



US0D1060204S

(12)

United States Design Patent

Patchen et al.

(10)

Patent No.:

US D1,060,204 S

(45)

Date of Patent:

** Feb. 4, 2025

(54) STRAIN-RELIEVING SOLAR CELL INTERCONNECT

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(73) Assignee: APTERA MOTORS CORP., Carlsbad, CA (US)

(**) Term: 15 Years

(21) Appl. No.: 29/835,153

(22) Filed: Apr. 15, 2022

(51) LOC (15) Cl. 13-02

(52) U.S. Cl. D13/102

(58) Field of Classification Search USPC D13/102, 118, 184, 199; D25/61

(Continued)

(56) References Cited

U.S. PATENT DOCUMENTS

D586,737 S * 2/2009 Shugar D13/102

D626,915 S * 11/2010 Hadlauer D13/102

(Continued)

OTHER PUBLICATIONS

Solar Cell Support. (Design—© Questel) orbit.com. [Online PDF compilation of references] 51 pgs. Print Dates Range Jul. 14, 2023-May 22, 2023 [Retrieved Jan. 8, 2023].*

(Continued)

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Assistant Examiner — Suzanne E Tisdell

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Damian G. Wasserbauer, Esq.; Nicholas E. Blanton, Esq.

(57) CLAIM

The ornamental design for a strain-relieving solar cell interconnect, as shown and described.

DESCRIPTION

FIG. 1 is a front, top, right side perspective view of the strain-relieving solar cell interconnect in accordance with the present invention;

FIG. 2 is a front view, the back rear view is a mirror image thereof;

FIG. 3 is a top view, the bottom view is a mirror image rear view thereof;

FIG. 4 is a right side view; the left side view is a mirror image thereof;

FIG. 5 is a front view having segments 6A-6K delineated by dashed lines, the segments being illustrated in subsequent front side views shown in FIGS. 6A-6K;

FIGS. 6A-6K are partial views of front view of segments identified as 6A-6K shown in FIG. 5, the segments being expanded ten times to illustrate the detail thereof;

FIG. 7 is a back view having segments 8A-8K delineated by dashed lines, the segments being illustrated in subsequent back views shown in FIGS. 8A-8K;

FIGS. 8A-8K are partial back views of segments identified as 8A-8K shown in FIG. 7, the segments being expanded ten times to illustrate the detail thereof;

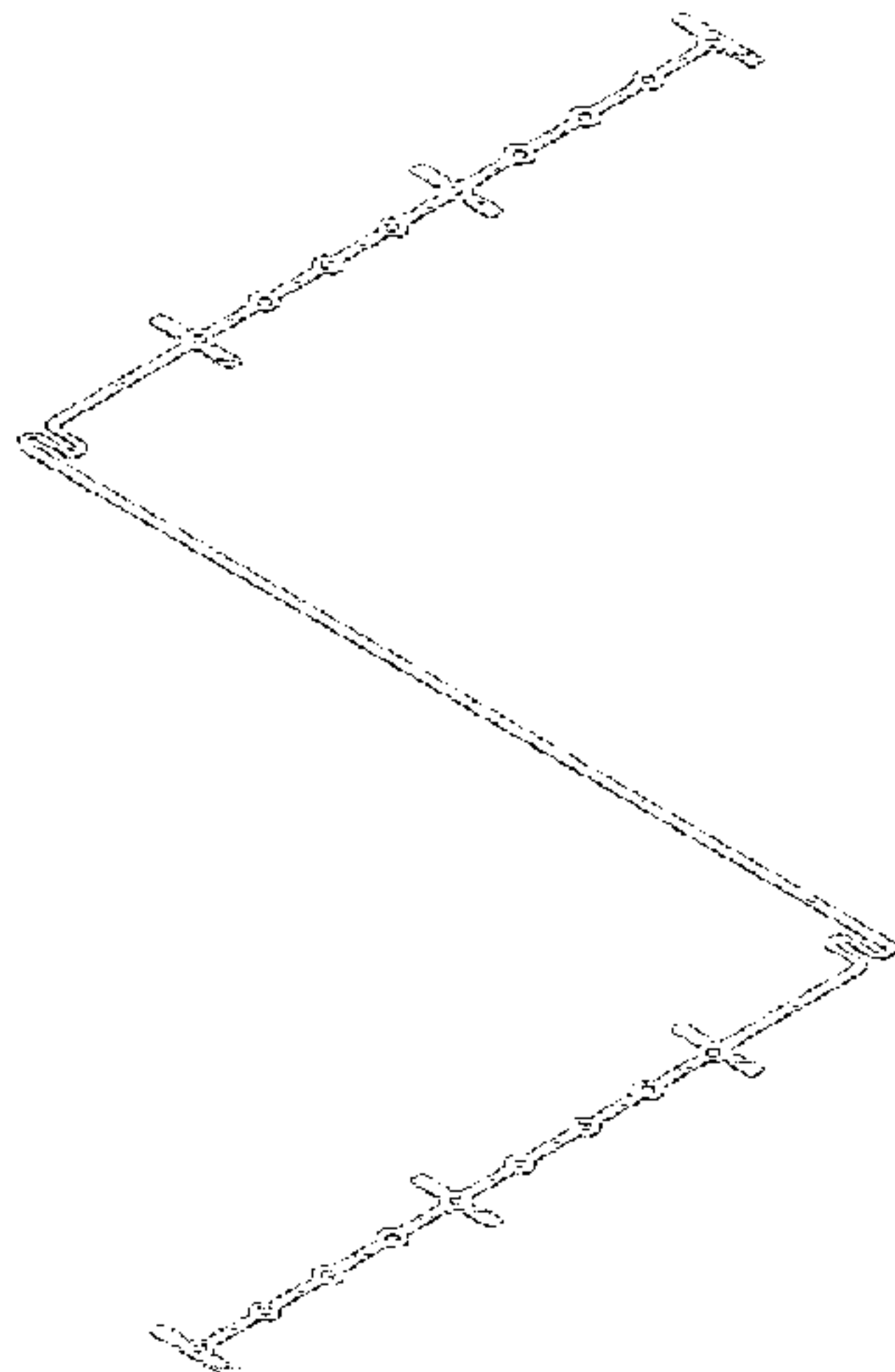
FIG. 9 is a right side view having segments 10A-10K delineated by dashed lines, the portions being illustrated in subsequent right side views of FIGS. 10A-10K;

FIGS. 10A-10K are partial views of segments identified as 10A-10K shown in FIG. 9 the segments being expanded ten times to illustrate the detail thereof;

FIG. 11 is a left side view having segments 12A-12K delineated by dashed lines, the portions being illustrated in subsequent left side views of FIGS. 12A-12K; and,

FIGS. 12A-12K are partial views of segments identified as 12A-12K shown in FIG. 11, the segments being expanded ten times to illustrate the detail thereof.

(Continued)



The dashed and broken lines FIGS. 5, 64-6K, 7, 84-8K, 9, 10A-10K, 11, and 12A-12K are for the purpose of illustrating design features and form no part of the claimed design.

1 Claim, 16 Drawing Sheets

(58) Field of Classification Search

CPC H02S 30/10; H02S 20/24; F24S 25/20;
H01L 31/042; H01L 31/048; B21D 53/02
See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

D663,260	S	*	7/2012	Fischer	.....	D13/102
D663,683	S	*	7/2012	Fischer	.....	D13/102
D768,282	S	*	10/2016	Cardoso	.....	D23/386
D831,861	S	*	10/2018	Brand	.....	D25/139
10,453,982	B2		10/2019	Kudo et al.		
D897,943	S	*	10/2020	Sasada	.....	D13/102

D962,182	S	*	8/2022	Chiu	.....	D13/182
D988,453	S	*	6/2023	Han	.....	D21/839
D998,179	S	*	9/2023	Huang	.....	D25/61
D998,180	S	*	9/2023	Huang	.....	D25/61
D999,007	S	*	9/2023	Leng	.....	D6/718
D1,008,535	S	*	12/2023	Sevener	.....	D26/141
2017/0186898	A1		6/2017	Kudo et al.		

OTHER PUBLICATIONS

Elevated structure for Sunfer 38V solar panels. 2023. Sumistros del sol. <https://suministrosdelsol.com/en/marquee-for-solar-panels/435-850-elevated-structure-for-solar-panels-sunfer-38v-two-rows.html>.*
China Customized Adjustable Solar Panel Mounting Brackets Suppliers. 2023. AL Sanity. <https://www.aluminum-window.com/aluminium/aluminium-solar-frame/adjustable-solar-panel-mounting-brackets.html>.*
Solar Mounting Structure at Rs 4000_kilowatt _ Module Mounting Structure. 2021. Indamart. <https://www.indiamart.com/proddetail/solar-mounting-structure-9611636448.html>.*

* cited by examiner

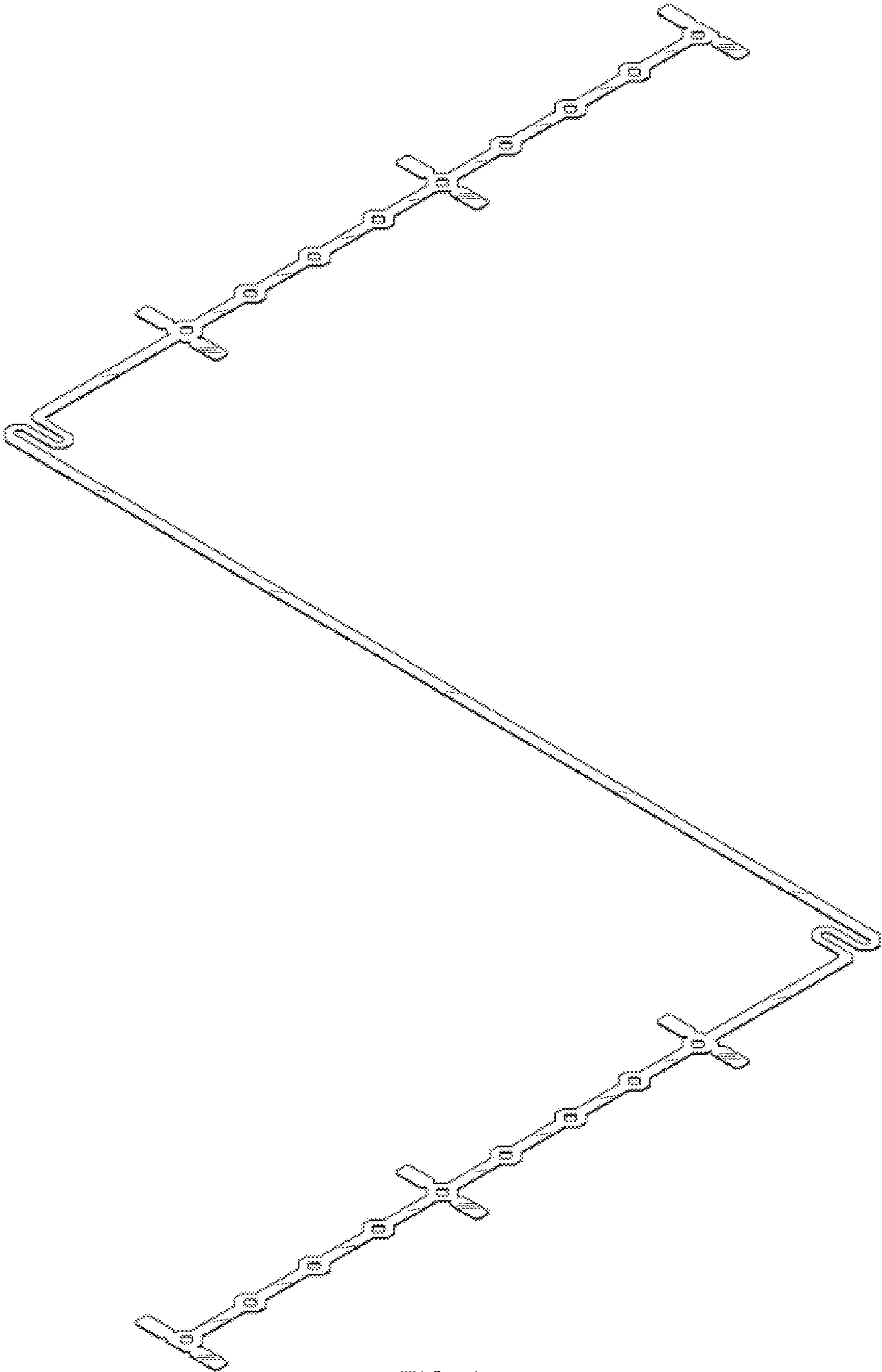


FIG. 1

FIG. 2

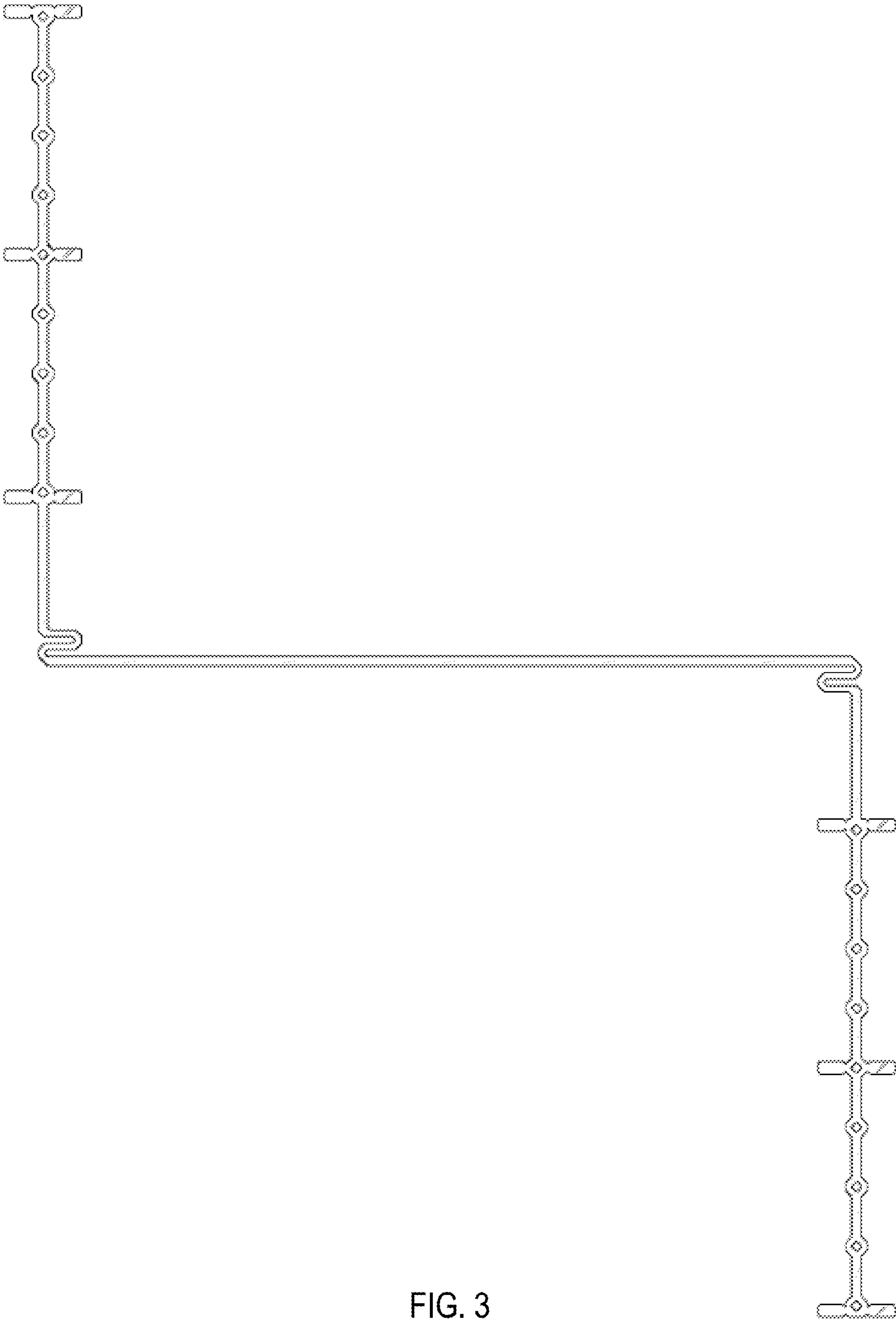


FIG. 3



FIG. 4

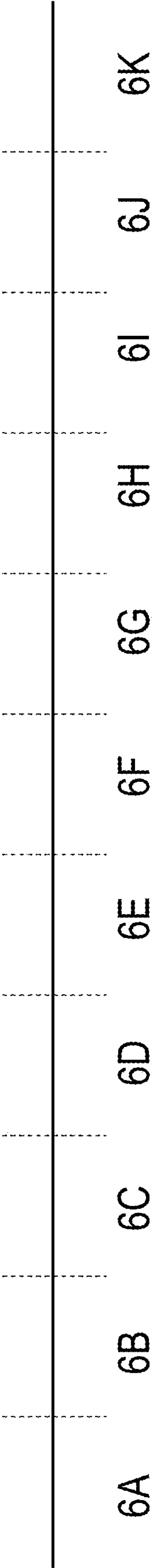


FIG. 5

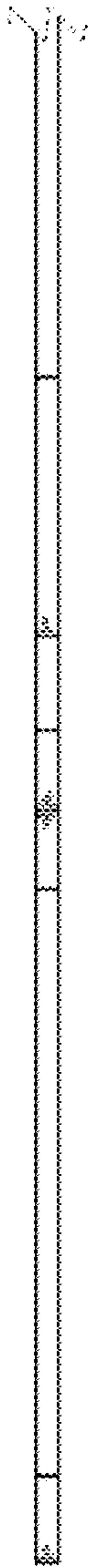


FIG. 6A

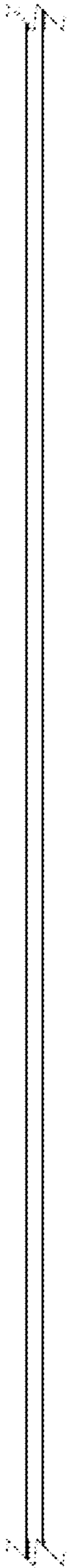


FIG. 6B

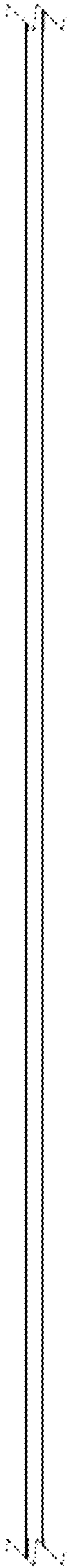


FIG. 6C

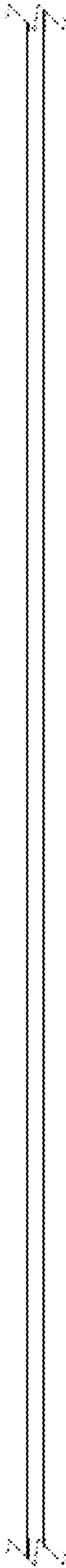


FIG. 6D

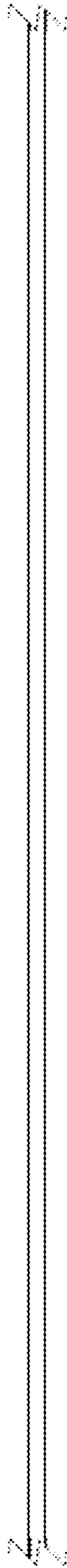


FIG. 6E

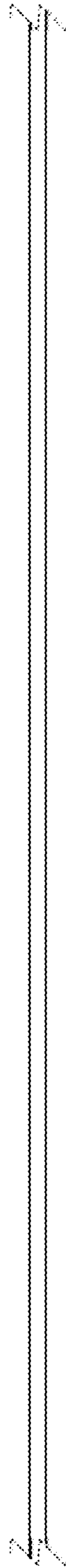


FIG. 6F

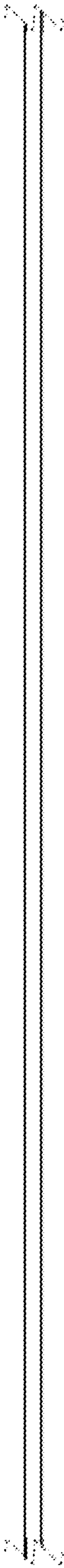


FIG. 6G

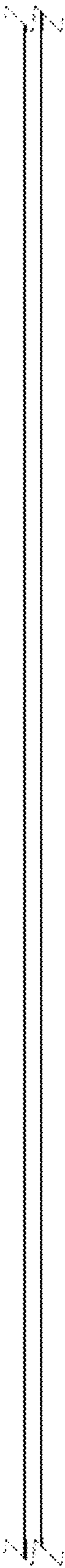


FIG. 6H

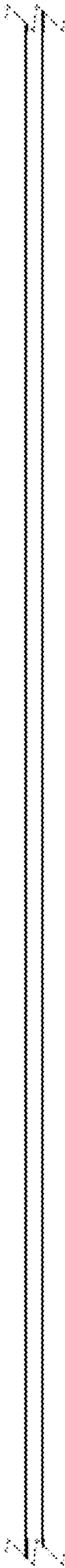


FIG. 6I

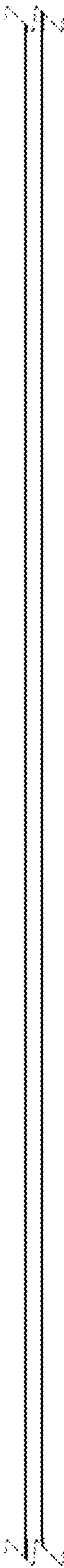


FIG. 6J

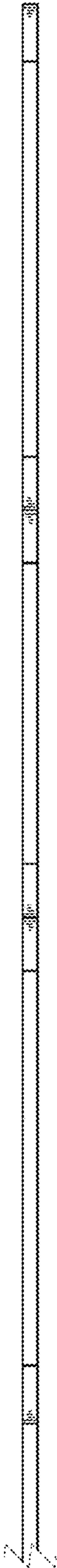


FIG. 6K

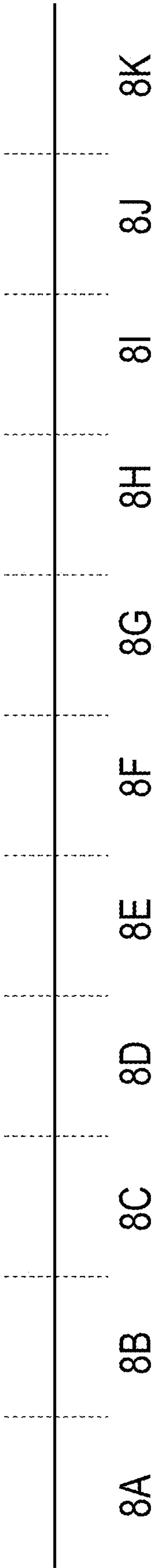


FIG. 7

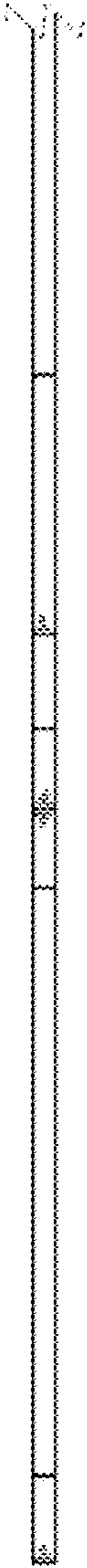


FIG. 8A

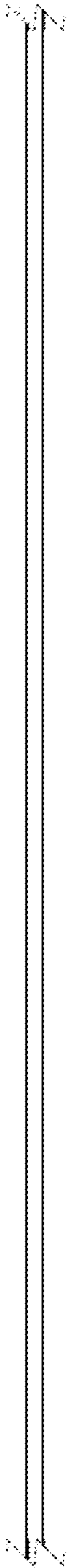


FIG. 8B

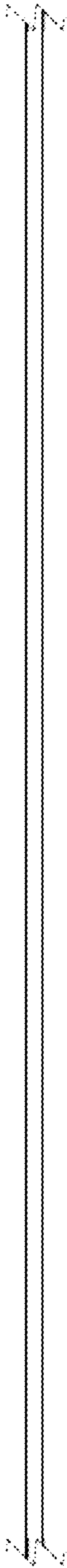


FIG. 8C

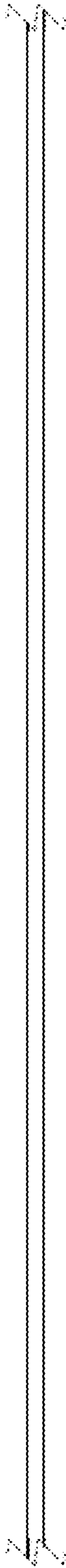


FIG. 8D

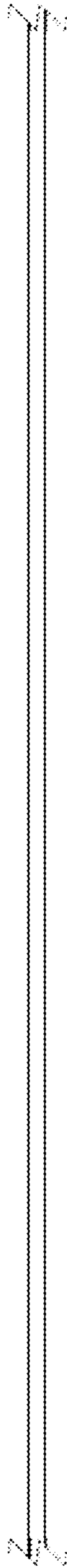


FIG. 8E

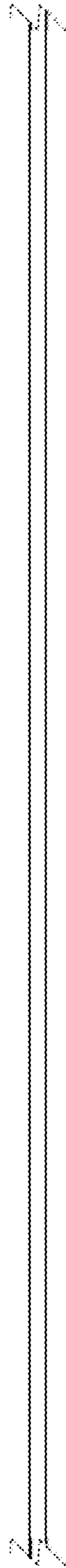


FIG. 8F

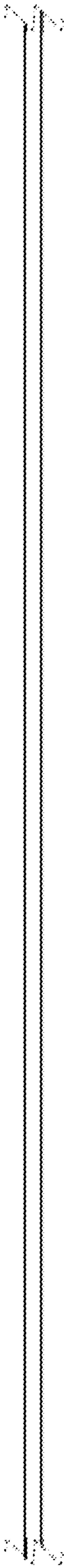


FIG. 8G

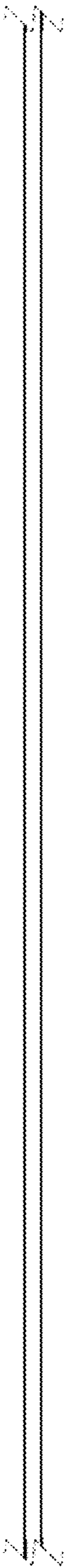


FIG. 8H

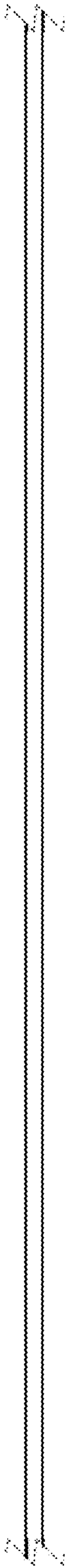


FIG. 8I

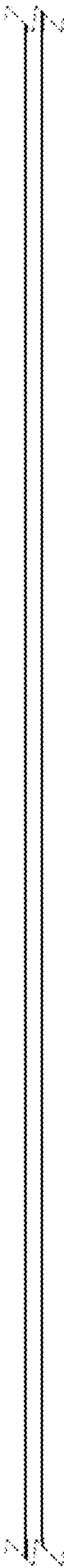


FIG. 8J

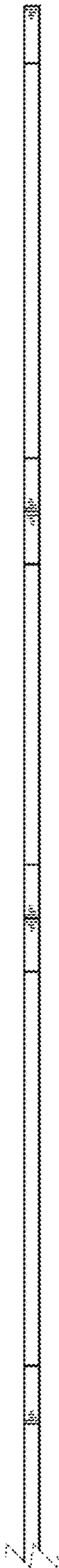


FIG. 8K

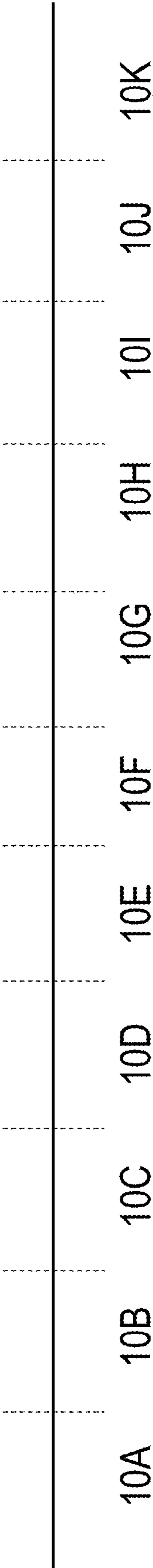


FIG. 9

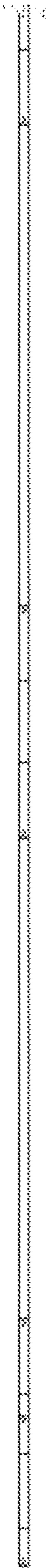


FIG. 10A

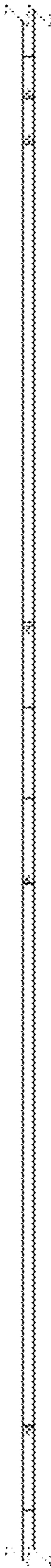


FIG. 10B

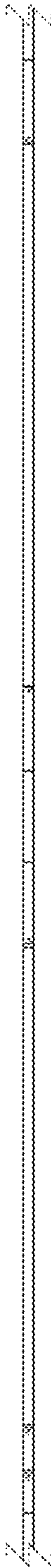


FIG. 10C

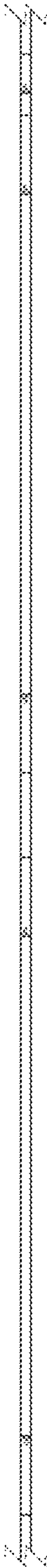


FIG. 10D

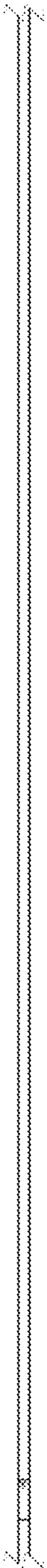


FIG. 10E

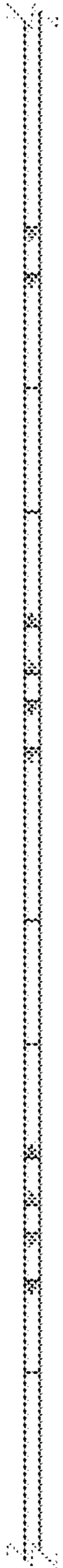


FIG. 10F

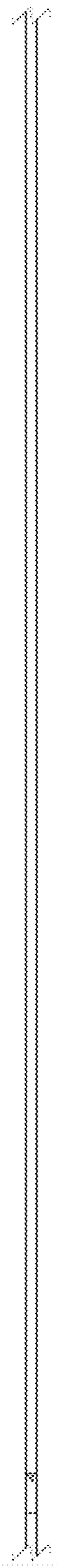


FIG. 10G

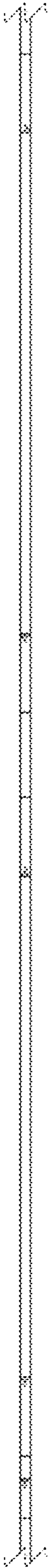


FIG. 10H

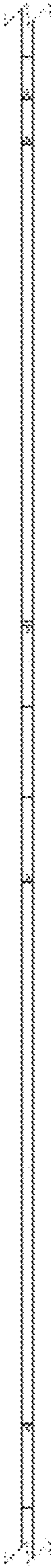


FIG. 10I

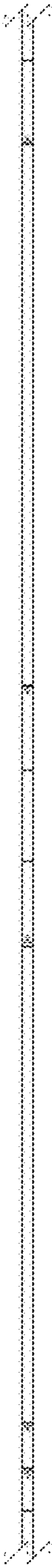


FIG. 10J

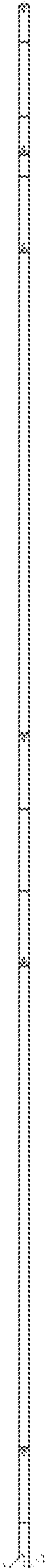


FIG. 10K

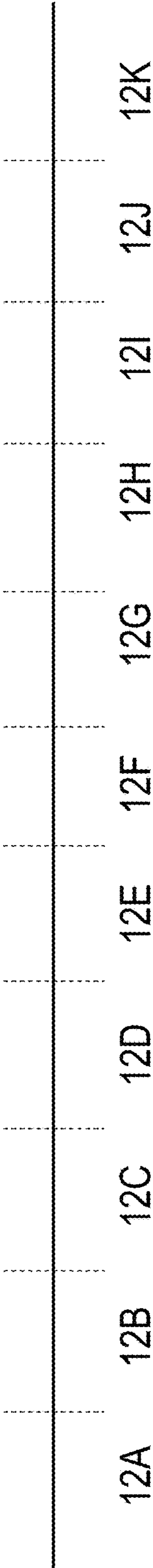


FIG. 11

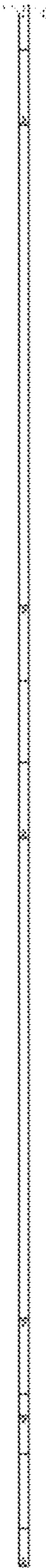


FIG. 12A

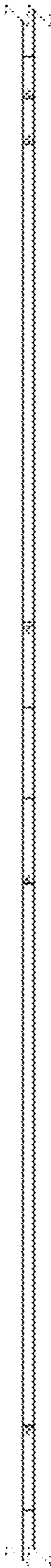


FIG. 12B

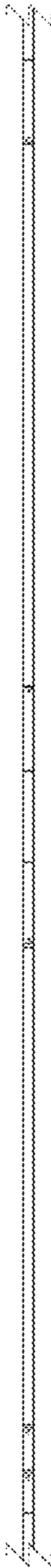


FIG. 12C

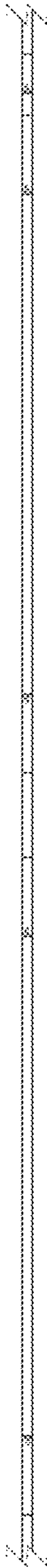


FIG. 12D

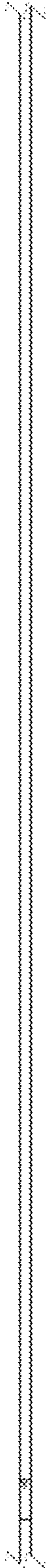


FIG. 12E

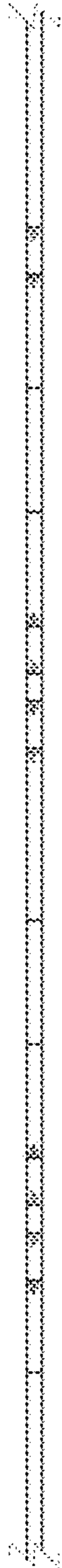


FIG. 12F

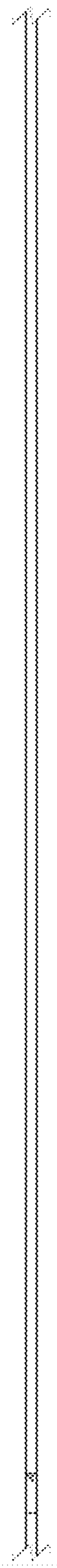


FIG. 12G

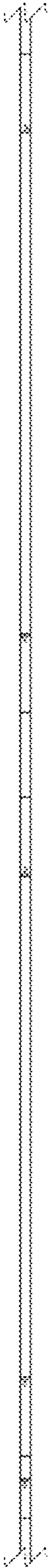


FIG. 12H

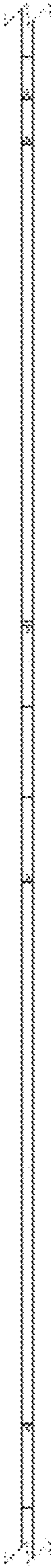


FIG. 12I



FIG. 12J

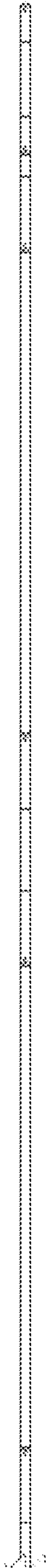


FIG. 12K