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(45) **Date of Patent:** \*Dec. 16, 2014

(54) **FLANGED MATERIAL AND STANDING SEAM CLAMP**

IPC ..... E04D 13/00,1/34  
See application file for complete search history.

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

**U.S. PATENT DOCUMENTS**

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

This patent is subject to a terminal disclaimer.

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Assistant Examiner — Jamal Daniel

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(21) Appl. No.: 14/091,062

(22) Filed: Nov. 26, 2013

(65) **Prior Publication Data**

US 2014/0086680 A1 Mar. 27, 2014

**Related U.S. Application Data**

(63) Continuation-in-part of application No. PCT/US2012/039283, filed on May 24, 2012, and a continuation of application No. 13/118,308, filed on May 27, 2011, now Pat. No. 8,528,888.

(51) **Int. Cl.**  
*B23Q 3/02* (2006.01)  
*E04D 13/10* (2006.01)  
*F16B 2/06* (2006.01)  
*F24J 2/52* (2006.01)

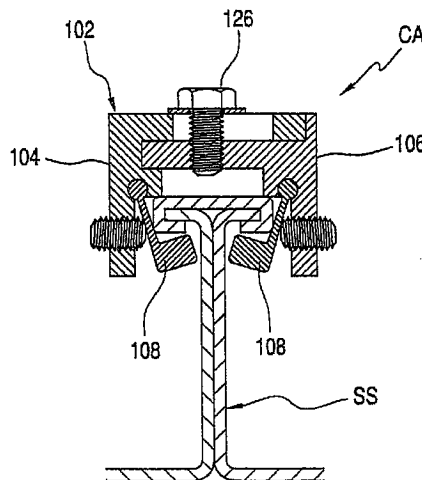
(52) **U.S. Cl.**  
CPC ..... *F16B 2/065* (2013.01); *Y02E 10/47* (2013.01); *E04D 13/10* (2013.01); *F24J 2/5249* (2013.01)  
USPC ..... 269/91; 52/24; 52/543; 52/698

(58) **Field of Classification Search**  
USPC ..... 269/91, 165, 172, 203, 216, 239, 257; 24/513, 517, 489; 248/237; 52/547, 52/543, 24

**ABSTRACT**

(57) A clamping assembly for attaching loads to various kinds of flanged seams, the assembly comprising a generally U-shaped clamp body, at least one clamping hammer disposed interior of the clamp body, the clamping hammer is secured to the clamp body along the longitudinal axis of the clamp body, at least one adjustment screw extending through the clamp body and adapted to selectively impinge against the clamping hammer and cause it to pivot about its axis or otherwise move inwardly within the clamp body, the adjustment screw extending transverse to the longitudinal axis of the clamping hammer, at least one locking screw adapted to selectively impinge against the clamping hammer to prevent pivoting of the same may be optionally provided whereby a standing seam received within the clamp body may be tightly grasped between the clamp body and the clamping hammer under action of the adjustment screw.

30 Claims, 13 Drawing Sheets



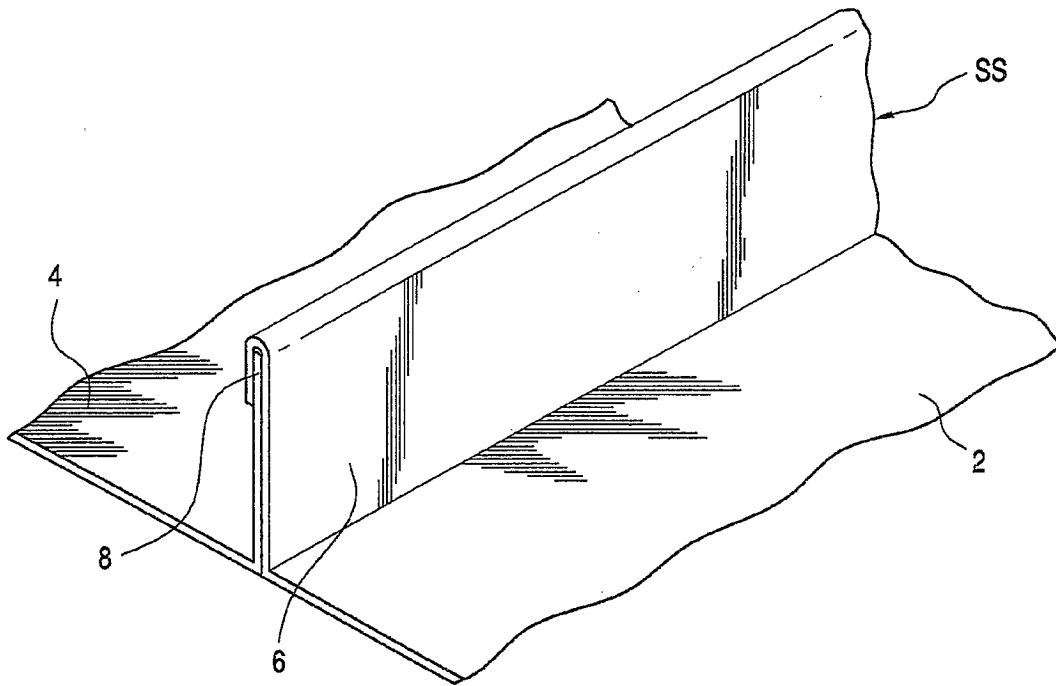


FIG. 1

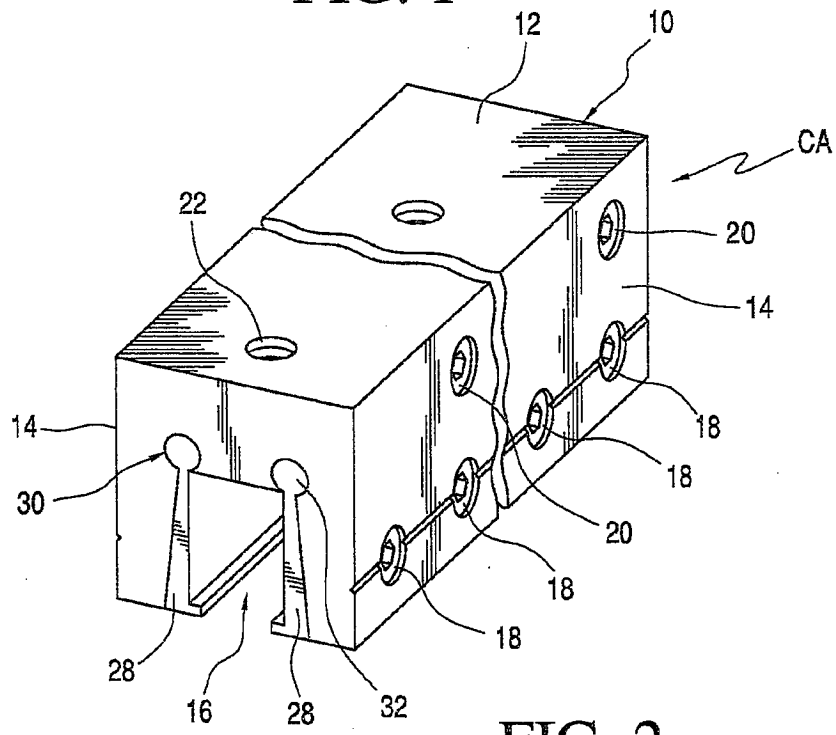
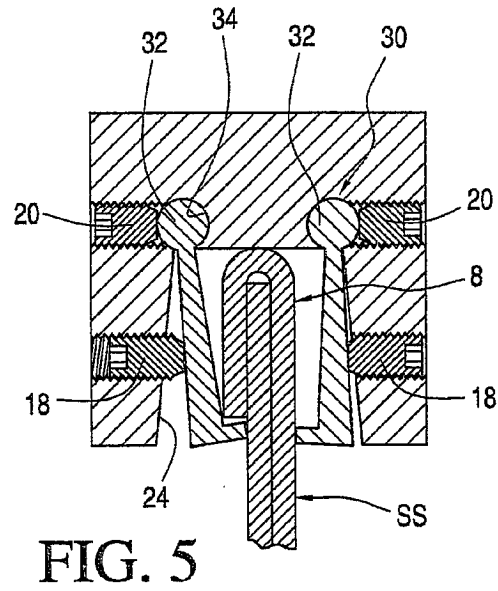
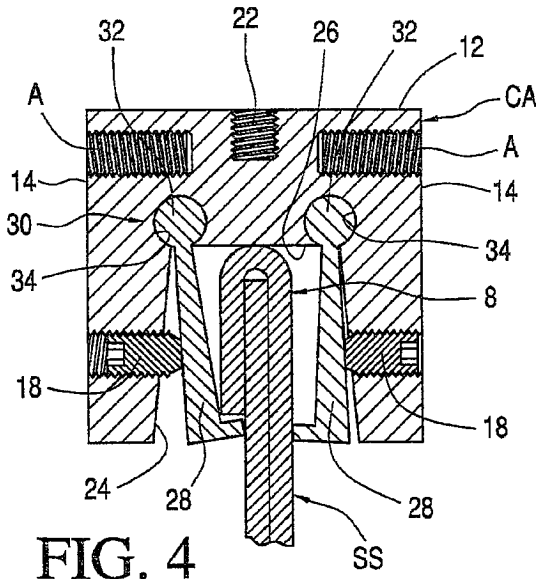
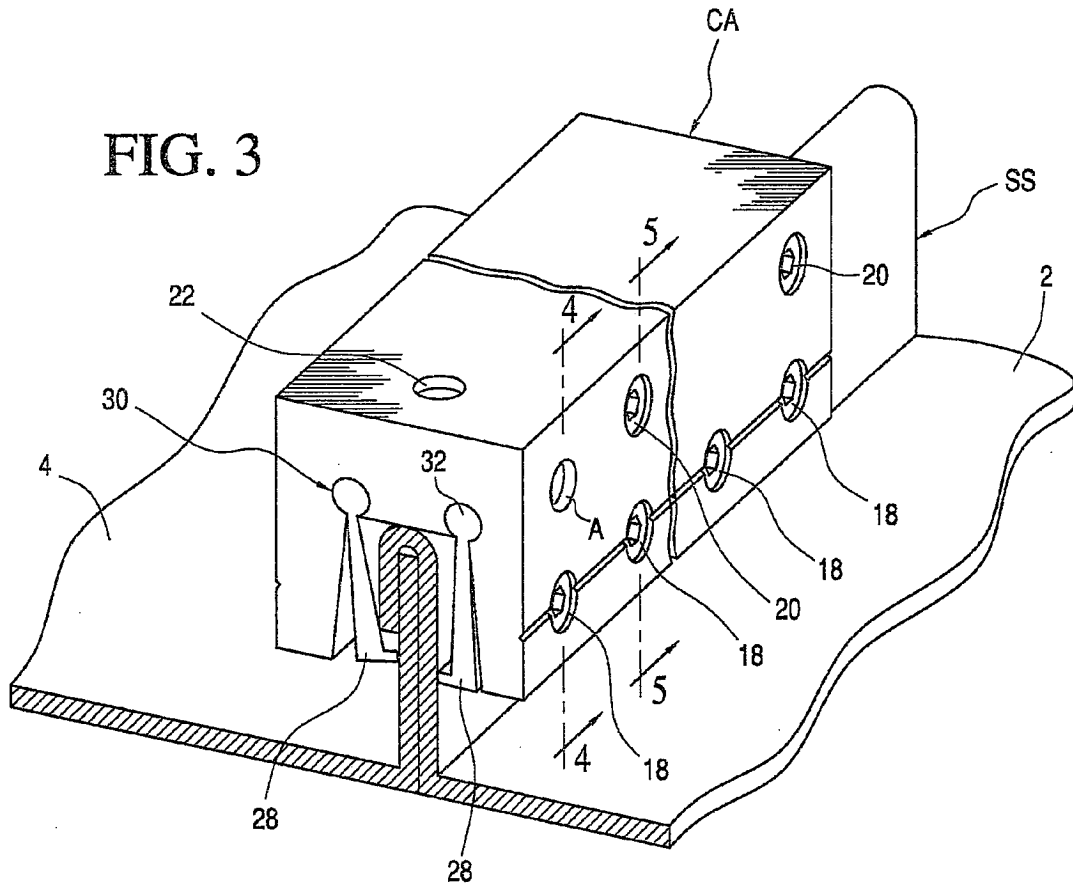


FIG. 2



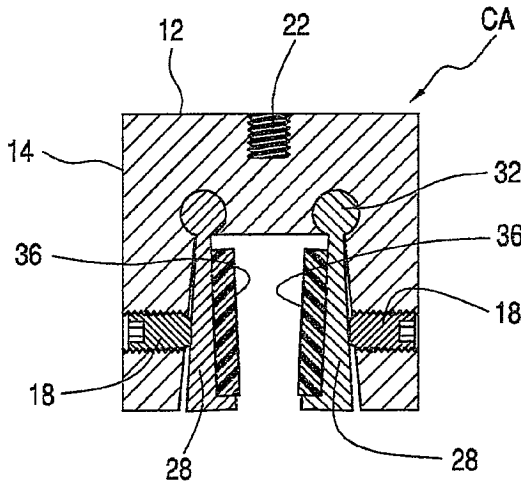


FIG. 6

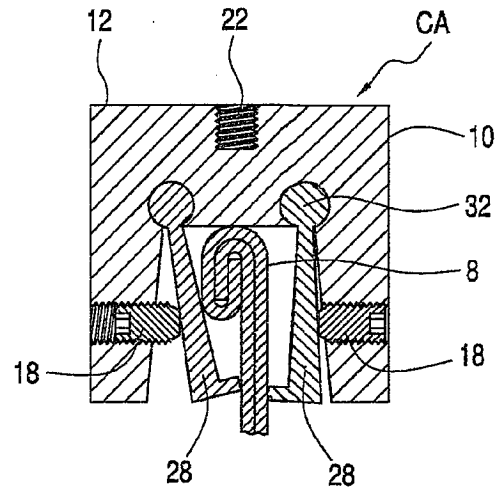


FIG. 7

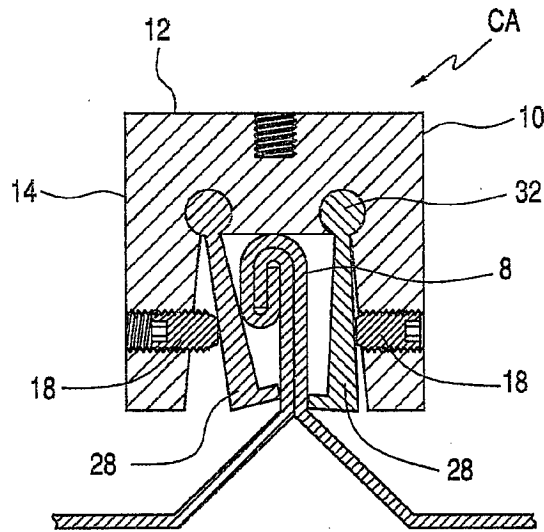


FIG. 8

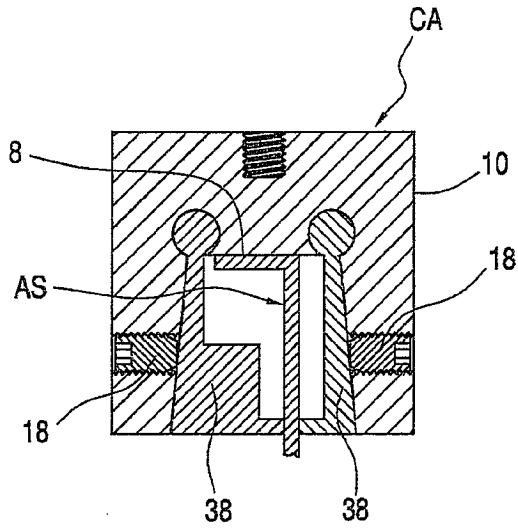


FIG. 9

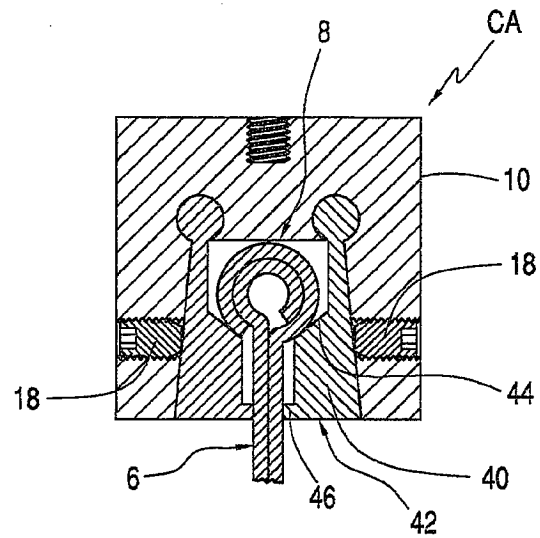


FIG. 10

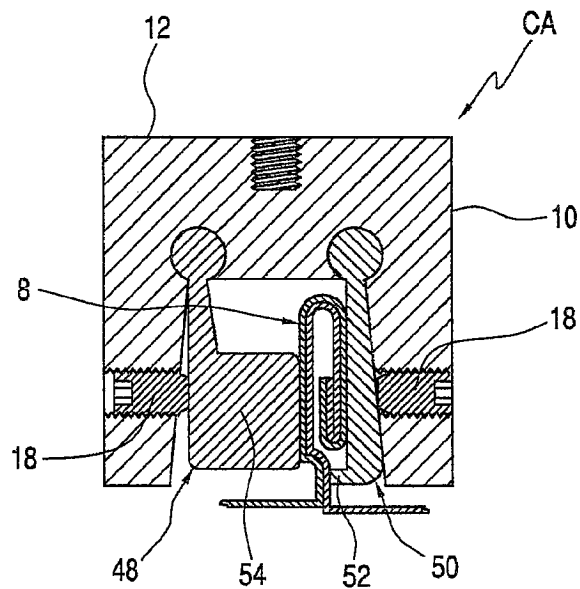


FIG. 11

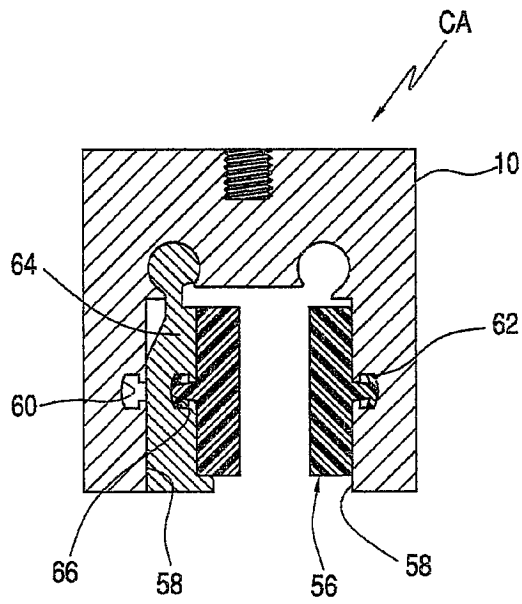


FIG. 12

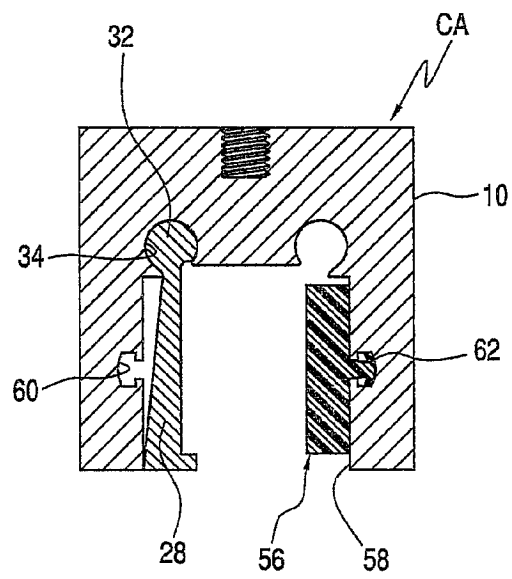


FIG. 13

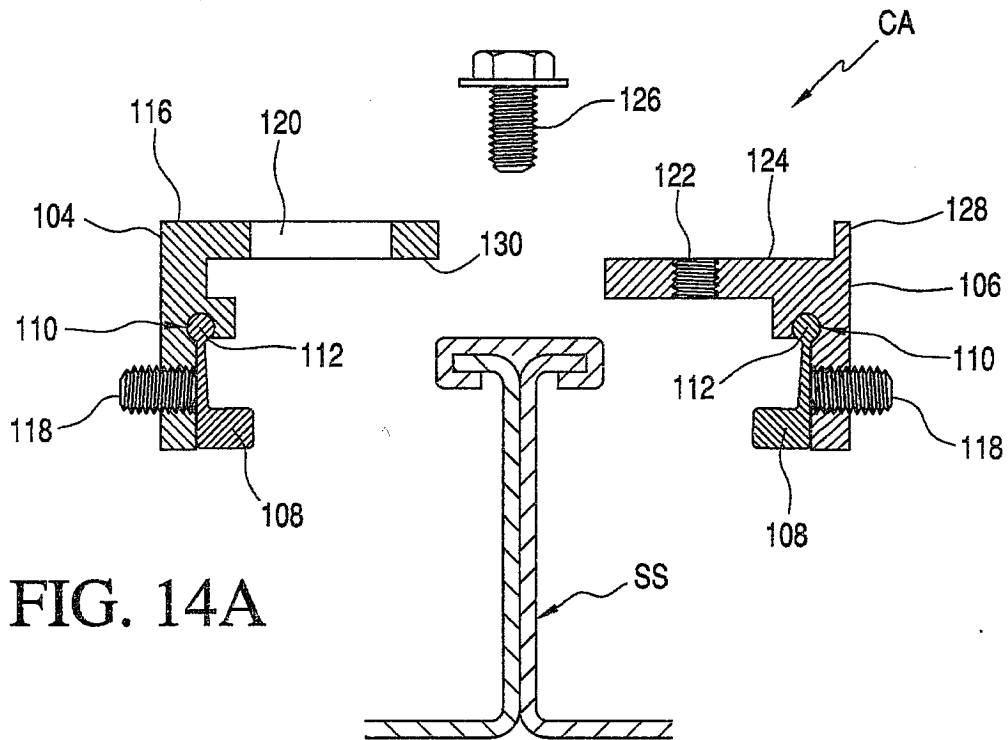


FIG. 14A

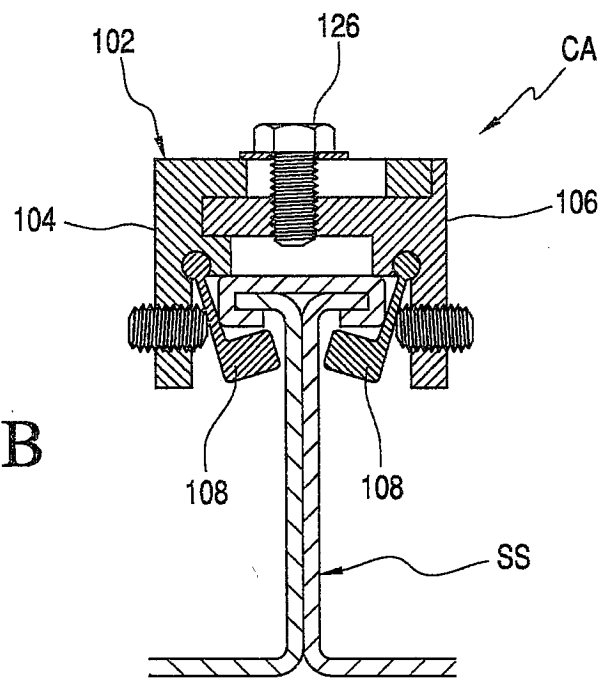


FIG. 14B

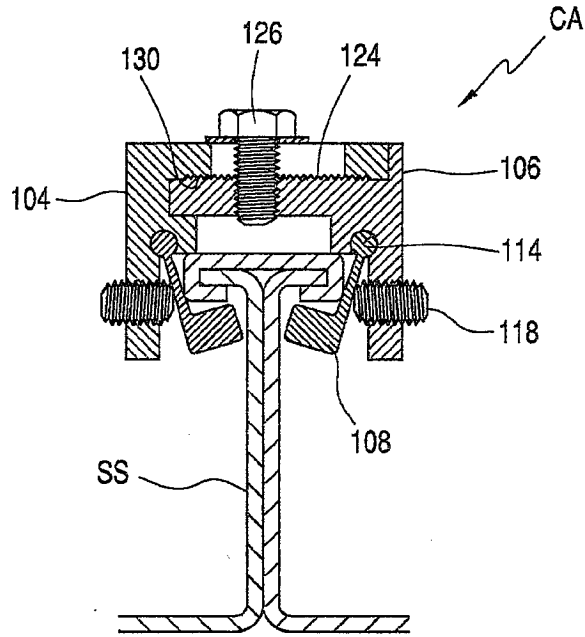


FIG. 15

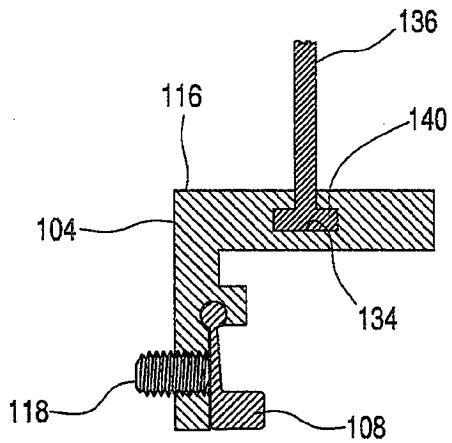


FIG. 16A

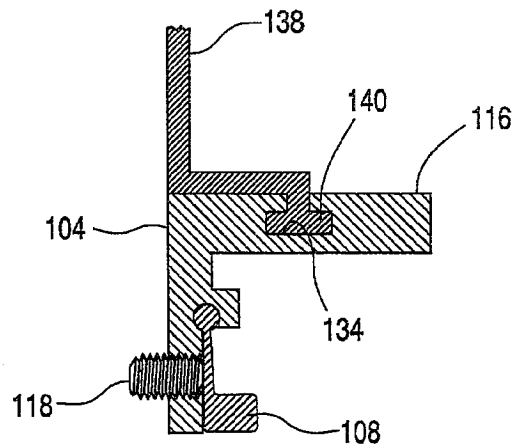


FIG. 16B



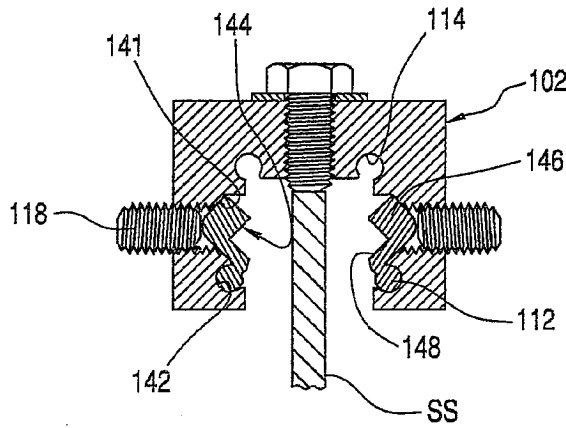


FIG. 17A

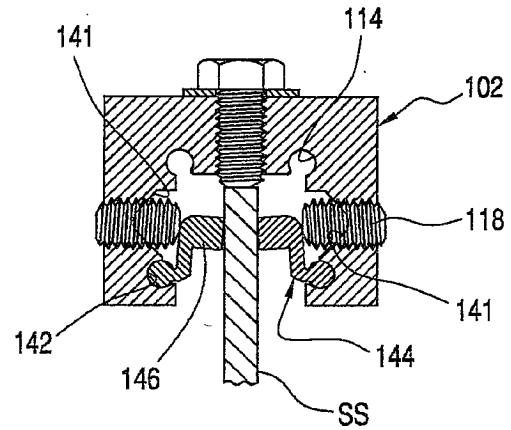


FIG. 17B

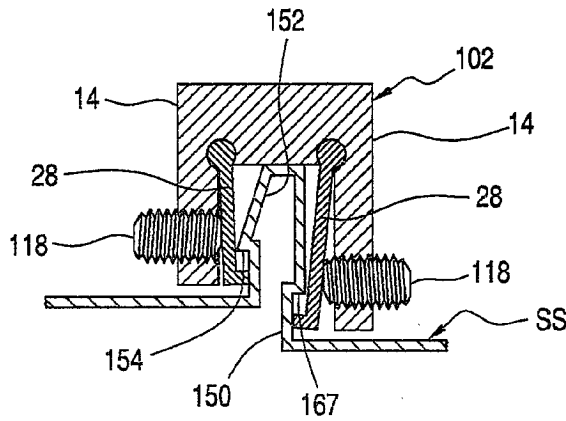


FIG. 18

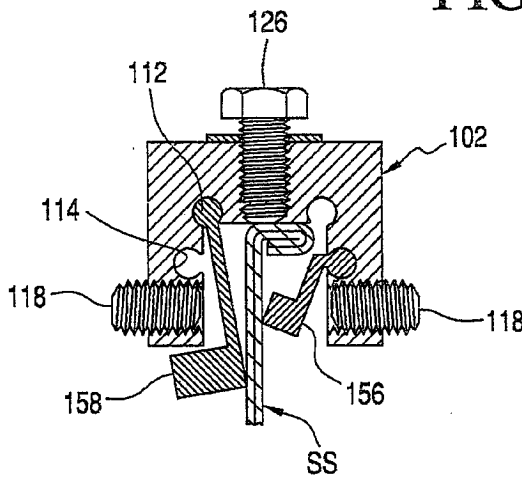


FIG. 19

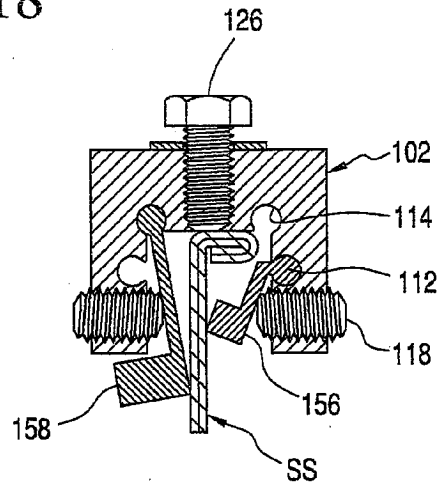


FIG. 20

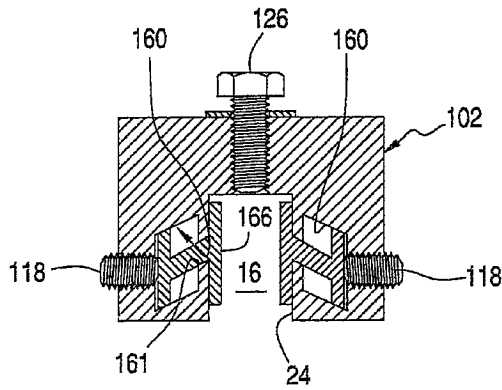


FIG. 21

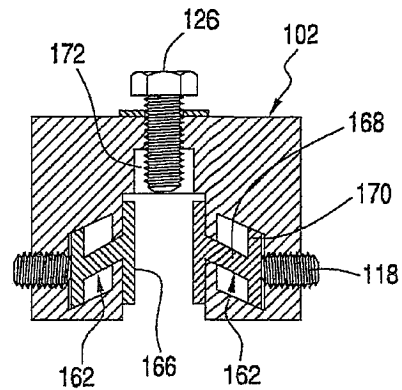


FIG. 22

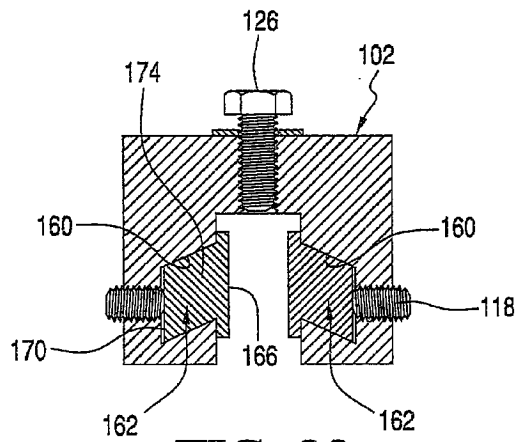


FIG. 23

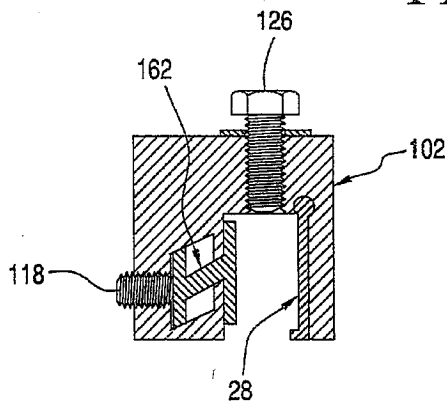


FIG. 24

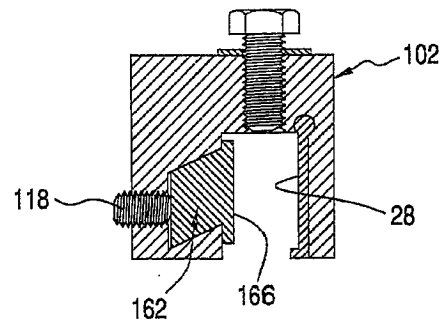


FIG. 25

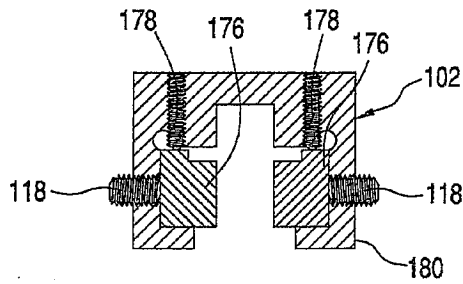


FIG. 26

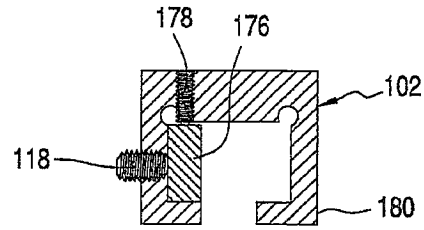


FIG. 27A

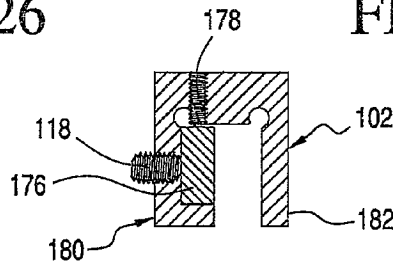


FIG. 27B

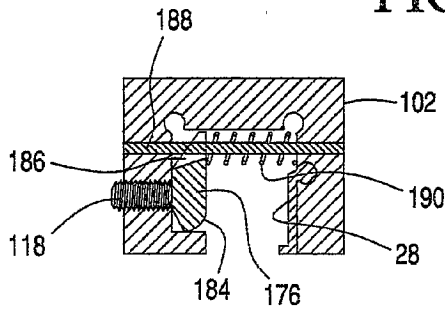


FIG. 28A

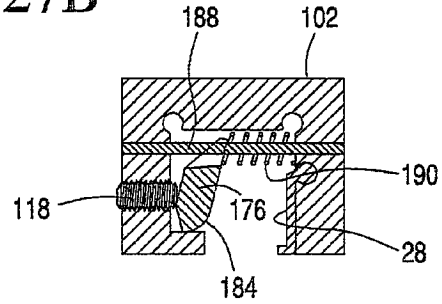


FIG. 28B

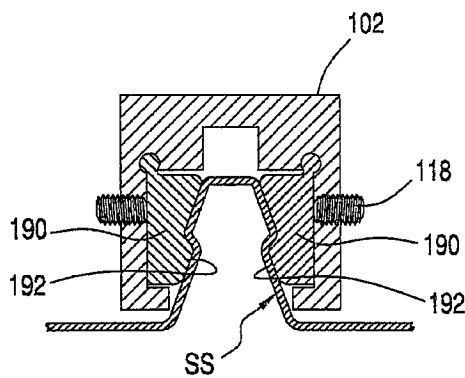


FIG. 29A

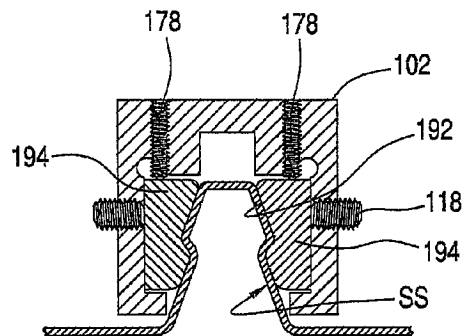


FIG. 29B

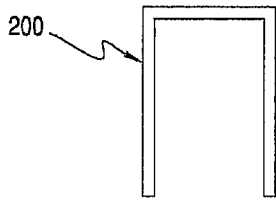


FIG. 30

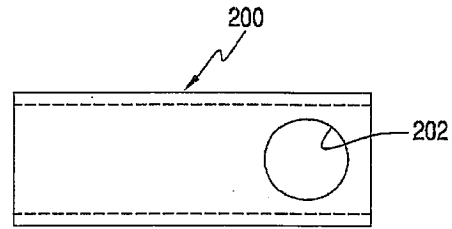


FIG. 31

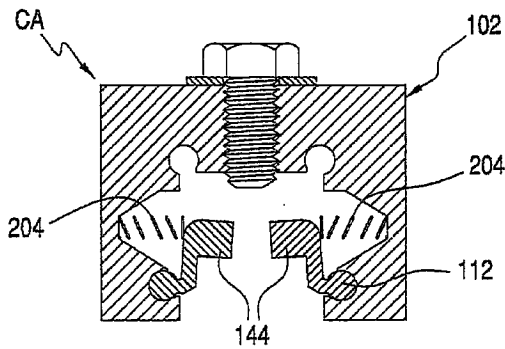


FIG. 32

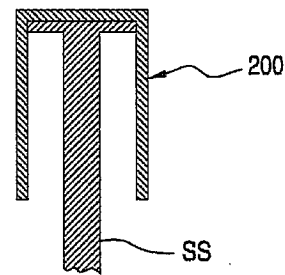


FIG. 33

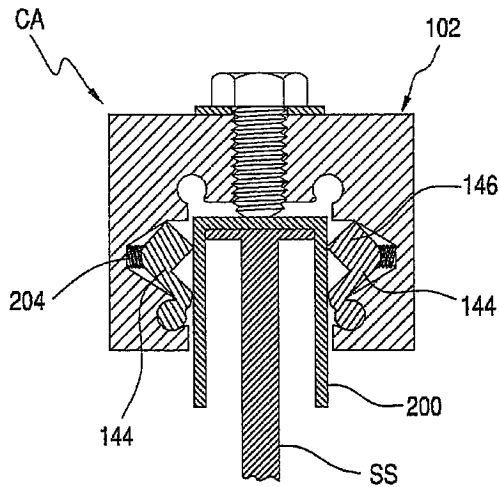


FIG. 34A

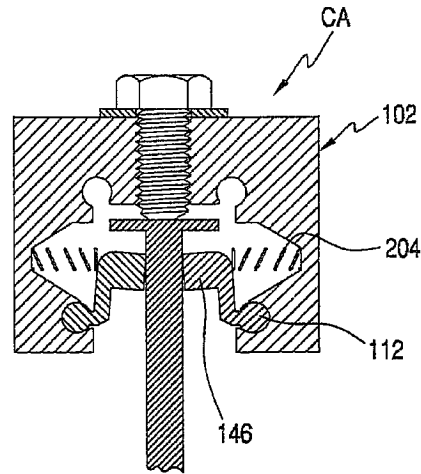


FIG. 34B

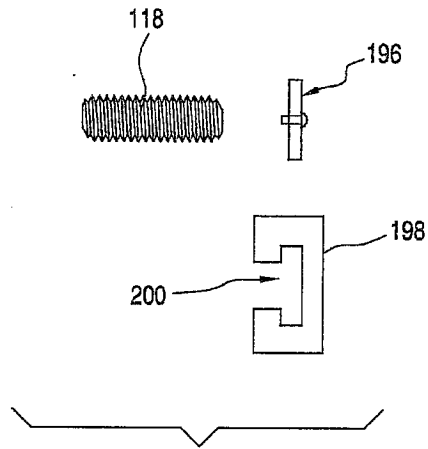


FIG. 35

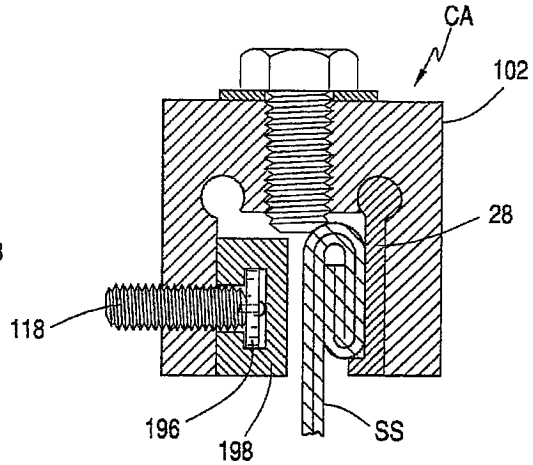


FIG. 36

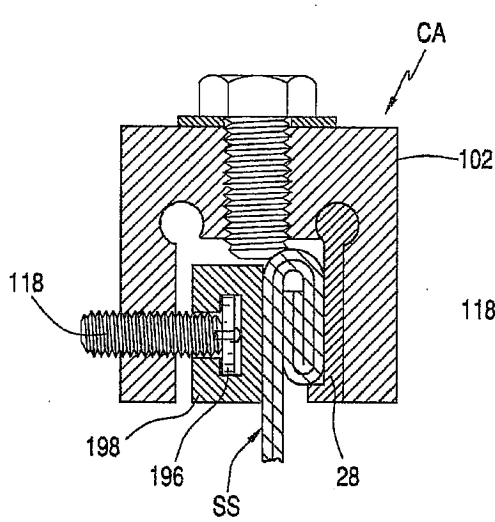


FIG. 37

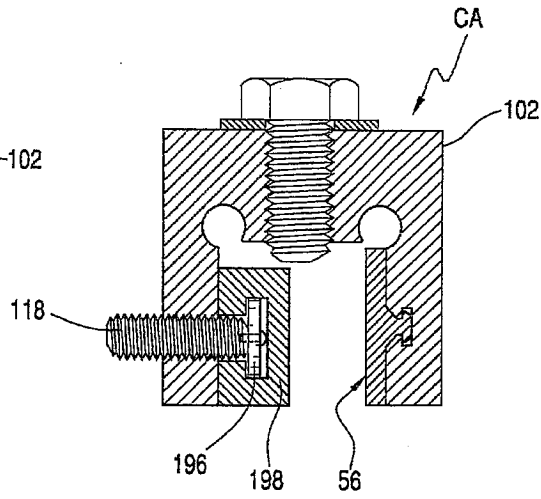


FIG. 38

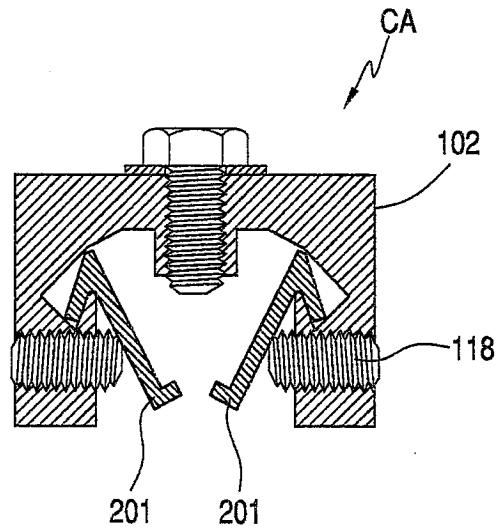


FIG. 39