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(12) **United States Patent Header**

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(54) **INTEGRATED DOOR OPERATOR HARDWARE WITH RECESSED HANDLE**

USPC 292/5-7, 11, 32, 34, 40, 63, 66, 336.3, 292/347, 348, DIG. 46, DIG. 63; 70/95, 96, 70/97, 98, 99, 100, 103, 113, 114, 224
See application file for complete search history.

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

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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Related U.S. Application Data

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(Continued)

(51) **Int. Cl.**
E05B 1/00 (2006.01)
E05B 15/00 (2006.01)

(Continued)

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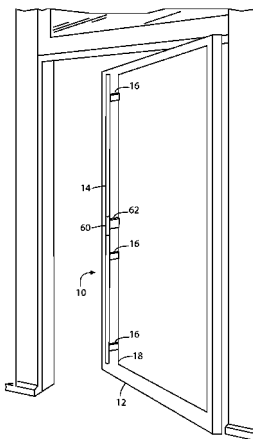
(52) **U.S. Cl.**
CPC . **E05B 1/00** (2013.01); **E05B 1/003** (2013.01);
E05B 1/0015 (2013.01); **E05B 3/00** (2013.01);
(Continued)

(57) **ABSTRACT**

(58) **Field of Classification Search**
CPC E05B 1/00; E05B 3/00; E05B 1/0015;
E05B 65/0811; E05B 63/246; E05B 1/003;
E05B 15/00; E05B 65/1006; E05C 9/04;
E05C 9/1875; E05C 1/16; Y10T 70/5195;
Y10T 70/5177; Y10T 292/0834; Y10T
70/5832; Y10T 70/5173; Y10T 70/5248;
Y10T 70/5208; Y10T 70/5159; Y10T 292/82;
Y10T 70/519; Y10T 292/46; Y10T 292/63;
Y10T 292/57; Y10T 292/1043; Y10T
292/7486; Y10T 16/458; Y10T 16/498;
Y10T 292/0803

Disclosed in one aspect is the fixed door pull handle assembly that includes an elongated door pull handle with two or more support standoffs projecting away from the elongated door pull handle and securing the elongated door pull handle to the doorframe or to the body of the door. One of the support standoffs is user rotatable, and rotatably engages a door latch assembly within the door. In another aspect, the support standoff is not user rotatable. Instead, a center-pivoting handle is mounted in-line with one of the support standoffs and rotatably engages the door latch assembly within the door. The center-pivoting handle is recessed within the elongated handle.

9 Claims, 14 Drawing Sheets



- (51) **Int. Cl.**
E05B 63/24 (2006.01)
E05B 65/08 (2006.01)
E05C 9/04 (2006.01)
E05C 9/18 (2006.01)
E05B 3/00 (2006.01)

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 CPC *E05B 15/00* (2013.01); *E05B 63/246* (2013.01); *E05B 65/0811* (2013.01); *E05C 9/04* (2013.01); *E05C 9/1875* (2013.01); *Y10S 292/46* (2013.01); *Y10S 292/63* (2013.01); *Y10T 70/519* (2015.04); *Y10T 70/5159* (2015.04); *Y10T 70/5173* (2015.04); *Y10T 70/5177* (2015.04); *Y10T 70/5195* (2015.04); *Y10T 70/5208* (2015.04); *Y10T 70/5248* (2015.04); *Y10T 70/5832* (2015.04); *Y10T 70/7486* (2015.04); *Y10T 292/0803* (2015.04); *Y10T 292/0834* (2015.04); *Y10T 292/1043* (2015.04); *Y10T 292/57* (2015.04); *Y10T 292/82* (2015.04)

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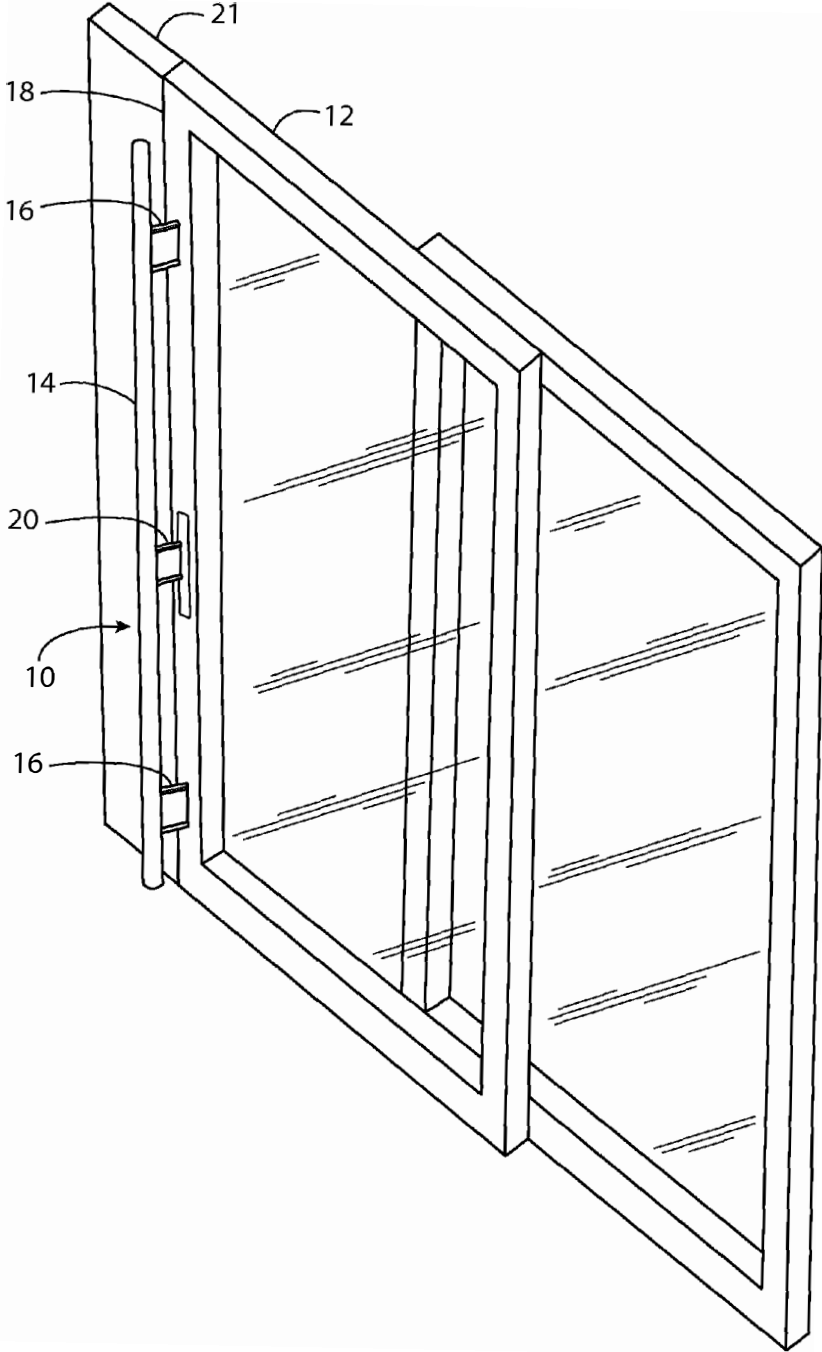


FIG. 1

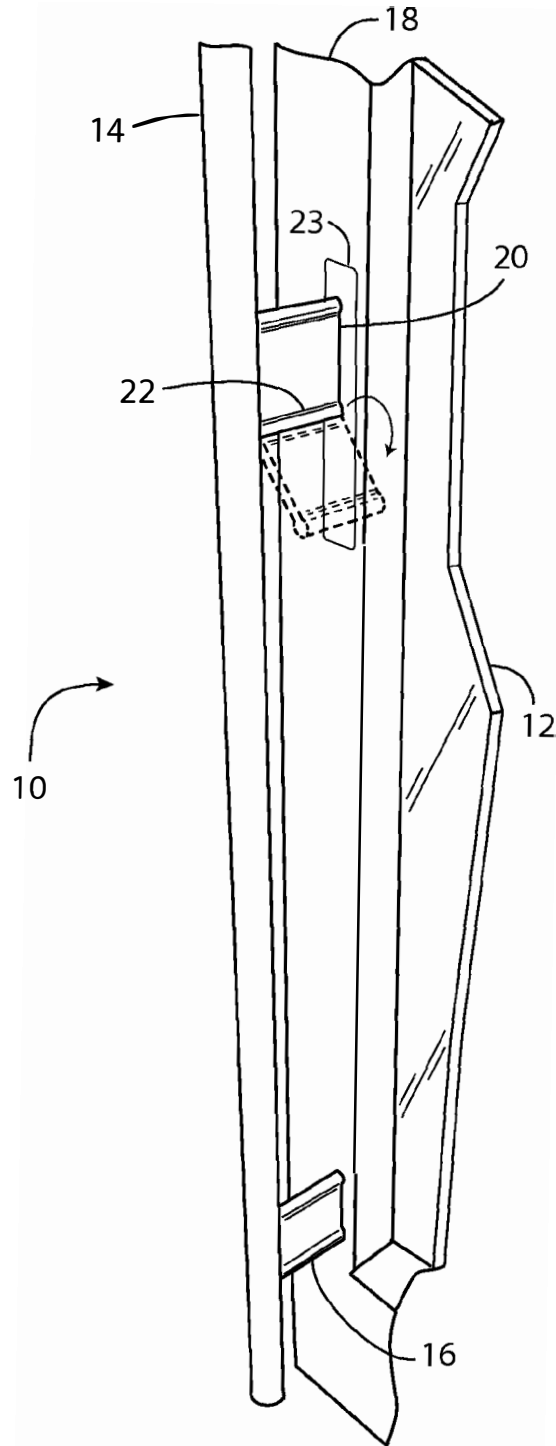
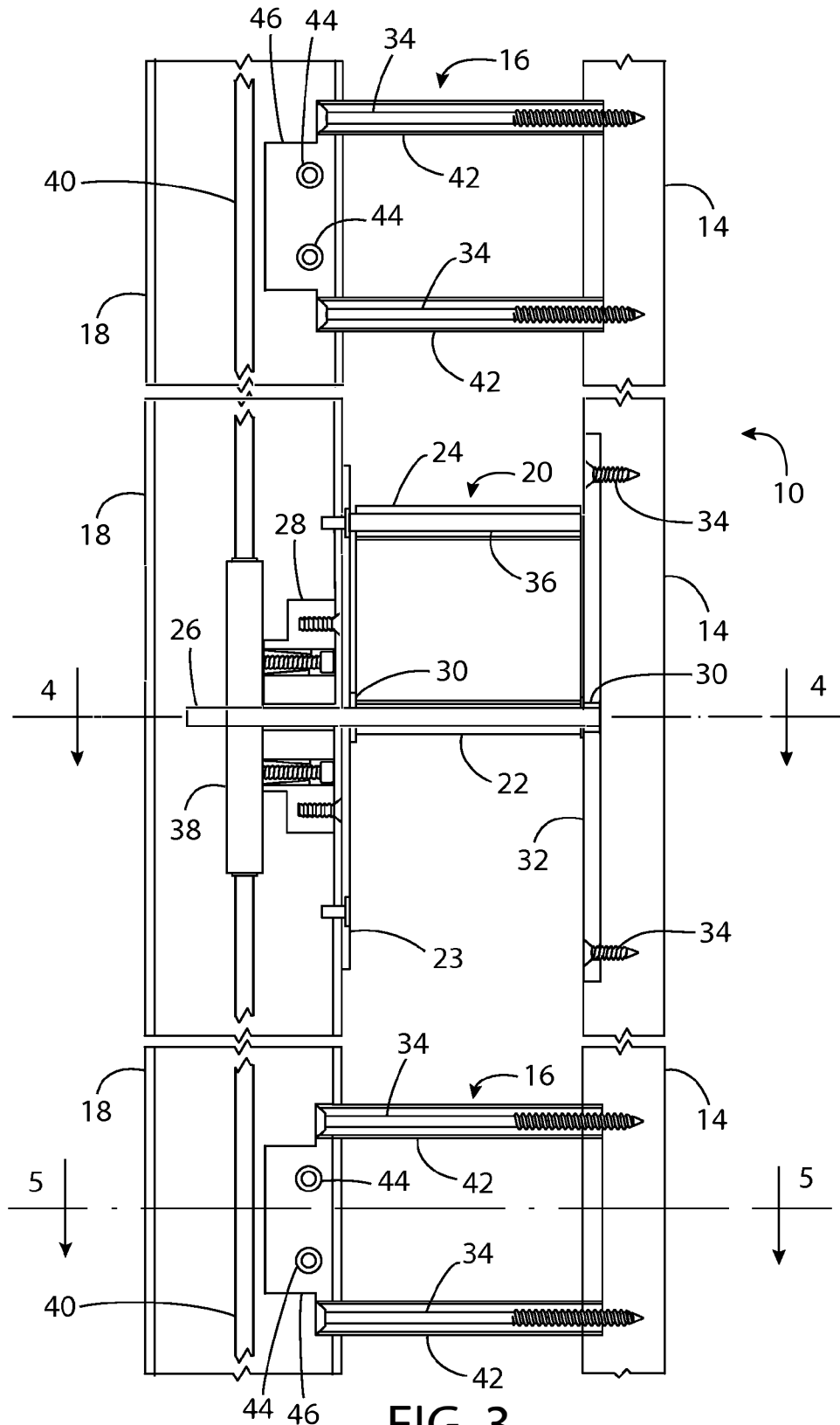


FIG. 2



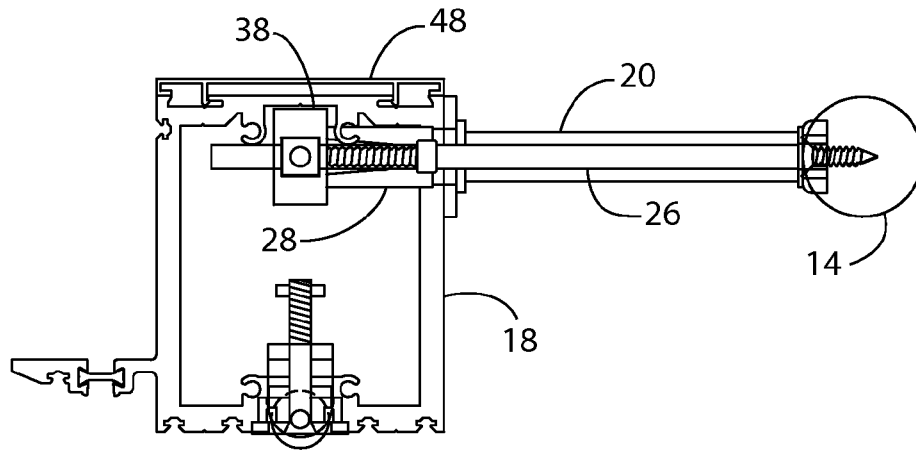


FIG. 4

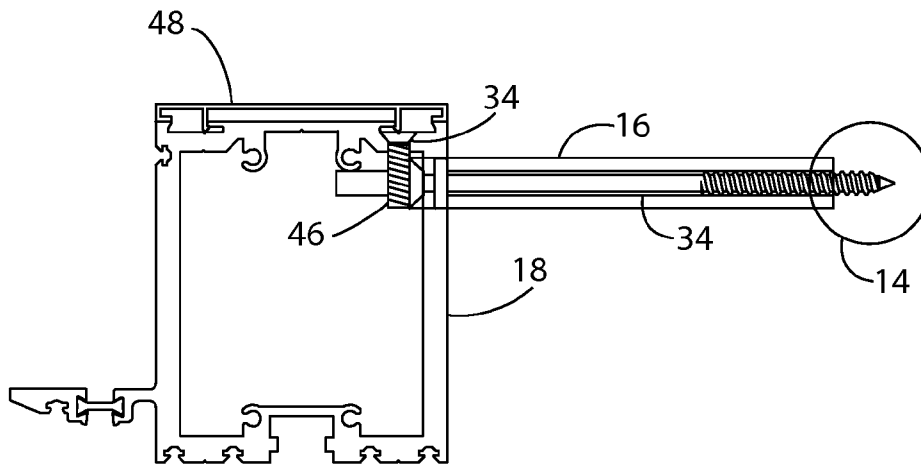


FIG. 5

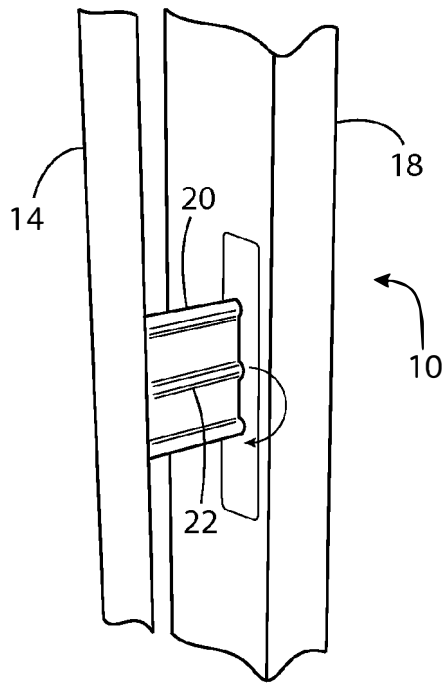


FIG. 6

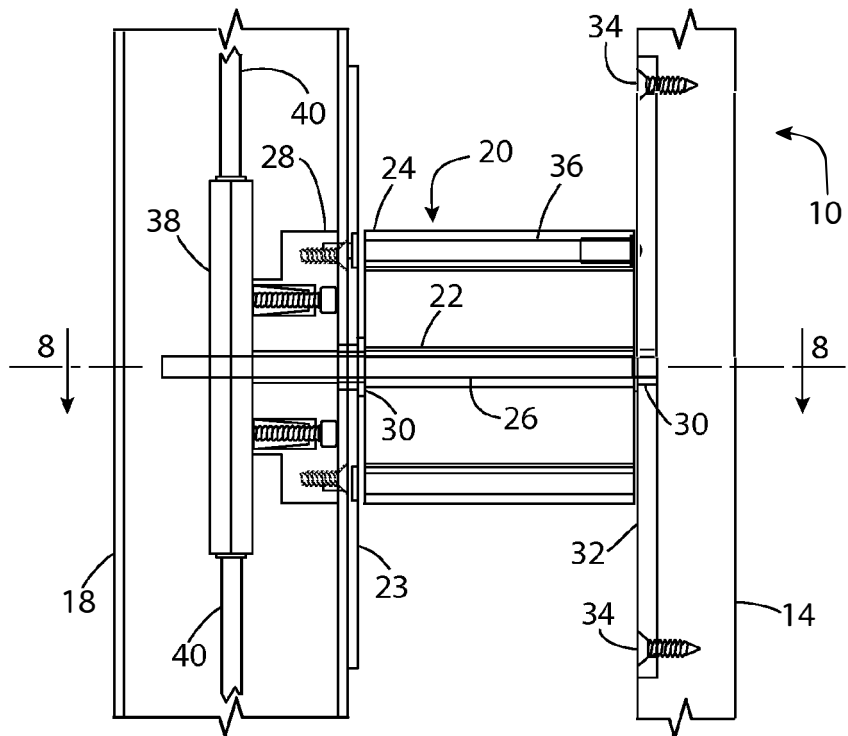


FIG. 7

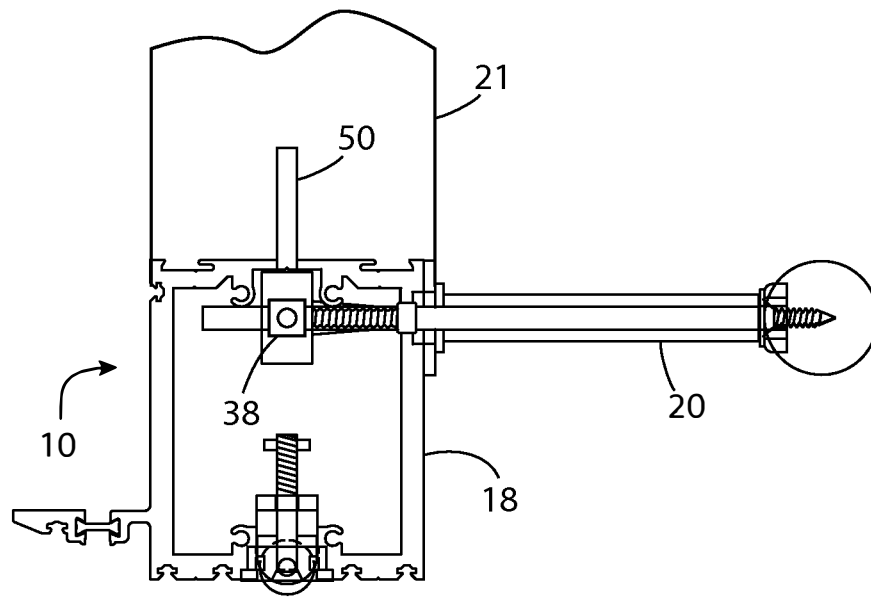


FIG. 8

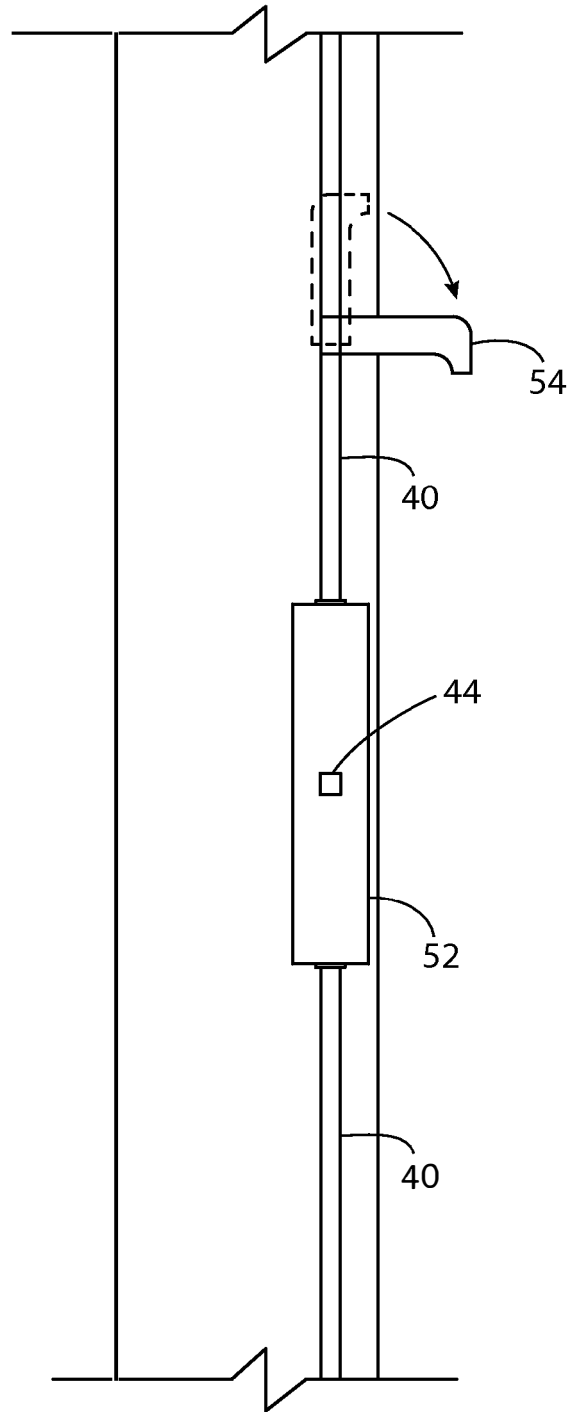


FIG. 9

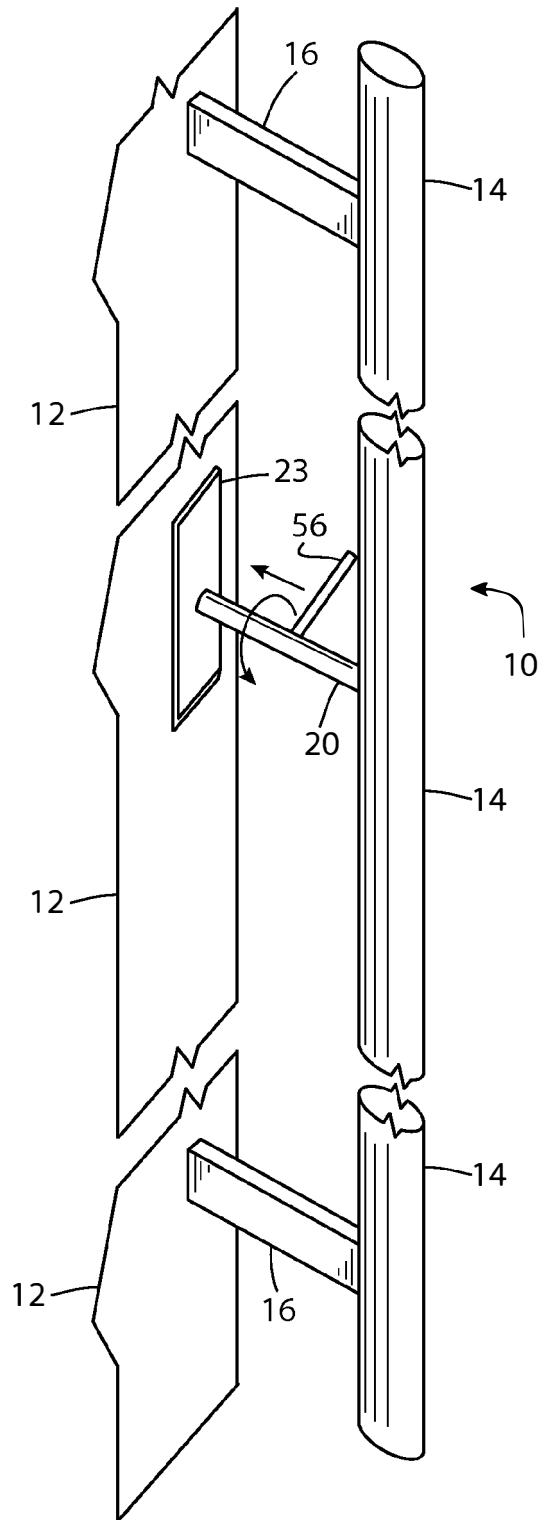


FIG. 10

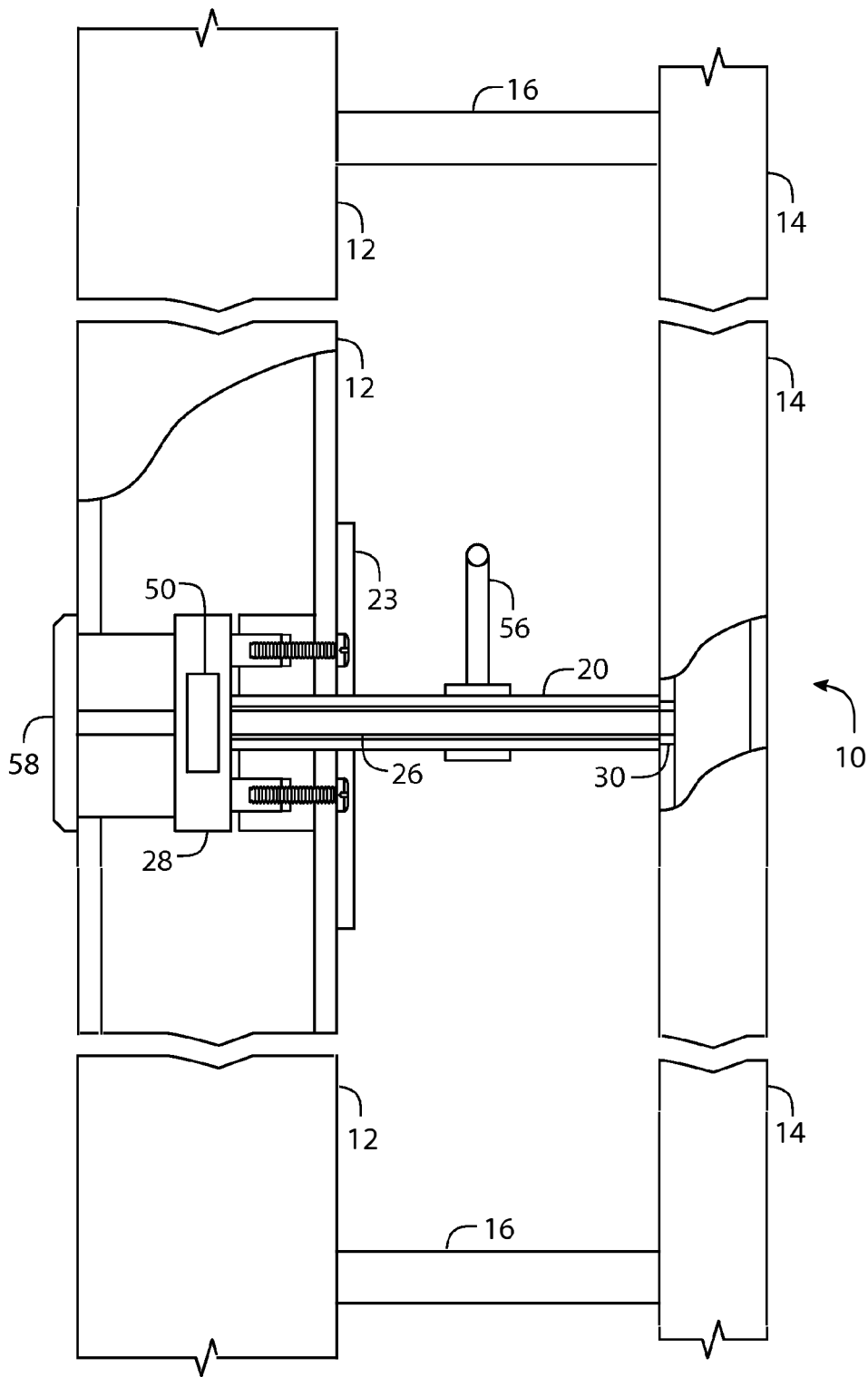


FIG. 11

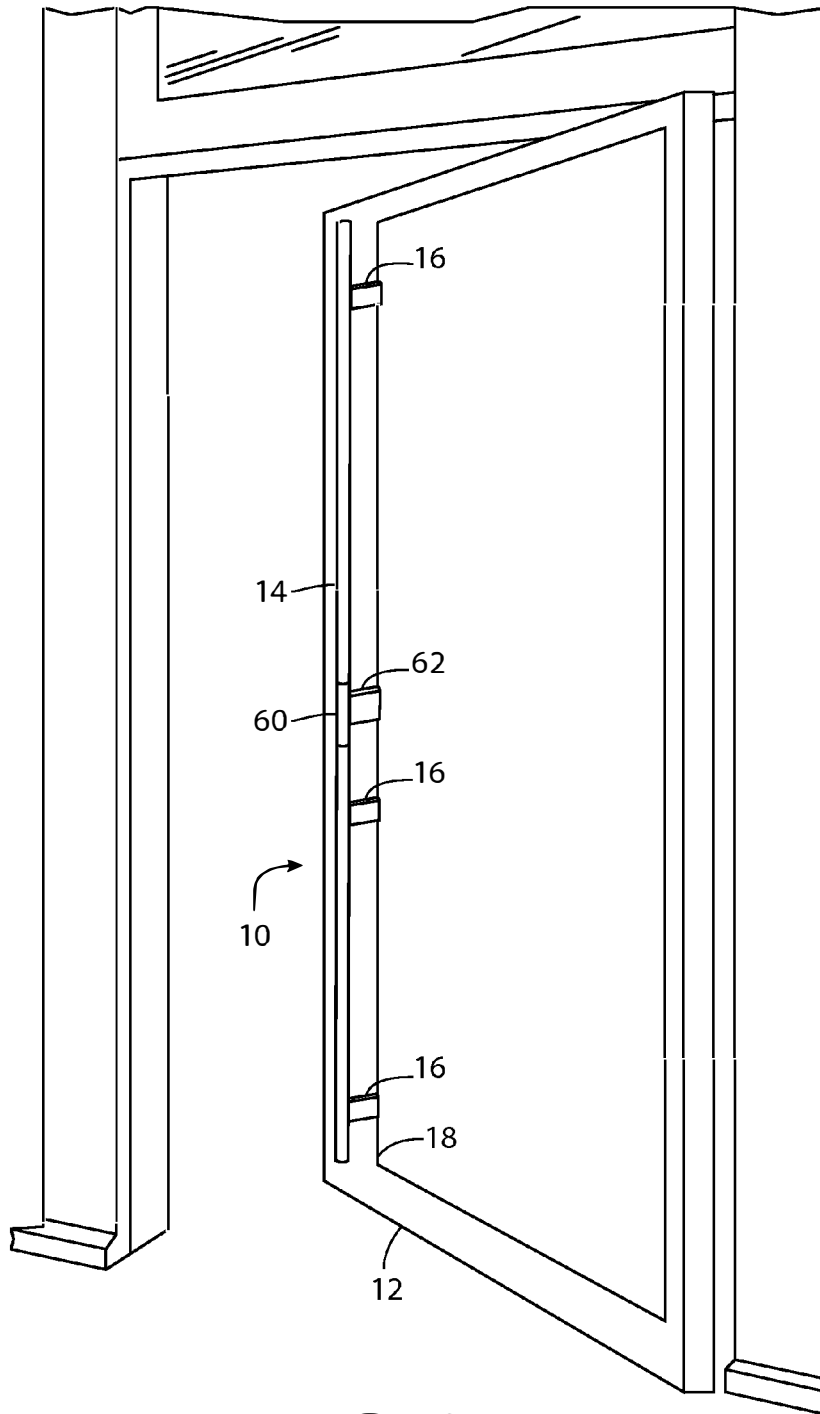


FIG. 12

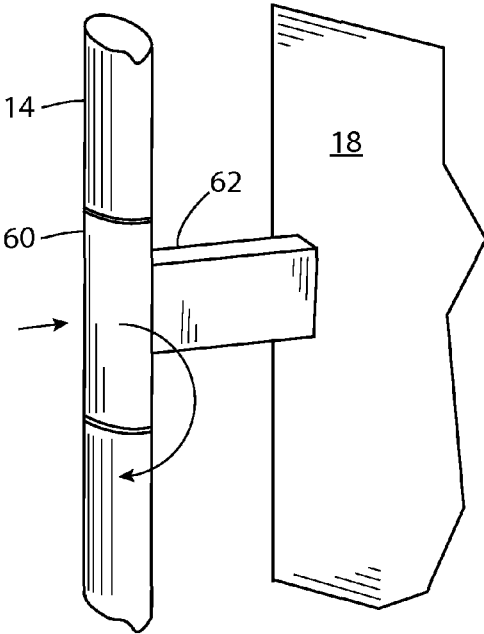


FIG. 13

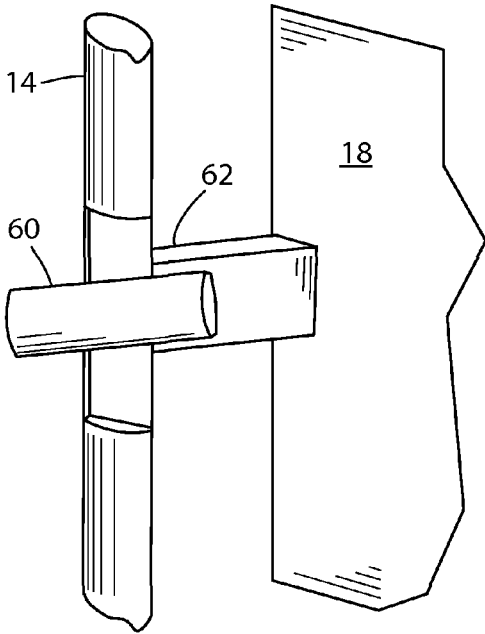


FIG. 14

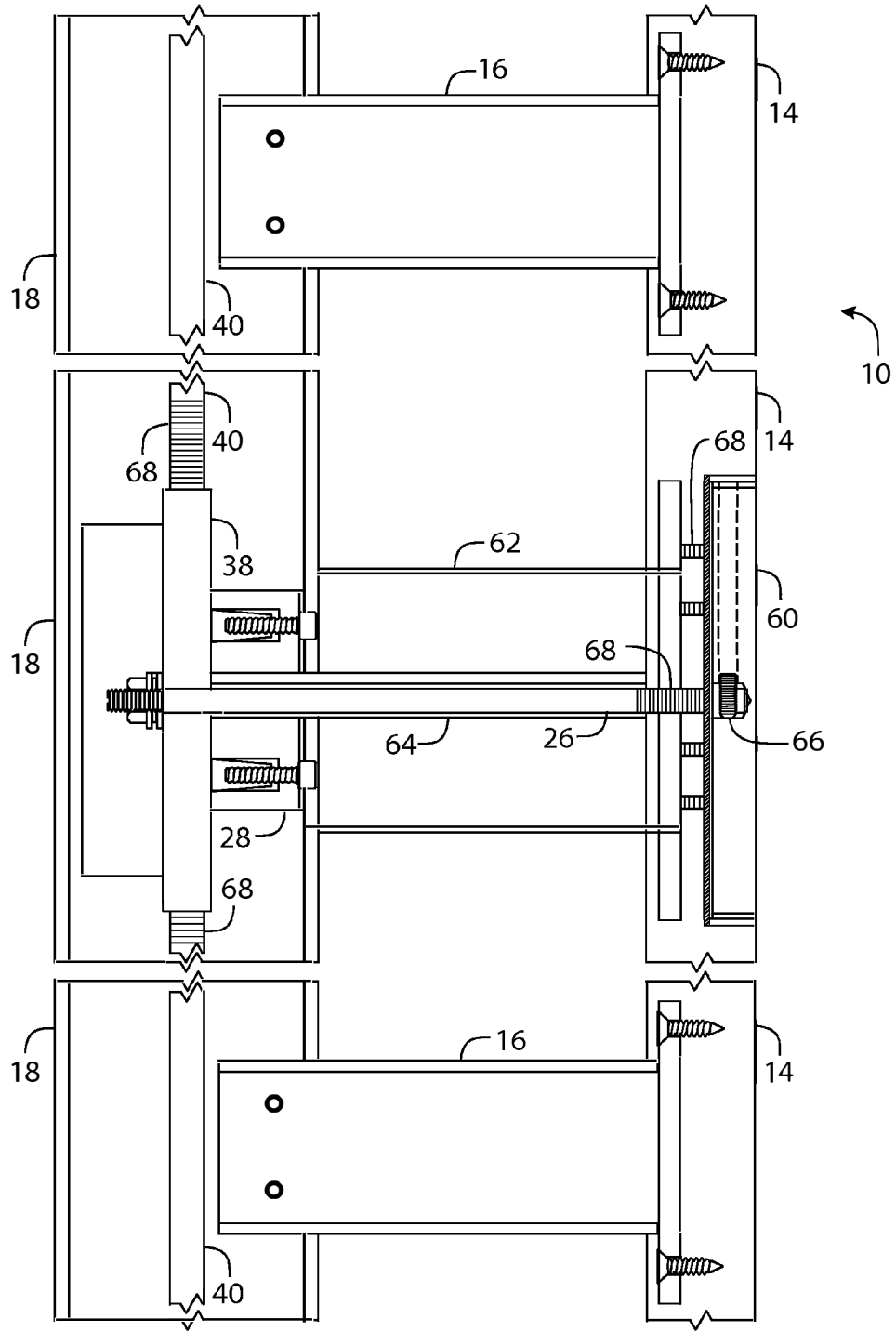


FIG. 15

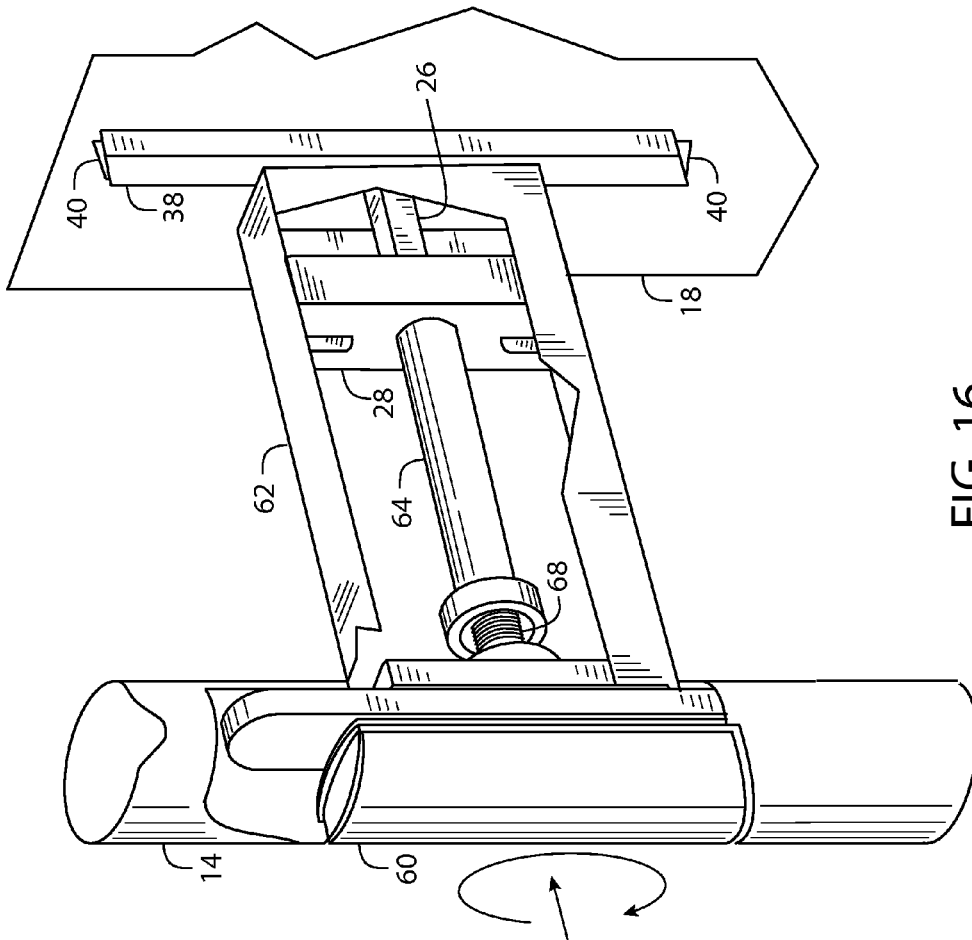


FIG. 16

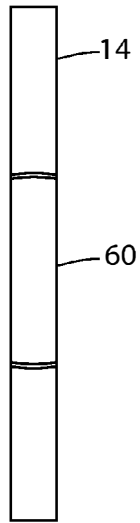


FIG. 17



FIG. 18



FIG. 19