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(12) **United States Design Patent** (10) **Patent No.:** **US D907,987 S**  
**Buse** (45) **Date of Patent:** **\*\* Jan. 19, 2021**

(54) **SERPENTINE RETAINER SPRING FOR A RECEPTACLE RACK**

FOREIGN PATENT DOCUMENTS

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CN 205819256 U 12/2016  
EP 2148208 A2 1/2010  
(Continued)

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OTHER PUBLICATIONS

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Molex Connector Accessory Terminal Position Assurance Retainer, posted at newark.com, posting date not given, [online], [site visited Aug. 18, 2020]. Available from Internet, URL: <https://www.newark.com/molex/105325-1004/nanofit-tpa-v0-blk-4-ckt-rohs/dp/33AC7722> (Year: 2020).\*

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

(Continued)

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(51) **LOC (13) Cl.** ..... **08-05**

(52) **U.S. Cl.**  
USPC ..... **D8/354**

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(58) **Field of Classification Search**  
USPC ..... D8/354  
CPC ..... F16F 1/02

See application file for complete search history.

(57) **CLAIM**

The ornamental design for a serpentine retainer spring for a receptacle rack, as shown and described.

(56) **References Cited**

U.S. PATENT DOCUMENTS

345,767	A *	7/1886	Buckley	.....	F16F 1/02
					267/163
2,517,269	A *	8/1950	Wolfe	.....	B21F 45/00
					267/182
3,713,771	A	1/1973	Taylor et al.		
4,450,839	A *	5/1984	Transue	.....	A61B 17/128
					606/143
4,877,134	A	10/1989	Klein		
4,919,403	A *	4/1990	Bartholomew	.....	B60G 11/00
					188/371
5,160,121	A *	11/1992	Bartholomew	.....	F16F 1/371
					267/136
5,197,698	A *	3/1993	Bartholomew	.....	B60K 13/04
					180/309
5,216,511	A	6/1993	Tani		
5,700,429	A	12/1997	Bühler et al.		

(Continued)

**DESCRIPTION**

FIG. 1 shows a top perspective view of the serpentine retainer spring for a receptacle rack.

FIG. 2 shows a side elevation view thereof.

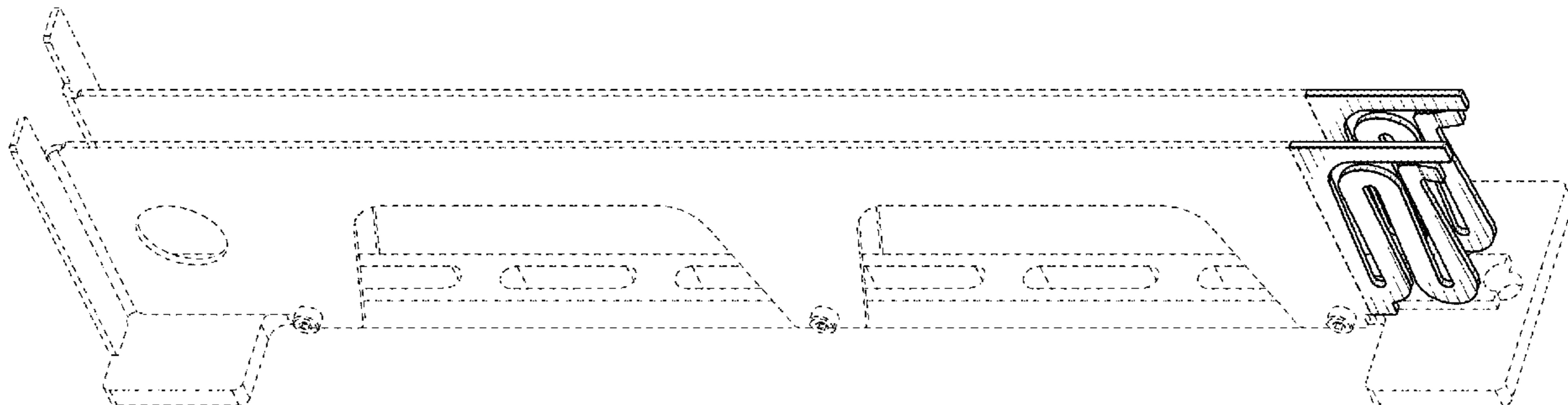
FIG. 3 shows a right end elevation view thereof.

FIG. 4 shows a top plan view thereof; and,

FIG. 5 shows a bottom perspective view thereof.

The dash-dash broken lines in the drawings depict environmental structure and form no part of the claimed design. The dash-dot broken lines show the boundary of the claim and form no part of the claimed design.

**1 Claim, 3 Drawing Sheets**



(56)

**References Cited**

## U.S. PATENT DOCUMENTS

5,885,530	A	3/1999	Babson et al.
6,146,882	A	11/2000	Uematsu et al.
6,489,169	B1	12/2002	Cohen et al.
7,185,288	B2	2/2007	McKeever
8,658,096	B2	2/2014	Kaiga
9,171,279	B2	10/2015	Hagen et al.
2005/0265901	A1	12/2005	Sinclair et al.
2007/0243600	A1	10/2007	Lair et al.
2018/0155129	A1	6/2018	Lagziel et al.

## FOREIGN PATENT DOCUMENTS

WO	2012012779	A2	1/2012
WO	2013034937	A1	3/2013
WO	2013183122	A1	12/2013
WO	2018018065	A1	2/2018
WO	2018091818	A1	5/2018
WO	2018136859	A1	7/2018

## OTHER PUBLICATIONS

Serpentine Spring, posted at [made-in-china.com](https://www.made-in-china.com/showroom/xunda110/product-detailGvBQpyxJvYkc/China-Serpentine-Spring.html), posting date not given, [online], [site visited Aug. 18, 2020]. Available from Internet, URL: <https://www.made-in-china.com/showroom/xunda110/product-detailGvBQpyxJvYkc/China-Serpentine-Spring.html> (Year: 2020).\*

Serpentine square wire wave spring, posted at [globalsources.com](https://www.globalsources.com/Wave-spring/Wave-springs-1166522002p.htm#1166522002), posting date not given, [online], [site visited Aug. 18, 2020]. Available from Internet, URL: <https://www.globalsources.com/Wave-spring/Wave-springs-1166522002p.htm#1166522002> (Year: 2020).\*

PCT International Search Report and Written Opinion, PCT International Application No. PCT/US2020/021488, Sep. 22, 2020.

\* cited by examiner

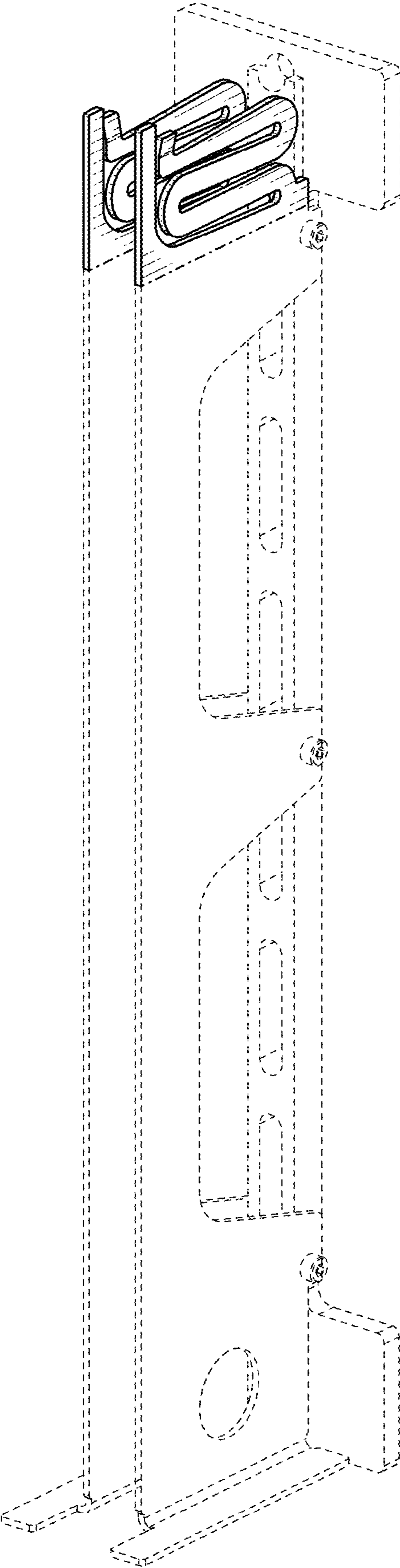


FIG. 1

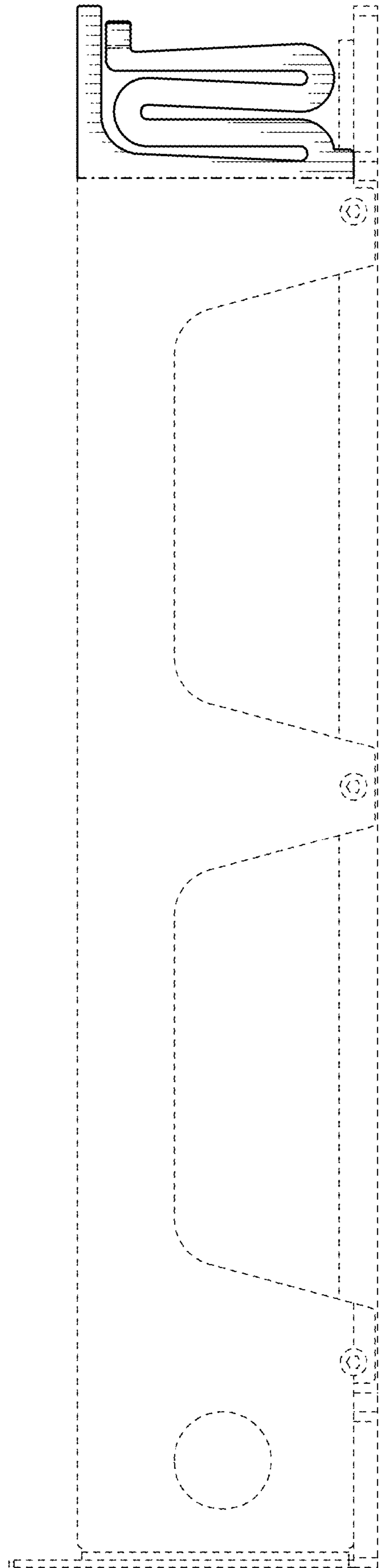


FIG. 2

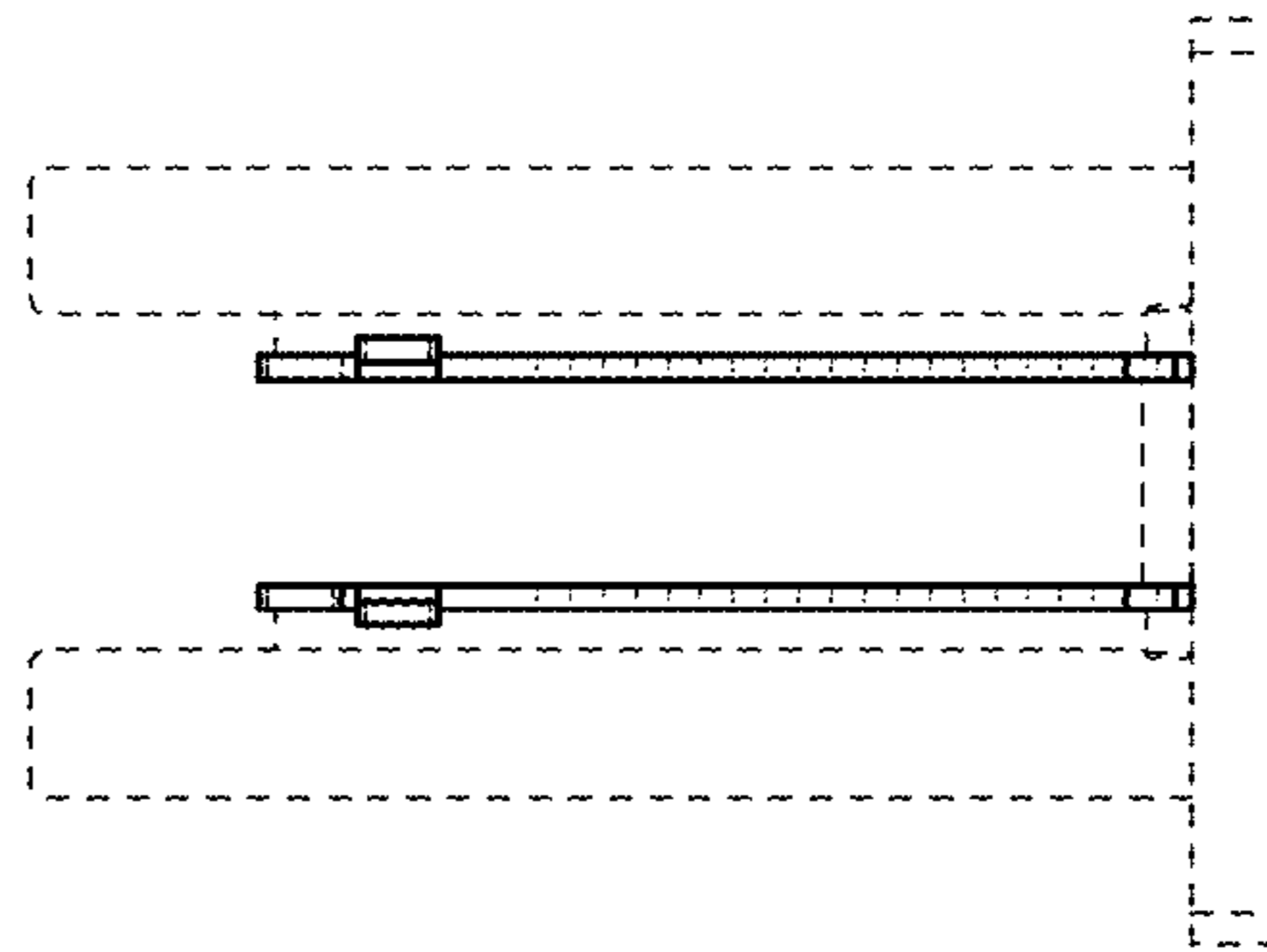


FIG. 3

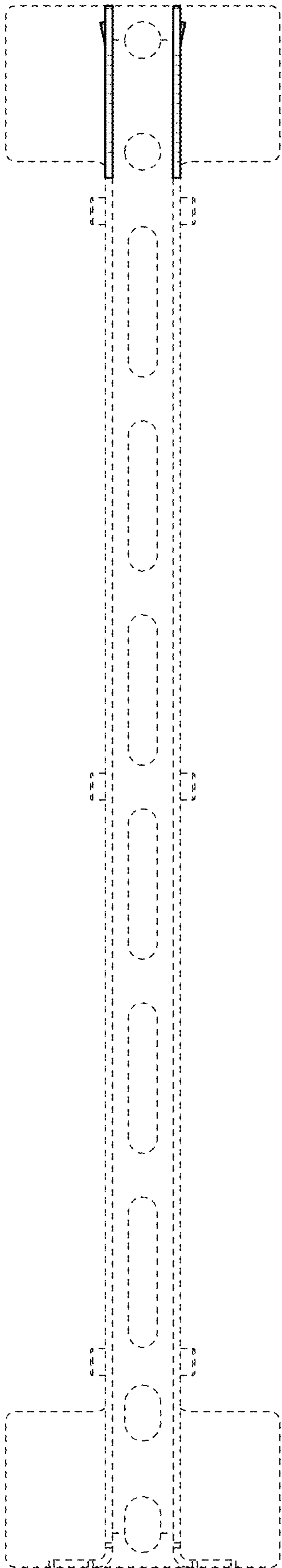


FIG. 4

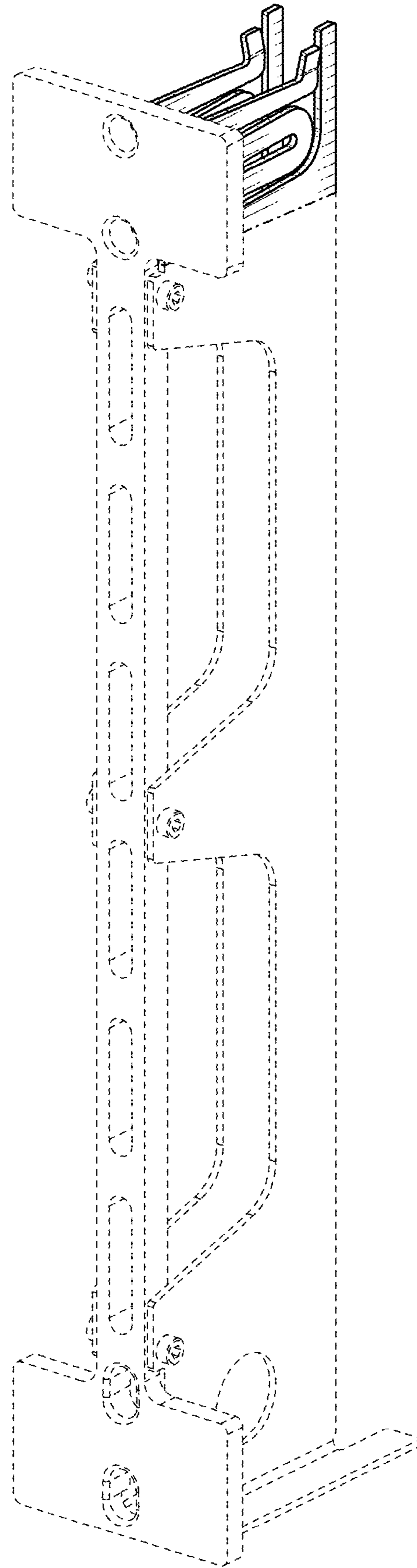


FIG. 5