



US00D884659S

(12) **United States Design Patent** (10) **Patent No.:** **US D884,659 S**
Sakamoto et al. (45) **Date of Patent:** **** May 19, 2020**

(54) **LIGHT-RECEIVING DEVICE**

(57) **CLAIM**

(71) Applicant: **HAMAMATSU PHOTONICS K.K.**,
Hamamatsu-shi, Shizuoka (JP)

The ornamental design for a light-receiving device, as
shown and described.

(72) Inventors: **Takeshi Sakamoto**, Hamamatsu (JP);
Tomoya Taguchi, Hamamatsu (JP)

DESCRIPTION

(73) Assignee: **HAMAMATSU PHOTONICS K.K.**,
Hamamatsu-shi, Shizuoka (JP)

FIG. 1 is a front view of a light-receiving device, showing
our new design;

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

FIG. 2 is a rear view thereof;

(21) Appl. No.: **29/641,846**

FIG. 3 is a top plan view thereof;

(22) Filed: **Mar. 26, 2018**

FIG. 4 is a bottom plan view thereof;

(30) **Foreign Application Priority Data**

FIG. 5 is a right side view thereof;

Sep. 27, 2017 (JP) 2017-021148

FIG. 6 is a left side view thereof;

(51) **LOC (12) Cl.** **13-03**

FIG. 7 is a perspective view thereof;

(52) **U.S. Cl.**
USPC **D13/165**

FIG. 8 is an enlarged encircled portion view labeled 8 in
FIG. 1;

(58) **Field of Classification Search**
USPC D13/182, 184, 165, 199; D26/1, 24, 51,
D26/52, 93, 113, 138, 152; D14/138 R,
(Continued)

FIG. 9 is an enlarged encircled portion view labeled 9 in
FIG. 1;

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,185,647 A * 2/1993 Vasquez B82Y 20/00
257/17
D364,603 S * 11/1995 Tanaka D13/165
(Continued)

FIG. 10 is an enlarged encircled portion view labeled 10 in
FIG. 1;

FOREIGN PATENT DOCUMENTS

JP 2006-68816 A 3/2006
JP 2008-78236 A 4/2008
(Continued)

FIG. 11 is an enlarged encircled portion view labeled 11 in
FIG. 1;

FIG. 12 is an enlarged encircled portion view labeled 12 in
FIG. 3;

FIG. 13 is an enlarged encircled portion view labeled 13 in
FIG. 3;

FIG. 14 is an enlarged encircled portion view labeled 14 in
FIG. 4;

FIG. 15 is an enlarged encircled portion view labeled 15 in
FIG. 4;

FIG. 16 is an enlarged encircled portion view labeled 16 in
FIG. 5;

FIG. 17 is an enlarged encircled portion view labeled 17 in
FIG. 5;

FIG. 18 is an enlarged encircled portion view labeled 18 in
FIG. 6;

FIG. 19 is an enlarged encircled portion view labeled 19 of
FIG. 6;

FIG. 20 is an enlarged portion view taken along line 20-20
in FIG. 12;

FIG. 21 is an enlarged portion view taken along line 21-21
in FIG. 12;

(Continued)

Primary Examiner — Elizabeth J Oswecki

(74) *Attorney, Agent, or Firm* — Faegre Drinker Biddle &
Reath LLP

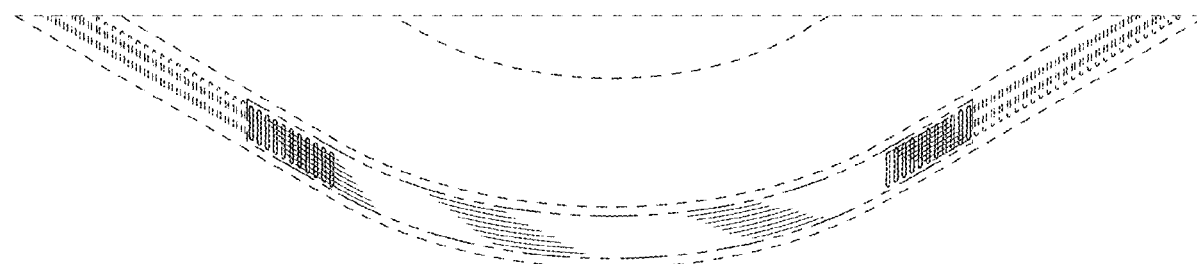


FIG. 22 is an enlarged portion view taken along line 22-22 in FIG. 12;

FIG. 23 is an enlarged portion view taken along line 23-23 in FIG. 13;

FIG. 24 is an enlarged portion view taken along line 24-24 in FIG. 13;

FIG. 25 is an enlarged portion view taken along line 25-25 in FIG. 13;

FIG. 26 is an enlarged portion view taken along line 26-26 in FIG. 14;

FIG. 27 is an enlarged portion view taken along line 27-27 in FIG. 15;

FIG. 28 is an enlarged portion view taken along line 28-28 in FIG. 16;

FIG. 29 is an enlarged portion view taken along line 29-29 in FIG. 17;

FIG. 30 is an enlarged portion view taken along line 30-30 in FIG. 18;

FIG. 31 is an enlarged portion view taken along line 31-31 in FIG. 19;

FIG. 32 is an enlarged cross-sectional portion view taken along line 32-32 in FIGS. 10, 11, and 26; and,

FIG. 33 is an enlarged cross-sectional portion view taken along line 33-33 in FIG. 7.

The features shown in evenly-dashed broken lines depict environmental subject matter only and form no part of the claimed design. The dot-dot-dash broken lines in the drawings represent the bounds of the claimed subject matter, the dot-dot-dash broken lines, themselves forming no part thereof. The z-shaped break lines shown in FIGS. 1, 3, 4, 5, 6, 8-19, 22, and 23 depict boundaries of the enlarged portion views and form no part of the claimed design.

1 Claim, 33 Drawing Sheets

(58) Field of Classification Search

USPC D14/473, 255; D15/144.1, 199;

174/52.4; 250/239; 361/730, 752;
257/432, 21, 12, 14, 15, 17, 22, 186, 199,
257/431, 438, 458, 461, 464

CPC H01L 27/14634; H01L 27/14605; H01L
27/14607; H01L 27/14618; H01L
27/14636; H01L 27/14643; H01L 27/146;
H01L 31/035236; H01L 31/03046; H01L
31/00; H01L 31/0352; H01L 31/0304

See application file for complete search history.

(56)

References Cited

U.S. PATENT DOCUMENTS

D364,604	S *	11/1995	Tanaka	.....	D13/165
D373,759	S *	9/1996	Tanaka	.....	D13/165
6,294,795	B1 *	9/2001	Kano	.....	B82Y 20/00
					257/17
6,818,916	B2 *	11/2004	Kano	.....	B82Y 20/00
					257/12
D526,279	S *	8/2006	Kotyk	.....	D13/158
D542,738	S *	5/2007	Pollard	.....	D13/158
D564,975	S *	3/2008	Horio	.....	D13/165
8,058,642	B2 *	11/2011	Iguchi	.....	B82Y 20/00
					257/21
8,188,559	B2 *	5/2012	Iguchi	.....	B82Y 20/00
					257/21
8,426,845	B2 *	4/2013	Chen	.....	B82Y 10/00
					257/14
D739,359	S *	9/2015	Creasman	.....	D13/165
9,647,155	B1 *	5/2017	Maimon	.....	H01L 31/03523
9,698,297	B2 *	7/2017	Iguchi	.....	H01L 27/1446
10,128,294	B2 *	11/2018	Migita	.....	H01L 27/14634

FOREIGN PATENT DOCUMENTS

JP	1347740	1/2009
JP	2010-514223 A	4/2010
JP	2014-41925 A	3/2014
JP	1608528	7/2018
JP	1608529	7/2018

* cited by examiner

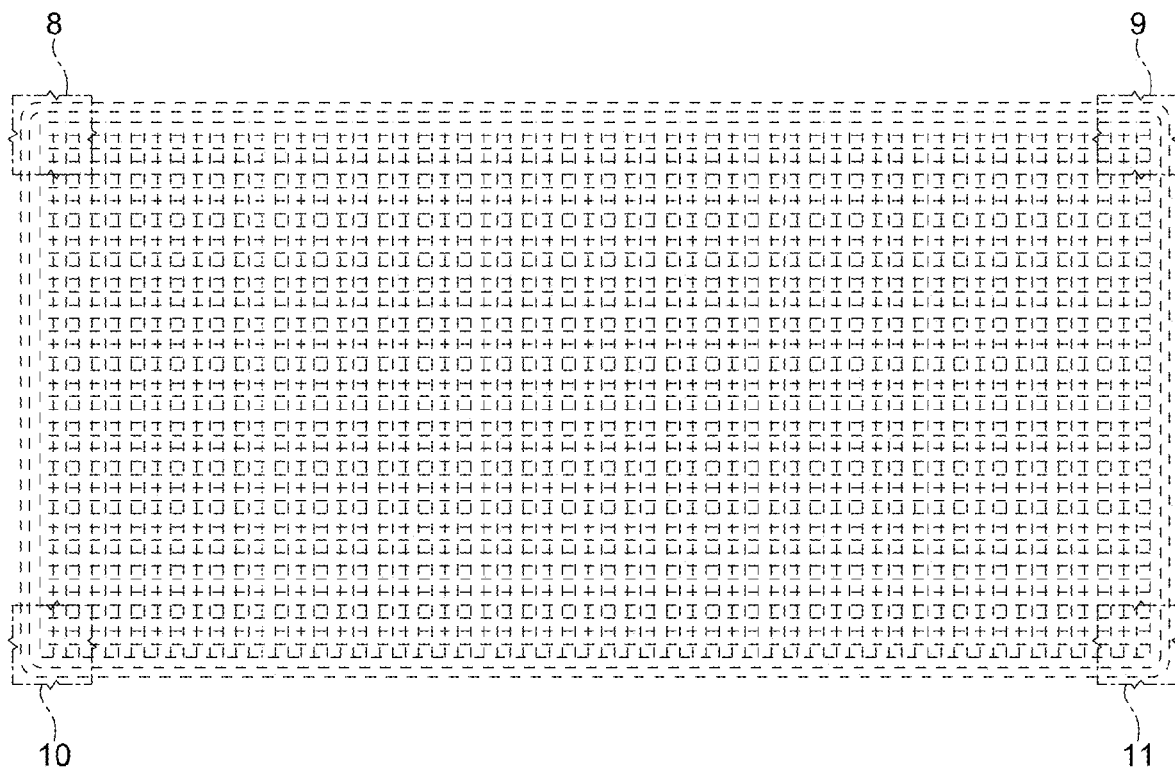


FIG. 1



FIG. 2



FIG. 3



FIG. 4

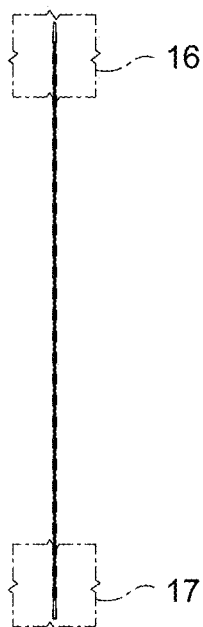


FIG. 5



FIG. 6

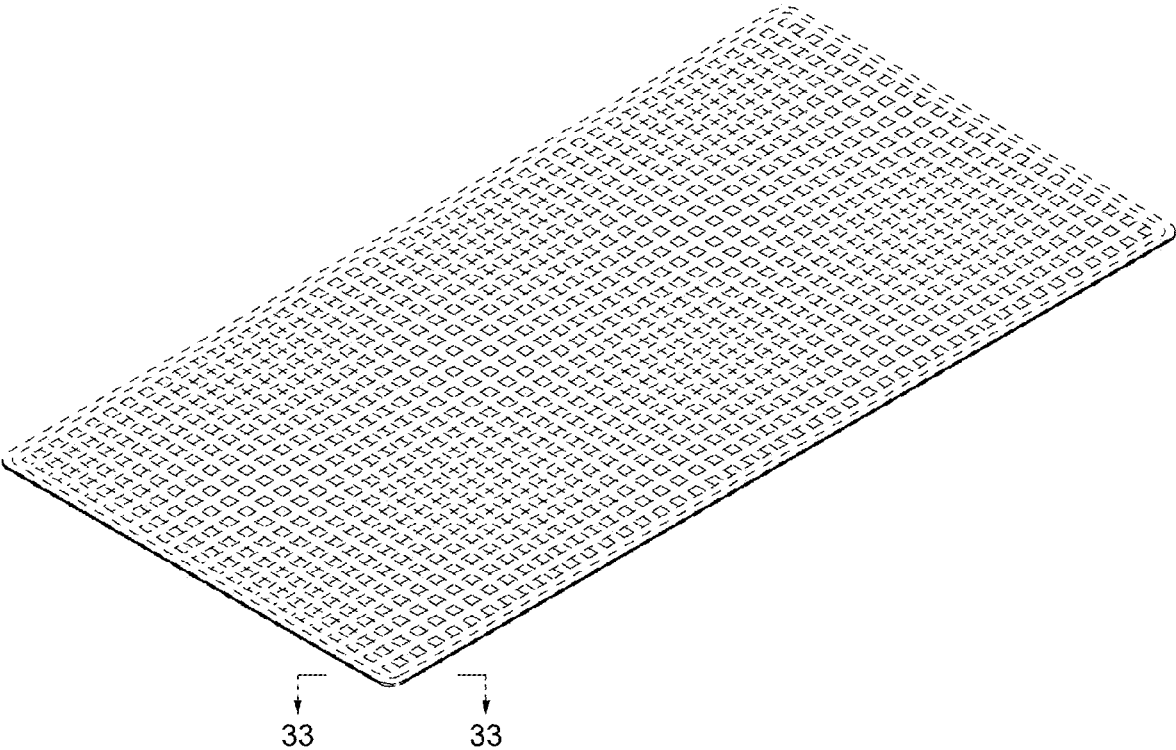


FIG. 7

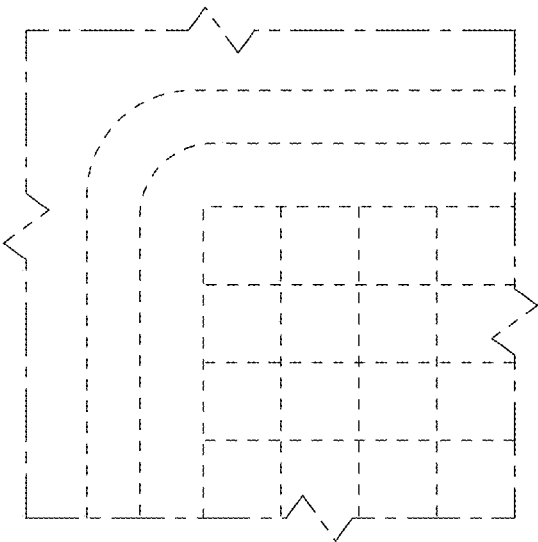


FIG. 8

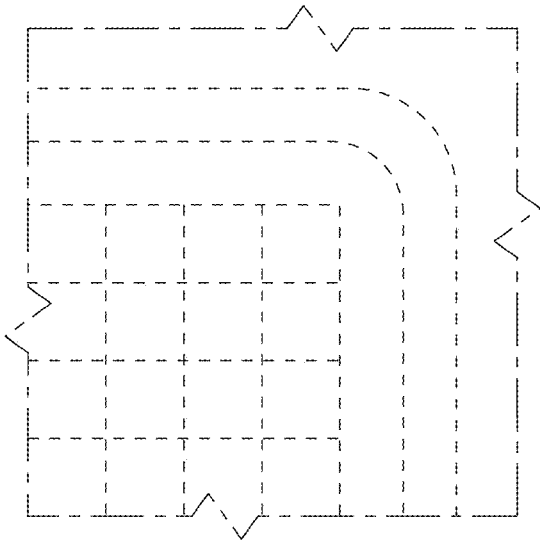


FIG. 9

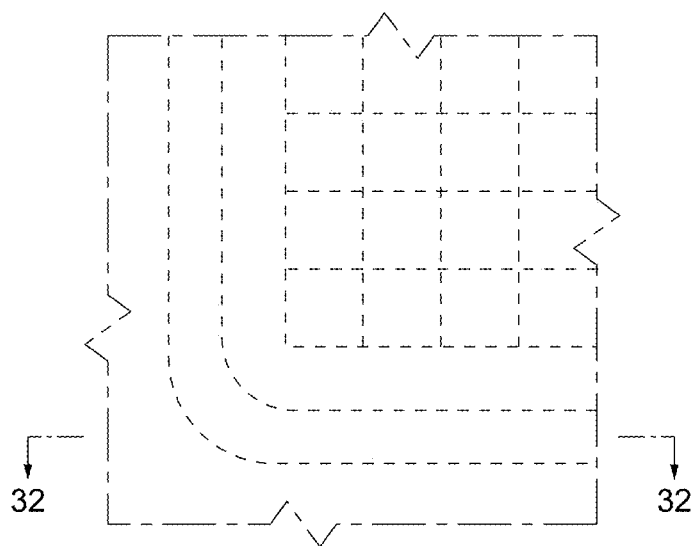


FIG. 10

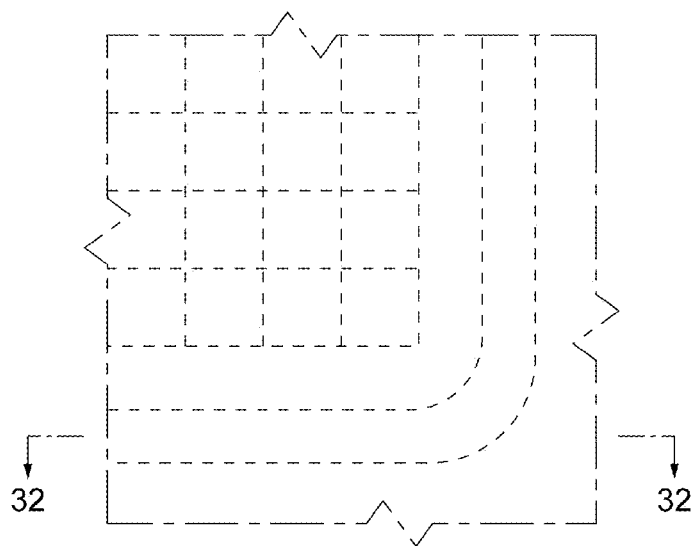


FIG. 11

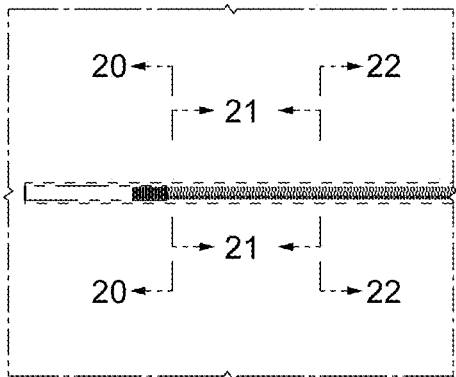


FIG. 12

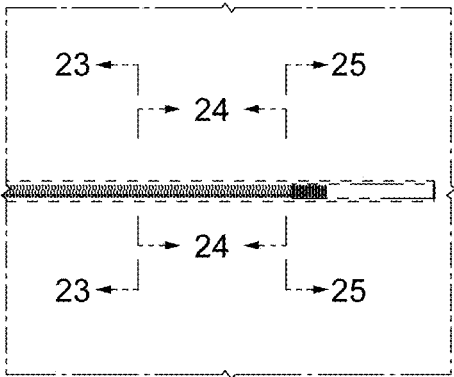


FIG. 13

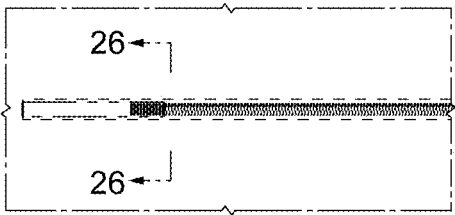


FIG. 14

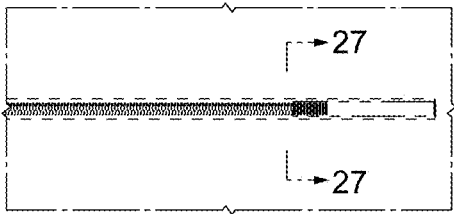


FIG. 15

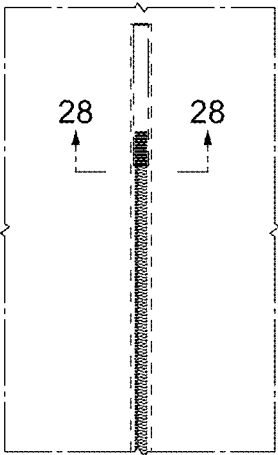


FIG. 16

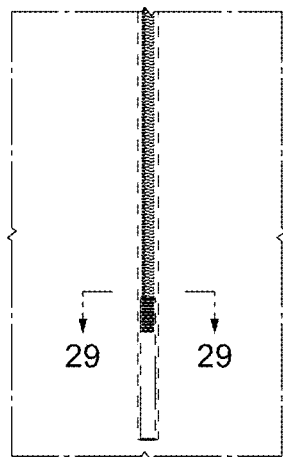


FIG. 17

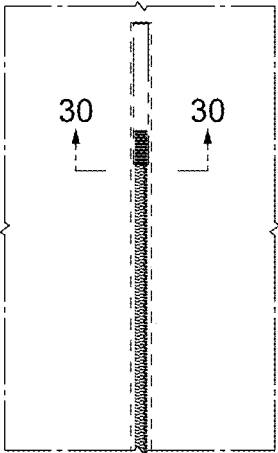


FIG. 18

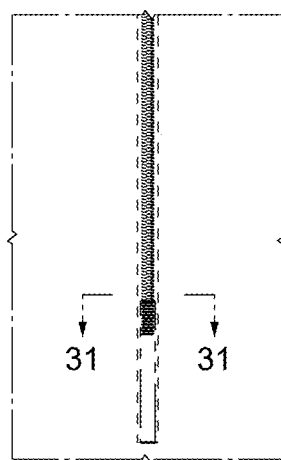


FIG. 19

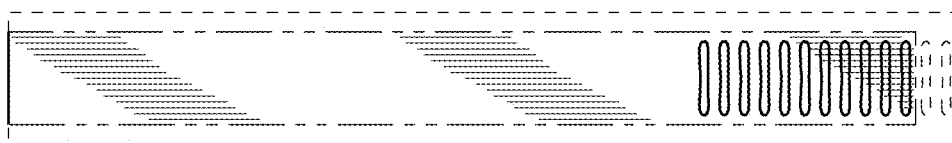


FIG. 20

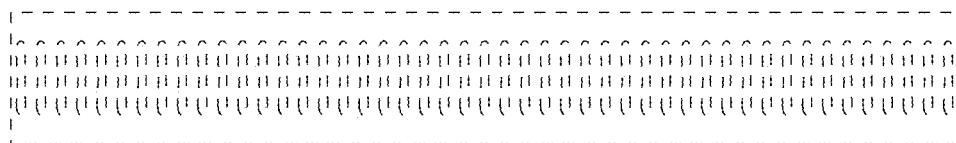


FIG. 21

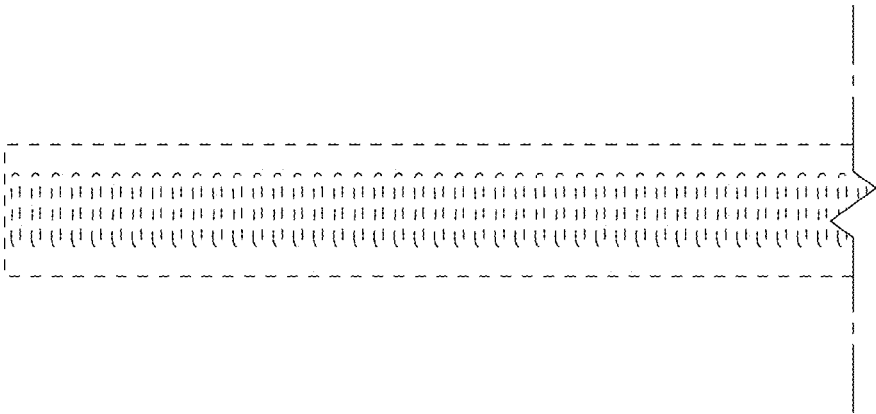


FIG. 22

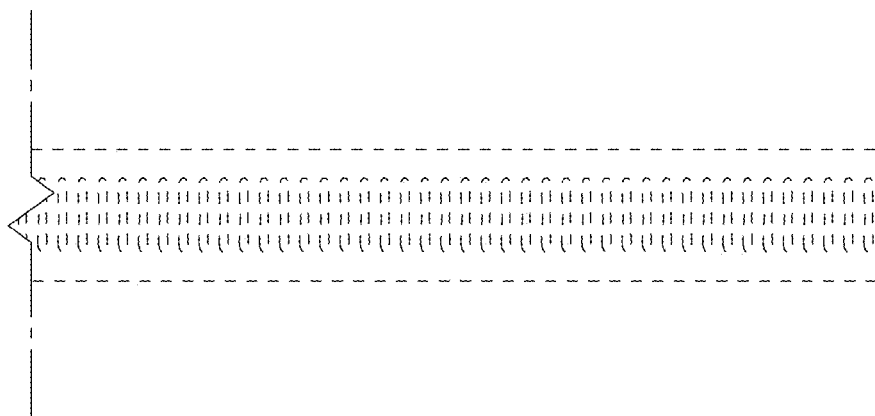


FIG. 23

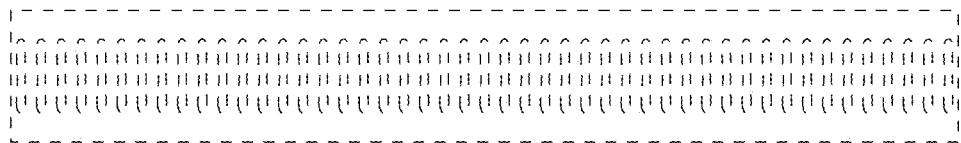


FIG. 24

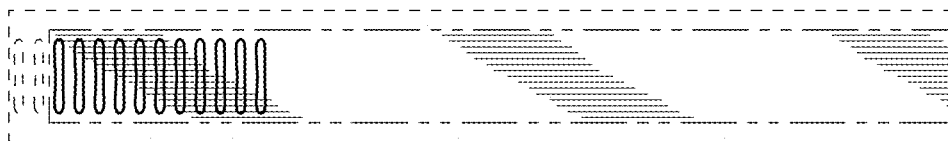


FIG. 25

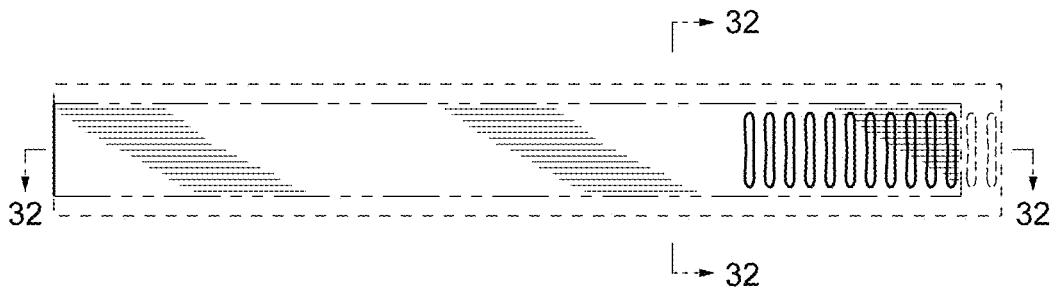


FIG. 26

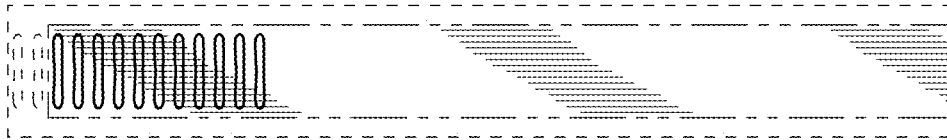


FIG. 27

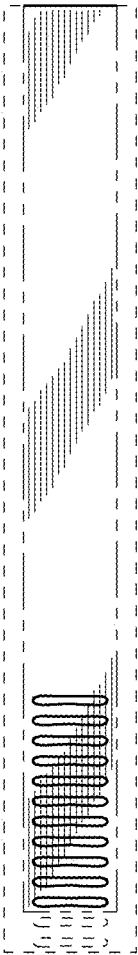


FIG. 28

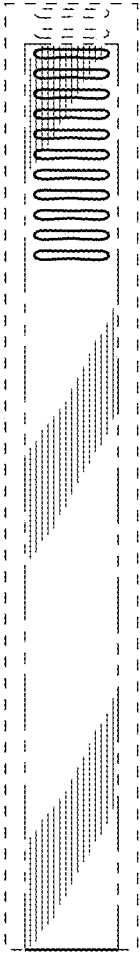


FIG. 29

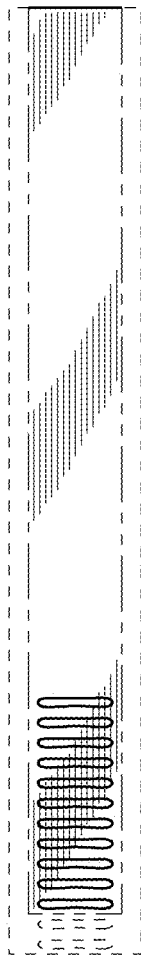


FIG. 30

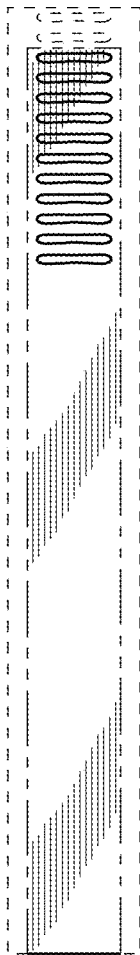


FIG. 31

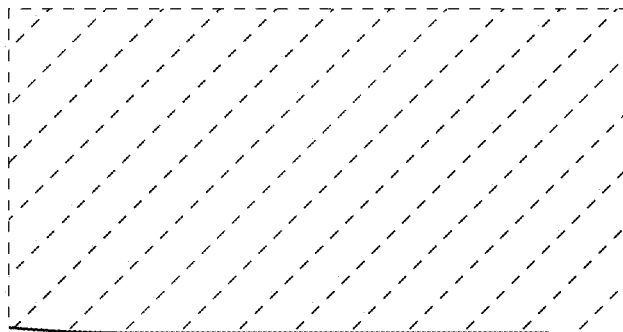


FIG. 32

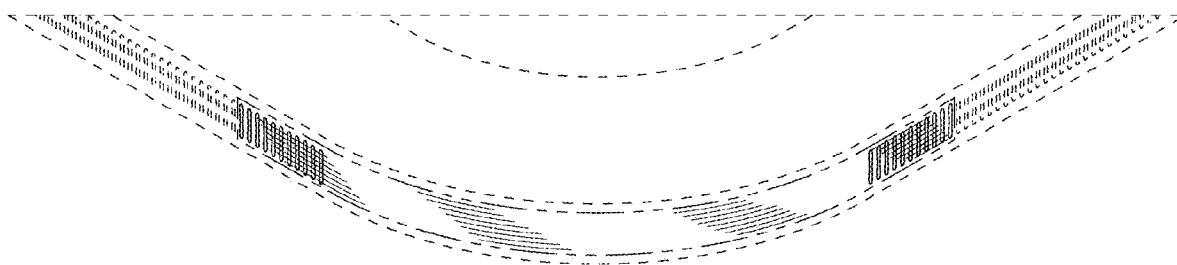


FIG. 33