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(12) **United States Patent**
Header et al.

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(54) **WALL AND DOOR PANEL ADJUSTMENT
DEVICE**

(56) **References Cited**

U.S. PATENT DOCUMENTS

- (71) Applicant: **Gregory Header**, Pine Grove, PA (US)
- (72) Inventors: **Gregory Header**, Richland, PA (US);
Ari Figueroa, Middletown, PA (US)
- (73) Assignee: **Gregory Header**, Pine Grove, PA (US)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

1,900,077	A *	3/1933	Rifle	292/341.11
2,524,961	A *	10/1950	Cramer, Jr.	254/104
3,325,942	A *	6/1967	Bejarano	49/381
3,390,862	A *	7/1968	Schrepfer	254/104
3,404,501	A *	10/1968	Von Wedel	52/204.64
3,566,559	A *	3/1971	Dickson	52/126.4
3,696,569	A *	10/1972	Didry	52/126.4
3,714,738	A *	2/1973	Koslow et al.	49/404
4,104,830	A *	8/1978	Eagle	49/468
4,156,325	A *	5/1979	McMullen et al.	49/468
4,655,025	A *	4/1987	Marinoni	52/771
4,689,853	A *	9/1987	Marinoni	16/382

(Continued)

(21) Appl. No.: **14/165,204**

FOREIGN PATENT DOCUMENTS

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AU	2009201934	A1	5/2009
CA	2117995	A1	10/1994

(Continued)

- (51) **Int. Cl.**
E04B 2/82 (2006.01)
E05D 15/00 (2006.01)
E06B 1/60 (2006.01)

Primary Examiner — James Ference
(74) *Attorney, Agent, or Firm* — Stone Creek Services LLC;
Alan M Flum

- (52) **U.S. Cl.**
CPC **E05D 15/00** (2013.01); **E06B 1/6076**
(2013.01); **E04B 2/828** (2013.01)
USPC **52/126.4**; 52/767; 16/90; 16/94 R

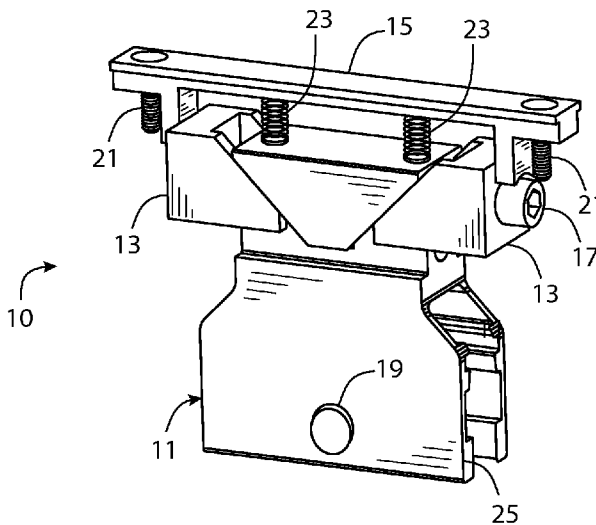
(57) **ABSTRACT**

- (58) **Field of Classification Search**
CPC . E05D 15/16; E05D 15/0634; E05D 15/0669;
E06B 3/5864; E06B 3/5857; E06B 3/5481;
E05Y 2099/131; E05Y 2099/132; E05Y
2099/142
USPC 52/126.4, 126.3, 126.1, 126.7, 481.2,
52/217, 241, 764, 766, 767, 208, 204.53,
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49/418, 399, 400; 16/90, 91, 93 R, 94 R,
16/252, 255, 284, 382

A device for adjusting wall or door panels without the need to remove or disassembly the panels from their panel frames. The device can adjust the distance of the in-fill panel from a stationary frame or trolley track. Multiple devices can be utilized and adjusted independently allowing for angle adjustment of the panel. The device includes an in-fill attachment a threaded fastener, two angled adjustment blocks, and a block keeper. The in-fill attachment includes inset angled pockets, a wedge like portion, and an in-fill receiving portion. As the threaded fastener is turned, the angled sides of the two angled adjustment blocks slide along the angle pockets and move the in-fill attachment either toward or away from the panel frame thereby also moving the panel toward or away from the panel frame.

See application file for complete search history.

8 Claims, 11 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

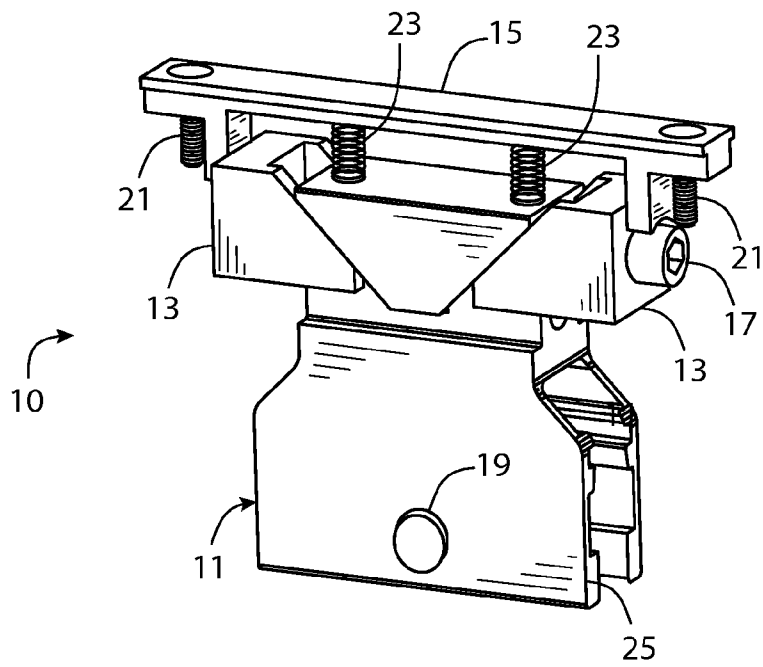
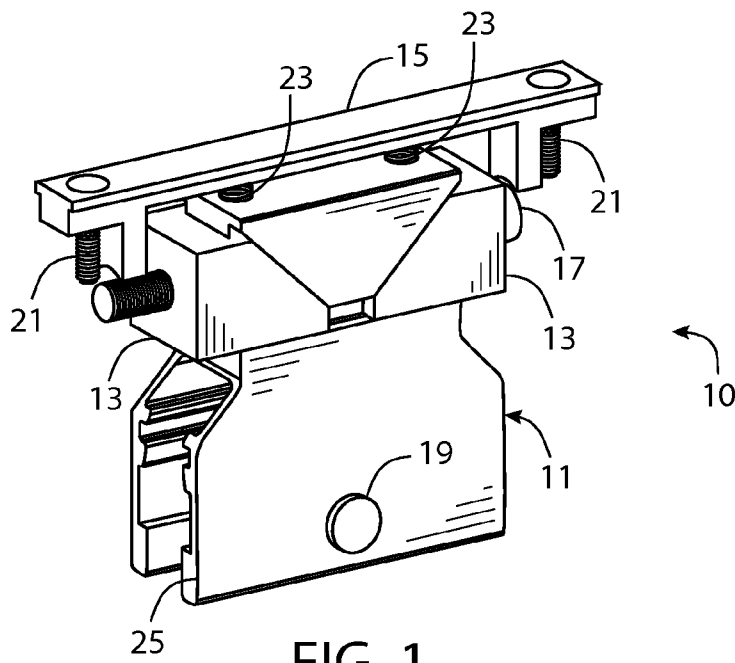
4,805,358 A * 2/1989 Fork 52/126.2
 5,069,010 A * 12/1991 Trainor et al. 52/127.8
 5,444,958 A * 8/1995 Lu 52/775
 5,860,189 A * 1/1999 An 16/91
 5,867,869 A * 2/1999 Garrett et al. 16/252
 6,021,547 A * 2/2000 Stagoll 16/105
 6,058,665 A * 5/2000 Halvorson et al. 52/205
 6,079,169 A * 6/2000 Ashworth 52/217
 6,161,255 A * 12/2000 Garrett 16/284
 6,434,905 B1 * 8/2002 Sprague 52/474
 6,481,055 B2 * 11/2002 Cheng 16/252
 6,519,811 B1 * 2/2003 Cheng 16/252
 6,526,627 B2 * 3/2003 Chiang 16/284
 6,912,818 B2 * 7/2005 Sprague 52/208
 6,925,685 B2 * 8/2005 Chen 16/332
 7,305,796 B2 * 12/2007 Chiang 49/388
 7,380,378 B2 * 6/2008 Clifford et al. 52/204.72
 7,584,588 B2 * 9/2009 Kim 52/800.14
 7,594,302 B2 * 9/2009 Balenzano 16/252
 7,712,258 B2 * 5/2010 Ewing et al. 49/410

7,891,052 B2 * 2/2011 Haab et al. 16/98
 7,963,077 B2 * 6/2011 Lin 52/204.597
 2002/0100234 A1 * 8/2002 Sprague 52/208
 2006/0070318 A1 * 4/2006 Chen et al. 52/204.65
 2008/0092464 A1 * 4/2008 Haab et al. 52/204.7
 2008/0202047 A1 * 8/2008 Flannery 52/205
 2010/0269291 A1 * 10/2010 Haab et al. 16/91
 2013/0111702 A1 * 5/2013 Ewing 16/91
 2013/0219797 A1 * 8/2013 Bonomie et al. 49/399

FOREIGN PATENT DOCUMENTS

DE 9216371 U1 5/1993
 DE 202007014690 U1 4/2009
 EP 649964 A1 10/1994
 EP 2369114 A1 9/2011
 FR 2446911 A3 8/1980
 JP 2000291321 A 10/2000
 JP 2001336340 A 12/2001
 KR 20020011199 A 2/2002
 KR 101022816 B1 3/2011

* cited by examiner



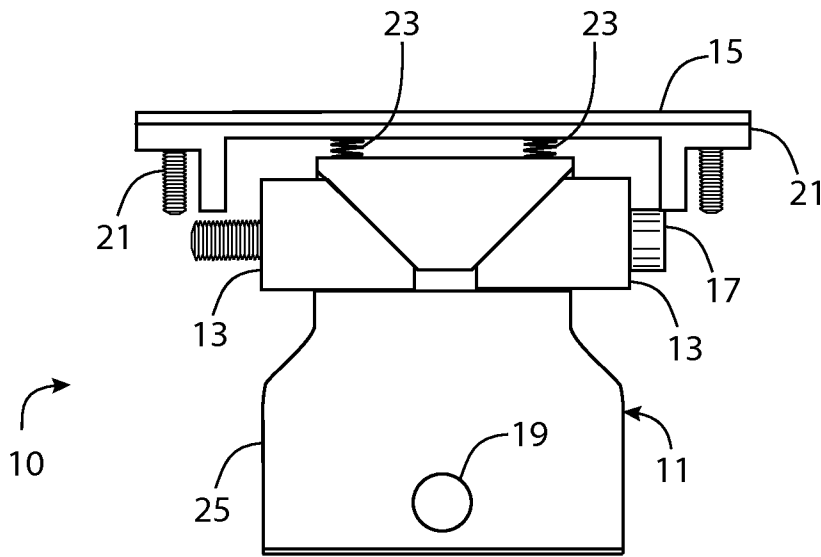


FIG. 3

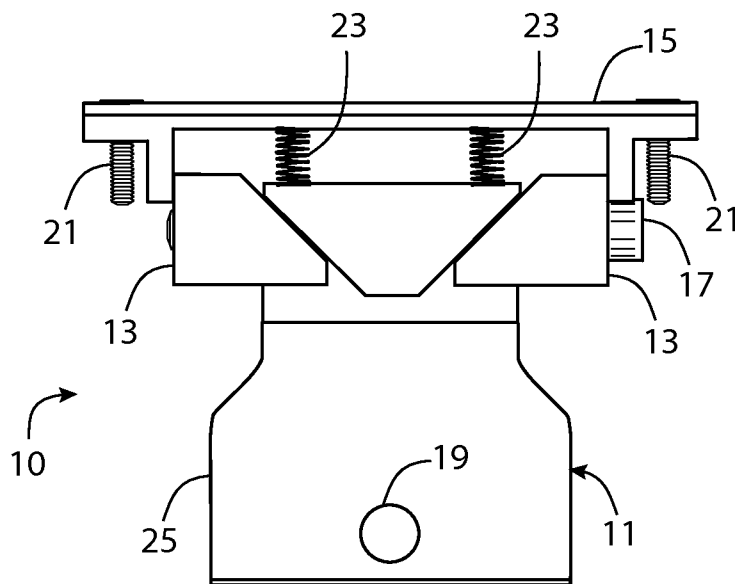


FIG. 4

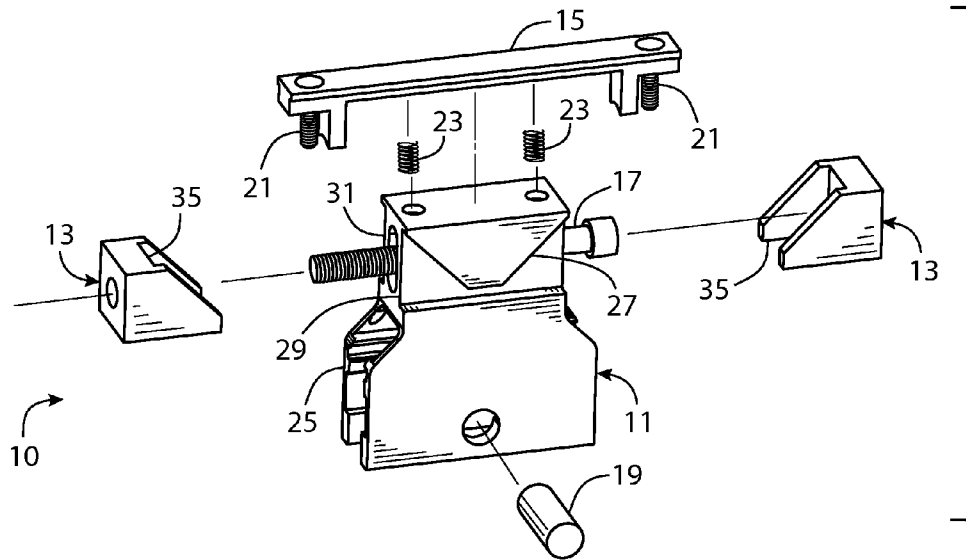


FIG. 5

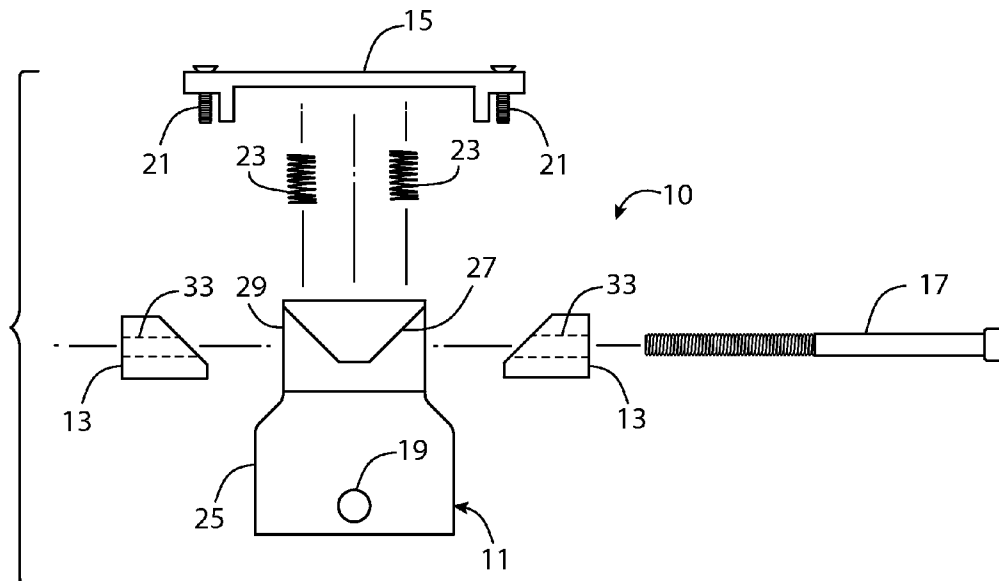


FIG. 6

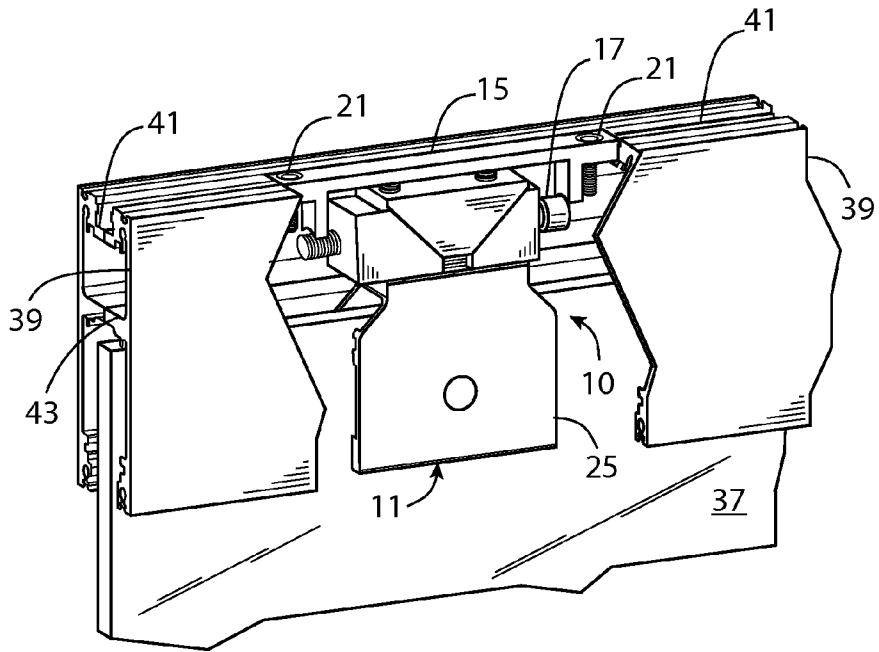


FIG. 7

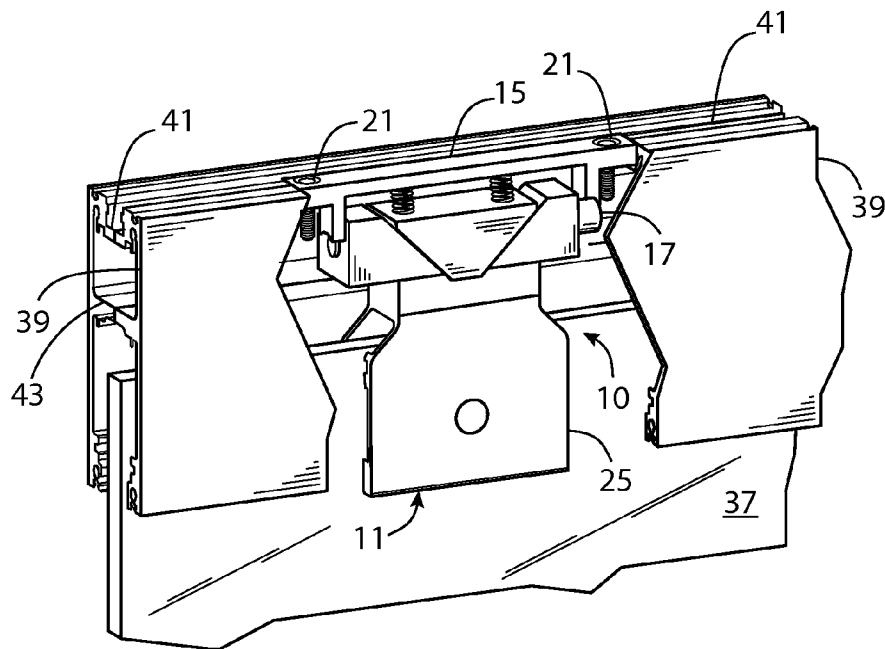
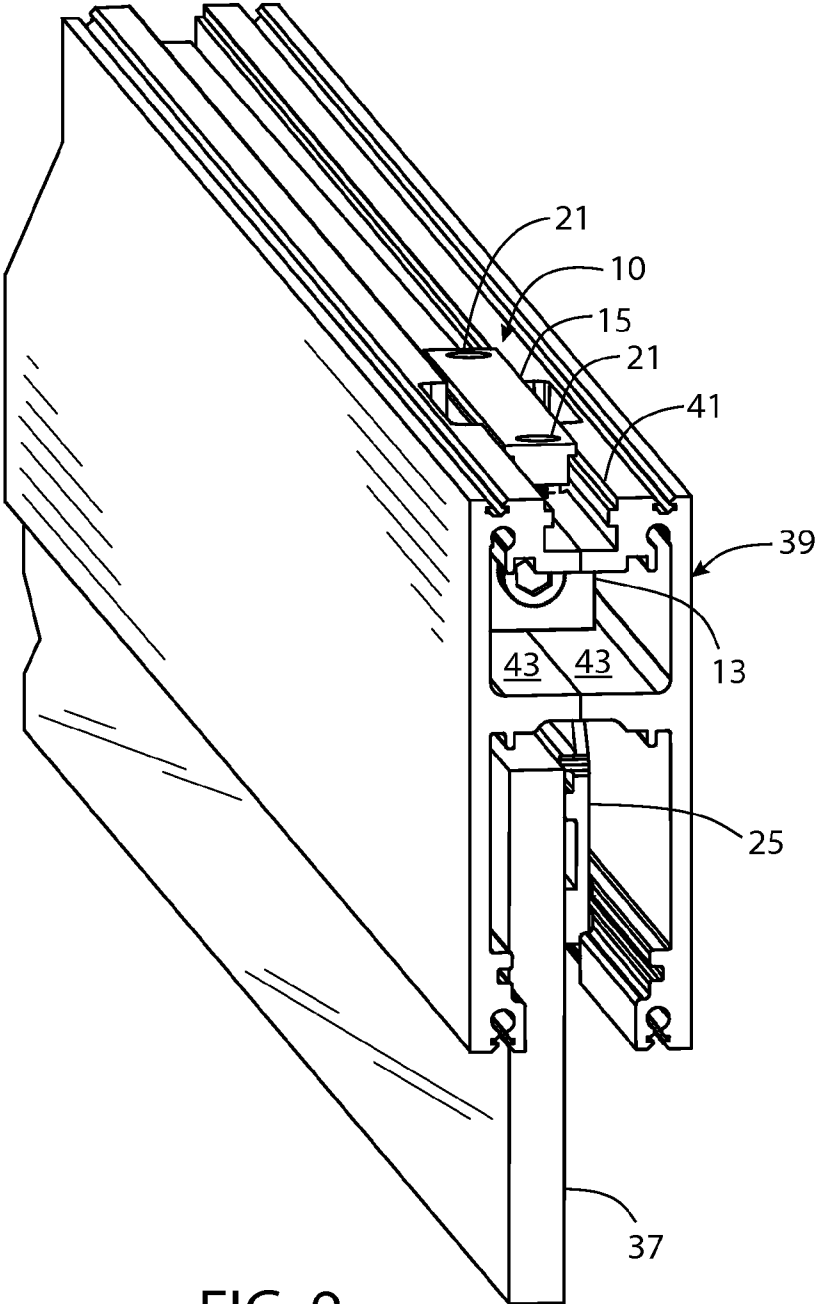


FIG. 8



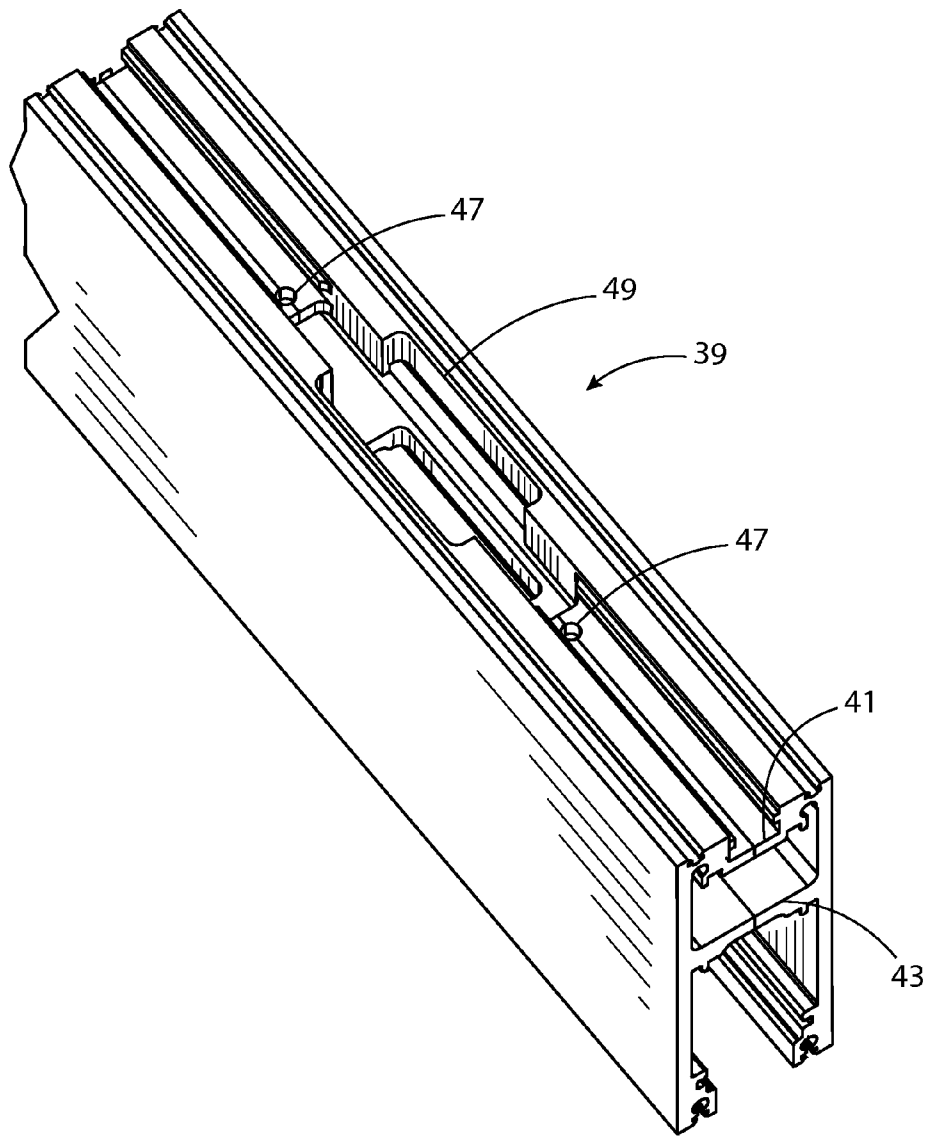


FIG. 10

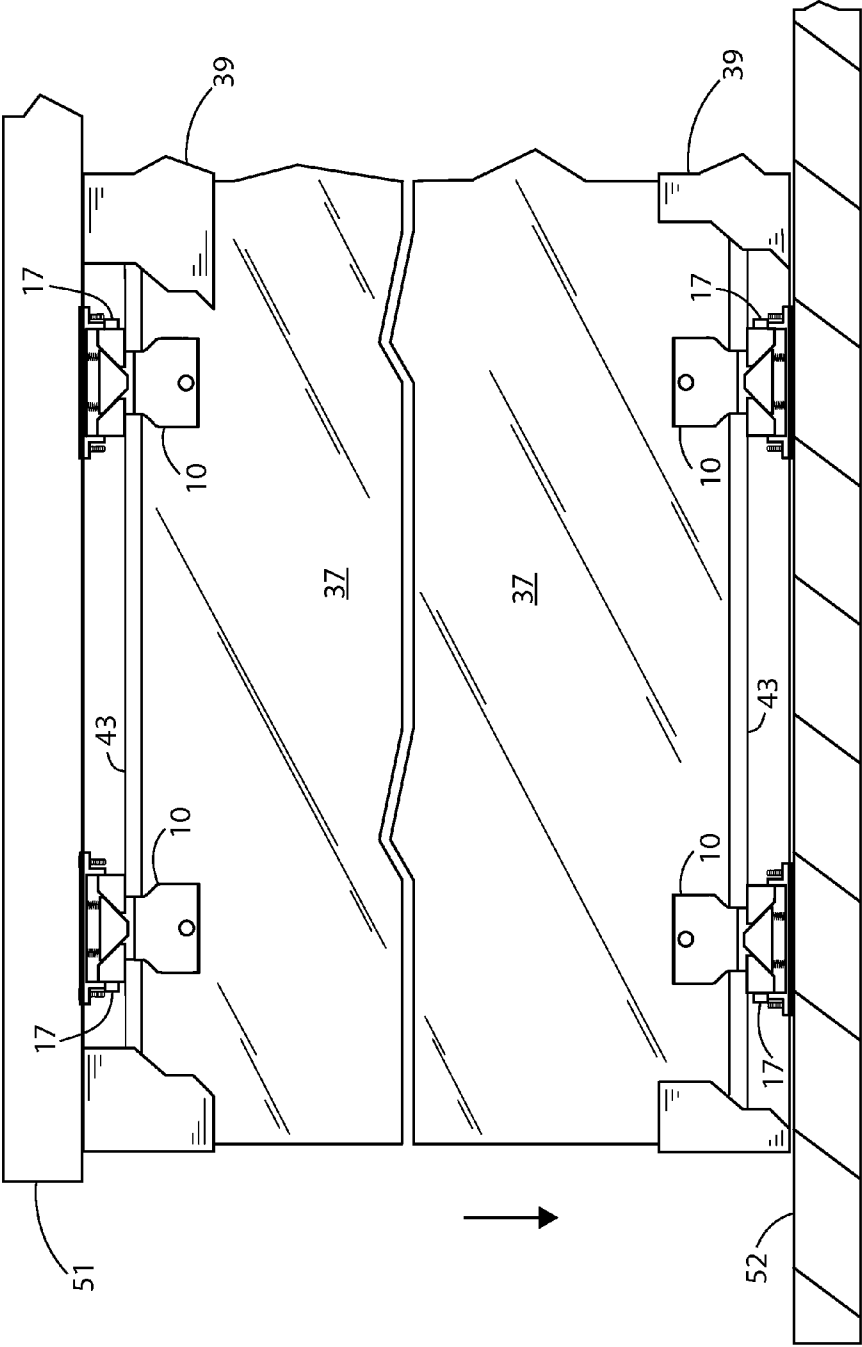


FIG. 11

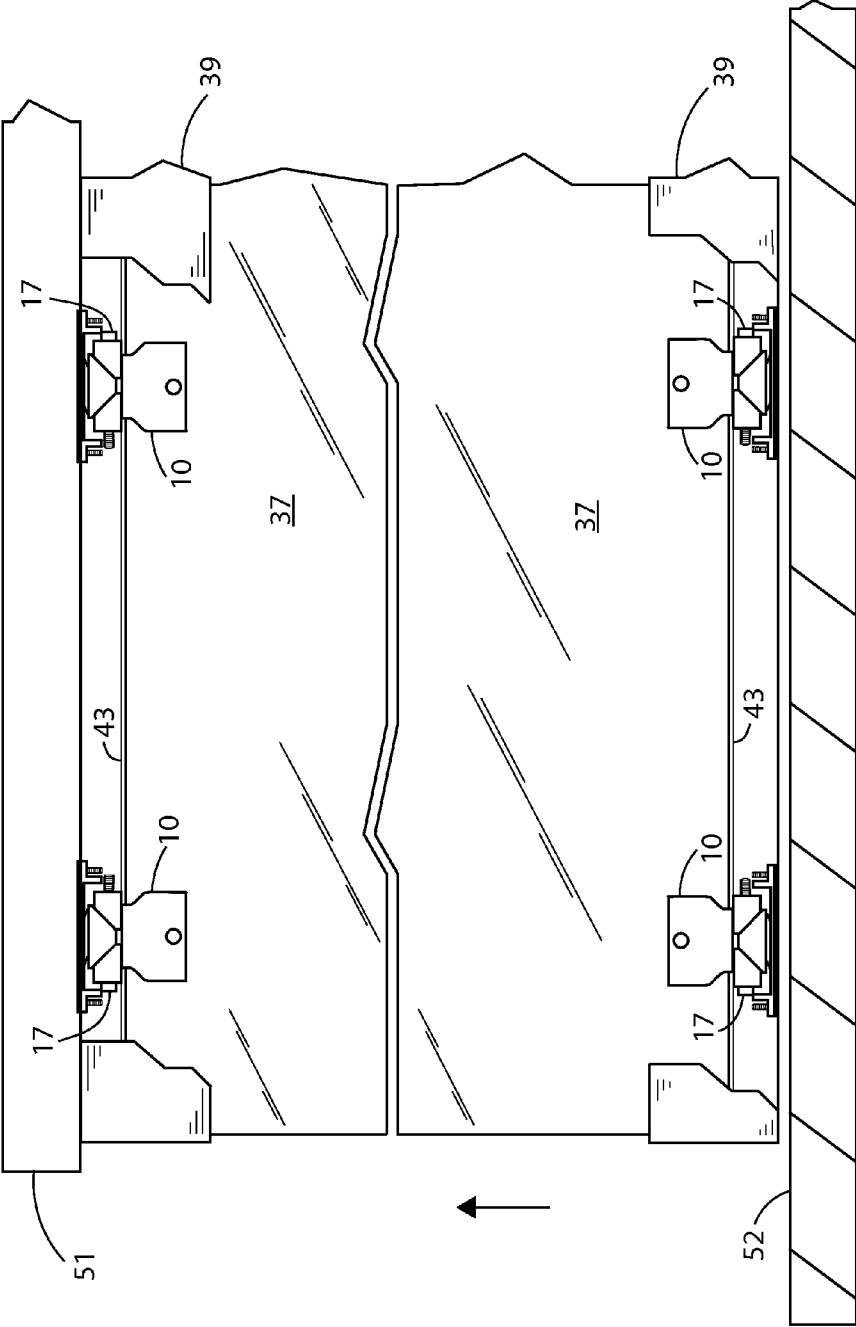


FIG. 12

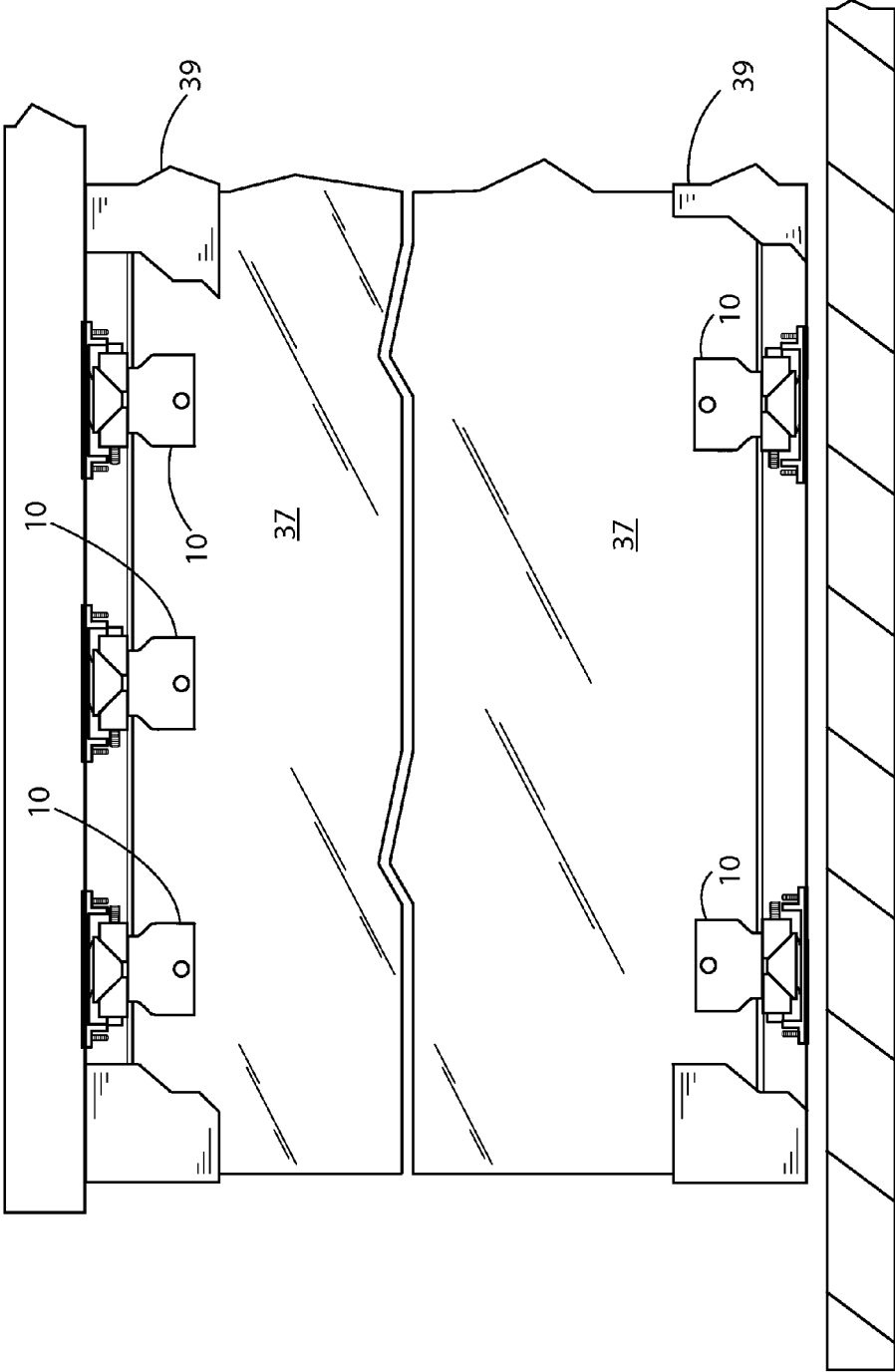


FIG. 13

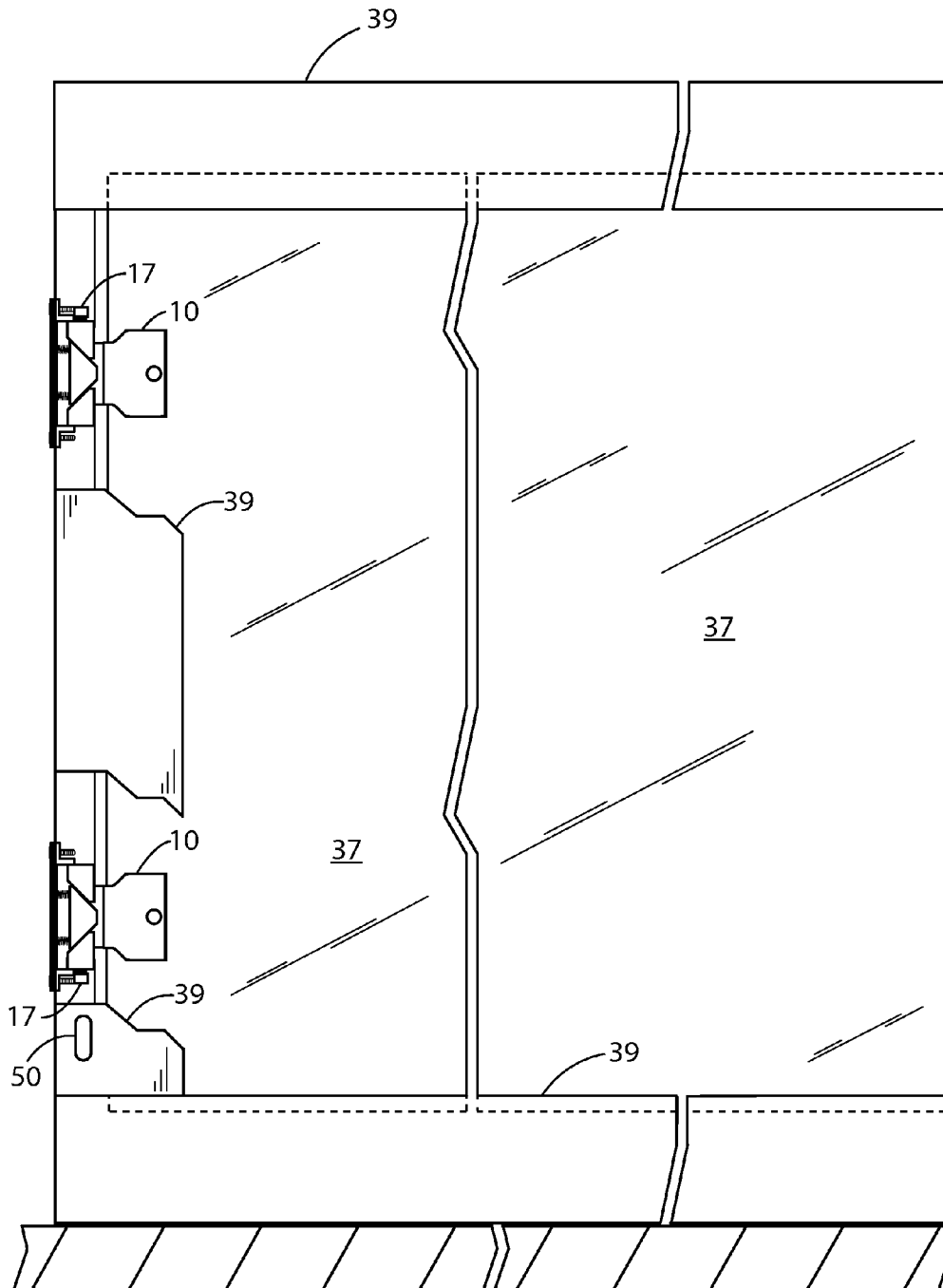


FIG. 14

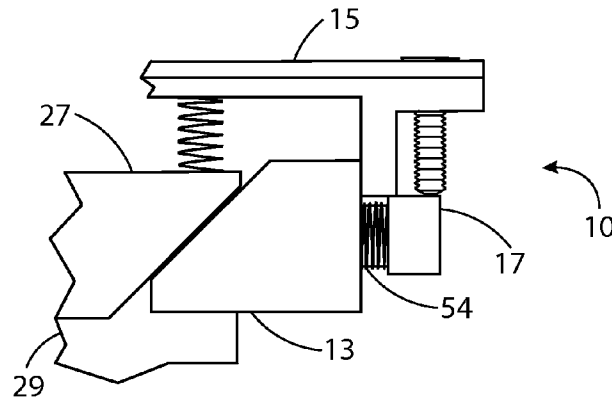


FIG. 15

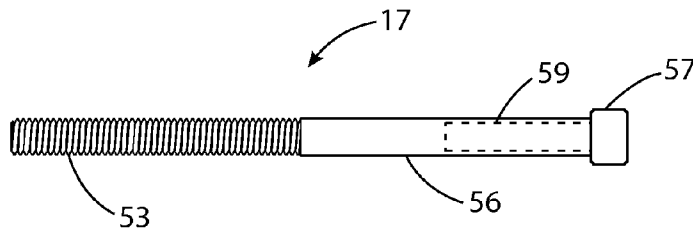


FIG. 16

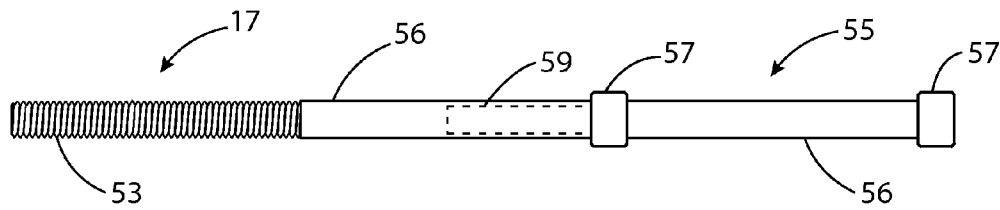


FIG. 17