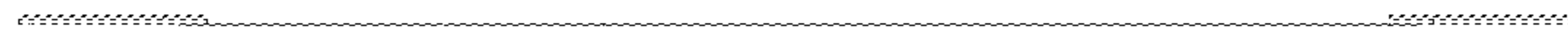


FIG. 7

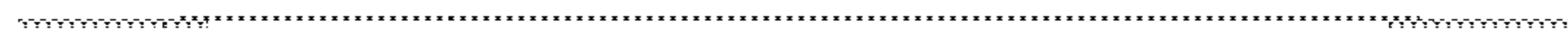


FIG. 8

