



US009228387B2

(12) **United States Patent Header**

(10) **Patent No.:** US 9,228,387 B2
(45) **Date of Patent:** Jan. 5, 2016

(54) **DOOR CATCH**

(71) Applicant: **Gregory Header**, Richland, PA (US)

(72) Inventor: **Gregory Header**, Richland, PA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 99 days.

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(22) Filed: **Aug. 6, 2013**

(65) **Prior Publication Data**

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(51) **Int. Cl.**

- E05C 19/00* (2006.01)
- E05F 5/02* (2006.01)
- E05C 19/04* (2006.01)
- E05C 17/46* (2006.01)
- E05C 17/52* (2006.01)
- E05B 15/02* (2006.01)

(52) **U.S. Cl.**

CPC . *E05F 5/02* (2013.01); *E05C 17/46* (2013.01);
E05C 17/52 (2013.01); *E05C 19/04* (2013.01)

(58) **Field of Classification Search**

CPC *E05C 19/04*; *E05C 19/007*; *E05C 17/44*;
E05C 17/46; *E05C 17/48*; *E05C 17/52*;
E05B 17/2011
USPC 292/73, 75, 77, 79, 193, 340, 341.15,
292/341.18, 341.19, 252, DIG. 15, DIG. 19,
292/DIG. 57, DIG. 58
See application file for complete search history.

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Primary Examiner — Alyson M Merlino

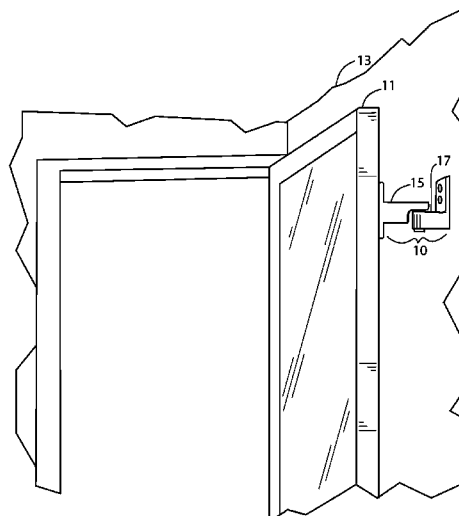
(74) Attorney, Agent, or Firm — Stone Creek Services LLC; Alan M. Flum

(57)

ABSTRACT

Disclosed is a door catch that can help to prevent door sag, especially for heavy or tall residential or commercial doors, and provides for post-installation catch tension adjustment without removal or adjustment of mounting members. In one aspect, the door catch can include a ball catch base, a threaded ball plunger assembly, a catch bumper, and a bumper base. In another aspect, the catch bumper and the bumper base can optionally be combined into a single catch bar bracket. The ball plunger assembly is adjustably mounted within a threaded aperture of ball catch base. A ball captive in one end of the ball plunger assembly engages a detent in the catch bumper, or catch bar bracket, providing friction to hold the door open. The position of the ball plunger assembly can be adjusted vertically to increase or decrease the tension between the detent and the ball plunger assembly.

4 Claims, 17 Drawing Sheets



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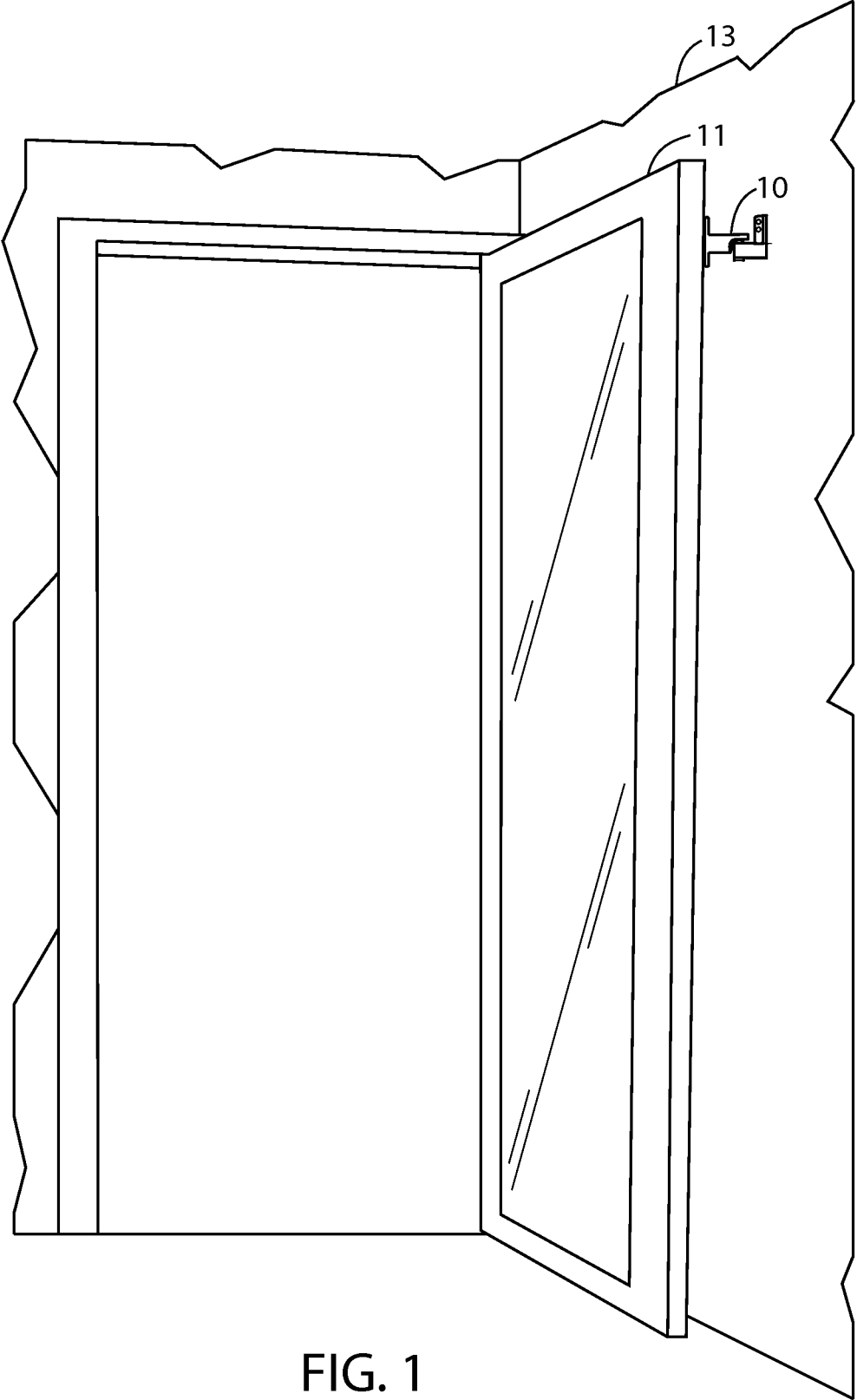


FIG. 1

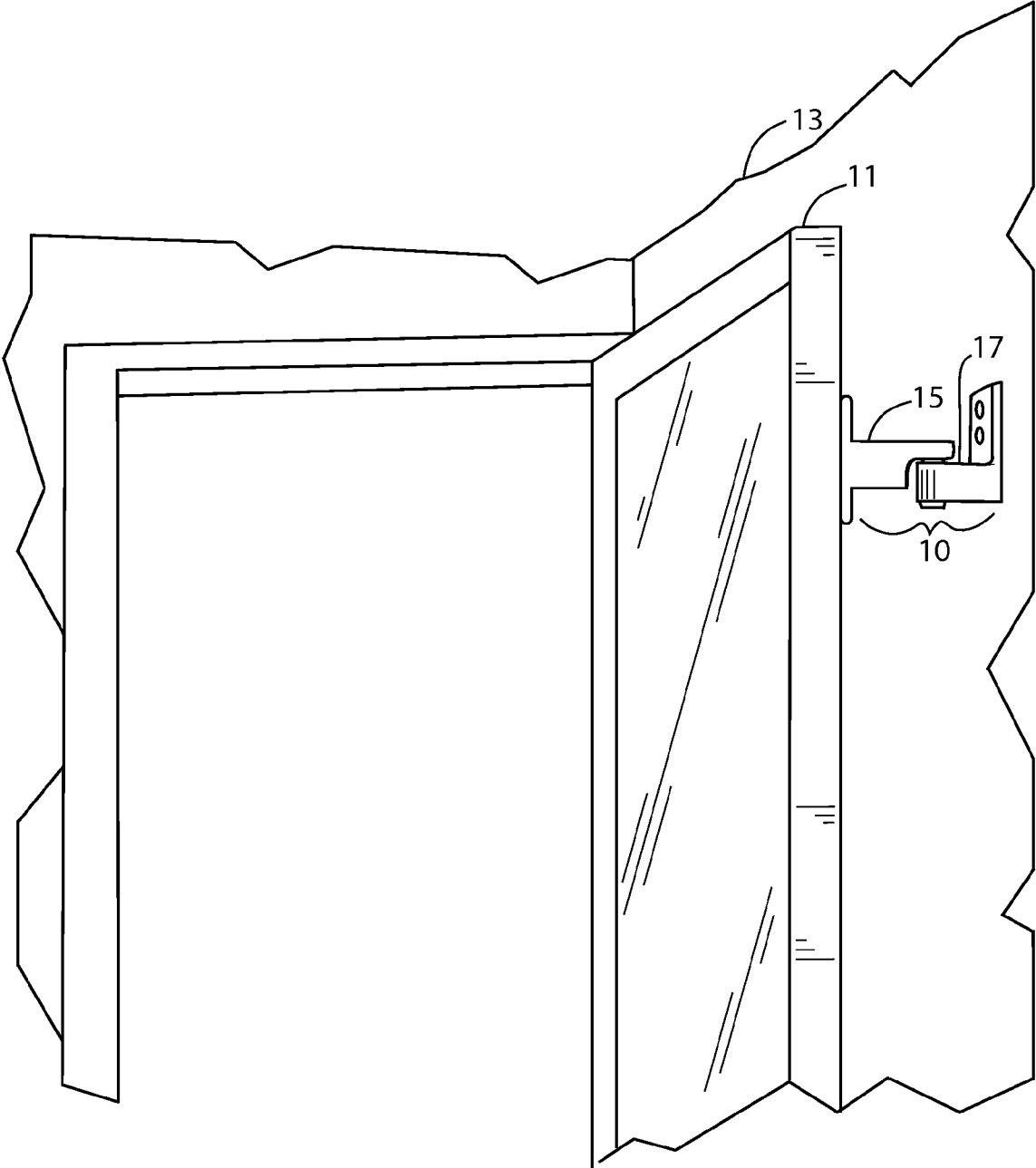


FIG. 2

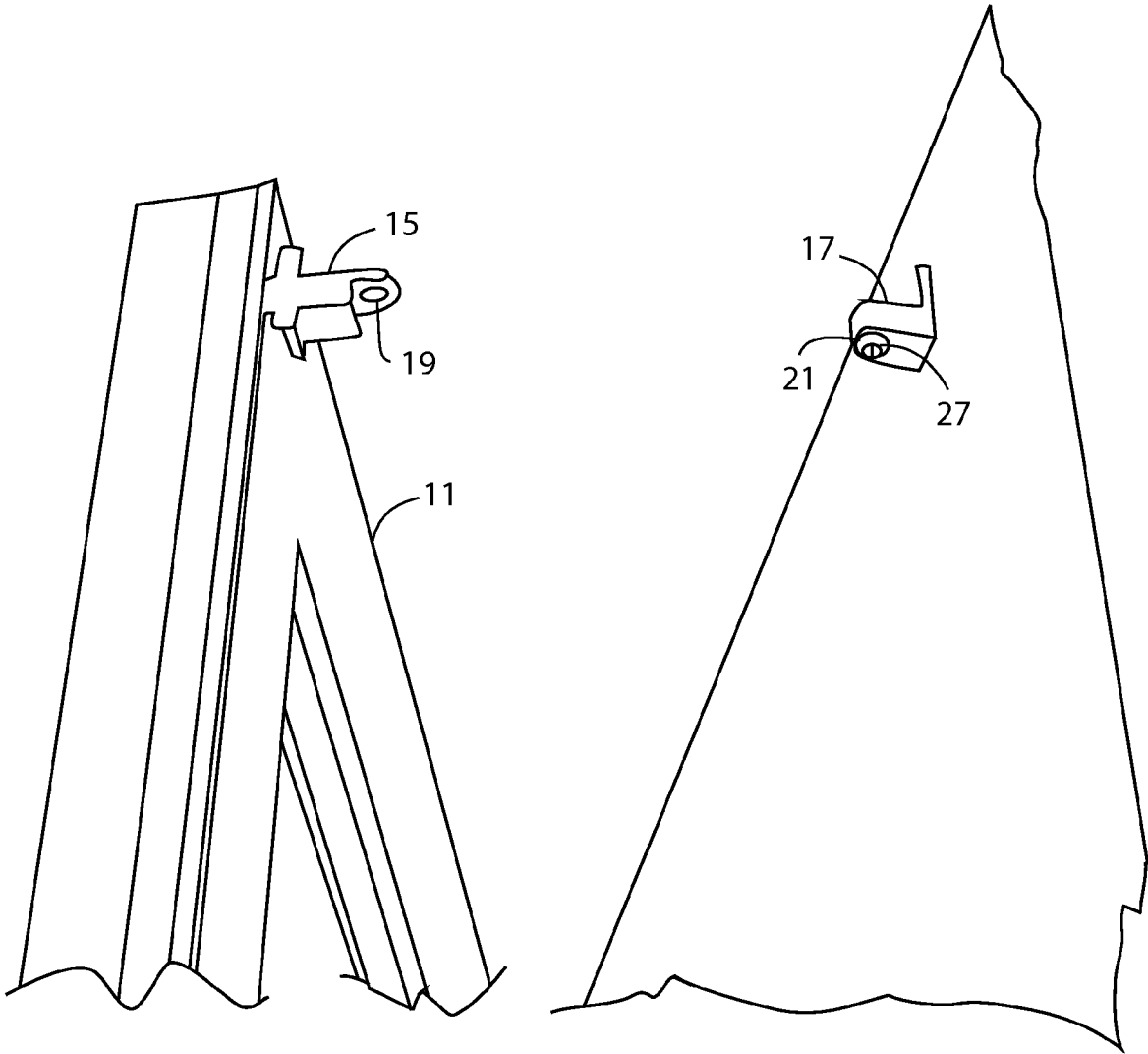


FIG. 3

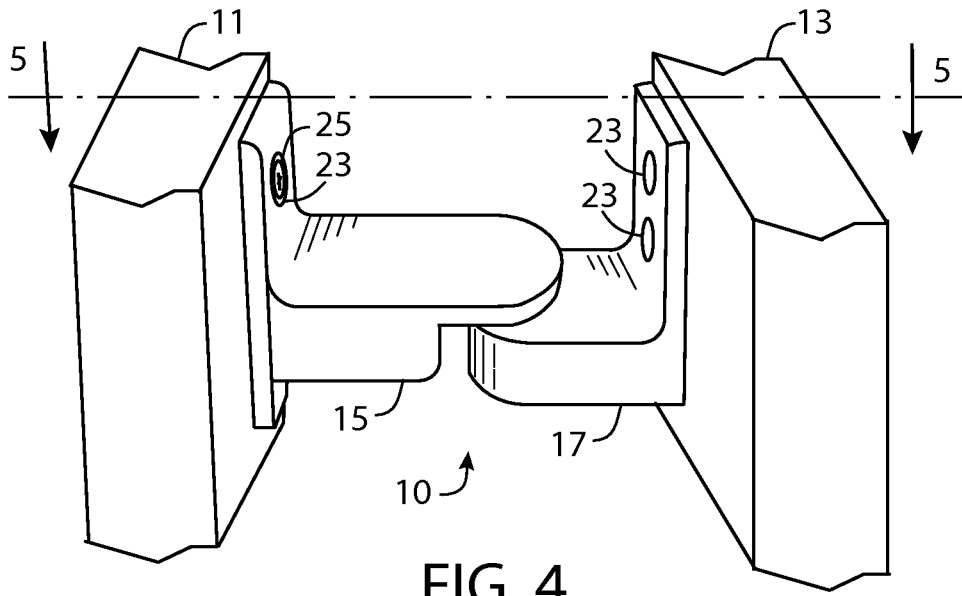


FIG. 4

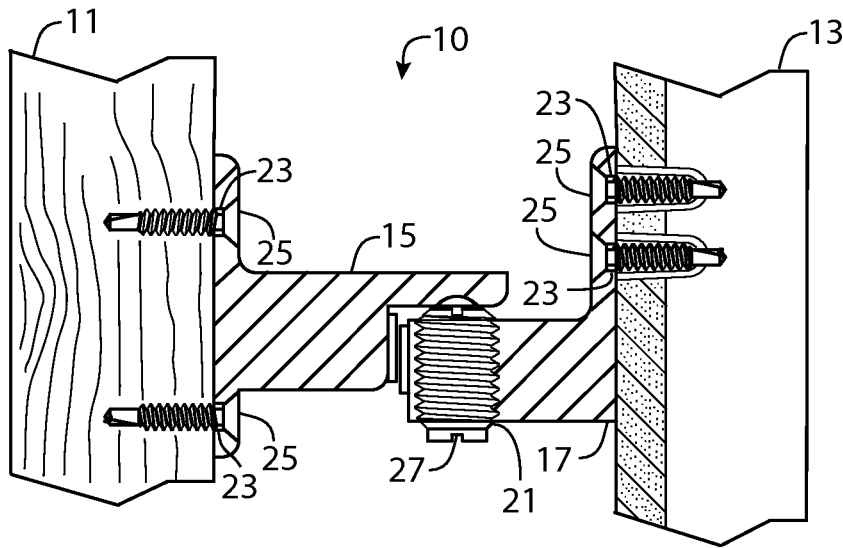


FIG. 5

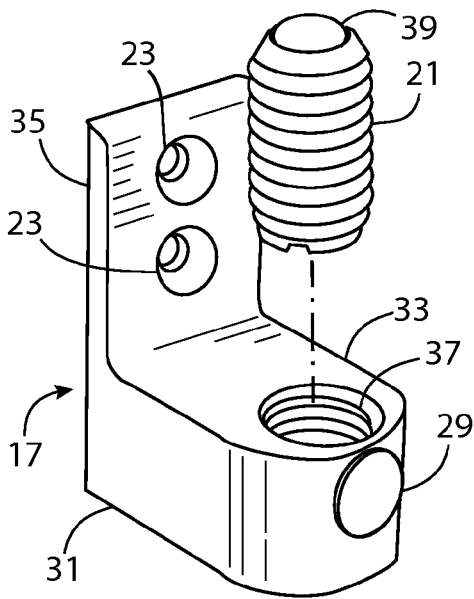


FIG. 6

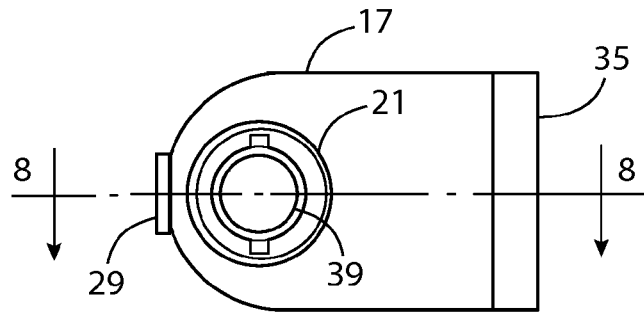


FIG. 7

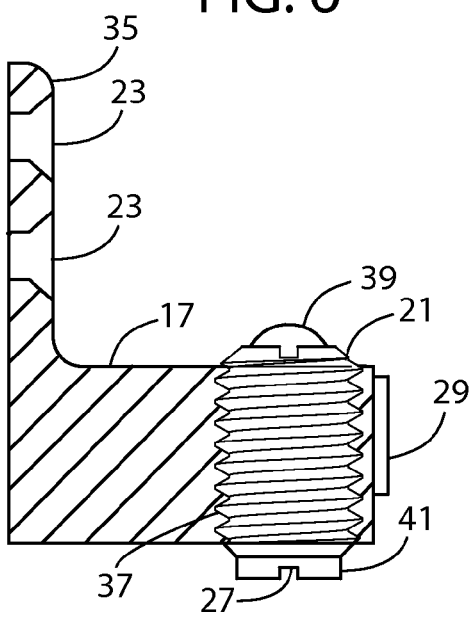


FIG. 8

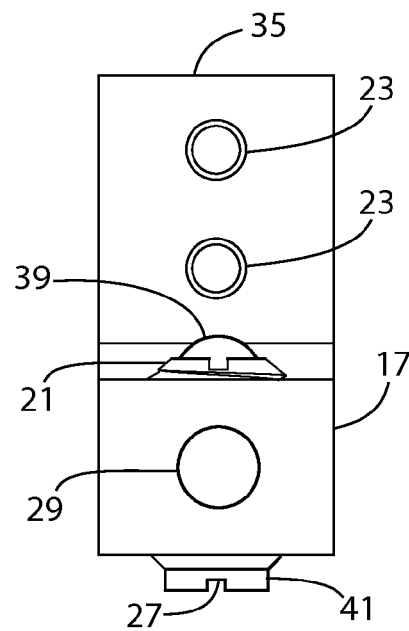


FIG. 9

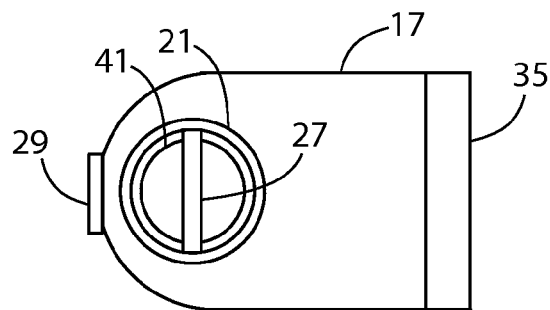


FIG. 10

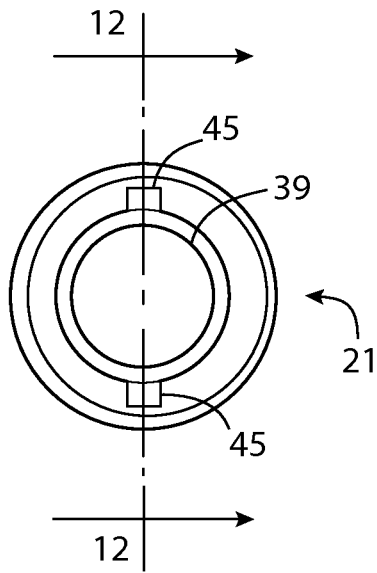


FIG. 11

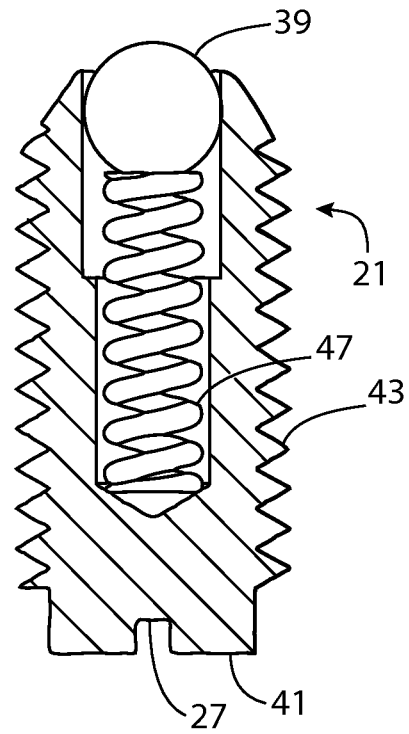


FIG. 12

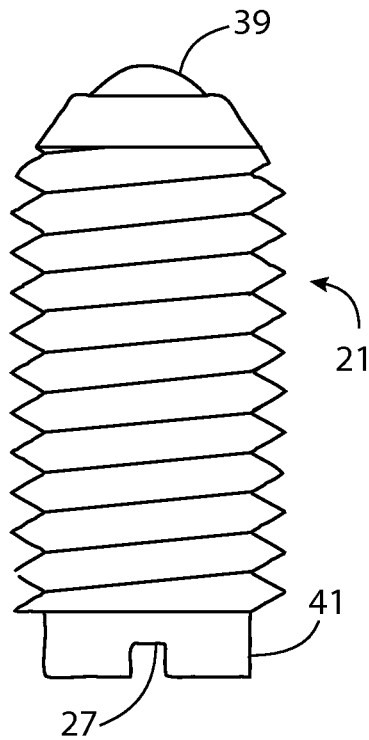


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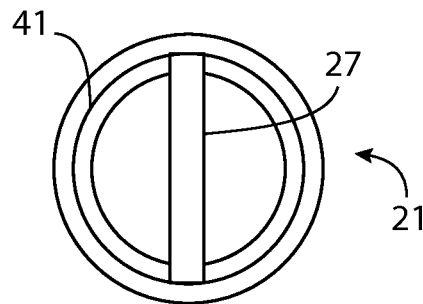


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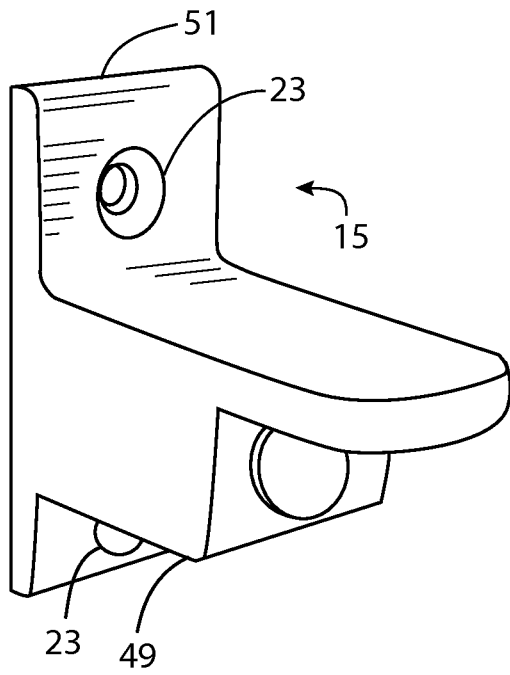


FIG. 15

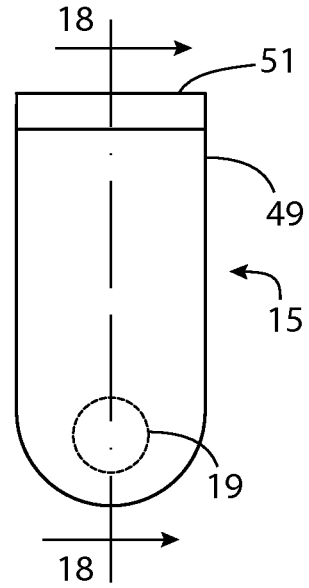


FIG. 17

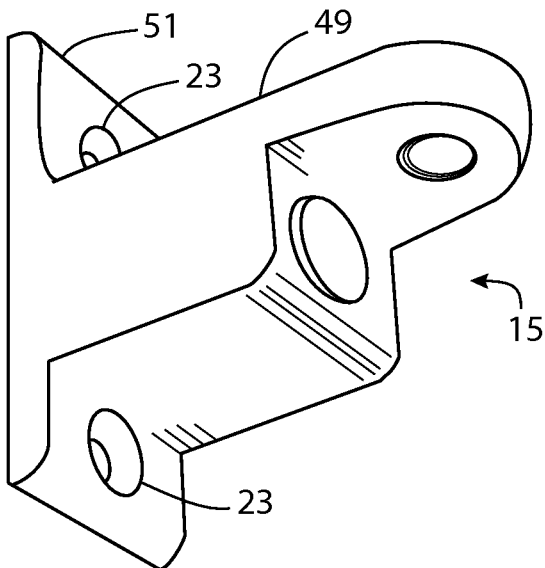


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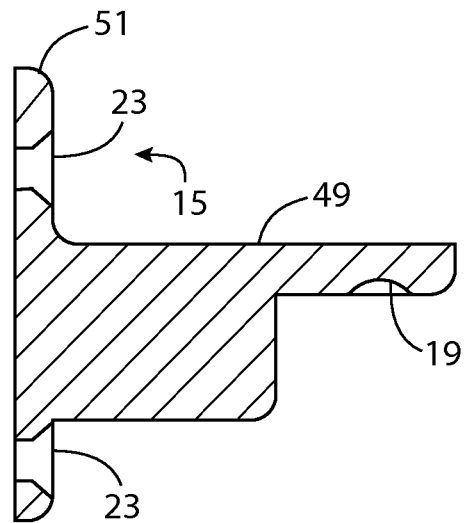


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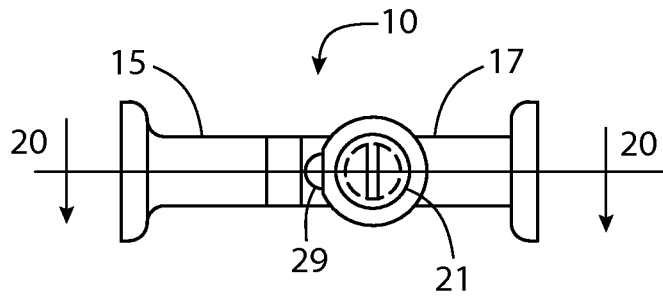


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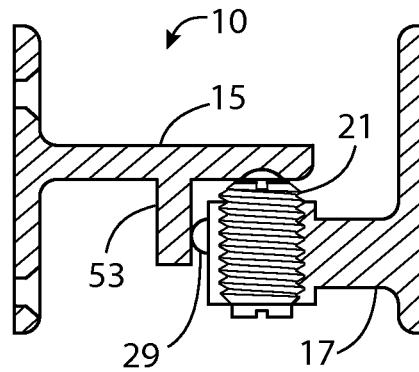


FIG. 20

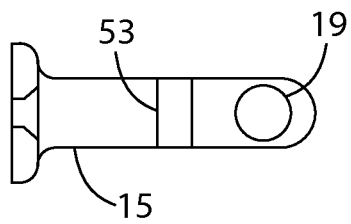


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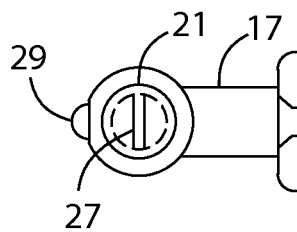


FIG. 22

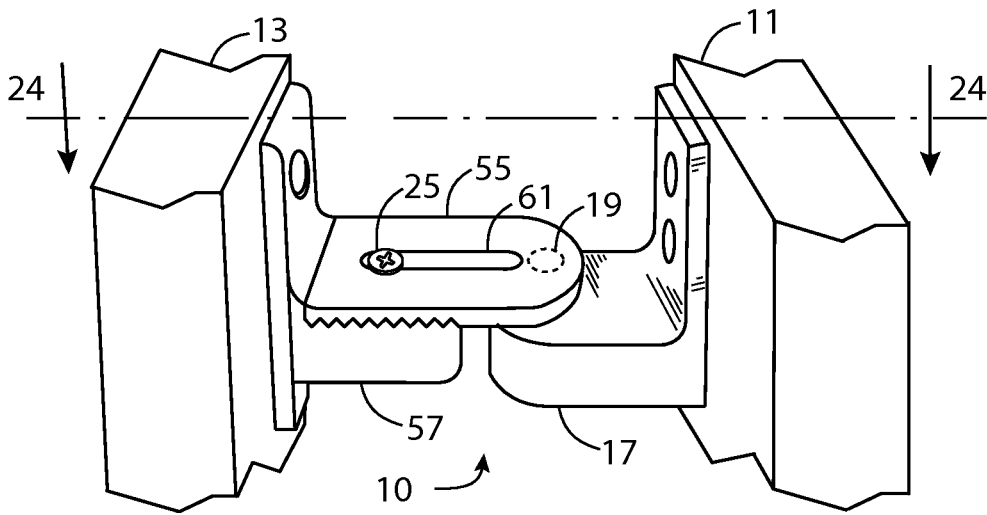


FIG. 23

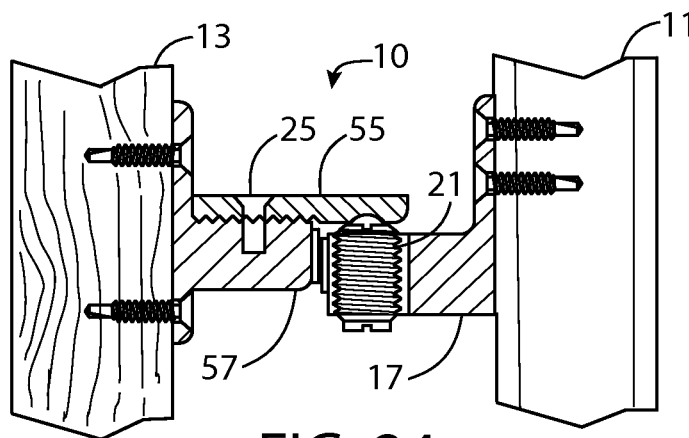


FIG. 24

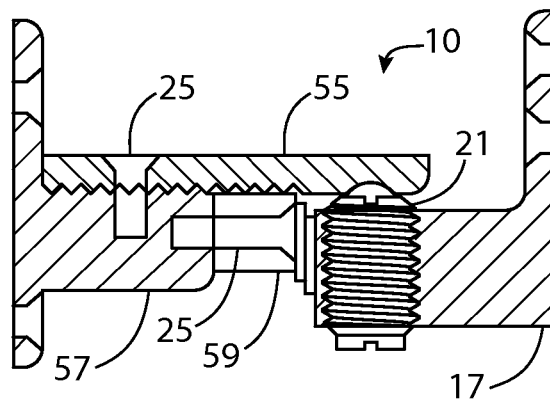


FIG. 25

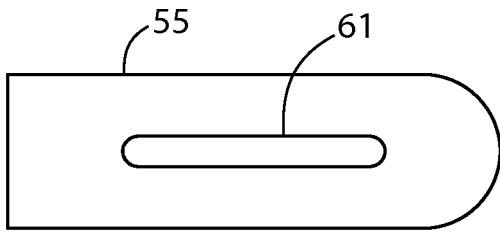


FIG. 26

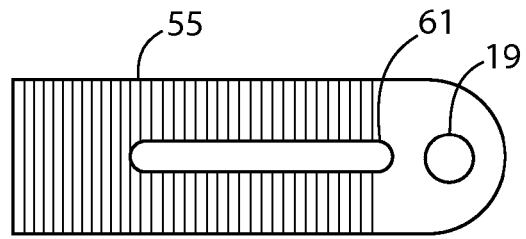


FIG. 27

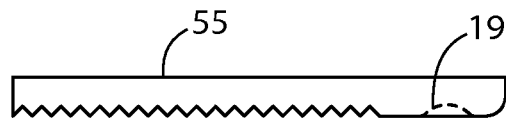


FIG. 28

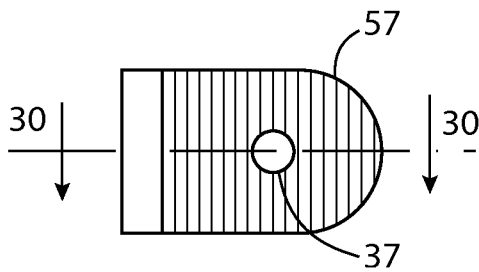


FIG. 29

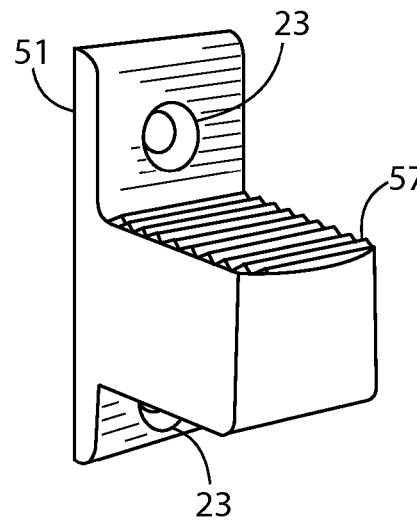


FIG. 31

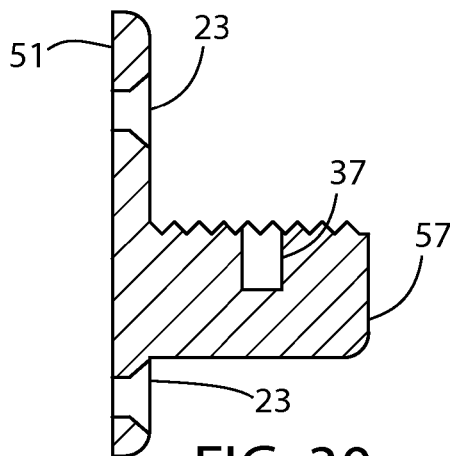
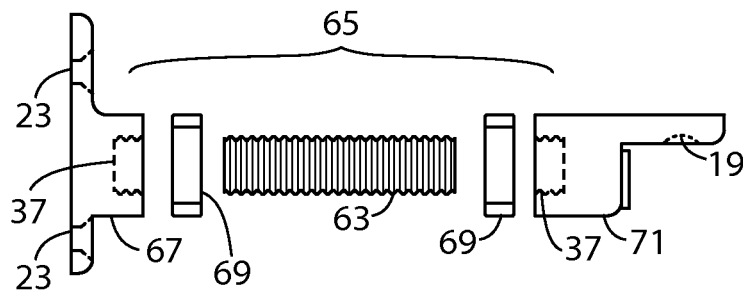
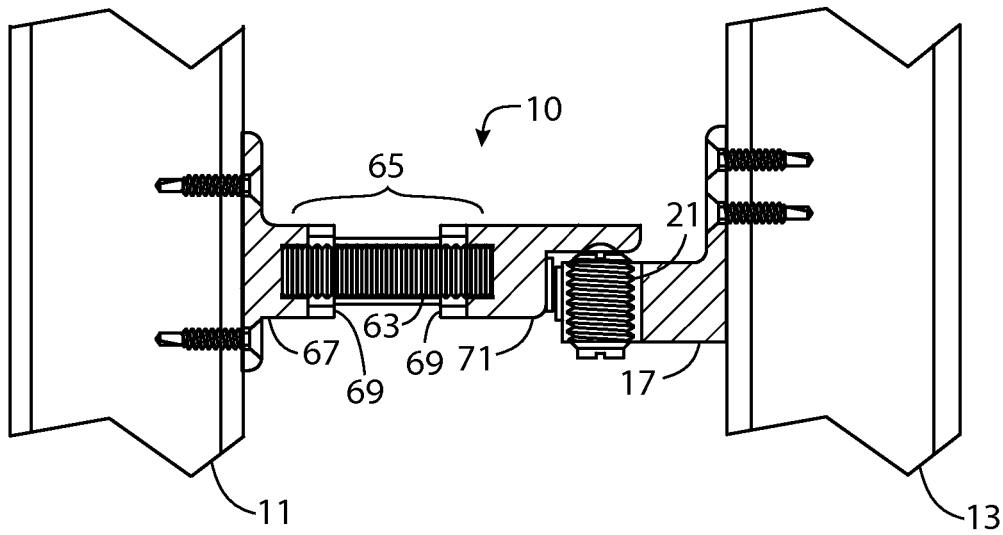
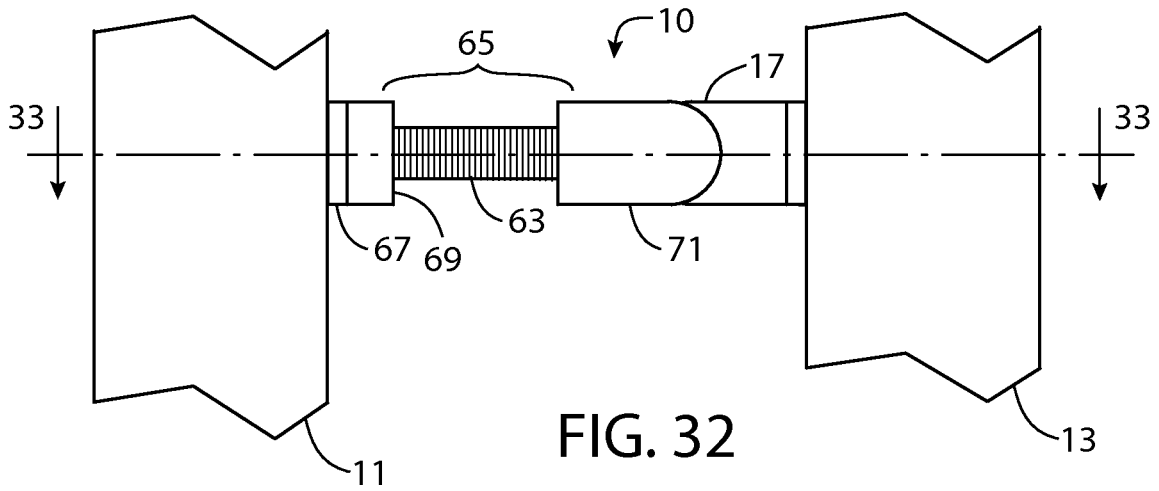


FIG. 30



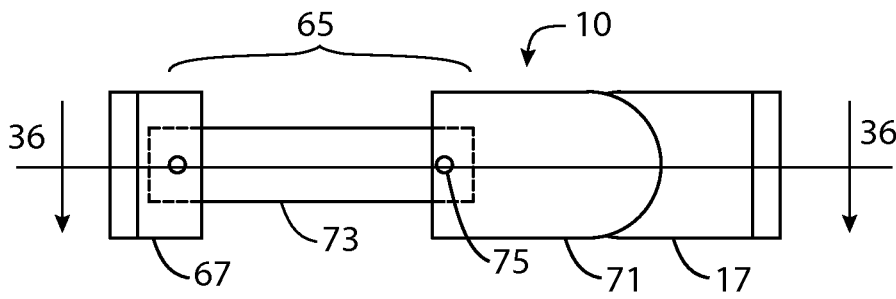


FIG. 35

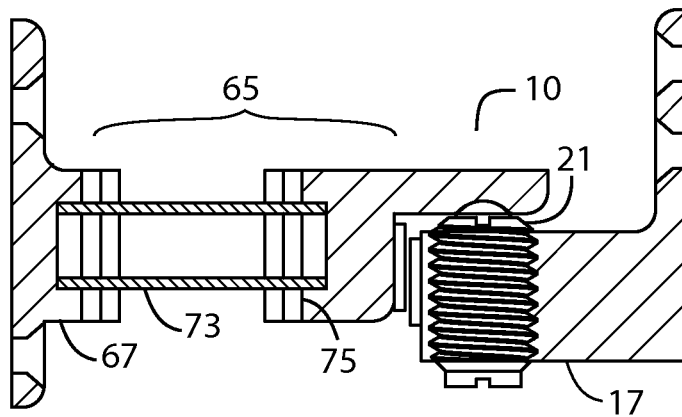


FIG. 36

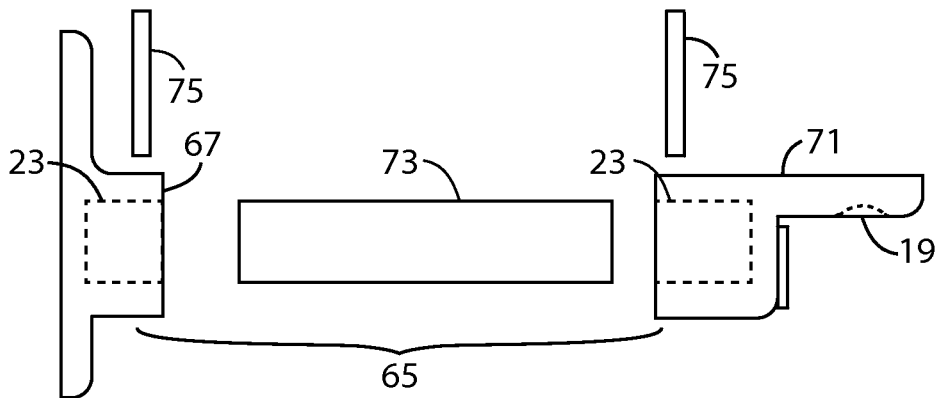


FIG. 37

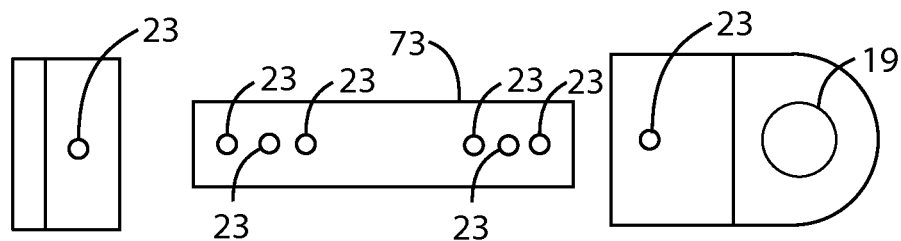


FIG. 38

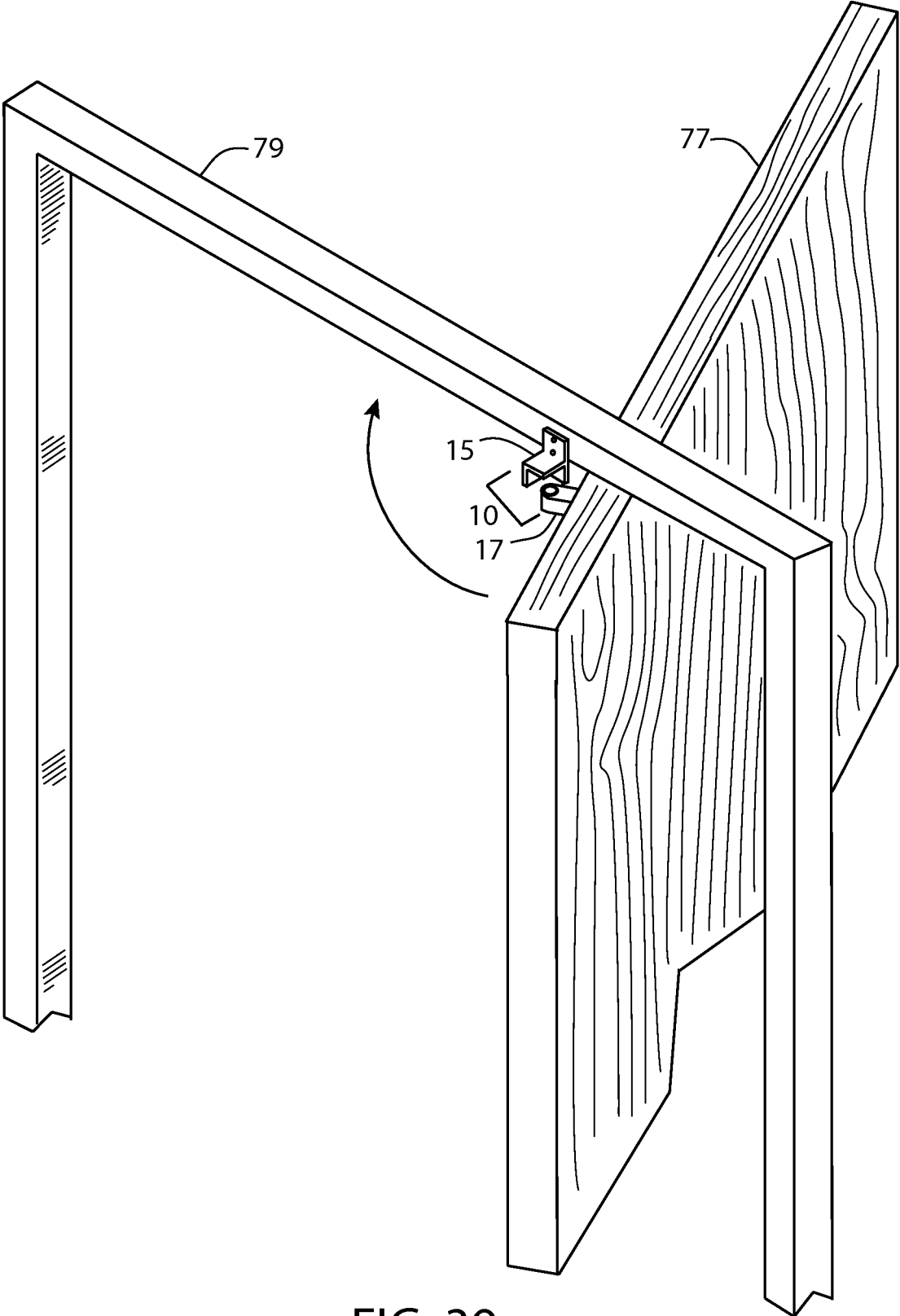


FIG. 39

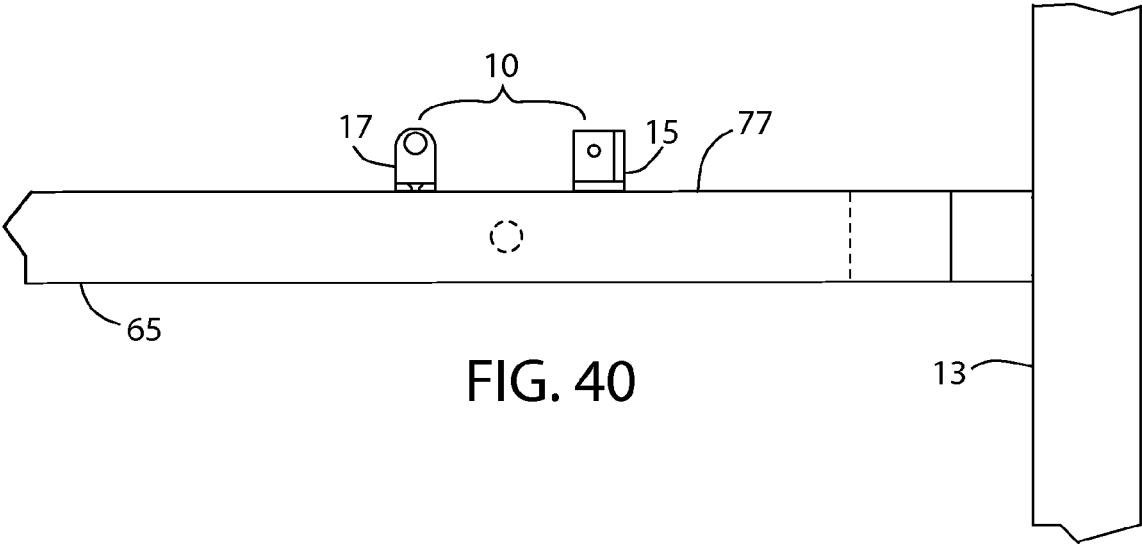


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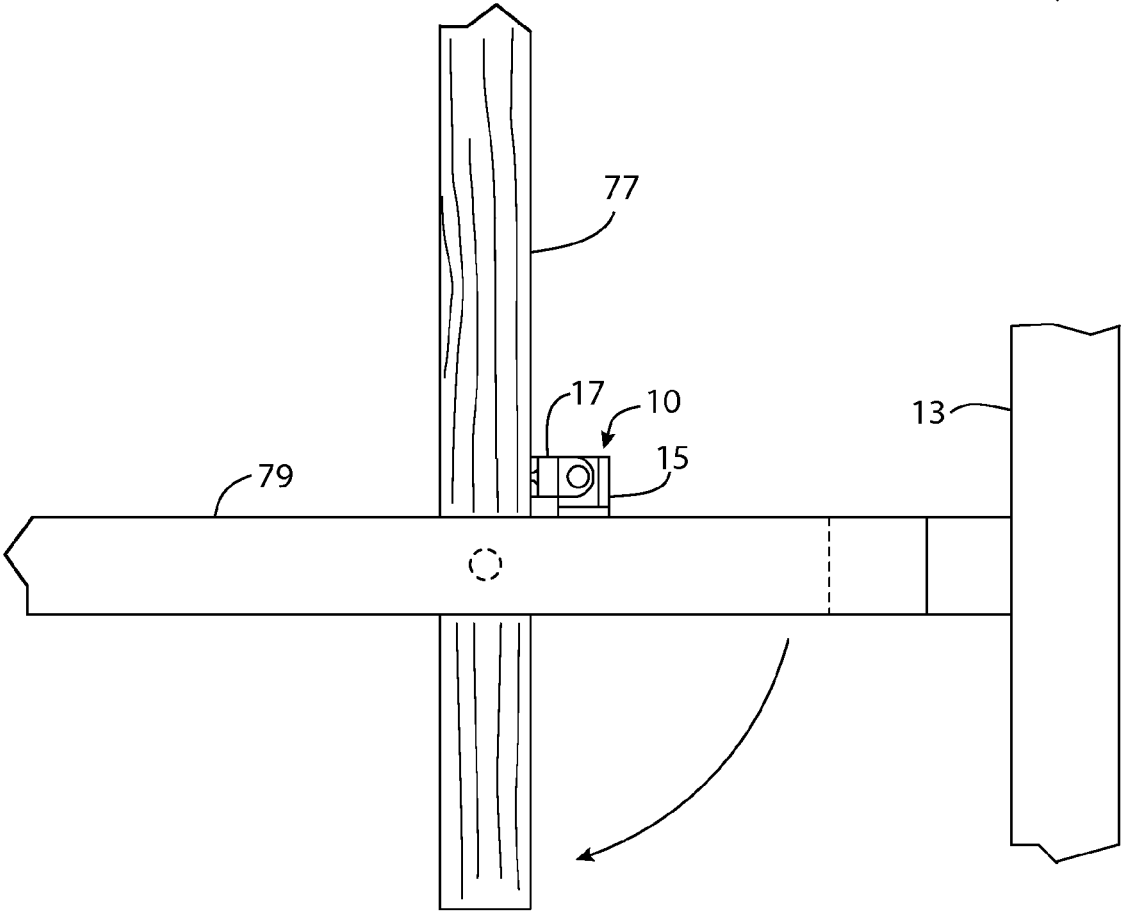


FIG. 41

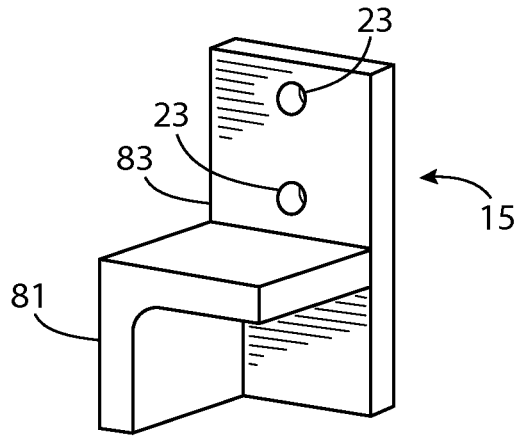


FIG. 42

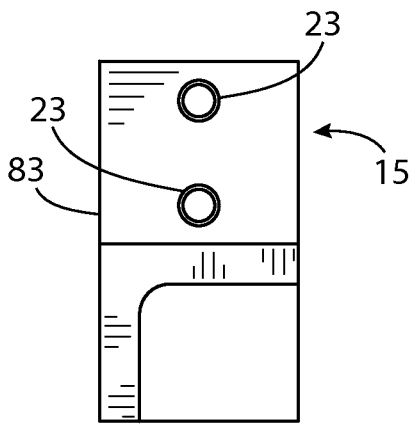


FIG. 43

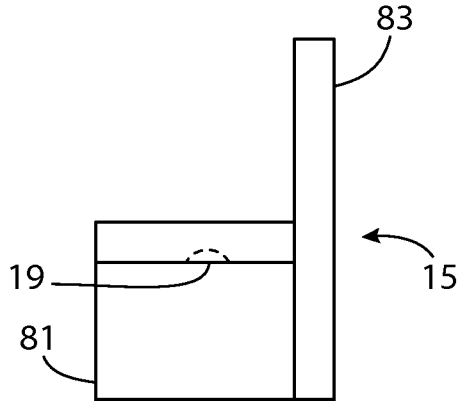


FIG. 44

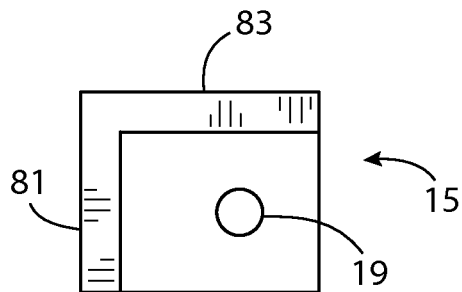


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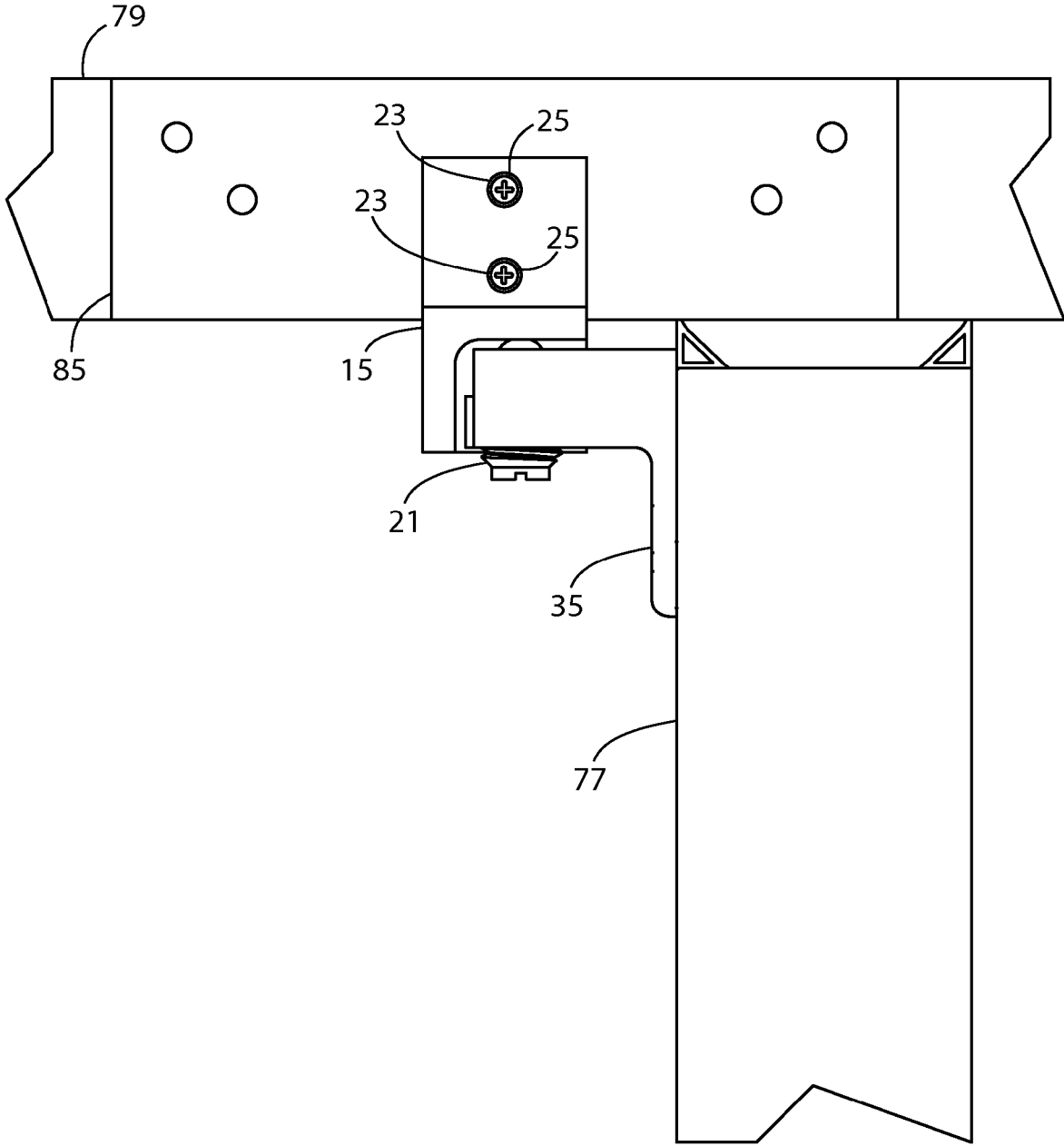


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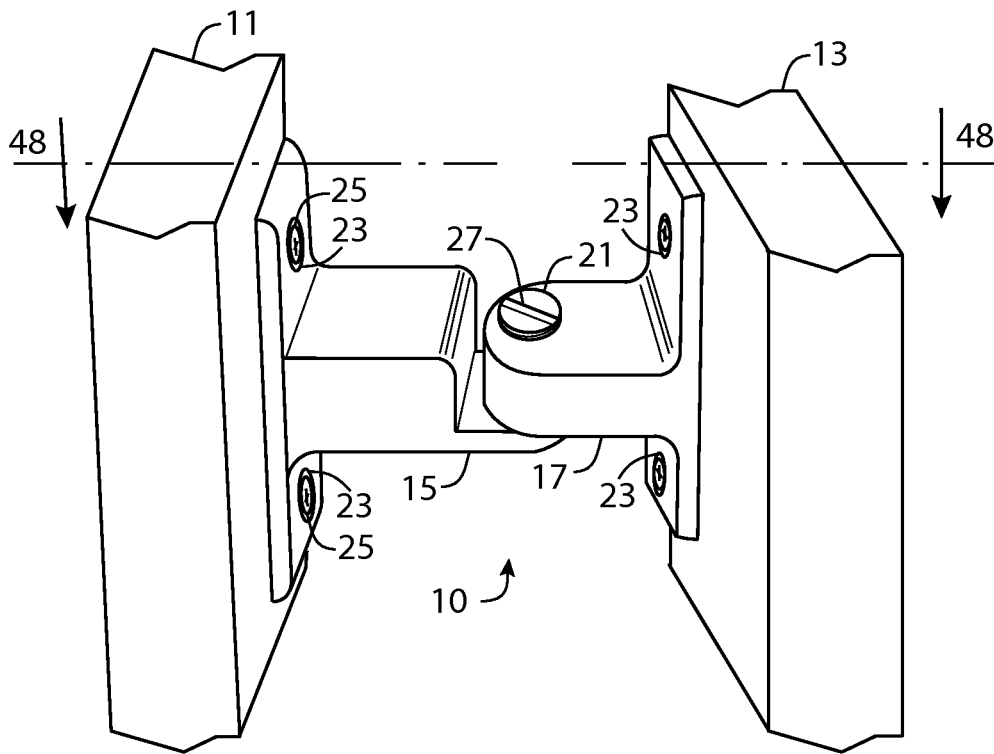


FIG. 47

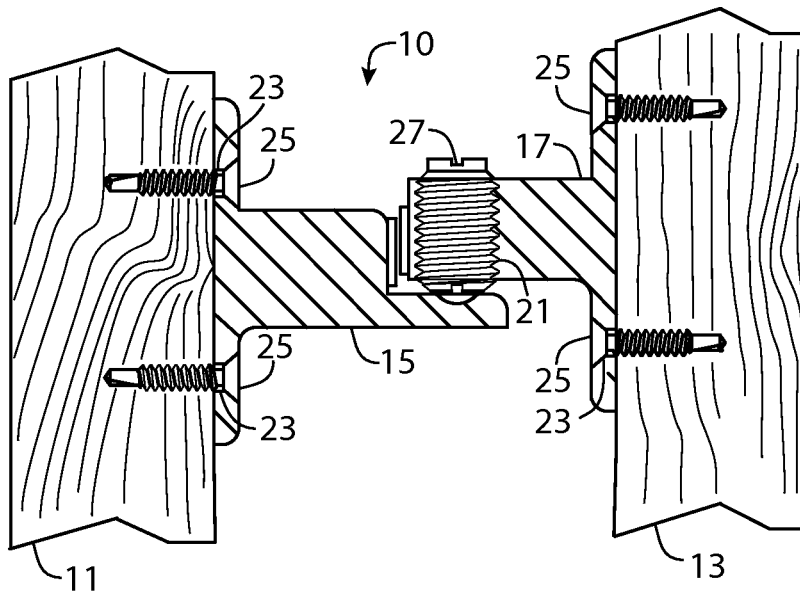


FIG. 48