



US00D932621S

(12) **United States Design Patent** (10) **Patent No.:** **US D932,621 S**
Ridgley et al. (45) **Date of Patent:** **** Oct. 5, 2021**

(54) **BUTTRESS ASSEMBLY FOR A SURGICAL STAPLER**

(71) Applicant: **Ethicon LLC**, Guaynabo, PR (US)

(72) Inventors: **Pamela M. Ridgley**, Lebanon, OH (US); **Michael J. Vendely**, Lebanon, OH (US); **Emily A. Schellin**, Cincinnati, OH (US); **Jason L. Harris**, Lebanon, OH (US); **Prudence A. Vulhop**, Warsaw, IN (US); **Trevor J. Barton**, Cincinnati, OH (US)

(73) Assignee: **Cilag GmbH International**, Zug (CH)

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

(21) Appl. No.: **29/675,199**

(22) Filed: **Dec. 28, 2018**

(51) **LOC (13) Cl.** **24-02**

(52) **U.S. Cl.**
 USPC **D24/145**

(58) **Field of Classification Search**
 USPC D24/145
 CPC A61B 17/105; A61B 17/068; A61B 17/07207; A61B 17/07292; A61B 2017/00884; A61B 2017/2936; A61B 2017/07271

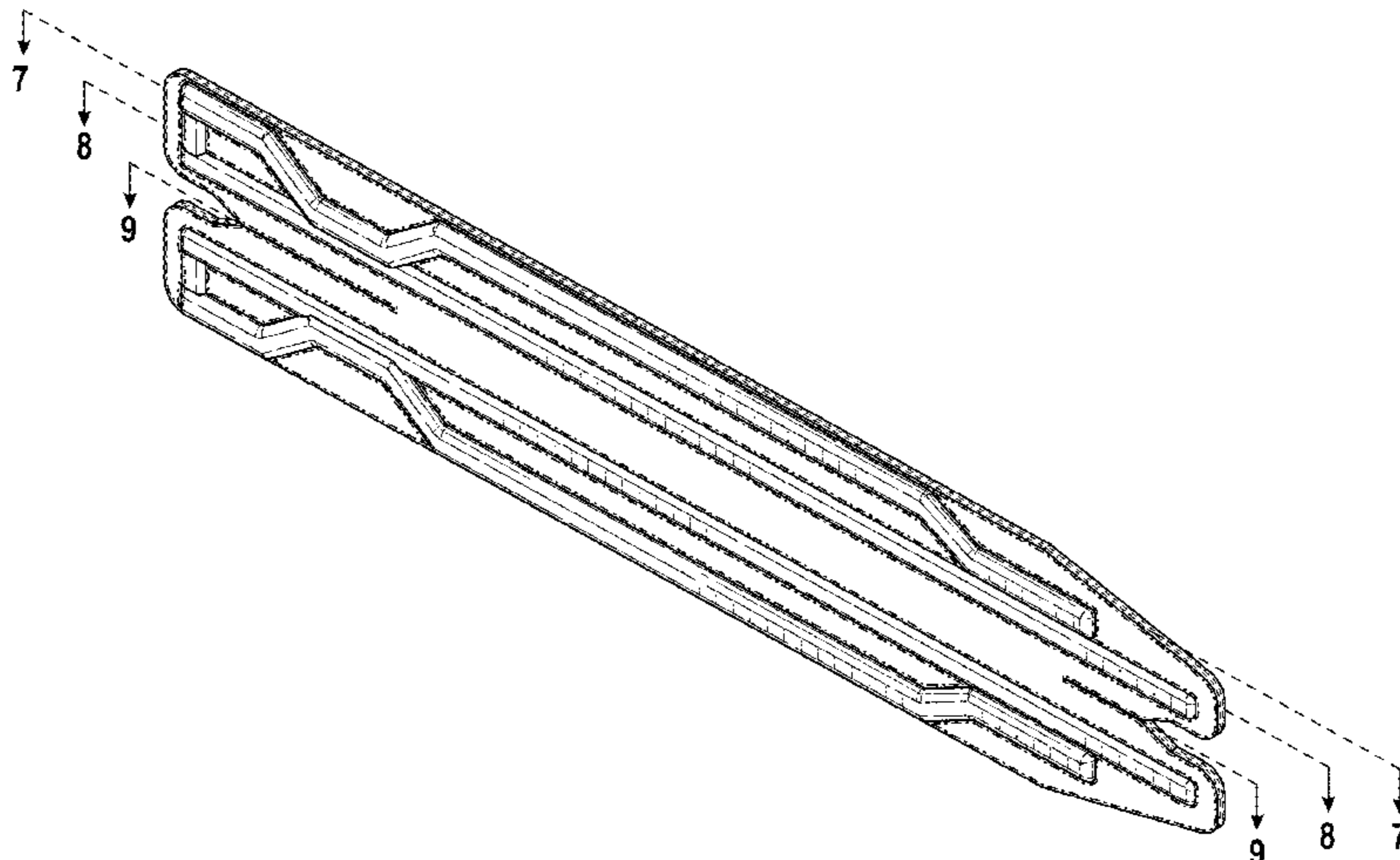
See application file for complete search history.

6,783,524 B2	8/2004	Anderson et al.	
6,978,921 B2	12/2005	Shelton, IV et al.	
6,988,650 B2	1/2006	Schwemberger et al.	
7,000,818 B2	2/2006	Shelton, IV et al.	
7,134,587 B2	11/2006	Schwemberger et al.	
7,143,923 B2	12/2006	Shelton, IV et al.	
7,147,139 B2	12/2006	Schwemberger et al.	
7,147,140 B2	12/2006	Wukusick et al.	
7,204,404 B2	4/2007	Nguyen et al.	
7,207,472 B2	4/2007	Wukusick et al.	
7,303,108 B2	12/2007	Shelton, IV	
7,367,485 B2	5/2008	Shelton, IV et al.	
7,380,695 B2	6/2008	Doll et al.	
7,380,696 B2	6/2008	Shelton, IV et al.	
7,404,508 B2	7/2008	Smith et al.	
7,434,715 B2	10/2008	Shelton, IV et al.	
7,524,320 B2	4/2009	Tierney et al.	
7,644,848 B2	1/2010	Swayze et al.	
7,691,098 B2	4/2010	Wallace et al.	
7,721,930 B2	5/2010	McKenna et al.	
7,806,891 B2	10/2010	Nowlin et al.	
8,016,177 B2 *	9/2011	Bettuchi	A61B 17/07292 227/176.1
8,141,762 B2	3/2012	Bedi et al.	
8,157,151 B2 *	4/2012	Ingmanson	A61B 17/07207 227/176.1
8,210,411 B2	7/2012	Yates et al.	
8,371,491 B2	2/2013	Huitema et al.	
8,408,439 B2	4/2013	Huang et al.	
8,453,904 B2 *	6/2013	Eskaros	A61B 17/072 227/175.1
8,453,914 B2	6/2013	Laurent et al.	
8,479,969 B2	7/2013	Shelton, IV	
8,573,461 B2	11/2013	Shelton, IV et al.	
8,573,465 B2	11/2013	Shelton, IV	
8,579,990 B2	11/2013	Priewe	
8,602,288 B2	12/2013	Shelton, IV et al.	
8,616,431 B2	12/2013	Timm et al.	
8,783,541 B2	7/2014	Shelton, IV et al.	
8,800,838 B2	8/2014	Shelton, IV	
8,801,735 B2	8/2014	Shelton, IV et al.	
8,814,025 B2	8/2014	Miller et al.	
8,820,605 B2	9/2014	Shelton, IV	
8,844,789 B2	9/2014	Shelton, IV et al.	
8,899,464 B2	12/2014	Hueil et al.	
8,992,060 B2	4/2015	Dassanayake et al.	
8,998,060 B2	4/2015	Bruewer et al.	
9,101,359 B2	8/2015	Smith et al.	
9,186,142 B2	11/2015	Fanelli et al.	
9,198,644 B2	12/2015	Balek et al.	
9,211,120 B2	12/2015	Scheib et al.	
9,301,759 B2	4/2016	Spivey et al.	
9,351,732 B2 *	5/2016	Hodgkinson	A61B 17/07207

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,805,823 A	2/1989	Rothfuss	
5,415,334 A	5/1995	Williamson, IV et al.	
5,465,895 A	11/1995	Knodel et al.	
5,597,107 A	1/1997	Knodel et al.	
5,632,432 A	5/1997	Schulze et al.	
5,673,840 A	10/1997	Schulze et al.	
5,704,534 A	1/1998	Huitema et al.	
5,792,135 A	8/1998	Madhani et al.	
5,814,055 A	9/1998	Knodel et al.	
5,817,084 A	10/1998	Jensen	
5,878,193 A	3/1999	Wang et al.	
5,902,312 A *	5/1999	Frater	A61B 17/07207 606/148
6,231,565 B1	5/2001	Tovey et al.	
6,364,888 B1	4/2002	Niemeyer et al.	



9,393,018	B2	7/2016	Wang et al.	
9,398,911	B2	7/2016	Auld et al.	
9,402,627	B2 *	8/2016	Stevenson	A61B 17/07292
9,445,812	B2 *	9/2016	Olson	A61B 17/07292
9,492,170	B2	11/2016	Bear et al.	
9,517,065	B2	12/2016	Simms et al.	
9,572,576	B2 *	2/2017	Hodgkinson	A61B 17/07207
9,585,657	B2 *	3/2017	Shelton, IV	A61B 17/07292
9,597,082	B2	3/2017	Stokes et al.	
9,622,746	B2	4/2017	Simms et al.	
9,717,497	B2	8/2017	Zerkle et al.	
9,795,379	B2	10/2017	Leimbach et al.	
9,808,248	B2	11/2017	Hoffman	
9,839,421	B2	12/2017	Zerkle et al.	
9,848,871	B2	12/2017	Harris et al.	
9,867,615	B2	1/2018	Fanelli et al.	
9,913,642	B2	3/2018	Leimbach et al.	
9,936,954	B2	4/2018	Shelton, IV et al.	
D821,579	S *	6/2018	Majors	D24/145
9,999,408	B2	6/2018	Boudreaux et al.	
10,045,780	B2	8/2018	Adams et al.	
10,092,292	B2	10/2018	Boudreaux et al.	
D833,010	S	11/2018	Harris et al.	
10,123,798	B2	11/2018	Baxter, III et al.	
D836,198	S	12/2018	Harris et al.	
D836,199	S	12/2018	Schowalter et al.	
10,293,553	B2 *	5/2019	Racenet	A61B 17/07292
10,349,939	B2	7/2019	Shelton, IV et al.	
10,368,868	B2 *	8/2019	Aranyi	A61B 17/07292
10,485,540	B2 *	11/2019	Hodgkinson	A61B 17/07292
10,499,918	B2 *	12/2019	Schellin	A61B 17/07292
10,675,032	B2 *	6/2020	(Prommersberger) Stopek	A61B 17/105
10,682,140	B2 *	6/2020	Ingmanson	A61B 17/07292
10,722,234	B2 *	7/2020	Hodgkinson	A61B 17/07292
2005/0139636	A1	6/2005	Schwemberger et al.	
2005/0143759	A1	6/2005	Kelly	
2005/0145672	A1	7/2005	Schwemberger et al.	
2008/0169328	A1	7/2008	Shelton	
2012/0241493	A1	9/2012	Baxter, III et al.	
2013/0068816	A1	3/2013	Vasudevan et al.	
2013/0075447	A1	3/2013	Weisenburgh et al.	
2013/0153635	A1 *	6/2013	Hodgkinson	A61B 17/07207 227/176.1
2013/0206813	A1	8/2013	Nalagatla	
2014/0239037	A1	8/2014	Boudreaux et al.	
2015/0231409	A1 *	8/2015	Racenet	A61B 17/07292 227/175.1
2015/0351758	A1	12/2015	Shelton, IV et al.	
2016/0089146	A1	3/2016	Harris et al.	
2016/0278774	A1	9/2016	Shelton, IV et al.	
2017/0027571	A1	2/2017	Nalagatla et al.	
2017/0049444	A1	2/2017	Schellin et al.	
2017/0055980	A1	3/2017	Vendely et al.	
2017/0055981	A1	3/2017	Vendely et al.	
2017/0055982	A1	3/2017	Zeiner et al.	
2017/0055986	A1	3/2017	Harris et al.	
2017/0056016	A1	3/2017	Barton et al.	
2017/0056017	A1	3/2017	Vendely et al.	
2017/0056018	A1	3/2017	Zeiner et al.	
2017/0086823	A1	3/2017	Leimbach et al.	
2017/0086837	A1	3/2017	Vendely et al.	
2017/0086842	A1	3/2017	Shelton, IV et al.	
2018/0235610	A1	8/2018	Harris et al.	
2018/0235611	A1	8/2018	Harris et al.	
2018/0235619	A1	8/2018	Harris et al.	
2019/0000481	A1	1/2019	Harris et al.	
2019/0350585	A1 *	11/2019	Aranyi	A61B 17/068

FOREIGN PATENT DOCUMENTS

JP 2018-114279 A 7/2018

OTHER PUBLICATIONS

U.S. Appl. No. 16/234,727, entitled "Surgical Stapler with Tissue Engagement Features Around Tissue Containment Pin," filed Dec. 28, 2018.

U.S. Appl. No. 16/234,740, entitled "Surgical Stapler with Sloped Staple Deck for Varying Tissue Compression," filed Dec. 28, 2018.
 U.S. Appl. No. 16/235,473, entitled "Adhesive Distribution on Buttress for Surgical Stapler," filed Dec. 28, 2018.
 U.S. Appl. No. 16/235,488, entitled "Configuration of Buttress for Surgical Stapler," filed Dec. 28, 2018.
 U.S. Appl. No. 16/235,503, entitled "Surgical Stapler Buttress with Tissue In-Growth Promotion," filed Dec. 28, 2018.
 U.S. Appl. No. 16/235,522, entitled "Applicator for Surgical Stapler Buttress," filed Dec. 28, 2018.
 U.S. Appl. No. 16/235,541, entitled "Packaging for Surgical Stapler Buttress," filed Dec. 28, 2018.
 U.S. Appl. No. 16/235,617, entitled "Method of Applying Buttresses to Surgically Cut and Stapled Sites," filed Dec. 28, 2018.
 U.S. Appl. No. 16/235,630, entitled "Curved Tip Surgical Buttress Applicator with Opening Feature for Curved Tip Alignment," filed Dec. 28, 2018.
 U.S. Appl. No. 16/235,670, entitled "Curved Tip Surgical Buttress Assembly Applicator with Proximal Alignment Features," filed Dec. 28, 2018.
 U.S. Appl. No. 16/235,681, entitled "Curved Tip Surgical Buttress Assembly Applicator with Compression Layer Pocket Features," filed Dec. 28, 2018.
 Design U.S. Appl. No. 29/675,045, entitled "Surgical Stapler Deck with Tissue Engagement Cleat Features," filed Dec. 28, 2018.
 Design U.S. Appl. No. 29/675,047, entitled "Surgical Stapler Deck with Tissue Engagement Recess Features," filed Dec. 28, 2018.
 Design U.S. Appl. No. 29/675,168, entitled "Applicator for a Surgical Stapler Buttress," filed Dec. 28, 2018.
 Design U.S. Appl. No. 29/675,170, entitled "Buttress Assembly for a Surgical Stapler," filed Dec. 28, 2018.
 Design U.S. Appl. No. 29/675,172, entitled "Applicator Tray for a Buttress Applicator for a Surgical Stapler," filed Dec. 28, 2018.
 Design U.S. Appl. No. 29/675,197, entitled "Applicator for a Surgical Stapler Buttress," filed Dec. 28, 2018.
 U.S. Appl. No. 62/209,041, entitled "Method and Apparatus for Applying a Buttress to End Effector of a Surgical Stapler," filed Aug. 24, 2015.
 Japanese Office Action, Notification, dated Apr. 7, 2020 for Application No. JP 2019-014280, 1 pg.
 Japanese Office Action, Notification, dated Apr. 21, 2020 for Application No. JP 2020-001289, 1 pg.
 Japanese Office Action, Notification, dated Apr. 14, 2020 for Application No. JP2020-001290, 1 pg.

* cited by examiner

Primary Examiner — Wan Laymon

(74) Attorney, Agent, or Firm — Frost Brown Todd LLC

(57) CLAIM

The ornamental design for a buttress assembly for a surgical stapler, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a buttress assembly for a surgical stapler, showing our new design;
 FIG. 2 is a top plan view of the buttress assembly for a surgical stapler of FIG. 1, the opposite bottom plan view being a mirror image thereof;
 FIG. 3 is a side elevational view of the buttress assembly for a surgical stapler of FIG. 1;
 FIG. 4 is a side elevational view of the buttress assembly for a surgical stapler of FIG. 1, the side elevation view of FIG. 4 being opposite to the side elevation view of FIG. 3;
 FIG. 5 is an enlarged front elevational view of the buttress assembly for a surgical stapler of FIG. 1;
 FIG. 6 is an enlarged rear elevational view of the buttress assembly for a surgical stapler of FIG. 1;

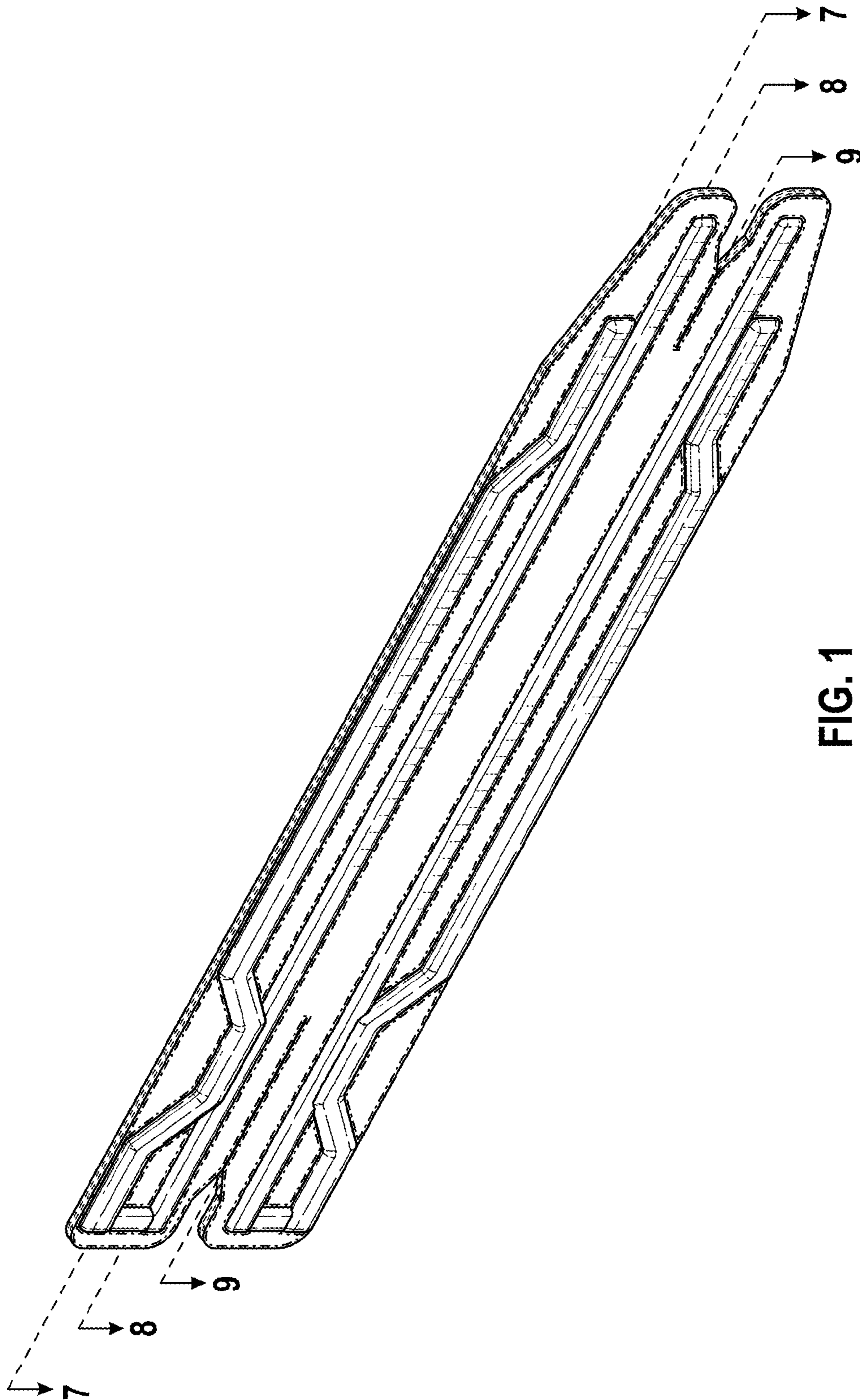
FIG. 7 is a cross-sectional view of the buttress assembly for a surgical stapler of FIG. 1, taken along line 7-7 of FIG. 1; FIG. 8 is a cross-sectional view of the buttress assembly for a surgical stapler of FIG. 1, taken along line 8-8 of FIG. 1; FIG. 9 is a cross-sectional view of the buttress assembly for a surgical stapler of FIG. 1, taken along line 9-9 of FIG. 1; FIG. 10 is an enlarged cross-sectional view of the buttress assembly for a surgical stapler of FIG. 3, taken along line 10-10 of FIG. 3;

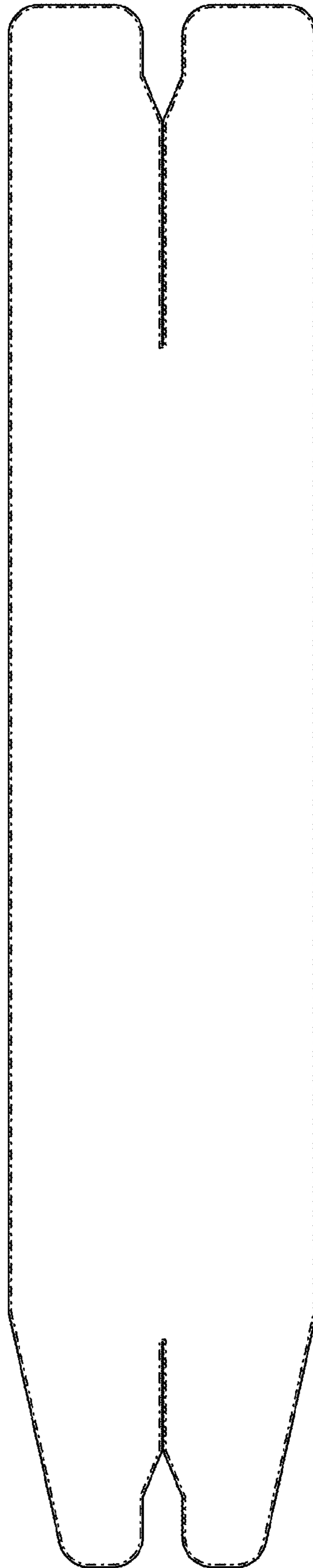
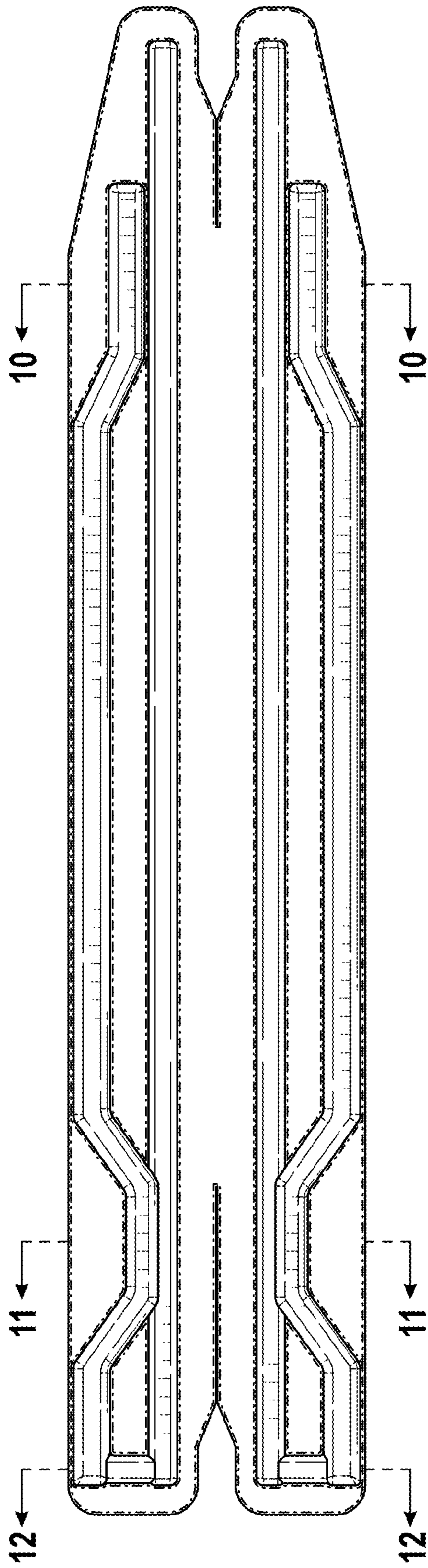
FIG. 11 is an enlarged cross-sectional view of the buttress assembly for a surgical stapler of FIG. 3, taken along line 11-11 of FIG. 3; and,

FIG. 12 is an enlarged cross-sectional view of the buttress assembly for a surgical stapler of FIG. 3, taken along line 12-12 of FIG. 3.

The evenly-spaced broken lines in the drawings are included for purpose of illustrating portions of the buttress assembly for a surgical stapler that form no part of the claimed design. The dot-dash-dot broken lines in the drawings are included for the purpose of defining the boundary of the claim, it being understood that the region between the dot-dash-dot broken lines and the dot-dash-dot broken lines themselves form no part of the claimed design.

1 Claim, 6 Drawing Sheets





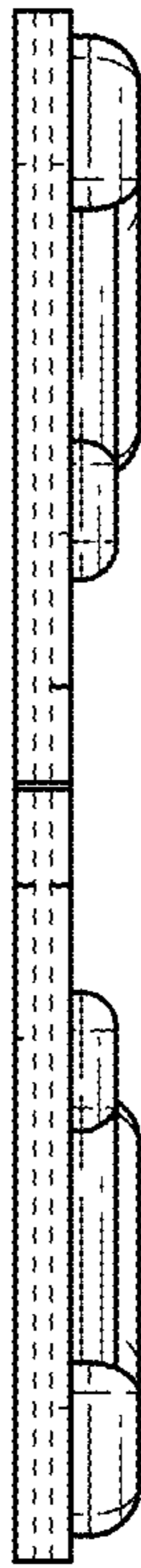


FIG. 5



FIG. 6



FIG. 7



FIG. 8



FIG. 9

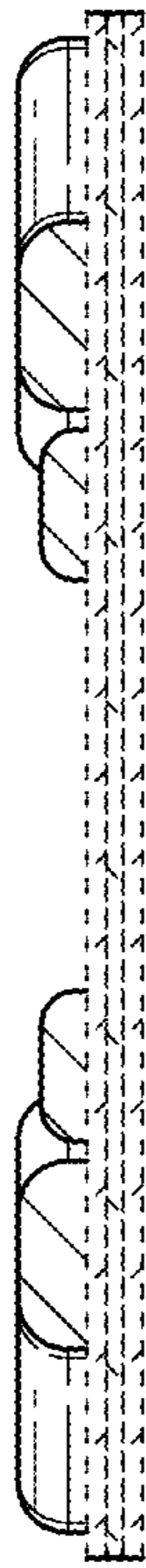


FIG. 10

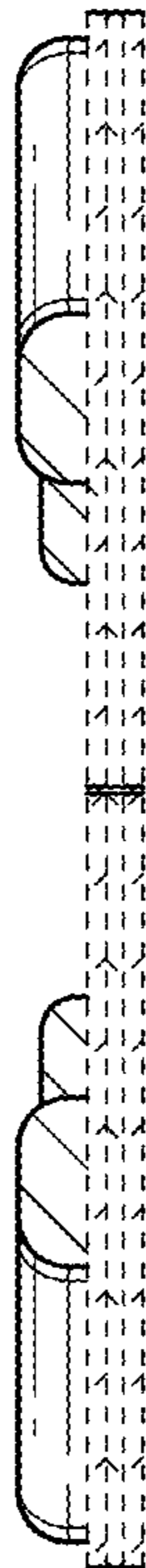


FIG. 11



FIG. 12